

SANTAMEDICAL

TENS+EMS

TEM-210



Operation Manual

Read Before Using



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INDICATIONS AND CONTRAINDICATIONS

Read the operation manual before using.

Read instruction manual before operation. Be sure to comply with all "CAUTIONS" and "WARNINGS" in the manual. Failure to follow instructions can cause harm to user or device.

Please read the following information carefully before using **SantaMedical TENS+EMS**.

What is TENS?

The more precise term is **T**ranscutaneous (meaning "through the skin") **E**lectrical **N**erve **S**timulation (TENS). A TENS unit is an electrically powered device used to apply an electrical current to electrodes on a patient's skin to relief pain associated with sore or aching muscles.

What is EMS?

EMS stands for **E**lectrical **M**uscle **S**timulation. An EMS device is used to stimulate healthy muscles in order to improve muscle performance.

Indications for Use

The SantaMedical TENS+EMS is to be used:

- for temporary relief of pain associated with sore and aching muscles in the lower back due to strain from exercise or normal household and work activities. (Choose TENS Modes P1 through P7)
- for temporary relief of pain associated with sore and aching muscles in the upper and lower extremities (arm and/or leg) due to strain from exercise or normal household and work activities. (Choose TENS Modes P1 through P7)
- for symptomatic relief and management of chronic, intractable pain and relief of pain associated with arthritis. (Choose TENS Mode P8)
- for use by healthy adults for the stimulation of healthy muscles in order to improve or facilitate muscle performance. (Choose EMS Modes P1 through P6)

Contraindications

Do not use the SantaMedical TENS+EMS if any of the following conditions are present:

- Do not use this device if you have a **cardiac pacemaker, implanted defibrillators** or any other **implanted metallic or electronic device**. Such use could cause electric shock, burns, electrical interference, or **death**.
- Do not use this device if you have **undiagnosed chronic pain**.
- You are **pregnant**. The safety of electronic muscle stimulation over the pregnant uterus has not been established.
- You suffer from **cancer**. The effects of electronic stimulation on cancerous tissue are unknown.
- You are under medical supervision for **cognitive dysfunction** as you may not be able to comply with safety instructions.
- The unit is in **close proximity to shortwave or microwave diathermy equipment** or you are connected to **high-frequency surgical equipment**, because of risk of device interference.
- Wearing the device **necessitates placement over areas** at which drugs/medicines are administered (short-term or long-term) by injection (e.g. hormone treatment).
- You have **epilepsy**.
- You have recently undergone a **surgical procedure**.
- Following **acute trauma or fracture**.
- In case of **critical ischemia of the limbs**.

WARNING AND PRECAUTIONS

Warnings

- If you are under the care of a Physician, **consult with your Physician** before using this System.
- The long-term effects of this System are not known.
- Do not place the pads on or close to your **heart**.
- Do not place the pads around or close to your **neck**. Do not apply stimulation over the neck. Severe spasm of the muscles may occur and the contractions may be **strong enough to close the airway or cause difficulty in breathing**. Stimulation over the neck could also have adverse effect hearing or **blood pressure**.
- Do not apply stimulation **across the chest** because the introduction of electrical current into the chest may cause rhythm disturbances to **the heart**.
- Do not place the pads on or **around your head**. The effects of stimulation of the brain are unknown.
- Do not use the pads over or **close to sores**.
- Do not place the pads on the **front or sides of the neck across or through the heart** (one pad on the front of the chest and one on the back), in the genital region, or on the head, because of the risk of stimulating inappropriate muscles and organs.
- Do not place pads t over any **recent scars**, broken or inflamed areas of **infection** or susceptibility to **acne, thrombosis** or other vascular problems (e.g. **varicose veins**), or any part of the body where feeling is limited.
- Do not place the pads over areas of injury or restricted movement (e.g. **fractures or sprains**).
- Do not use this System **while sleeping**.
- Do not use if you feel **numbness**.
- Do not use this System in or close to **water**.
- Do not apply stimulation **across the chest** because the introduction of electrical current into the chest may cause rhythm disturbances to the heart, **which could be lethal**.
- Do not use the pads over or close to **cancerous lesions**.
- Use the pads only on normal, healthy, clean and dry skin. Do not use the pads on **open wounds** or rashes, or over swollen, red, infected or inflamed skin.
- If you have ever had **back surgery**, consult your Physician before using this System.
- You must position the pads and operation the unit **ONLY** as indicated in this manual.
- Avoid areas in injury or restricted movement (e.g. fractures or sprains)
- **Avoid placing the pads over metal implants.**
- Do not use **in the bath or shower**, or in an environment of elevated humidity (e.g. Sauna, hydrotherapy, etc).

Wait before using next until:

- At least **6 weeks** after the **birth** of your baby (you must consult your doctor before use).
- **One month** after an IUD contraceptive device (e.g. coil) has been fitted (you must consult your doctor before use).
- At least **3 months** after having a caesarean section (you must consult your doctor before use).
- The heavy days of your period have finished, because vigorous abdominal exercise is not recommended at this time.

Precautions

- **Read User Manual** before using this System for the first time.
- Keep this manual available whenever you use your System.
- The System is intended for personal use on healthy adult muscle only.
- The safety of using the System during **pregnancy** or birth has not been established.
- The effectiveness of the System depends greatly on a person's individual physical condition. It may not always be effective for every user.
- The safety of neuromuscular stimulation during **pregnancy** has not been established.
- Use **caution** when/if:
 - User has skin areas that **lack normal sensation**.
 - Following surgical procedures if muscle contractions might impede the healing process.
 - Over a **menstruating or pregnant** uterus.
 - There is a **tendency to hemorrhage** following acute trauma or fracture.
- Place electrodes in accordance with illustrations in the User Manual.
- This unit should not be used while **driving, operating machinery** or during any activity in which involuntary muscle contractions may place the user at undue risk of injury.
- Some users may experience **skin irritation** or hypersensitivity due to the electrical stimulation or the conductive medium.
- Keep the stimulator **out of the reach of children**.
- Application of moderate heat (thermal wrap) to muscles as well as moistening skin prior to treatment improves treatment efficacy; use of cold packs on treated muscles after treatment is likewise recommended.
- This unit should only be used with the leads, electrodes and accessories provided by the manufacturer.

- The device is not intended for medical use, for the treatment of any medical condition or for any permanent physical changes.
- An effective session should not cause discomfort.
- For first time users, muscle stimulation can be an unusual sensation. We recommend that you begin in a seated position with low stimulation intensity settings to familiarize yourself with the sensation before progressing to higher intensity settings.
- The leads and pads must not be connected to other objects.
- Do not over exert yourself while using muscle stimulation. Any workout should be at a comfortable level for you.
- **Do not place pads over jewelry or body piercings.**
- Start all sessions in a sitting position (fig.a). If necessary, secure the limb(s) to be exercised before using this device.

fig.a

⚠ Use Caution and consult your Physician before using System if any of the following conditions apply to you:

- You have any **serious illness** or injury not mentioned in this guide.
- You have recently undergone a **surgical procedure.**
- You take **insulin for diabetes.**
- You use the unit as part of a rehabilitation program.
- If you have suspected or diagnosed **heart problem.**
- If you have suspected or diagnosed **epilepsy.**
- If you have **a tendency to bleed** internally following an injury.
- If you recently had **surgery**, or have ever had surgery on your back.
- If areas of skin **lack normal sensations**, such as skin that tingles or is numb.
- During menstruation or during **pregnancy.**
- Some people may feel skin irritation or experience a very sensitive feeling in the skin due to electrical stimulation. If this occurs, stop using your System and consult your Physician.
- If skin under one of more pads feels irritated after using the stimulator for a long period of time, use the stimulator for a shorter period of time.
- Minor redness at stimulation placement is a normal skin reaction. It is not considered as skin irritation, and it will normally disappear within 30 minutes after the electrodes are removed. If the redness does not disappear after 30 minutes from the removal of electrodes, do not use the stimulator again until after the excessive redness has disappeared.
- Turn off the stimulator if the stimulation feels unpleasant or does not provide pain relief.
- Keep your System out of the reach of children.
- Use your stimulator only with the pads, snap cables and accessories recommended by the manufacture.
- Do not use this System when driving, operating machinery or when swimming.
- Before removing the belt and pads, be sure to power off device to avoid unpleasant stimulation.

After strenuous exercises or exertion:

- Always use lower intensity to avoid muscle fatigue.

Important:

- **Do not use your unit at the same time as any other device which transfers an electrical current into the body (e.g. another muscle stimulator).**
- Cease using your unit if you are **feeling light headed** or faint. Consult doctor if this happens.
- **Do not touch the pads or metal studs while the unit is switched on.**
- Do not use unit if you are wearing a **belly button ring.** Remove ring before session.

Note: If you are in any doubt about using device for any reason, please consult your doctor before

Pad/Electrode Precautions

- To reposition the pads during a session, always pause the program currently running, reposition the pads as directed on page 7 and then restart the program again.
- Only use pads supplied by Santamedical with your device. Any others may not be compatible with your unit and could degrade the minimum safety levels.
- The pads are for single person use only.
- Do not plunge the pads into water.
- Do not apply solvents of any kind to the pads.
- Always ensure the unit is OFF before removing the pads.
- Apply the whole surface of the pads firmly to the skin. Do not use pads which do not adhere properly to the skin.
- If your skin is red under the pad after a session, do not start another session in the same area until your redness has

completed disappeared.

Adverse Reactions

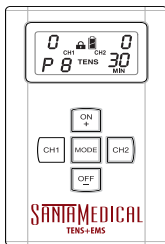
- You may experience skin irritation and burns beneath the stimulation electrodes applied to your skin.
- You may experience headache and other painful sensations during or following the application of electrical stimulation near your eyes and to your head and face.
- You should stop using the device and should consult with your physician if you experience adverse reactions from the device.

Conditions that may affect your System

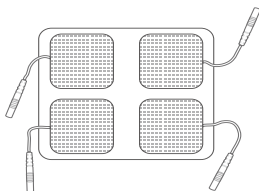
Since the stimulator is a battery-operated electronic System, its output performance and safety may be affected greatly in extreme humidity. Therefore, it is very important to keep the stimulator dry to ensure the safety and performance of the stimulator.

PACKAGE CONTENTS

1. SantaMedical TENS+EMS
2. Electrodes CM5050, sized 50x50mm, 4 pieces/pack
3. 3 AAA batteries
4. 2 lead wires1 storage bag
5. Soft bag



1



2



3

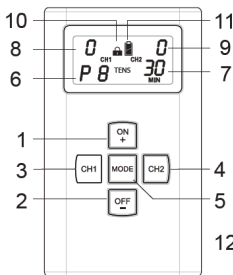


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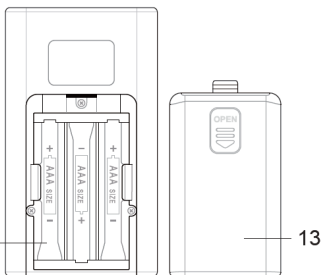


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ABOUT DEVICE



Front View



Rear View

- | | |
|----------------------------------------------|------------------------------|
| 1. Power on / adjust / increase setting key | 8. CH1 intensity level |
| 2. Power off / adjust / decrease setting key | 9. CH2 intensity level |
| 3. CH1 key | 10. Lock status indicator |
| 4. CH2 key | 11. Battery status indicator |
| 5. Therapy Time/Mode/Program selection Key | 12. Batteries compartment |
| 6. Program number | 13. Battery cover |
| 7. Therapy time remaining | |

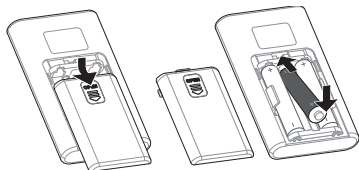
STEP BY STEP OPERATION GUIDE FOR TREATMENT

Preparing the Skin for Running a Session

Proper preparation of the skin covered by the electrodes allows more stimulation to reach targeted tissues, prolongs electrode life, and reduces the risk of skin irritation. After connecting the lead wire(s) to the stimulator, use the following steps to prepare your skin at the electrode placement sites:

1. Determine the placement sites for the electrodes.
2. Wash the area with mild soap and water (do not use alcohol). Rinse and dry thoroughly.
3. Trim excess body hair from the area with scissors (do not shave).
4. Optionally, apply skin prep to the area to form a protective barrier on your skin. Apply, let dry, and apply electrode as directed. This will both reduce the chance of skin irritation and extend the life of your electrodes.
5. When removing electrodes, always remove by pulling in the direction of hair growth.
6. It may be helpful to apply skin lotion on electrode placement area when not wearing electrodes.

Inserting/Changing the Batteries



1. Open the battery compartment at the back of the device by pushing the battery cover labelled "Open" downward (this area features raised marks for easy identification).
2. Insert 3 AAA (1.5 V) batteries in the battery compartment; make sure to match up the symbols (+/-).
3. Close the battery cover by carefully placing the stud into the slot in the rear area and sliding it upward, applying slight pressure.
4. Follow the same procedure when replacing the battery at a later date.

▲Note : for important precautions regarding the batteries ,please be informed:

- Always use only 3x1.5V (AAA) batteries.
- Keep away from children.
- Do not recharge.
- Do not short-circuit.
- Do not throw into a fire.
- Please recycle. Do not dispose of old batteries with your household waste; dispose of them safely at your recycling centre or business where the batteries were purchased.

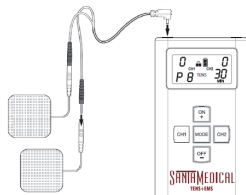
NOTE: the batteries should last between 30 and 60 application depending on stimulation times and frequencies.

Connecting the Cable to The Device

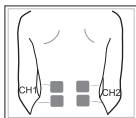
1. Connecting the lead wire to the electrodes before applying to the Skin.



2. Insert the connector plugs into sockets at the top of unit.

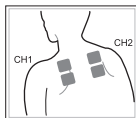


Placement of the Electrode Pads for TENS (Treatment of Pain)



LOWER BACK

Place a pair of pads horizontally on each side of your back in the lower back area.



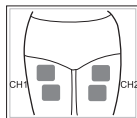
UPPER BACK

Place a pair of pads horizontally on each side of your back in the upper back area.



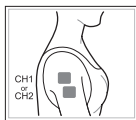
BUTTOCK

Place the pads horizontally on the buttocks, halfway between the centre line and the side of your body.



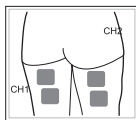
FRONT THIGHS

Place the pads on the buttocks horizontal, halfway between the center line and the side of your body.



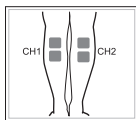
SHOULDER

Place one half of the pad on the top part of you shoulder and the other half on the side.



BACK OF THIGHS

Place a pair of pads horizontally on each calf muscle. Do not place the pads too low on the leg, as this can lead to unpleasant contractions.



CALF MUSCLES

Place a pair of pads horizontally on each calf muscle. Do not place the pads too low on the leg, as this lead to unpleasant contractions.

Note: 1. Recommended Electrodes size 130x90 mm, for larger (e.g. leg muscles, lower back), and Size 50x50 mm for smaller areas such as forearm muscles etc.

2. You may need help placing the Electrode Pads onto hard to reach areas (lower & upper back).

Placement of the Electrode Pads for EMS

1. Connecting the lead wire to the electrodes before applying them to the Skin. Use the large Electrode Pads for EMS.
2. The pad placement chart hereafter illustrates the correct placement of the pads for a selection of target muscles.



LOWER BACK

Place a pair of pads horizontally either side of your spine on the lower part of the back.



UPPER BACK

Place a pair of pads horizontally either side of your spine on the upper part of the back.



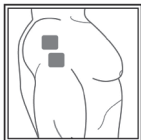
BOTTOM

Place a pair of pads horizontally across the buttocks halfway between the midline and side of your body.



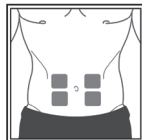
FRONT THIGHS

Place a pair of pads horizontally across each thighs muscles.



SHOULDERS

Place one half of the pad on the front of your shoulder and the other on the side.



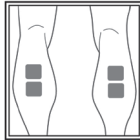
ABS

Place each pair of pads horizontally either side of your navel.



BACK OF THIGHS

Place each pair of pads horizontally across your hamstring.



CALF MUSCLES

Place each pair of pads horizontally across calf muscle. Do not place them too low on the leg, as this can result in an uncomfortable contraction.

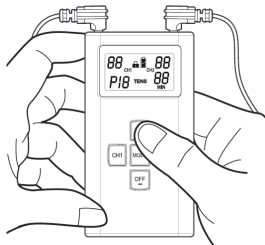
Note: Always start with a low intensity level, increase gradually. You may use any of the modes for EMS.

Turning On the Device

1. Press and hold the ON+ button for one (1) second to turn on the device.
2. The most recently selected treatment time and program will flash when the unit is turned on.

▲ **Note** : Do not turn the unit on until all electrodes and lead wires are properly attached.

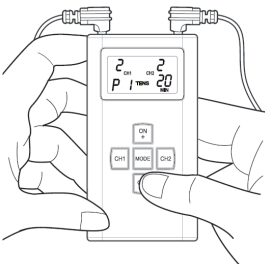
▲ **Note** : When stimulating the muscles of the arms or legs in the EMS Mode, bear in mind that the muscle contraction may cause involuntary limb movement which could cause injury to you or others. Always ensure the limb is secured to prevent movement.



Turning Off the Device

1. The device turns off automatically after the therapy session time has elapsed.
2. To turn the unit off manually, press the OFF- button for three (3) seconds. The display will go blank and the device will turn off.
3. In an emergency you may also pull the connector(s) from the device and then remove the belt.

▲ **Note** : To prevent unpleasant electric shocks, never remove the Electrodes while it is still turned on.



Selecting the Treatment Time

1. Press MODE. The preset (default) treatment time will flash on the display.
2. To increase or decrease the treatment time, press the button ON + (to increase) or the button OFF - (to decrease) repeatedly until the desired duration appears on the display.
3. Press MODE again to save your selection. The treatment time you selected will appear on the display the next time you turn the device on.

▲ **Note**: If you change programs during the course of a therapy session, the treatment time will not reset unless you manually reset it by performing the steps described above.

Selecting the Program

The Device offers 8 different preset treatment programs respectively for TENS /EMS modes; the programs differ with respect to varying pulse widths and frequencies.

Choice of the appropriate mode

The mode you choose determines the kind of work that is imposed upon the stimulated muscles. Choose the mode that is appropriate to your needs or gives you the greatest pleasure.

For **TENS** programs:

When using any of the 8 programs for pain relief always start with the lowest intensity and gradually increase the level of intensity until you feel a "tingling" sensation. All programs are different and therefore feel differently. You may try all 8 programs in the beginning and choose one that feels pleasant. Never increase the intensity to a level so that it hurts, always stay under the point of discomfort. Start with short sessions of 5 or 10 minutes until your body gets used to the stimulation.

Program	Max.	Phase duration	Rate	Function mode
P1	80mA	260uS	15Hz	Constant
P2	80mA	260uS	60Hz	Modulated
P3	80mA	260uS	60Hz	Constant
P4	80mA	260~150uS	2 ~ 60Hz	Modulated
P5	80mA	260~150uS	60Hz	Modulated
P6	80mA	260uS	7 <->60Hz	Modulated
P7	80mA	260~156 uS	60Hz	Modulated
P8	80mA	210 uS	2.45~245 Hz	Cycle

All electrical specification $\pm 20\%$

Program./mode	Benefits	You should feel
P1	-for temporary relief of pain associated with sore and aching muscles in the lower back due to strain from exercise or normal household and work activities.	Continuous comfortable tingling. The underlying pain should decrease gradually after treatment.
P2		Comfortable pulsing sensation. The underlying pain should decrease almost immediately.
P3	- for temporary relief of pain associated with sore and aching muscles in the upper and lower extremities (arm and/or leg) due to strain from exercise or normal household and work activities.	Comfortable pulsing sensation. The underlying pain should decrease almost immediately.
P4	-for symptomatic relief and management of chronic, intractable pain and relief of pain associated with arthritis.	Variable comfortable tingling and pulsing sensation (sensation should appear to come in waves). Pain should ease and there should be relief after treatment.
P5		Variable comfortable mild tingling sensation (sensation will appear to come in waves).
P6		Variable comfortable pulsing and pumping action (action will appear to come in waves).
P7		Variable comfortable tingling and pumping action (action should appear to come in waves).
P8		Variable comfortable tingling and pulsing sensation (sensation should appear to come in waves). Pain should ease and there should be relief after treatment.

For EMS programs:

When using the device for muscle stimulation (EMS) any of the 6 programs may be used. The intent is to cause a muscle to contract, and then release. All 6 programs will achieve contraction and vary mainly by the rate and duration of the contractions. As with any exercise regiment, start out slowly with low intensity levels for a warm-up (5~10min). You may increase intensity level and treatment time as you progress with your muscle performance. Use the device regularly over a longer period of time as to maintain the benefit you may have gained during "exercise".

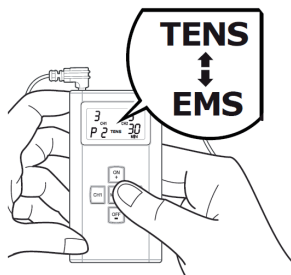
	Pulse Width (uS)	Ramp up (sec)	Hold on (sec)	Ramp down (sec)	Off Time (sec)	Pulse rate (Hz)
P1	300	-	2	-	1	40~99
P2	200	-	-	-	-	4
P3	300	-	-	-	-	5
P4	200	-	2	-	1	99
P5	200	2	6	2	1	4~20
P6	300	2	5	3	10	50

All electrical specification $\pm 20\%$

Mode / Exercise Program	You should Feel & Benefits	Suggestion
P1 Exercise Preparation	This program gently warms up the muscles prior to exercise; it feels like a rhythmic massage.	Increase the intensity until you get a strong but comfortable muscle movement, 10 min/duration.
P2 Active Recovery	This program produces muscle twitches at very low frequency and it feels like a tapping massage, for muscle recovery from fatigue and becoming more relaxed with reduced stiffness.	Use it after intense exercise to promote recovery and relaxation, 30 min/duration.
P3 Active Recovery	This program is similar to P2, except that the muscle twitch rate slows down during the session. It feels like a tapping massage, but softer than P2.	Use it after intense exercise to promote recovery and relaxation, 20 min/duration.
P4 Active Recovery	This program activates the muscle in a short contraction/relaxation cycle. It feels like a kneading massage, smother than P2/P3.	Use it after intense exercise to promote recovery and relaxation, 20 min/duration.
P5 Build Endurance	This program uses a low frequency pulse train which favours slow twitch fibers, for developing aerobic capacity and capillary supply. It improves fatigue resistance during long duration moderate intensity exercise.	The exercise comprises an alternating sequence of work and rest phases lasting several seconds. Increase the intensity until you get a strong and deep muscle contraction. Do not exceed your comfort level, 20min/duration.
P6 Muscle Strengthening	This program uses a pulse frequency appropriate to fast twitch muscle fibers. It improves their anaerobic capacity and is used for improving maximum muscle strength.	The exercise comprises a sequence of work phases separated longer relaxation phases. Increase the stimulation intensity until you get a strong and deep contraction. Do not exceed your comfort level, 20 min./Duration.

1. Press MODE after treatment time is set. The preset (default) therapy mode TENS/EMS will flash on the display. Use ON + or the button OFF – , if you would like to change the therapy mode.
2. Press Mode again, the numeric number of program is then flashing. Press the button ON + (to increase) or the button OFF – (to decrease) for choice of program of the selected modality.
3. Press MODE again to save your selection. The treatment time you selected will appear on the display the next time you turn the device on.

▲ **Note** : If you change programs during the course of a therapy session, the treatment time will not reset unless you Manually reset it by performing the steps described above.



Selecting the Therapy Intensity Level

This device offer a maximum of 25 intensity levels.

The design of the device does not allow the user to modify any of the electrical parameters. The only adjustment that can be made is the electrical intensity which is set to a predetermined maximum current that is well with in safe limits. The intensity of the electrical current determines the number of working fibers in the stimulated muscles. The lower the current intensity the lower the number of working fibers in the muscle. The higher the current intensity the greater the number of working fibers in the muscle.

If using the device for help with temporary relief of pain associated with sore and aching muscles then you will find that setting the current intensity to your own comfortable and pleasing level will give you much satisfaction. This level is different for each user so adjusts slowly and accordingly.

If you desire to stimulate healthy muscles (EMS) in order to improve and facilitate muscle performance then you want to achieve a significant number of working fibers. You require a minimum intensity (approx. 30mA) to accomplish this . This can be achieved relatively quickly (2 to 3 sessions) by progressively increasing the intensity during the session. Once this threshold is reached, continue to progressively increase the current intensity making the session more effective.

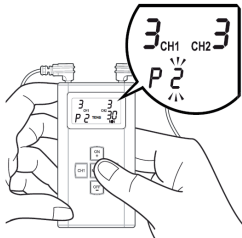
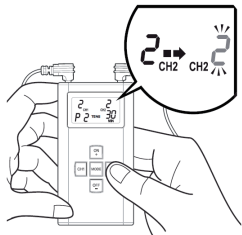
1. Intensity is adjustable according to the channel selected.
Select the channel you wish to adjust by pressing CH1 or CH2.
"CH1" or "CH2" will flash on the display.
2. To increase or decrease the intensity, press ON + (to increase) or OFF – (to decrease) repeatedly until the desired intensity level flashes on the display.

▲ **Note** : You will feel the intensity increase or decrease as you select the intensity level. You can use this as a guide to select a level that is comfortable for you.

▲ **Note** : If you change therapy mode/program during the course of a therapy session, the intensity level will reset to "0" showing on the screen, for safety reason.

3. Press MODE to save your selection.

▲ **Note**: It is suggested that treatment frequency is 3 times per day



Never set intensity so that the stimulation becomes extremely uncomfortable.

SPECIAL FEATURES

Treatment Time

The device offers 12 preset times: 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55 and 60 minutes.

Time will countdown on the display in 1-minute increments for the duration of your session.

- The device turns off automatically when the therapy time has elapsed.
- The most recently set therapy time is stored.
- If you alter the program mode during your therapy, the therapy time won't restart, unless you reset the therapy time.
- The last treatment program you used will appear on the display, when you turn on the device.
- To change the program, press **ON +** or **OFF –** repeatedly until the desired program appears on the display.
- Press **MODE** to save your selection. The program you selected will appear on the display the next time you turn on the program.

Lock Function

Press and hold the **ON +** and **OFF –** keys simultaneously for 1 second to lock/unlock the device.

The Lock Function prevents accidental intensity changes when buttons are "bumped".

Automatic Shut off

- The device automatically turns off when no button is pressed for 60 seconds.
- The device automatically turns off when the time for your therapy session has elapsed.

Intensity Level Reset

For your safety and comfort, the intensity level will reset to "0" each time the device turns off and after the therapy session has elapsed.

The treatment will discontinue if the electrodes are not properly placed well, and/or any entry for changing the mode setting during therapy session, it shall initiate to lowest intensity level, showing "0" on the screen.

Low Battery Status Indicator

The battery status indicator will light whenever the battery is low. This means that soon you have to replace the batteries.

The batteries should last between 30 and 60 applications depending on stimulation times and frequencies.

CARE AND MAINTENANCE

Stimulator

The stimulator may be wiped clean with a small amount of soapy water on a clean cloth. Do not submerge the stimulator in liquids or expose it to large amounts of water.

- Never use aggressive cleaning products or stiff brushes to clean the device.
- Remove the battery before cleaning the device.
- Do not use the device again until it is completely dry.
- Do not expose the device to direct sunlight and protect it from dirt and moisture.

Cables

- Disconnect the cables from the stimulator and electrodes.
- Do not pull on the cables, but on the connectors attached to the ends of the cables.
- Store the stimulator with the cables in a clean, dry place.

Electrode

The electrode pads are disposable and use an adhesive that will dry after prolonged usage or storage. Pads should be replaced when they lose their adhesive quality, or you sense a change in stimulation sensation.

To order replacement pads, please visit <http://quinproducts.com/>, or contact authorized distributor(s).

How to Store Your System

1. Store your System at room temperature in a dry place, out of the reach of children.
2. If the stimulator will not be used for more than a week, remove the battery from the stimulator.

ADDITIONAL TECHNICAL SPECIFICATIONS

Pulse Amplitude: Adjustable 0 – 80mA peak into 500Ω load each channel;
RMSV at 3.5 V(max.), RMSA at 1.3mA(max.)

Wave Form : Symmetrical Bi-Phasic square pulse.

Max Charge per Pulse: 20.8 micro-coulombs maximum.

** All electrical specifications are ±20% at 500Ω load.

Operating Conditions: + 50°F (10°C) to +104° (40°C), 40-90% max. Relative humidity

Transportation & Storage Condition: +14°F (-10°C) to +140° (60°C), 30-95% max. Relative humidity

Weight: 2 ounces

Dimensions: 3.5" x 2" x 0.75"

TROUBLESHOOTING

If you are having problems with your SantaMedical TENS+EMS, make sure the cables fit tightly into the connection sockets of the device and that the batteries have sufficient charge and are not corroded.

WARRANTY

This SantaMedical TENS+EMS carries an industry leading 2-year warranty from the date of purchase.

The warranty applies to the SantaMedical TENS+EMS and necessary parts and labor relating thereto.

The warranty does not include the electrode pads, which do need to be replaced over time.

The warranty does not apply to damage resulting from failure to follow the operating instructions, accidents, abuse, alterations or disassembly by unauthorized individuals. The manufacturer reserves the right to replace or repair the unit at their discretion.

PRODUCT REGISTRATION

To ensure your full warranty, receive product updates, and streamlined customer support, don't forget to register your product at <http://qurinproducts.com/warranty/>

SANTAMEDICAL

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 Made in Taiwan