

# INTRODUCTION

Welcome to the world of Electronic Muscle Exercise. You have taken the first step to improving your muscles and overall physical well-being. The PowerStim 15R is a very effective and easy to use exercise/therapy unit. It is a versatile and unique product that has been designed to duplicate the effects of regular exercise in the privacy of your own home or office. The PowerStim 15R is fully adjustable, there are no preset programs; with this unit YOU are the program. You can adjust every bit of the PowerStim 15R to fit your body and get the results you are looking for.

Your PowerStim 15R was designed by our engineers working in consultation with Electro Physiotherapy Departments and Exercise Science programs at major university hospitals around the country. The device incorporates new techniques in micro-circuitry and solid-state technology. This new design incorporates several functions that are found in products used in hospitals that cost thousands of dollars.

EMS (Electronic Muscle Stimulation) training can be used in conjunction with resistance training programs or aerobics programs. EMS training can be done every day using alternate muscle groups every other day. The muscle groups should be stimulated 15-30 minutes every workout.

EMS can also be used as a pre-warmup 15 minutes before you resistance training or aerobics routine. Using this technique it will increase blood flow to the stimulated muscle group and exhaust the muscle; but not to the point of fatigue. You should then wait 10 to 15 minutes before working out that particular muscle group. And alternate to a pre-workout is a post-workout. Using this technique allows you to remove the waste products in your muscles (IE Lactic Acid) a lot faster than by normal methods. The post-workout allows your muscles to recover much faster than they would with only a physical, mechanical, or weight workout. Faster, more smooth recovery of the muscle translates to increased growth, strength, and endurance in your muscle groups.

**EMS training can be used to increase the benefits of your cardiovascular and weight training exercises.**

## CAUTION / WARNING

**The PowerStim 15R is one of the world's strongest EMS units, use with care.**

When using the PowerStim 15R, start out on the lowest intensity setting and slowly turn the intensity up. We suggest that you start out with the controls off, then turn the machine on to level 1, and gradually increase power to a setting that is comfortable for you. When using the Russian Stim feature, we suggest that you turn the intensity knobs to level 1, and then flip (R2500 Hz) switch on, you will feel a radical change in stimulation. Give your body a few minutes to adjust to the Russian Stim and then slowly adjust the intensity to your liking. This is an incredibly strong professional strength machine, please proceed with caution.

**PAGE 1**

## GETTING STARTED

When you open the box to your new PowerStim 15R you will find:

- StimRX Flyer w/ Coupon Code
- The PowerStim 15R
- 4x 2-dual pin Prong Cables
- 12v AC Adapter
- Ab Belt w/ Instructional Flyer and Attached Cloth Electrodes
- 8 oz conductive mist spray
- 10 x 4- Packs of Self-Adhesive Electrodes

### **STEP 1:**

Remove the PowerStim 15R and all of the accessories from the box. You will need a knife or scissors to remove the bubble wrap, the unit is very well wrapped and heavily taped up, be careful as to not damage the unit.

## **STEP 2:**

Lay all of the accessories out on a flat surface and use the above checklist to make sure that you have all of the accessories and cables. Take the black AC Adapter and plug it into the wall. There is a green light on the top of it, it will take 3-5 seconds when you first plug it in for the light to come on, but once it does, the AC Adapter is ready to use. Grab your PowerStim 15R and turn it around, you will see an AC Port and directly beside it a circular object that says "FUSE." Plug the AC Adapter into the AC Port. DO NOT play with the circular electrical fuse.

Karen- Please insert Photo of the fuse and adapter plug here

## **STEP 3:**

Make sure that the unit is off and all knobs are twisted to the far left. There are 4 Intensity Knobs labeled Channel 1, Channel 2, Channel 3, Channel 4. Make sure that these 4 Channel knobs are all the way turned to the left to the off position. You will hear the knob "Click" to be sure it is OFF. Open up the 4x cables, they will be in sealed baggies. The cables will have a black 2-prong head on one end and 2x dual pin lead wires on the back, these wires are red and black. Now open up the bag of electrodes and remove one of the 4x packs of electrodes. You will notice on the electrodes there is a short stem coming out of each electrode, this is where you will connect the black and red ends to the electrode.

## **STEP 4:**

Take one of the cables and plug the 2-Prong connection into Channel 1 on the front of the PowerStim 15R unit. Do the same thing with a second cable and plug it into Channel 2.

Karen- PHOTO OF 2 PRONG PLUG GOING INTO FACE OF UNIT HERE

## **STEP 5:**

Decide on which area of the body you would like to exercise. We recommend starting on your bicep just so you get acclimated to the feeling of EMS; it is a unique sensation. For tips on electrodes placement, please see our chart on pages 10 and 11 of this manual. Take the 2x electrodes that are plugged into Channel 1 and place them on the area you want to exercise. Please note that 2x electrodes HAVE to be connected to the red and black lead wires, the electrodes will not stimulate if you only have 1x electrode connected. Next, do the same thing with the 2x electrodes that are connected to the cable plugged into Channel 2.

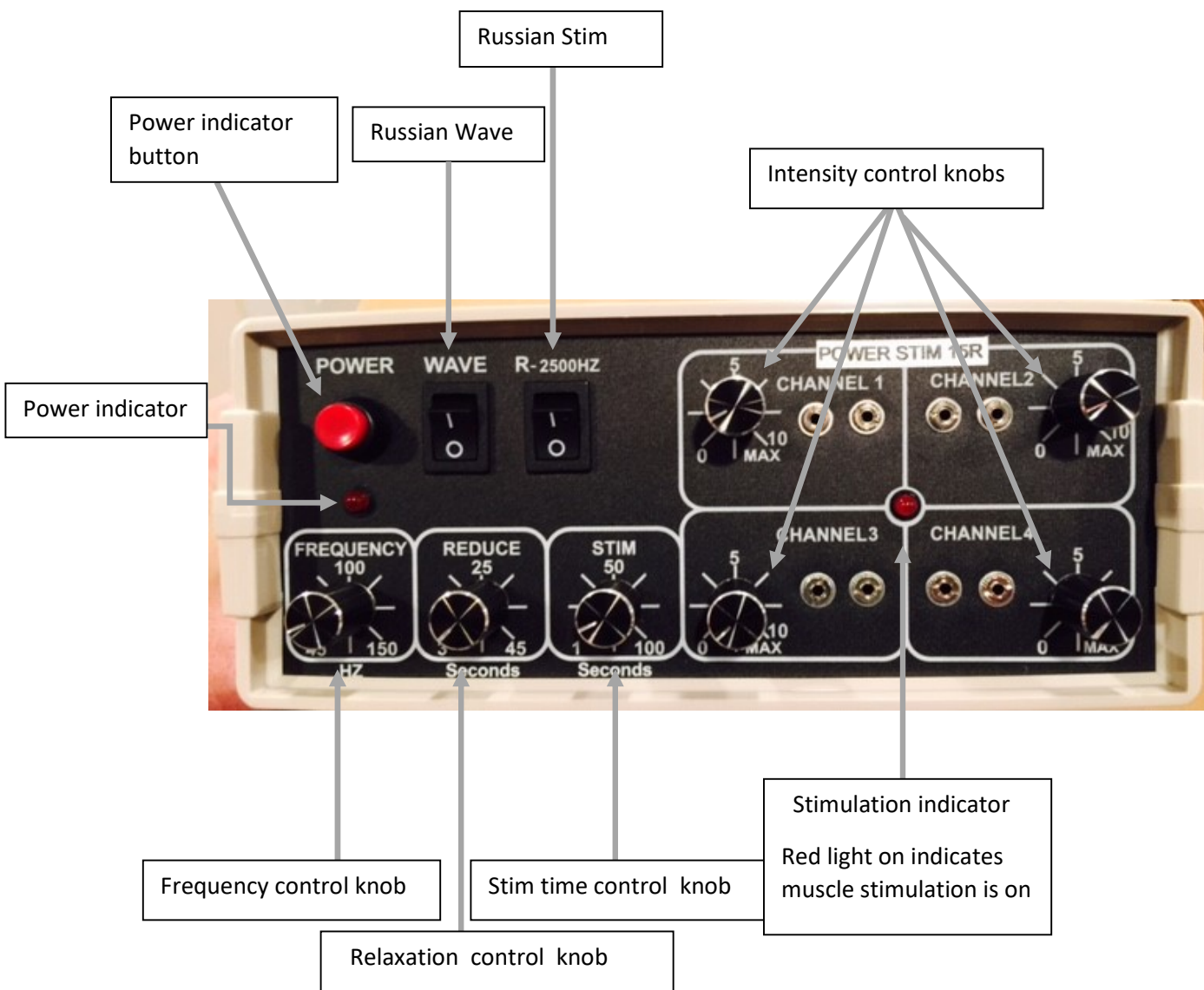
## **STEP 6:**

The cable that is plugged into Channel 1 only controls those 2x electrodes attached to that cable, so you can have different intensities on different electrodes. Now make sure that the intensity knobs on Channel 1 and 2 are turned all the way to the left, this means they are "Clicked" off. Press the red button to activate and turn on the machine and you will see two red lights come on, now the machine is active and ready to go. When you turn them on you will hear a short "click" sound and this means you are now Intensity ON at level one.

## **STEP 7:**

Slowly turn the Intensity Knob on Channel 1 to the right and wait for the click, you are now stimulating. The more you turn the knob to the right the higher the intensity gets, find a level that is comfortable for you and then do the same for Channel 2. As you begin work the muscle groups for no longer than 15 minutes and then stops for the day. Please note, turn the intensity knobs to off and power the machine itself off before you remove the electrodes, if you touch the electrodes while the machine is on you can sting your fingers. Take care to not touch the bottoms of the electrodes and always store them on the clear sheet they came on as this will prolong the life of them. Store everything in a safe place at a standard room temperature and your PowerStim 15R will last a lifetime. Welcome to the world of Electronic Muscle Stimulation.

## DESCRIPTION OF CONTROLS



The PowerStim 15R has 4x Intensity Control Knobs, 3x System Control Buttons, 3x Pulse Control Knobs, and 2x Red Light Indicators. Below is a description of the functionality of each of these controls.

**RED POWER BUTTON** - It is located on the top left corner of the unit alongside 2x other buttons. Once the AC Adapter is plugged into the back of the unit, this button is pressed and it powers on the machine.

**RUSSIAN STIMULATION-** to activate flip up the **Wave Button** and the **R-2500hz Button**. See Below

**WAVE BUTTON** - This button is located directly to the right of the red power button and is labeled "wave." Flip the wave button UP to activate and warm up the Russian Stim.

**RUSSIAN STIMULATION BUTTON – This is an advanced setting and most people do not need it on a daily basis.** This button is located directly to the right of the "wave" button and is marked "R-2500HZ." Again, this button must be flipped up to be activated. Russian Stim is 2500 hertz at 50 pulses per second. To Recap both the Wave button and the R-2500HZ buttons must be flipped up to correctly activate the Russian Stimulation. The purpose of this frequency is to allow deeper muscle penetration by the electrical pulses. **Russian Stim is helpful for creating a stronger, deeper muscle contraction, more strength, and a faster recovery time after the muscle has been fatigued or injured. The 15R has one of the worlds longest contraction times. ( 100 seconds)** It is quite strong and feels like an intense deep tissue massage. When you first activate it make sure the intensity controls are set to level 1 and then let the program run for a few minutes so as your muscles can get used to the new sensation. Use caution when you first try it, the program will surprise you so be sure to start off on the lowest possible settings..

**POWER INDICATOR LIGHT** - A small light that is located on the center left of the faceplate. The light is red and it will light up and stay that way for as long as the PowerStim 15R is on. When the unit is turned off, the red light will also be off.

**STIMULTION INDICATOR LIGHT** - This small light is located in the middle of all of the "Channel Squares" on the middle right side of the faceplate. The light itself is red and will blink on and off indicating when the PowerStim 15R is sending power to the channels. While the light is on, the machine will be sending power to the channels thus stimulating your muscles. When it is off it means the machine is resting and not sending power to the channels.

**FREQUENCY CONTROL KNOB** - Located on the bottom left hand side and is labeled "FREQUENCY" above it. It can be adjusted from 45 to 150 Hertz. The frequency of the pulse is basically how fast the pulse is stimulating your muscles. In simple terms, think of the electronic stimulation pulse as someone tapping on your muscles, the more you turn this knob up the faster the tapping gets. Start on the lowest setting of 45Hz and slowly work your way up.

**RELAXATION CONTROL KNOB** - This knob is located directly to the right of the "frequency" knob and is labeled "REDUCE" above it. It can be adjusted between 3 and 45 seconds. What this knob does is give your muscles time to relax in-between contractions. The more you turn it up, the longer the time gets between stimulation. The machine simply takes a break and lets your muscles relax for an adjustable period before continuing the contractions.

**STIMULATION CONTROL KNOB** - It is located directly to the right of the "reduce" knob and is labeled "STIM." It can be adjusted from 1 to 100 seconds. What this knob controls is the muscle contraction time. The more you turn it up, the longer of a time period your muscles will be constantly stimulated for.

**INTENSITY CONTROL KNOBS** - There are 4x of these on the right side of the faceplate

and each of them controls a channel. Notice the squares on the front of the unit with "Channel 1", Channel 2", "Channel 3", and "Channel 4" marked on them and in each square is an intensity control knob. These knobs control ONLY that channel that they are located in the square with and can be adjusted from 0-10 levels. These knobs control the power level for that channel. Level 0 is off, and when you turn the knob to the right there will be a "click" and you can adjust the power level from 1-10. When starting off stay on very low settings and gradually turn the power up to a comfortable level.

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## **USING THE CONTROLS PROPERLY**

### **How to Firm, Tone, Repair and/or Build Muscle**

In order to firm, tone, repair and/or build muscle you will want to eventually get to the point where you have a longer stimulation time, a shorter relaxation time, and a fairly high level of energy flowing through the electrodes. However, it takes a little time to reach optimum exercise levels and this conditioning time will vary with each individual according to their body fat and muscle tissue content.

Start slowly by setting the Stimulation Control Knob between 5-10 seconds, this is how long your muscle will have a constant contraction until it gets a rest period. Then set the Relaxation Control Knob at 10 seconds as well, this will be the time your muscle will rest before the machine begins contracting your muscle again. After this, set the Intensity Control Knob(s) to level 1 and slowly begin to turn it up. Continue to adjust the intensity settings until you are comfortable, if you feel the power is a little strong, turn it down. You do not want to over-work or strain your muscles so that is why we recommend these low settings when first starting off. We want all users to be comfortable and confident with the machines and have a pleasant experience. You can increase your intensity as your muscles become stronger and can tolerate high levels of stimulation.



When you are comfortable with the stimulation time of 10 seconds you should gradually increase in 5 second intervals to the time that is most conducive to your body. At this time keep the relaxation period at around 5-8 seconds. In doing this you have lowered the ratio of time between muscle stimulation and relaxation times. This is heading towards your ultimate goal of longer stimulation times and shorter relaxation times. Again, use these settings at a comfortable level until the muscle movement tells you that you are ready to increase the settings. During these increases in stimulation time you will gradually increase the intensity of the energy flowing through the electrodes by slowly turning up the Intensity Control Knobs to comfortable levels.

### **YOUR ULTIMATE GOAL**

- THE HIGHEST POSSIBLE STIMULATION TIME
- THE LOWEST POSSIBLE RELAXATION TIME
- THE HIGHEST POSSIBLE INTENSITY SETTING
- ALL CONSISTENT FOR THE MOST EFFECTIVE AND COMFORTABLE WORKOUT

It takes time to reach the higher settings if you have done little or no exercise recently. Soft muscle tissue can handle only short contractions and requires longer periods of relaxation time when you first start to exercise. As you use your PowerStim 15R the muscles you exercise will continue to get stronger thus allowing you to move up to longer stimulation times and higher intensity levels.

Over the course of this exercise program you may have some muscle soreness. This is very normal for muscles that have not had regular exercise. This soreness will wear off as your muscles become accustomed to the exercise. If, at anytime during the workout, your muscles start to hurt, as opposed to being sore, discontinue use of the machine and let yourself rest until the next day. This is your body's way of telling you that this muscle has had enough for today.

## SUGGESTED FREQUENCIES

FITNESS GOAL	FREQUENCY (Hz)
FIRMING & TONING	115 to 130 Hz
BODY BUILDING	65 to 100 Hz or RUSSIAN STIM
STRENGTH TRAINING	45 TO 75 Hz or RUSSIAN STIM
MASSAGE & REHAB	130 TO 150 Hz or RUSSIAN STIM

\* Russian Stim (2500 Hz) is activated when the button is activated on the machine, this will override the frequency control and allow you only to control the intensity. We suggest using it once a week for body building, strength training, and massage and muscle rehabilitation.

## STIMULATION & RELAXATION TIMES

FITNESS GOAL	STIMULATION	RELAXATION
FIRMING & TONING	50 to 60 Seconds	10 to 20 Seconds
BODY BUILDING	50 to 100 Seconds	15 to 25 Seconds
STRENGTH TRAINING	25 to 50 Seconds	20 to 25 Seconds
MASSAGE & REHAB	60 to 75 Seconds	15 to 25 Seconds

\* The above settings should serve as guidelines in helping you set your PowerStim 15R unit. Each individual may vary depending on a variety of factors: body fat percentage,

sodium content, weight, gender, and workout experience all play a part in determining which settings are ideal for you.

You can massage various muscle groups to relieve stiffness or to improve a pulled muscle. The best massage is accomplished by working the muscles in a way that that increases blood circulation to the desired area without trying to build or strengthen the muscle tissue. An ideal setting for massage is 5-10 seconds of stimulation time and 5 seconds of relaxation time at an intensity level of 2. For a more vigorous massage you can increase you stimulation time to 15 seconds and maintain the 5 second relaxation time. Do this for 15-30 minutes to help relieve soreness or stiffness.

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## **HOW OFTEN AND HOW LONG SHOULD I USE THE POWERSTIM 15R?**

*You should exercise each muscle group you have selected for approximately 15 to 30 minutes at each session. All muscle groups except the abdomen should start out with about 15 minutes of exercise. You should gradually increase this time be about 5 minutes per week until you reach an exercise time of about 30 minutes. With all muscle groups, if the muscle begins to feel uncomfortable, shorten the length of exercise time until the muscle becomes stronger and can accept the longer workout time.*

*Abdominal muscles and the muscles at the side of the waist (commonly referred to as the oblique's) can be exercised daily for up to 60 minutes. As a general rule of thumb, the calves and abs can be worked on everyday but all other muscle groups should be done every other day.*

**MUSCLES AND INTENSITY CONTROLS** - Different muscle groups usually require different levels of intensity or power. For example, the leg muscles will usually require a greater level of power than any other muscle group. Turn the Intensity Control Knob for each different channel to levels 1-2 and gradually increase the power for each channel

until you feel a comfortable contraction of that muscle. At this point turn the knob forward 1/2 hash mark. If this does not feel comfortable, turn the knob back to a more desirable setting. Increase the power level to each muscle group gradually over a period of weeks always using comfort as your guide.

The exercise process described above will require a certain amount of time to produce results. This will differ with each person and is related to your body makeup and physiology. Even though it will take some longer than others to reach optimum exercise levels and you will see and feel results within 30 to 60 days. Many of our customers report soreness right away and see muscle toning within 10 workout sessions.

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## **COMMON QUESTIONS**

### **How does EMS work?**

EMS (Electronic Muscle Stimulation) uses electrical current to stimulate the muscles. This electrical current is similar to the electrical impulses produced by the brain to move muscle tissue.

### **Is 45 minutes of EMS equivalent to a workout in the gym?**

There is strong evidence that using EMS will replace time in the gym and studies have shown that EMS is effective for toning and strengthening unused muscles, and as a training aid with resistance training. We can help you work out a program that is very effective in developing your strength or toning your body.

### **What does it feel like?**

People react differently to the use of EMS. Some people report a tickling feeling and others compare it to a constant tapping on the skin.

**Will it be comfortable?**

Yes, it will, just as long as you follow the advice in this manual and start off on the lowest settings and gradually work your way up. There are some cases where people get a prickly or stinging sensation on their skin. This however, is generally caused by misuse of the electrodes and improper placement. The self-adhesive electrodes should be discarded after a solid month of use.

**When should I use the PowerStim 15R?**

The PowerStim 15R can be used before or after a workout in the gym. It can be used at home or in the office while sitting in a chair, watching tv, or using the computer; it can be used just about anywhere.

**How long should I use the PowerStim 15R?**

We recommend starting off each muscle group for 5 minutes and eventually working your way up to 30 minutes per muscle group. You should always work different muscle groups on alternate days. Give the muscle group you are working out a day off between workouts but you can exercise calves and abs every day.

**When will I notice a difference?**

It will take about 2-4 weeks to see any real, noticeable improvement. The improvement could be a slimmer waistline or a tighter muscle group. You can actually see and feel the blood pumping into your muscle on the very first session. You may be sore after your first workout.

**Can I use the PowerStim 15R in the gym?**

Yes, the PowerStim 15R can be taken to the gym to warm up or cool down before/after a workout.

**Will I grow muscle bulk using the PowerStim 15R?**

Through a combination of EMS and resistance training you can develop your muscle

groups a lot further than by plain resistance training. Also, while EMS devices themselves will not develop massive arms, they will tighten and tone your current muscle groups.

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## **PAD PLACEMENT**

### **PRECAUTIONS**

Patients with the following should not use a muscle stimulator:

- Heart Disease
- Pacemaker Patients
- Pregnant Women

#### **1. The Chest: refer to Chart #1**

Place 1 pair of electrodes on each area of the upper chest muscle. They should be placed about 3 inches down from the collarbone. Allow at least 1/4 inch between the electrodes. Follow the placement diagram which shows 2 electrodes close to the center of the chest and 2 pads close to the right and left armpits.

#### **2. The Abdominals: Refer to Chart #2**

Follow the electrode placement shown in the chart, this will require 4 sets of electrodes.

#### **3. The Biceps & Forearms: Refer to Chart #3**

Follow the electrode placement diagram. The electrodes should be placed on the thickest part of the muscle towards the top of the arm about a 1/2 inch between the electrodes where they come close to each other. This exercise will require 2 pairs of pads for the biceps and another 2 pairs for the forearms. Both muscle groups can be

exercised together.

**4. The Triceps: Refer to Chart #4**

Electrode placement for the triceps is similar to that of the biceps. However, the electrodes are positioned towards the back of the largest part of the muscle so that they almost come together towards the back of the arm.

**5. Laterals: Refer to Chart #5**

Place the electrodes one above the other on each side of the diagram as shown. Electrodes should be slightly towards the front. Leave 1/4 inch space between the electrodes, this will require 2 pairs of electrodes.

**6. Front & Inner Thighs: Refer to Chart #6**

Follow the electrode placement as shown in the diagram. This exercise will require 4 pairs of electrodes.

**7. Calves: Refer to Chart #7**

Place the electrodes over the largest part of the muscle slightly towards the back of the leg so that the electrodes come closer together in the back. Leave 1/4 inch between the electrodes and this exercise will require 2 pairs of electrodes.

**8. Back (Trapezes, Shoulders & Deltoids, Upper Laterals): Refer to Chart #8**

Follow the electrode placement as shown in the diagram. This exercise will require 2 pairs of electrodes.

**9. Buttocks & Back Thighs: Refer to Chart #9**

Follow the electrode placement as shown in the diagram. This exercise will require 4 pairs of electrodes.

**10. Back (Alternate Exercise for the Shoulders and Lower Back): Refer to Chart #10**

Follow the electrode placement as shown in the diagram. This exercise will require 2 pairs of electrodes.

## **Electrode Placement Chart**

The following electrode placement diagrams are provided as a starting recommendation only. Our charts are to be used as a guide. There is no science to electrode placement, similar to using the PowerStim 15R machine, use comfort as your guide. The stimulation results will vary according to the individual. Individual sensitivity to EMS varies greatly. EMS is a training, toning, and rehabilitation tool and can be adapted to suit the individual. The ideal intensity setting is achieved when the stimulus and muscle contraction is strongly perceived but is not unpleasant or painful. The bottom line: use the placement charts as a guide but don't be afraid to move the electrodes around to get the best contraction for your body.

**INSERT CHART ON PAGES 11-12**

## **TROUBLESHOOTING**

### **1. The Power Indicator Light does not come on.**

Check to see that the AC Adapter is fully plugged into the unit and that the green light is on. Make sure that wall socket is good by testing another appliance on it.

### **2. The Stimulation Indicator Light is on but I don't feel anything.**

Make sure the cables are fully connected and that you have 2x electrodes plugged into both red and black lead wires on the same cable. Test out the same cable and electrodes on different channels. If that does not work try another cable and a new set of electrodes. Check to make sure that the "WAVE" button is not pressed, if you still feel nothing contact us.

### **3. I keep getting a prickly feeling on the skin.**

This can be caused by a few different things but mostly:

- Electrode Placement, make sure that when you place electrodes on your body that they DO NOT overlap.
- Change out the self-adhesive electrodes once the adhesion is gone, do not try and hold them on your skin. Throw away the electrodes after a month of continuous use.



**4. My skin under the electrode looks red.**

A little pinkish skin color under the pad can occur to people using the PowerStim 15R, if the skin is red you will need to use more moisture under the pad. Take a wet towel and rub the area you plan to exercise with it, pat the area dry, and then stick the electrodes on.

**5. I seem to be getting some kind of buildup under the electrodes. Is there a way to clean them?**

From time to time it will be necessary to clean off the electrodes as they absorb moisture and oils from your skin. We recommend using plain hot water and a washcloth, you can also use Isopropyl Alcohol. Rub the water or alcohol on the electrodes with a washcloth until they are clean. DO NOT use soap and water as this will leave a film on the electrodes.

**6. I don't seem to be getting the same power out of each channel.**

Different areas of the body have different skin resistances. This will make it appear that the channels don't have the same power. If you think a channel is underpowered hook up 2 pairs of electrodes to the same area using a normal channel and the one you feel is underpowered. The stimulation should feel identical from both channels.

**7. One electrode seems to be stronger than the other.**

Your electrodes may be improperly adjusted, turn the PowerStim 15R off and readjust them. If the problem persists test the adhesive levels of the electrodes, if the is does not stick well to your body, throw it away and get a new one.

**8. When I use the PowerStim 15R I seem to develop muscle soreness and cramps.**

You have probably tried to do too much and need to turn the Intensity Control Knobs down to a less powerful level. This unit can overwork yur muscles, including the abdominals. Relax and do not use the PowerStim 15R for a minimum of 2 days, this will allow you muscles time to rest. Now start on lower intensity levels and slowly build back up.

## **IN SUMMARY**

**Please follow these guidelines:**

1. Follow the instructions in the manual for each muscle group.
2. **MAKE SURE THE INTENSITY CONTROL KNOBS ARE TURNED OFF BEFORE ANY SESSION.**
3. Do not stimulate any area of the body other than stated in the manual.
4. Do not use the Powerstim 15R under the following conditions:
  - While lifting weighted objects
  - Near any water
  - If using alcohol, drugs, or medication
5. Do not overlap the electrodes and make sure to keep them 1/4 inch apart from each other.
6. Clean the electrodes when necessary with water or isopropyl alcohol.
7. Do not let children use this machine.

## **LIFETIME WARRANTY**

Its that simple, we offer the best warranty in the business.

Your product has a lifetime warranty, if you ever have a mechanical problem with the unit, send it back to us and it will be repaired or replaced regardless of whether you have had it for 1, 5, or 20 years!

