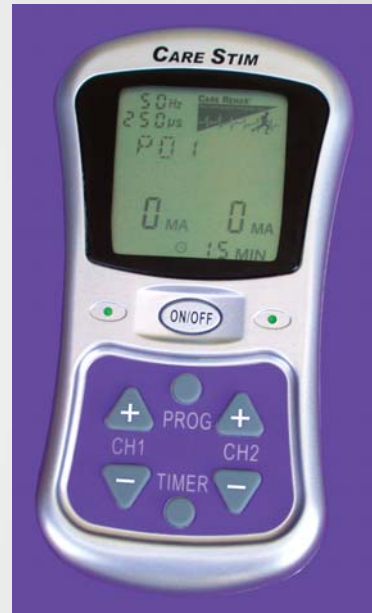


INSTRUCTION MANUAL

DUAL CHANNEL NMS UNIT

CARE STIM™



PO Box 580
McLean, VA 22101

Phone: 1-703-448-9644 Fax: 1-703-356-2182



Contents

Contents	Page
Letter to the Patient	3
How the CARE STIM™ Works	3
The CARE STIM™ System Components	4
The CARE STIM™ Operations Controls / Features	5
Electrodes	6
Proper Skin Care	7
Using the CARE STIM™	8
CARE STIM™ Battery Information	10
Care of your CARE STIM™	10
Important Prescription Information	11
Instructions for your Physician or Therapist	13
Technical Specifications	23



Letter to the Patient

Your physician has prescribed the CARE STIM™ System to help re-educate your muscles. Please read this operations manual carefully before using your CARE STIM™. The instructions on the following pages will show you how to use and care for your CARE STIM™ in a general manner.

IMPORTANT NOTE: Please read the prescription information and precautions in this manual before using the CARE STIM™.

You should always consult your physician or therapist if you have specific questions or

problems regarding the use of your stimulator. Your physician or therapist possesses technical knowledge about the CARE STIM™ and is familiar with your specific condition and requirements. In addition, always follow the instructions of your physician or therapist to gain the most benefit from your CARE STIM™.

CAUTION: Federal (U.S.A.) law restricts this device to sale by, or on the order of a practitioner licensed by the law of the state in which he/she practices to use or order the use of the device.

How the CARE STIM™ Works

Your CARE STIM™ is a battery powered device that generates small pulses of electrical current. These small pulses of electrical current are delivered through lead cables to electrodes placed on your skin. These electrical pulses pass through your skin, and activate underlying nerves. Your physician or therapist will instruct you on the correct degree of stimulation for your particular condition. The CARE STIM™ has two channels, allowing it to operate

two pairs of electrodes. The CARE STIM™ can deliver 12 separate stimulation patterns (“modes”). Your physician or therapist will provide you with directions on the proper mode for your condition.

It is important to realize that the CARE STIM™ is only to be used as indicated. Therefore, STIM is not a substitute for proper medical evaluation and treatment.



The CARE STIM™ System Components



The CARE STIM™ System is provided with:

- 1 CARE STIM™ Stimulator
- 1 Package of electrodes (non-sterile, 1.8" X 1.8")
- 2 Lead Cables
- 1 9V battery
- 1 Operations Manual

The CARE STIM™ Operations Controls / Features



Amplitude Controls: Pressing the “+ Plus” button increases the amplitude for each channel. The button can be held in for a continuous increase of amplitude. Pressing the “- Minus” button decreases the amplitude for each channel. The button can be held in for a continuous reduction of amplitude. The amplitude range is between a setting of 0 – 90 mA which corresponds to the strength of the electrical stimulation delivered. Pressing the “ON/OFF” button turns the stimulator on and off. The stimulation changes in discrete steps. Select the amount of stimulation recommended by your physician or therapist. The CARE STIM™ unit will automatically shut off after the set treatment duration has elapsed, but it is recommended that you turn it off whenever you do not use a full treatment cycle in order to conserve the battery.

Output for each mode is delivered through a cable. The cable has a keyed, latch type, protected (can not be plugged into an a.c. outlet) connector.

The electrode lead cables are designed with a protected color coded connector which are connected to the distal end of the cable to a protected connector which is color coded.

Output modality selection: The CARE STIM™ operates in the NMS mode (asymmetric biphasic output) with specific programs.

Program Selection: Pressing the “PROG” button cycles through the 12 stimulation programs. Changing of programs can only be done when no program is running, turn the unit off and on again to reset.

Lead Cable Sockets: The electrode lead cables should be plugged into their sockets.

Battery Information: This device requires one 9V alkaline battery to operate. Remove the plastic cover on the back of the unit and insert the battery as indicated by the icons inside the battery compartment and replace the cover to fit tightly. Do not use a rechargeable (e.g. nickel-cadmium) battery, as this will not deliver full amplitude stimulation.



Electrodes

Reusable / Self-adhering electrodes:

To use your electrodes, first attach them to your lead cable. (Note that the “pin” on the electrode cable is protected by a plastic sheath.) Then, grasp the electrode by the corner, and gently peel away the electrode from the plastic sheet it is provided with. Finally, apply the electrodes to the skin area (your physician or therapist will show you the approximate area for treatment) by firmly pressing the electrode against the skin.

When your therapy session is completed, grasp the corner of the electrode (**NEVER REMOVE THE ELECTRODE BY PULLING ON THE LEAD CABLE, AS THIS MAY DAMAGE YOUR ELECTRODES**)

and gently remove it from your skin, and place it on the plastic sheet it originally was adhered to. Another important note in the care of your electrodes is to replace the electrodes in the resealable pouch provided with your electrodes.

If your electrodes dry out, you can place a few drops of water on them to re-moisten them for continued use.

After repeated usage, reusable electrodes begin to lose their adhesion, deliver less stimulation and shorten battery life. **Replace reusable electrodes as needed.**

We recommend using 1.8” x 1.8” electrodes from Care Rehab.



Proper Skin Care

By properly caring for skin covered by electrodes, you will:

- Allow more stimulation to reach the targeted nerves.
- Prolong the life of your electrodes.
- Reduce the chance that any skin irritation will develop.

The following directions for proper skin care will reduce the risk of skin irritation. However, if skin irritation develops, remove the electrodes, discontinue using your CARE STIM™, and consult your physician or therapist.

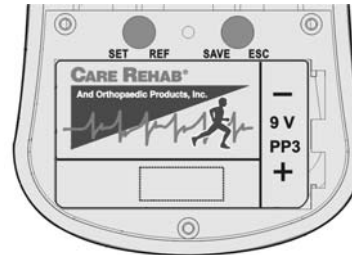
1. Wash all electrode sites with mild soap and water before applying the electrodes.
2. Dry your skin thoroughly before electrode application.
3. Trim excess body hair from electrode sites with scissors.
4. Do not place electrodes on cut, broken or irritated skin
5. Change electrode sites whenever possible, but first consult with your physician or therapist about doing this.



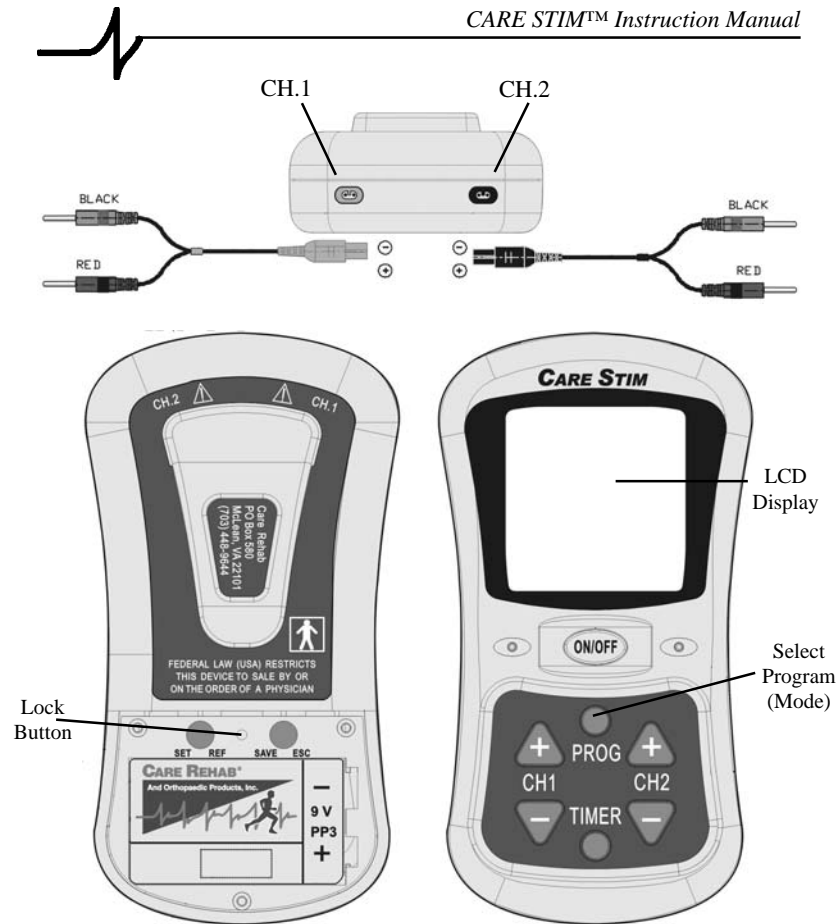
Using the CARE STIM™

FIRST Look at the LCD display and make sure the unit is turned off. If the display is on, press the “ON/OFF” button to turn off the unit.

1. Insert one 9V alkaline battery into the battery compartment as shown on the diagram. Then replace the battery cover.



2. Wash the electrode application sites with mild soap and water and dry your skin thoroughly. Also remove any excess body hair with a pair of scissors, being careful not to cut your skin.
3. Connect the lead cable to the electrodes. Do not use unnecessary force when connecting the electrodes to the lead cables.
4. Place the electrodes on the sites prescribed by your physician or therapist, and press them firmly onto the skin.
5. Insert the plug at the end of the electrode lead cable securely into the CARE STIM™ channel 1 output socket or channel 2 output socket if using a second set of electrodes.
6. Now set the “Mode”. Press the “Program” (PROG) button until the number indicating the correct mode is shown. Select the Mode prescribed by your physician or therapist.
7. Set the “Time”. Press the “Timer” button until the correct time is shown as prescribed by your physician or therapist - 15, 30, 60 minutes or continuous.
8. Then press the “+ Plus” button until you achieve the amount of stimulation prescribed by your physician or therapist. To reduce the stimulation, press the “- Minus” button.
8. Always operate the CARE STIM™ at the prescribed settings for the amount of time directed by your physician or therapist.



When your treatment session is completed, remember to do the following:

1. Press the “OFF” button and the unit will turn off.
2. Unplug the lead cable(s) from the CARE STIM™.
3. Disconnect the lead cable(s) from the electrodes, and properly store your electrodes for your next treatment session, as prescribed by your physician or therapist.

CARE STIM™ Battery Information

Whenever removing or replacing the battery from your CARE STIM™, always remember to press the “ON / OFF” button to turn the unit off.

Always use one 9V alkaline battery when operating your CARE STIM™.

Do not use a rechargeable (e.g. nickel-cadmium) battery.

Battery Care: Remove the battery during storage to prevent damage caused by battery leakage or corrosion.



Care of your CARE STIM™

Maintenance, care and cleaning of your CARE STIM™ are quick and easy procedures when these instructions are followed. When it is not in use, store your CARE STIM™ where it will be safe from accidental damage.

Cleaning: Clean the outside of the CARE STIM™ case as needed with a damp cloth and mild soap.

Never immerse your stimulator or battery in water, alcohol or other fluids, since this could seriously damage the internal electronics. Avoid using cleaning fluids or solvents to remove stains or dirt, because such liquids may damage the carrying case and unit. Lead cables need to be cleaned only if they become dirty. They should never be immersed in water or other fluids.



Important Prescription Information

Please read the following prescription information carefully before using your CARE STIM™. If you have any questions regarding this information, consult with your physician or therapist before proceeding.

CAUTION: Federal (U.S.A.) law restricts this device to sale by, or on the order of, a licensed physician. This device should only be used under medical supervision for adjunctive therapy for the treatment of medical diseases and conditions.

Indications:

- * Relaxation of muscle spasm
- * Prevention or retardation of disuse atrophy
- * Increasing local blood circulation
- * Muscle re-education
- * Immediate postsurgical stimulation of calf muscles to prevent venous thrombosis
- * Maintaining or increasing range of motion

EMS devices should only be used under medical supervision for adjunctive therapy for the treatment of medical diseases and conditions.

Contraindications:

- * EMS devices are contraindicated for patients with cardiac demand pacemakers
- * EMS devices should not be used on cancer patients
- * Adequate precautions should be taken in the case of persons with suspected or diagnosed epilepsy
- * Stimulation should not be applied over the carotid

Warnings:

- * The long-term effects of chronic electrical stimulation are unknown
- * Safety has not been established for the use of EMS devices during pregnancy
- * Adequate precautions should be taken in the case of persons with suspected heart problems
- * Sinus nerves, particularly in patients with a known sensitivity to the carotid sinus reflex
- * Stimulation should not be applied over the neck or mouth. Severe spasm of the laryngeal and pharyngeal muscles may occur and the contraction may be strong enough to close the airway or cause difficulty breathing



- | | |
|---|---|
| <ul style="list-style-type: none">* Stimulation should not be applied transthoracically in that the introduction of electrical current into the heart may cause cardiac arrhythmias* Stimulation should not be applied transcerebrally* Stimulation should not be applied over swollen, infected, or inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.* Stimulation should not be applied over, or in proximity to, cancerous lesions | <ul style="list-style-type: none">healing process<ul style="list-style-type: none">- Over the menstruating or pregnant uterus- Over areas of the skin which lack normal sensation* Some patients may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium. The irritation can usually be reduced by using an alternate conductive medium or an alternate electrode placement.* Electrode placement and stimulation settings should be based on the guidance of the prescribing practitioner* Powered muscle stimulators should be kept out of the reach of children* Powered muscle stimulators should be used only with the leads and electrodes recommended for use by the manufacturer* 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. |
| <p>Precautions:</p> <ul style="list-style-type: none">* Safety of powered muscle stimulators for use during pregnancy has not been established.* Caution should be used for patients with suspected or diagnosed heart problems* Caution should be used for patients with suspected or diagnosed epilepsy* Caution should be used in the presence of the following:<ul style="list-style-type: none">- When there is a tendency to hemorrhage following acute trauma or fracture- Following recent surgical procedures when muscle contraction may disrupt the | |
| <p>Adverse Reactions: Skin irritation and electrode burns are potential adverse reactions.</p> | |



Instructions for your Physician or Therapist

Setting Customized Programs:

1. Set the “Mode” to MEM 1, 2 or 3.
Press the “Program” (PROG) button until MEM 1, 2 OR 3 is shown.
2. Remove the battery lid. Press the SET / REF button and the Hz symbol will flash on / off, then press the + or - button on the front panel to adjust the Pulse Rate from 2 - 100 Hz.
3. Press the SET / REF button again and the μ S symbol will flash on / off, then press the + or - button to adjust the Pulse Duration from 50 to 400 μ S.
4. Press the SET / REF button again and the WORK symbol will flash on / off, then press the + or - button to adjust the work period from 5 - 15 seconds.
5. Press the SET / REF button again and the REST symbol will flash on / off, then press the + or - button to adjust the rest period from 5 - 60 seconds.
6. Press the SET / REF button again and the RAMP [Ramp up] symbol will flash on / off, then press the + or - button to adjust the ramp up period from 0.1 - 9.9 seconds.
7. Press the SET / REF button again and the ALTERN [Alternating] or SYNCHRO [Synchronous] symbol will flash on / off, then press the + or - button to select ALTERN or SYNCHRO.
8. If SYNCHRO [Synchronous] is selected, press the SET / REF button again to select DELAY, then press the + or - button to adjust time in seconds Channel 2 is delayed after Channel 1 (0 - 4 seconds).
9. Press the ESC button to store the program.



Lock Mode Function:

A “Concealed” Lock button is included in the CARE STIM™, which allows the physician or therapist to monitor the use and lock the parameters of the unit.

Locking the Unit

1. Remove the battery cover and, using the end of the lead wire, gently press on the concealed lock button as shown on the diagram on page 9 until you hear a double beep.

Unlocking the Unit

1. Remove the battery cover and, using the end of the lead wire, gently press on the concealed lock button as shown on the diagram on page 9 until you hear a single beep.
2. The information for time in use and the average mA current used can be read on the front LCD display. Press the ESC button to unlock the unit and bring the display back to the home position.



Stimulation Modes:

The CARE STIM™ has 12 separate output modes, described in the table below.

Program	H z	μS	Work	R e s t
P 01	50	250	5	5
P 02	50	250	5	10
P 03	50	250	5	20
P 04	50	250	5	30
P 05	50	250	10	20
P 06	50	250	10	30
P 07	50	250	10	60
P 08	50	400	5	20
P 09	50	400	10	30
MEM 1	C u s t o m			
MEM 2	C u s t o m			
MEM 3	C u s t o m			

Automatic Shut-Off Treatment Timer:

The CARE STIM™ has an automatic treatment timer which will shut off at the end of the selected program (mode). It will shut-off the CARE STIM™ automatically one minute after the end of the set treatment or four minutes after the last button is pressed if no program has been run.



Technical Specifications

1. Dual channel: individually isolated circuits.
2. Amplitude: 0-90 mA; indication only; actual mA will tend to be less than indicated due to electrode impedance.
3. Type: Constant Current.
4. Waveform: Asymmetrical, rectangular bi-phasic with zero DC current.
5. Selectable pulse width: 50 μ S – 400 μ S [+/- 2% accuracy].
6. Pulse Rate selection: in the continuous mode 2 – 100 Hz [+/- 2% accuracy].
7. Maximum Charge per Pulse: 41 microcoulombs.
8. Maximum Average Current 3.6 mA.
9. Duty Cycle: Ranges from 0.01% at 50 μ S, 2 Hz to 4% at 400 μ S, 100 Hz.
10. Time duration of the treatment selectable: 15, 30, 60 minutes or continuous.
11. Open Electrode Detect: If an open circuit is detected at the output of channel 1 or 2 the output current will be reset at zero.
12. NMS On Time 5 - 15 seconds
13. NMS Off Time 5 - 60 seconds
14. NMS Ramp up time 0.1 - 9.9 seconds.
15. NMS Ramp Down Time < 1 second
16. Low Battery Indicator: If the battery goes below 6.9 volts +/- 0.2 volts the battery symbol will flash on/off once every second.
17. If the battery voltage is below 6.6 (+/- 0.2) volts the unit will not turn on.
18. Physical dimensions: 5.0" x 2.7" x 1.1".
19. Weight: 8 oz (including battery).
20. Environmental conditions for storage & transport:
+14 to +95 degrees
0-90% Humidity.
21. Tolerances: All electrical specifications are +/- 10% into 500 ohm.

Warranty

This unit has a one year limited warranty from the date of purchase.









PO Box 580
McLean, VA 22101

Phone: 1-703-448-9644 Fax: 1-703-356-2182