



**PLAYMAKAR**  
SPORT

# MUSCLE STIMULATOR

— WIRED —

**SPORT** SERIES

Model # PRO-500



Instruction Manual



CE 0120



## INDICATIONS

Read this instruction manual before operation. Be sure to comply with all “CAUTIONS” and “WARNINGS” in this manual. Failure to follow and implement according to the use and operating instructions can cause harm to the user or device.

**The device is intended for over-the-counter use however if you have medical questions we strongly encourage you to consult with your physician regarding indications for use of this device.**

### What is EMS?

EMS stands for electrical muscle stimulation. This electric muscle stimulator is used to stimulate healthy muscles to improve muscle strength and performance.

### What is TENS?

TENS stands for transcutaneous electrical nerve stimulation. This TENS unit is intended to deliver electrical current to electrode pads applied to your skin to relieve pain associated with sore or aching muscles.

### PlayMakar® Sport Muscle Stimulator, Model PRO-500 Indications for Use

The PlayMakar® Sport Muscle Stimulator is a muscle stimulator for active treatment as per intended use:

- For use by healthy adults for the stimulation of healthy muscles in order to improve or facilitate muscle performance and therefore may be considered a technique of muscle training. (Choose EMS Modes P1 through P6) The PRO-500 is not intended to be used in conjunction with therapy or treatment of medical diseases or medical conditions of any kind.
- 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 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. (Choose TENS Modes P1 through P3)
- For symptomatic relief and management of chronic, intractable pain and relief of pain associated with arthritis. (Choose TENS Mode P4)

**TABLE OF CONTENTS**

INDICATIONS..... 2

CONTRAINDICATIONS, WARNINGS, AND PRECAUTIONS..... 4-7

WHAT'S INCLUDED..... 8

DEVICE FEATURES..... 9

ABOUT RECHARGEABLE BATTERIES..... 10

USING THE AC ADAPTER TO CHARGE DEVICE..... 10-11

STEP BY STEP OPERATION GUIDE FOR TREATMENT..... 12-14

- Preparing the Skin..... 12
- Connect Lead Wires to Channel 1 and to Channel 2..... 12
- Connect Electrode Pads to Lead Wire(s)..... 12
- Remove Electrode Pads from Plastic Film..... 13
- Place Electrode Pads on Skin..... 13
- Turning On & Off the Device..... 13
- Select EMS or TENS..... 13
- Select Therapy Program..... 14
- Select Treatment Minutes..... 14
- Adjust Intensity..... 14

SPECIAL FEATURES..... 15

PAD PLACEMENT BY MUSCLE GROUP..... 16-17

EMS PROGRAMS..... 18

TENS PROGRAMS..... 19

CARE & MAINTENANCE..... 20

TROUBLESHOOTING..... 21

TECHNICAL SPECIFICATIONS..... 22-24

INFORMATION ABOUT ELECTROMAGNETIC COMPATIBILITY..... 25-28

FCC INFORMATION..... 29

WARRANTY..... 30

REGISTER YOUR DEVICE..... 31-32

## EMS CONTRAINDICATIONS

Powered muscle stimulators should not be used on people with cardiac demand pacemakers.

## WARNINGS

- The long-term effects of chronic electrical stimulation are unknown.
- Stimulation should not be applied over the carotid sinus nerves, particularly in people 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 contractions may be strong enough to close the airway or cause difficulty in breathing.
- 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.

## PRECAUTIONS

- Safety of powered muscle stimulators for use during pregnancy has not been established.
- Caution should be used for people with suspected or diagnosed heart problems.
- Caution should be used for people with suspected or diagnosed epilepsy.
- Caution should be used in the presence of the following:
  - When there is a tendency to hemorrhage following acute trauma or fracture.
  - Following recent surgical procedures when muscle contraction may disrupt the healing process.
  - Over the menstruating or pregnant uterus.
  - Over areas of the skin which lack normal sensation.
- Some people may experience skin irritation or hypersensitivity due to electrical stimulation or electrical conductive medium. The irritation can usually be reduced by using an alternate conductive medium, or alternate pad 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 only be used with the leads and electrodes provided for use by the manufacturer.
- Do not apply stimulation while driving, operating machinery, or during any activity in which electrical stimulation can put you at risk of injury.
- **Muscle contractions may put the user at undue risk of injury which may include use while driving, operating machinery, or during any activity in which involuntary muscle contractions may put the user at undue risk of injury.**

### ADVERSE REACTIONS

Skin irritation and burns beneath the electrodes have been reported with the use of powered muscle stimulators.

### TENS CONTRAINDICATIONS

- TENS should not be used if you have a cardiac pacemaker, implanted defibrillator, or other implanted metallic electronic device. Such use could cause electric shock, burns, electrical interference, or death.

### WARNINGS

- If you are in the care of a physician consult with your physician before using this device.
- If you have had medical or physical treatment for your pain, consult with your physician before using this device.
- If your pain does not improve, becomes more than mild, or continues for more than five days, stop using the device and consult with your physician.
- Do not apply stimulation over your neck because this could cause severe muscle spasms resulting in closure of your airway, difficulty in breathing, or adverse effects on heart rhythm or blood pressure.
- Do not apply stimulation across your chest because the introduction of electrical current into the chest may cause rhythm disturbances to your heart, which could be lethal.
- Do not apply stimulation over open wounds or rashes, or over swollen, red, infected, or inflamed areas or skin eruptions (e.g. phlebitis, thrombophlebitis, varicose veins).
- Do not apply stimulation over, or in proximity to, cancerous lesions.
- Do not apply stimulation in the presence of electronic monitoring equipment (e.g., cardiac monitors, ECG alarms), which may not operate properly when the electrical stimulation device is in use.
- Do not apply stimulation when in the bath or shower.

- Do not apply stimulation while sleeping.
- Do not apply stimulation while driving, operating machinery, or during any activity in which electrical stimulation can put you at risk of injury.
- Do not use the device on children, if it has not been evaluated for pediatric use.

**We also recommend the following:**

- Consult with your physician before using this device, because the device may cause lethal rhythm disturbances to the heart in susceptible individuals.
- Apply stimulation only to normal, intact, clean, healthy skin.

**PRECAUTIONS**

- TENS is not effective for pain of central origin, including headache.
- TENS is not a substitute for pain medications and other pain management therapies.
- TENS devices have no curative value.
- TENS is a symptomatic treatment and, as such, suppresses the sensation of pain that would otherwise serve as a protective mechanism.
- Effectiveness is highly dependent upon the individual using. Results may vary.
- The long-term effects of electrical stimulation are unknown.
- Since the effects of stimulation of the brain are unknown, stimulation should not be applied across your head, and electrodes should not be placed on opposite sides of your head.
- The safety of electrical stimulation during pregnancy has not been established.
- You may experience skin irritation or hypersensitivity due to the electrical stimulation or electrical conductive medium (gel).
- If you have suspected or diagnosed heart disease, you should follow precautions recommended by your physician.
- If you have suspected or diagnosed epilepsy, you should follow precautions recommended by your physician.

**We also recommend the following:**

- 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 caution if stimulation is applied over the menstruating or pregnant uterus.
- Use caution if stimulation is applied over areas of skin that lack normal sensation.
- Keep this device out of the reach of children.
- Use this device only with the leads, electrodes, and accessories recommended by the manufacturer to avoid adverse reactions.
- Electrode pads are intended for single person use only.

**Please be aware of adverse reactions and precautions below:**

- You may experience skin irritation and burns beneath the stimulation electrodes applied to your skin.
- You may experience headaches and other painful sensations during or following the application of electric 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.



## WHAT'S INCLUDED

### Package Content

1. Wired Muscle Stimulator (1)
2. Electrode Pads  
    2" x 2" (4)  
    2" x 4" (2)
3. AC Adapter (1)
4. USB Charging Wire (1)
5. Lead Wires (2)
6. Belt Clip Holster (1)
7. Tote Bag (1)





DEVICE FEATURES	DESCRIPTION																								
<p>Indicators and Buttons:</p> 	<table border="1"> <tbody> <tr> <td>1</td> <td>Power ON/Increase Button</td> </tr> <tr> <td>2</td> <td>Power OFF/Decrease Button</td> </tr> <tr> <td>3</td> <td>Mode (Setting Select/Set)</td> </tr> <tr> <td>4</td> <td>Therapy Program</td> </tr> <tr> <td>5</td> <td>Therapy Mode (EMS or TENS)</td> </tr> <tr> <td>6</td> <td>Battery Status/Lock Function Indicator</td> </tr> <tr> <td>7</td> <td>Channel Indicator</td> </tr> <tr> <td>8</td> <td>Treatment Minutes Remaining</td> </tr> <tr> <td>9</td> <td>Intensity Level</td> </tr> <tr> <td>10</td> <td>CH1 (Channel 1) Button</td> </tr> <tr> <td>11</td> <td>CH2 (Channel 2) Button</td> </tr> <tr> <td>12</td> <td>Therapy Program Description</td> </tr> </tbody> </table> <p>1. LED backlight will display for 10 seconds upon turning on.                  2. When charging, the device will shut off automatically.                  3. If  symbol is displayed, battery power is low.</p>	1	Power ON/Increase Button	2	Power OFF/Decrease Button	3	Mode (Setting Select/Set)	4	Therapy Program	5	Therapy Mode (EMS or TENS)	6	Battery Status/Lock Function Indicator	7	Channel Indicator	8	Treatment Minutes Remaining	9	Intensity Level	10	CH1 (Channel 1) Button	11	CH2 (Channel 2) Button	12	Therapy Program Description
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## ABOUT RECHARGEABLE BATTERIES

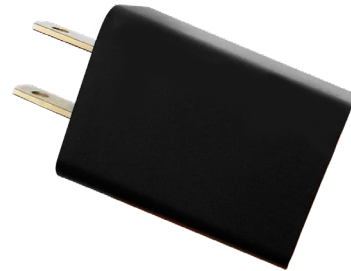
Please fully charge the battery in the device. To prevent the risk of electric shock, make sure power cord is unplugged from wall socket. To fully disengage the power to the unit, please disconnect the power cord from the AC outlet. Do not remove cover (or back). The AC outlet shall be readily available and accessible.

**Note:** The unit has a built-in rechargeable battery that cannot be exchanged by the user.

## USING THE AC ADAPTER TO CHARGE DEVICE

### Charging the Device Using the AC Adapter

1. Connect the small end of the USB cable to the device and the large end to the AC adapter.
2. Plug the adapter into any standard wall outlet.




**When charging the remote, the battery  symbol will flash until fully charged; When fully charged, the battery symbol will be displayed and will not be flashing.**

**Note:** You may not use the device while it's charging. When charging, the device will turn off automatically.

### Device Charging



1. When battery is charging, the symbol will show on LCD screen.
2. The battery symbol will not change as the voltage increases; it only serves as an indication.
3. Battery symbol  will be flashing, 1 flash/sec.



### Device Charging Complete

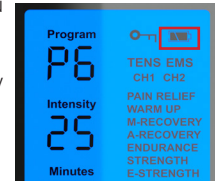
1. When the device is done charging, the full battery symbol will show on the LCD screen and will not be flashing.

### Low Battery Status Indicator on Display

The low battery status indicator will be visible whenever the battery is low. This indicates that you will soon have to recharge the battery.

The need to recharge the device is dependent on Treatment Minutes, Therapy Program, Intensity Level, and use of single or dual channels while receiving treatment.

**Note:** When voltage is lower or equal to 3.3v the  symbol will show on the LCD screen.



## STEP BY STEP OPERATION GUIDE FOR TREATMENT

### STEP 1 - Preparing Your Skin Before Using

Following the steps below can help prepare the skin for optimal electrical dispersion and increased stimulation sensitivity.

1. Determine the electrode pad placement sites for the electrode pad(s).
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. If desired, apply PlayMakar® Conductive Gel or Conductive Ion Spray to help increase conductivity. This may also reduce the chance of skin irritation and may extend the life of the electrode pads.
5. When removing electrode pads, always remove by pulling in the direction of hair growth.
6. It may be helpful to apply PlayMakar® Conductive Gel or lotion on electrode pad placement area when system is not in use to help increase moisture of skin.

### STEP 2 - Connect Lead Wire(s) to Channel 1 (CH1) and to Channel 2 (CH2)

Insert one lead wire into each desired channel.

**Note:** Fully insert lead wire(s) into respective channel socket(s). This will ensure the safety feature intensity level reset is not activated. In the event you only want to run one channel, please insert the lead wire into channel 1 (Upper left-hand side).

**Note:** The device will auto-reset by default to “0” Intensity Level on the respective channel if the lead wire is not fully inserted.

### STEP 3 - Connect Electrode Pads to Lead Wire(s)

Snap the lead wires to 2 small or 1 large electrode pad per channel, before applying to the skin. System requires that there is a minimum of 2 small electrode pads or 1 large electrode pad per lead wire.

**Note:** The device will auto-reset by default to “0” Intensity Level on the respective channel if the lead wire is not fully inserted into the device or if lead wire is not fully snapped into 2 small or 1 large electrode pad(s) per lead wire and placed on your skin.

CH1 CH2



**STEP 4 - Remove Electrode Pads from Plastic Film**

To help extend the life of the electrode pad(s), place the pad(s) back onto the plastic film after use.

**Note:** The electrode pad(s) are disposable and use an adhesive gel that will dry out and deteriorate after prolonged use and/or storage. The pad(s) can be used approximately 20-30 times based on 30-minute intervals. The electrode pad(s) should be replaced when they lose their adhesiveness and/or when you sense a change in the stimulation “tingling sensation”.

**STEP 5 - Place Electrode Pads on Skin**

Electrode pad placement location recommendations can be found on pages 16-17.

**STEP 6 - Turning On & Off the Device**

To Power On: Press and hold the “ON/+” button for 3 seconds.

To Power Off: Press and hold the “OFF/-” button for 3 seconds.

**Note:** If any of the treatment settings are flashing, the device will not turn off. To prevent unpleasant electric shocks, never remove the electrode pad while the device is still turned on. In case of an emergency, you may unplug the respective lead wire directly from the device.

**Note:** The last therapy mode, therapy program, and treatment minutes will be stored and appear on the display when you turn on the device.

**STEP 7 - Select EMS or TENS**

Press the “MODE” button (center button) and the Therapy Mode in the upper right corner of LCD screen will begin flashing. To select EMS or TENS, press the “ON/+” button for TENS or the “OFF/-” button for EMS, then press “MODE”.



### STEP 8 - Select Therapy Program (EMS P1-P6 or TENS P1-P4)

The Therapy Program will now be flashing. Press the "ON/+" (to increase) or the "OFF/-" (to decrease) button until desired program is flashing, then press "MODE".

The device offers 6 EMS and 4 preset TENS programs; the programs differ with respect to varying pulse widths and frequencies. The program you choose determines the impulse output type. Choose the program that is appropriate to your needs as shown on pages 18-19 or is most comfortable to you.

### STEP 9 - Select Treatment Minutes

The Treatment Minutes will now be flashing. Press the "ON/+" (to increase) or the "OFF/-" (to decrease) button until desired Treatment Minutes is flashing, then press "MODE".

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

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

### STEP 10 - Adjust Intensity

Intensity is adjustable according to the channel selected. To adjust intensity: Select the channel by pressing CH1 or CH2. Press and release the "ON/+" button to increase or the "OFF/-" button to decrease until the desired intensity level flashes on the display, then press "MODE".

**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:** Always start with the lowest intensity, gradually increasing until you feel a "tingling" sensation. Never increase the intensity to a level that causes additional pain. Stay under the point of discomfort. Start with short sessions of 5-10 minutes until you are comfortable with the stimulation.



## SPECIAL FEATURES

### Locking Function

Press and hold "ON/+" and "OFF/-" buttons simultaneously for 3 seconds to lock/unlock the device. The key symbol (🔑) will appear. The locking function prevents accidental setting changes. This feature is particularly helpful when placing the device inside your pocket, purse, or wearing on your belt clip.

To unlock press "ON/+" and "OFF/-" buttons again.

### Intensity Level Reset

For your safety, the intensity level will default to "0" and will not increase past "1" if the device is not set up properly. Please follow the necessary steps 1-10. Be sure to have quality electrode pads firmly affixed according to placement guide on the following pages.

### Intensity level reset will occur in the following instances:

- After the therapy session has elapsed.
- If electrode pads are not affixed firmly or setup procedure is not followed.
- If therapy mode or therapy program has been changed.

### System Defaults & Features

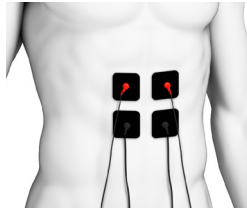
Automatic shut off: The device turns off automatically when the treatment time has elapsed or when no button is pressed for 60 seconds.

Memory: The most recently set therapy time is stored. If you change the program mode during your therapy, the previous Treatment Minutes won't restart, unless you reset it. The last therapy program you used will appear on the display, when you turn on the device.

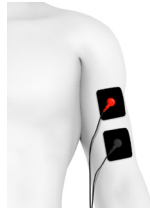
Press mode to save your selection. The program selected will appear on the display the next time you turn on the device.



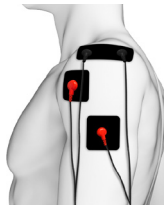
## Pad Placement by Muscle Group



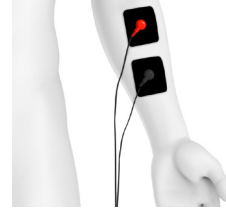
**Ab Muscle**



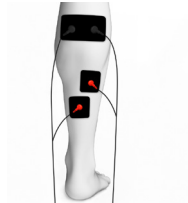
**Biceps**



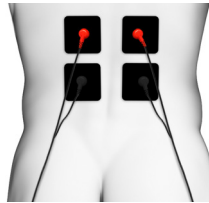
**Deltoid**



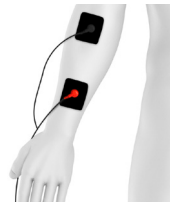
**Flexor of Wrist/Finger**



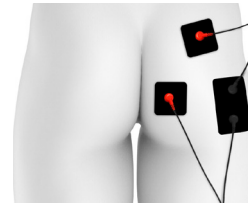
**Calf Muscle**



**Erector Spinalis**

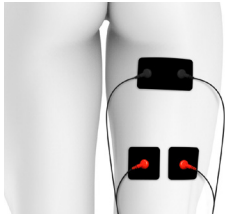


**Extensors of  
Wrist/Fingers**

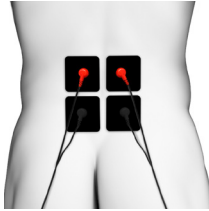


**Gluteus**





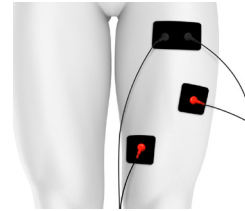
**Hamstrings**



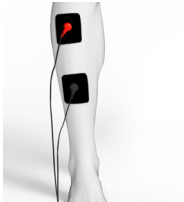
**Low Back**



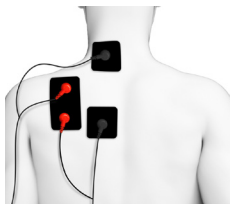
**Peroneous  
Muscle**



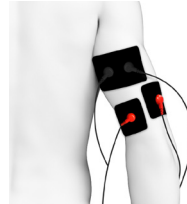
**Quadriceps**



**Tibialis  
Anterior**



**Trapezius**



**Triceps**

**EMS PROGRAMS:**

For muscle stimulation (EMS) any of the 6 programs may be used. The intent is to cause a muscle contraction, and then release. All 6 programs will achieve contraction and vary by rate and duration of the contractions. Start out slowly with low intensity levels for a warm-up (5-10 min). Increase intensity level and treatment time as you progress. Use the device regularly or for longer sessions to achieve benefits similar to passive “exercise”.

<b>Program/Mode</b>	<b>What You Should Feel &amp; Benefits</b>	<b>Suggestion</b>
<b>P1 Warm Up</b>	P1 gently warms up the muscles prior to exercise; it feels like a rhythmic massage.	Increase intensity level until you get a strong but comfortable muscle movement; 10 min/duration.
<b>P2 Muscle Recovery</b>	P2 produces muscle twitches at a very low frequency, feels like a tapping massage; for muscle recovery from fatigue for relaxation and reduced stiffness.	Use it after intense exercise to promote recovery and relaxation; 30 min/duration.
<b>P3 Active Recovery</b>	P3 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.
<b>P4 Endurance</b>	P4 uses a low frequency pulse which may favor slow twitch fibers, for possible development of aerobic capacity and capillary supply. It may help improve fatigue resistance during long duration and moderate intensity exercise.	Use it after intense exercise to promote recovery and relaxation; 20 min/duration.
<b>P5 Muscle Strength</b>	P5 uses a pulse frequency appropriate for fast twitch muscle fibers. It may help improve anaerobic capacity and may help improve muscle strength.	The exercise comprises of an alternating sequence of work and rest phases lasting several seconds. Increase the intensity level until you get a strong and deep muscle contraction. Do not exceed your comfort level; 20min/duration.
<b>P6 Explosive Muscle Strength</b>	P6 uses a burst pulse frequency appropriate for fast twitch muscle fibers. It may help improve anaerobic capacity and may help improve muscle strength.	The exercise comprises a sequence of work phases separated by longer relaxation phases. Increase the stimulation intensity level until you get a strong and deep contraction. Do not exceed your comfort level; 20 min/duration.

**TENS PROGRAMS:**

When using any of the 4 programs for pain relief, always start with the lowest intensity level and gradually increase the level of intensity until you feel a “tingling” sensation. All programs are different and therefore have a different sensation. You may try all 4 programs in the beginning and choose one that feels pleasant. Never increase the intensity to a level that it hurts; always stay under the point of discomfort. Start with short sessions of 5 to 10 minutes until your body gets used to the stimulation.

<b>Program/Mode</b>	<b>Benefits</b>	<b>What You Should Feel</b>
<b>P1</b>	For temporary relief of pain associated with sore and/or aching muscles in the lower back due to strain from exercise or normal household and work activities.	Comfortable pulsing sensation. The underlying pain should decrease.
<b>P2</b>		Comfortable pulsing sensation. The underlying pain should decrease.
<b>P3</b>	For temporary relief of pain associated with sore and/or aching muscles in the upper and lower extremities (arm and/or leg) due to strain from exercise or normal household and work activities.	Variable comfortable tingling and pulsing sensation (sensation should appear to come in waves). Pain should ease and there should be relief after treatment.
<b>P4</b>	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.

## CARE & MAINTENANCE

### Device & Lead Wires

- To clean exterior of system, please lightly wipe with a clean, wet cloth. Do not submerge the stimulator in liquid or expose it to large amounts of water.
- The system should be cleaned each time after use, and kept safe away in a drawer.
- Never use aggressive cleaning products or stiff brushes to clean the device.
- Do not use the device until it is completely dry.
- Do not expose the device to direct sunlight and protect it from dirt and moisture.
- Store the system in a clean, dry place.
- Do not dispose of the device(s) in a fire. The batteries could explode, causing injury or death.

### Electrode Pads

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

**Note:** Electrode pads are for single person use only.

If you have questions about the integrity of the electrode pads or if you want to order new electrode pads, please order online at [www.PlayMakar.com](http://www.PlayMakar.com) or call us at 833-752-9625.

### How to Store Your System

- Store your system at room temperature in a dry place, out of the reach of children.
- Please store in a low humidity, low temperature environment.

## TROUBLESHOOTING

Always check the unit and accessories before use to prevent damage and defects; these are some of the simple troubleshooting tips or you may call us at 833-PLAY-MAKAR or 833-752-9625

If this happens...	Cause	Try this solution...
Device doesn't turn on or nothing visible on display.	No power. Battery power is depleted.	<ul style="list-style-type: none"> <li>• Ensure that the device has been fully charged.</li> <li>• Press and hold ON/+ button for 3 seconds.</li> </ul>
The battery indicated on LCD display flashes continuously.	Limited battery power.	<ul style="list-style-type: none"> <li>• Ensure that the device has been fully charged.</li> </ul>
The device does not seem to be charging.	Limited battery power.	<ul style="list-style-type: none"> <li>• Ensure the USB cable is properly connected in the device and plugged into the AC adaptor and electrical socket.</li> </ul>
The device turns on, but intensity cannot be increased beyond "1" for extended period.	Auto intensity reset safety feature is initiated.	<ul style="list-style-type: none"> <li>• Connect lead wires to device, electrodes to lead wires <u>and place on body part</u>. 2 small or 1 large electrode pad per channel is required.</li> <li>• Replace used electrode pads. The quality of the gel may be diminished.</li> </ul>
The device turns on, but does not generate electric pulses.	Lead wires or electrode pads are broken or disconnected.  Treatment time expired.	<ul style="list-style-type: none"> <li>• Replace/reconnect lead wires.</li> <li>• Ensure lead wires are properly seated in CH1/CH2.</li> <li>• Switch the device to the OFF position and then power ON. Increase treatment time.</li> </ul>

## TECHNICAL SPECIFICATIONS

**Channel:** Dual isolated between channels

**Pulse Amplitude:** 0-80mA peak at 500Ω load to each channel

**Frequency Range: (±20%)** TENS 2~245 Hz (pk) EMS 1~70 Hz (pk)

**Frequency:** As pre-programmed, in operation mode.

**Pulse Width:** As pre-programmed, in operation mode.

**Timer:** 5-60 min-Adjustable

**Wave Form:** Symmetrical bi-phasic square pulse

**Max Charge per Pulse:** 20.8 microcoulombs maximum

### EMS Programs:

Programs	Pulse Width (uS)	Pulse Rate Frequency (Hz)	Ramp up (sec)	On Time (sec)	Ramp down (sec)	Off Time (sec)	Mode Type
P1	200	4~20	2	6	2	1	Warm Up
P2	150~200	70~5	-	-	-	-	M-Recovery
P3	150~200	50~2	-	-	-	-	A-Recovery
P4	300	50	2	5	3	10	Endurance
P5	150~200	18~3	-	-	-	-	Strength
P6	150~200	60~1	-	-	-	-	E-Strength

**\*\*P1, P2, P3, P5, P6: Synchronous; P4: Alternating**  
**Specifications Tolerance are ±20%**

**TENS Programs :**

Program	Pulse width(uS)	Frequency(Hz)	Function Mode	Mode Type
P1	260	60	Burst	Pain Relief
P2	260	60	Constant	Pain Relief
P3	260~156	2~60	Modulation	Pain Relief
P4	210	2.45~245	Cycle	Arthritis Pain Relief

**\*\*All electrical specifications are  $\pm 20\%$  at 500 $\Omega$  load.**

**Input rating:** 5Vdc, 1.2 A

**Power Source:** Battery 3.7V / 260 mAh lithium polymer (LiPo) battery

**AC Adaptor I/P:** 100-240Vac, 50-60Hz, 0.3-0.15A ; O/P: 5Vdc, 1.2A

**AC Adaptor Manufacture/Model:** FranMar International Inc. / FRM06-S05-IS

**Device Weight:** 76 grams or 2.64 ounces (battery included)

**Device Dimensions:** 4.94" (H) x 2" (W) x 0.68" (D)

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

**Transport and Storage Conditions:** +14°F (-10°C) to +140° (60°C), 30-95% max. Relative humidity

**Operation Altitude:** 3000m.

**Operating Atmospheric Pressure Range:** 700~1013 hPa

**Transport and Storage Atmospheric Pressure Range:** 500~1060 hPa

There are a number of technical symbols on your PlayMakar® device explained as follows:



### Remote Label



This symbol means "Serial number" on the back of the device.



This symbol means "Attention, consult the accompanying documents."



This symbol means "Manufacturer."



This symbol means "Type BF equipment"; this device offers protection against electrical shock by standard compliance to leakage currents of electrode pad.

### IP22

**Ingress Protecting Rating:** The symbol on the device means it is protected against to hazardous parts with a finger and against vertically falling water drops when tilted up to 15 degrees.



This device shall be disposed of in accordance with national laws after useful life of device.



Indicates that caution and awareness is necessary when operating the device. Be aware of location in which the symbol is placed in order to avoid undesirable consequence.



**INFORMATION ABOUT ELECTROMAGNETIC COMPATIBILITY (EMC)**

- The PlayMakar® Sport Muscle Stimulator is designed to be used in typical approved environments in accordance with the safety standard EMC EN60601-1-2.
- The PlayMakar® Sport Muscle Stimulator is designed to support anticipated disturbances originating from electrostatic discharge, magnetic fields for the power supply, or radio frequency emitters.
- It is not possible to guarantee that the stimulator will not be affected by powerful RF field (radio frequency) originating from other sources.

**ELECTROMAGNETIC COMPATIBILITY**

- The device complies with current specifications with regards to electromagnetic compatibility and is suitable for use in all premises, including those designated for private residential purposes.
- The radio frequency emissions of the device are extremely low and in all probability do not cause any interference with other devices in the proximity.
- It is recommended that you do not place the device on top of or close to other electronic devices.
- Should you notice any interference with other electrical devices, move the device as radio equipment may affect the operation of this device.

**ELECTROMAGNETIC COMPATIBILITY INFORMATION**


**Table 1 Recommended separation distances between portable and mobile RF communications equipment and the ME equipment**

The PlayMakar® Sport Muscle Stimulator is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the system can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the PlayMakar® Sport Muscle Stimulator as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d= 1.2 \sqrt{P}$	80 MHz to 800 MHz $d= 1.2 \sqrt{P}$	800 MHz to 2.5 GHz $d= 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

Declaration – electromagnetic emissions and immunity for EQUIPMENT and SYSTEMS that are not LIFESUPPORTING and are specified for use only in a shielded location.

**Table 2 The PlayMakar® Sport Muscle Stimulator declaration – electromagnetic immunity**

The PlayMakar® Sport Muscle Stimulator is intended for use in the electromagnetic environment specified below. The customer or the user of the PlayMakar® Sport Muscle Stimulator 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	V/m 80 MHz to 2.5 GHz	3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the EQUIPMENT or SYSTEM including lead wires, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Interference may occur in the vicinity of equipment marked with the following symbol: 
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	

**Table 3 Declaration – electromagnetic immunity**

The PlayMakar® Sport Muscle Stimulator is intended for use in the electromagnetic environment specified below. The customer or the user should assure that it is used in such an environment.

<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode	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	<5 % $U_T$ (>95 % dip in $U_T$ ) for 0, 5 cycle 40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles and 70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles <5 % $U_T$	<5 % $U_T$ (>95 % dip in $U_T$ ) for 0, 5 cycle 40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles and 70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles <5 % $U_T$	Mains power quality should be that of a typical commercial or hospital environment. If the user of the EQUIPMENT or SYSTEM requires continued operation during power mains interruptions, it is recommended that the EQUIPMENT or SYSTEM be powered from an uninterruptible power supply or a battery.

Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. The magnetic field from common appliances are not expected to affect the device.
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**NOTE:**  $U_T$  is the a.c. main voltage prior to application of the test level.

<b>Table 4 Declaration – electromagnetic emissions</b>		
The PlayMakar® Sport Muscle Stimulator is intended for use in the electromagnetic environment specified below. The customer or the user of the system should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment guidance</b>
RF emissions CISPR11	Group 1	The PlayMakar® Sport Muscle Stimulator 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 CISPR11	Class B	The PlayMakar® Sport Muscle Stimulator is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Class C	
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Complies	

## FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference statement includes the following paragraph:

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Consult the dealer or an experienced radio/TV technician for help.

The user should not modify or change this equipment without written approval from Playmakar Inc. Modification could void authority to use this equipment.

**Note:** The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### **Important Note:**

To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

## WARRANTY

This PlayMakar® Sport Muscle Stimulator carries a one-year warranty from the date of purchase. Extended warranties are provided with device registration at [PlayMakar.com/registration](http://PlayMakar.com/registration).

The warranty applies to the main device and necessary parts and labor.

Consumable items like lead wires, electrode pads, and other accessories are guaranteed to be free from defects in workmanship and materials at the time of delivery.

The warranty does not apply to damage resulting from failure to follow the operating instructions, accidents, abuse, alterations, or disassembly by unauthorized individuals.

PlayMakar reserves the right to replace or repair the unit at our discretion.

### **PlayMakar Inc.**

Attn: Warranty  
1603 Hart Street  
Southlake, TX 76092

### **[www.PlayMakar.com](http://www.PlayMakar.com)**

Phone: 833-PLAY-MAKAR  
Email: [IAM@PlayMakar.com](mailto:IAM@PlayMakar.com)

## THANK YOU FOR PURCHASING

Your new PlayMakar® product is one of the best in the industry, and in many ways, leads the industry, particularly in the warranty coverage and customer satisfaction. Customer satisfaction is a key factor in every PlayMakar® transaction.

We are a company with a passion for affordable and effective electrotherapy products. At PlayMakar®, word-of-mouth recommendations result in a large percentage of our business. This is a testament to our excellent product value and customer satisfaction.

## REGISTER YOUR DEVICE

Please go to <https://www.PlayMakar.com/register> to register your PlayMakar® Sport Muscle Stimulator Model # PRO-500, within 14 days of purchase to receive free gifts and discounts.

When registering your device, flip device to the back to reveal serial number. Enter serial number on the warranty registration form or complete warranty on page 32. Please send registration card within 14 days of purchase in a stamped envelope. All PlayMakar® devices have separate serial numbers.



### Performance Electrode Pads

PlayMakar® high performance snap style electrode pads give you the flexibility you need to contour on both large and small muscle groups. Get 20-30 twenty-minute sessions with proper care and storage.

# Registration Card



Send this copy to: PlayMakar® Products 1603 Hart St. Southlake, TX 76092

**Why did you buy PlayMakar:** \_\_\_\_\_

**Product Model Name:** \_\_\_\_\_

**Date of Purchase:** \_\_\_\_\_ **Where Purchased:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Print Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip:** \_\_\_\_\_

**Country:** \_\_\_\_\_

**Email:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**How did you hear about PlayMakar?** \_\_\_\_\_

*Please mail registration card in a stamped envelope within 14 days from date of purchase to receive free gifts and discounts.*













PlayMakar Inc.

**[www.PlayMakar.com](http://www.PlayMakar.com)**

1603 Hart Street  
Southlake, TX 76092

If you have any questions whatsoever regarding your

**PlayMakar® Sport Muscle Stimulator**

Model # PRO-500, contact your reseller or PlayMakar Inc. at:  
833-PLAY-MAKAR (833-752-9625) or visit [www.PlayMakar.com](http://www.PlayMakar.com)