



# Core Muscle Stimulator Owner's Manual

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437 33<sup>rd</sup> Avenue North  
Saint Cloud, MN 56303  
(320) 202-5954

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Thank you for purchasing the Core Muscle Stimulator (CMS). We are confident that you will be amazed by the effectiveness and convenience of our modified Makita power tool, and impressed by how easy it is to use. No professional massage training is necessary to operate the CMS, and it is ready to use straight out of the box. We recommend that all chiropractors and their assistants in the office become accustomed to the CMS by taking turns using it on each other.

The center, or core, of the human body is the spinal column. This can be compared to the center of an apple, which also has a core. The vertebrae, discs, ligaments, tendons, muscles, and hard and soft tissues all work together as a functional synergistic unit. It is important to recognize the biomechanical importance of maintaining mobility in the spine, for without motion the discs become stagnant, sick, and diseased. Likewise with the postural muscles surrounding the body's core; prolonged muscle guarding can adversely affect stance, posture, and gait, with a direct correlation to decreased health and longevity. The CMS prevents stagnation and deterioration of the components of the spinal column through positive mechanical stimulation, and then goes further by reversing the effects, and relieving the symptoms, of spatial neglect. As with many other forms of rehabilitation, minor discomfort may be experienced as toxins, such as lactic acid expressed from the muscle tissue, find their way into the bloodstream and out of the body. Should this occur, vitamin C and water will help to alleviate the side effects somewhat. The patient should be re-assured that any nausea and/or discomfort is temporary, and will most likely be significantly improved on subsequent visits.

The CMS has a variable speed control located on top of the handle. Research has suggested that a frequency of 270 strokes per minute has a highly relaxing and beneficial effect upon the soft collagen tissues of the body such as ligaments, tendons and discs. The muscles, however, respond at a much higher frequency – over ten times as fast or roughly 2,800 strokes per minute. Both low and high frequencies can be achieved by using the speed control box. A setting slightly less than (2) will produce approximately 270 SPM while a setting between (4 & 5) is adequate for muscle stimulation. Patients with more severe muscle guarding may experience more benefits when the dial is set to (5); this will prevent the motor from bogging down over very taught fibers, and reduce patient discomfort. Research ahs show that “up and down” motion I more effective than side-to-side motion. This is why the newest vibratos have an “up and down” motion, compared to a side-to-side motion. It is critical that the CMS be calibrated for the 270 spm frequency. The high frequency is 2,800 spm is not nearly as crucial.



Begin by plugging the control box into a 120V outlet. Plug the CMS into the box. Set the variable speed control on the CMS to #1. The CMS should run very slowly when the trigger is depressed. Push the cruise control button and lay the CMS on its side on a firm padded surface.

Set the counter to zero and prepare to time the CMS speed. Hold the counter so the CMS plunger strikes the tally lever for exactly 15 seconds. If the speed is less than 68 SP/15seconds, move the variable speed control toward #2. A speed of 68 strokes per 15 seconds equals 272 strokes per minute...the correct setting. Once the desired speed is achieved, mark the orange dial setting so it can quickly be reset. High speeds can not be calibrated with the tally counter. Use a setting between 4 & 5 for muscle stimulation.

The control box is necessary to produce frequencies below 500 spm. The electronics in the box are rated at 600W and are designed to operate only one CMS. DO NOT overload the circuit or use the control box for any other applications.

Another useful feature of the CMS is the cruise control, which allows you to lock the device in the "ON" position, rather than continuously holding down the trigger. This will reduce or eliminate the wrist and hand problems commonly experienced by users of other vibratory stimulators. Also, when using the CMS on patients with long hair, we recommend sliding the clear plastic guard over the moving components of the CMS tip to prevent entanglement.

The direct power supply ensures that your CMS will always function at the optimal frequency, with no chance of "let down" as with battery-operated devices, and saves you from the cost and hassle of using batteries and battery rechargers.

#### **Maintenance and Service:**

The Core Muscle Stimulator is guaranteed to provide reliable operation for a period of one (1) year from the date of purchase. Always be sure that the tool is switched (off and unplugged) before attempting to perform inspection or maintenance. Keep the air vents clear of lint and dust to improve air circulation over the motor. For SAFETY, never operate the CMS without the guard in place and secured with the screw. If the CMS fails to perform properly, contact CLEAR Institute for service recommendations. You may be referred to a service provider who will help trouble shoot the problem. In the event a problem cannot be resolved by consultation, expedited service may be requested by filling out the section at the bottom of the Repair Order Form. A credit card number is required for expedited service. A replacement unit will be sent to you as soon as possible, with the understanding that the defective unit will be promptly returned for service at the customer's expense. In the event that the defective unit is not returned for service within 30 days, you agree to allow CLEAR Institute to charge your credit card for the full cost of the replacement unit, services and materials provided.

#### **Tips for Safe & Effective Use of the Core/Muscle Stimulator**

***Never start up the CMS while it is on the patient!***

Always hold it away from the patient when initially depressing the trigger.

#### **For Muscle Stimulation:**

- Speed control should be set at approximately 5.
- Avoid hitting the bones; spinous processes of the spine, shoulder blades, etc.

- Keep moving, using paintbrush-like sweeps along the muscles. Lingering in one place for too long can be uncomfortable for some patients.
- Hold the tip perpendicular to the surface, never at an angle.
- When using the Muscle Stimulator on the neck muscles, it can be helpful to hold the device by its body rather than its handle to aid in precision and control.
- Focus on areas of muscle tension and guarding. On scoliotic patients, this will be the convexity of the curve(s). Each region (cervical, thoracic, lumbar, & extremities) should be treated for roughly 30 to 60 seconds.
- Do not exceed five minutes of muscle stimulation per patient. Excessive use may cause nausea and dizziness as toxins are released from the muscles and expressed into the circulation. Water and Vitamin C will help to counter these unpleasant side effects of toxic release. Every patient should drink 2-3 glasses of water after receiving muscle stimulation.
- Muscle stimulation can be very challenging for the patient. You should reassure them that the benefits and positive after-effects of the muscle stimulation more than outweigh the minor discomfort involved. Encourage every patient to receive the muscle stimulation before his or her adjustment, as this will decrease the amount of force required to perform the adjustment by the chiropractor, and lessen the soreness commonly felt afterwards by the patient.

#### **For Core Stimulation:**

- Speed should be set calibrate to 270, a setting slightly less than 2.
- Lightly hold the device parallel to the patient right along the spinous processes, and gradually increase the angle until the tip makes contact and sets up a resonant frequency in the vertebrae. You should be able to feel in your elbow when this resonance is established.
- Stay in one spot, or move very, very slowly along the spine. You must give the vibration adequate time to bypass the muscles and relax the tendons & ligaments. You will be able to feel a resonance in the occiput (when using it in the thoracic region) or sacrum (when using it in the lumbar spine) once this happens.
- Focus on areas with weakened musculature. On scoliotic patients, this will be the concavity of the curve(s). Do not use core stimulation on non-scoliotic patients.
- Core stimulation is often a very pleasant experience for the patient. If they show signs of discomfort or distress, immediately discontinue use.

**All questions regarding use of the Core/Muscle Stimulator should be directed to Josh Woggon at CLEAR Institute, 437 33<sup>rd</sup> Ave N, St. Cloud, MN, 56303.  
Tel: (320) 202-5954    Mobile: (320) 266-6130 Fax: (972) 296-8228**