

Professional Neuromodulation Pain Therapy System

biowavePRO[®]

quick reference

for Sportswave Noninvasive Electrodes



There are 5 buttons that control the device:

1. Power ON/OFF button
2. PLUS (+) button to increase intensity or increase treatment time
3. MINUS (-) button to decrease intensity or decrease treatment time
4. TIME button to enter TIME mode in order to change treatment time
5. OK button to accept and set a new treatment time

DIRECTIONS FOR USE

1. Attach electrodes to leadwire cable. Either electrode can be attached to either blue leadwire connector.
2. Place electrodes on body. See Electrode Placement Examples inside.
3. Gently slide metal connector on leadwire cable into device so it clicks in place.
4. Turn on device. Start up screen should read 0.0%.
5. Start treatment by pressing the (+) button.
6. Continue to press the (+) button throughout the treatment so that a steady strong but comfortable tingling and pressure sensation is felt under the electrode(s) covering the pain site(s).

See User's Manual for detailed instructions.

NEED TECHNICAL HELP? CALL 1-877-BIOWAVE x2



The Pathway to Pain Relief™

Sportswave Noninvasive Electrodes

The BiowavePRO® Neuromodulation Pain Therapy System can be used with the following noninvasive Sportswave® Electrodes manufactured by Biowave Corporation:

B SWE001(B) – 2 round equal area electrodes (2" diameter) for treating 2 equal points of pain. Used for:

- bilateral or unilateral pain in the low back and buttocks
- bilateral pain in the cervical spine and shoulders
- radiculopathies
- pain centered directly over the spine
- pain throughout the knee or shoulder
- pain over large areas



E SWE002(E) – 1 small round electrode for the primary pain site (1.375" diameter); and 1 rectangular electrode (2" x 4") for a secondary pain site or to be placed over a bony prominence (a comfortable location) in the region being treated. Used for:

- pain in the extremities including the knees, ankles, feet, neck, shoulders, elbows, wrists, hands and fingers



U SWE003(U) – 1 round electrode for the primary pain site (2" diameter); and 1 large rectangular electrode (5" x 8") to be placed over a bony prominence (a comfortable location) in the region being treated - the hip/lateral aspect of the thigh or across the lumbar region on the lower back. Used for:

- unilateral pain in the mid-torso region including, single points of pain on the ribs, obliques, hips, groin, buttocks, hamstrings and quadriceps



See opposite page for electrode placement examples.

Warning: Electrodes must not touch each other.

Electrode Placement Rationale

BiowavePRO electrode placements are different from conventional electrical stimulation. The mixing of the proprietary therapeutic signals occurs in a 2–3 inch hemisphere (volume of tissue) beneath and surrounding each electrode, not along the surface of the skin between the electrodes. As a result, **electrodes need to be placed directly over points of pain.**

Electrical signals can be focused to different parts of the body by pairing electrodes of different areas with one another.

B-Set: 2 Equal Area Round Electrodes for 2 Equal Points of Pain

If two electrodes of equal area are used, then two distinct volumes of tissue can be treated that each have the same magnitude of pain. If the two equal area electrodes are placed close together so that there is only 0.5 to 1.0 inch of space between them, the pair can be used to treat one larger volume of tissue. The B-Set is also used to treat pain from radiculopathies. One electrode is placed directly over the source of the pain, for example, directly over the spine. The second electrode is placed proximally over where the pain first presents itself, for example, on the buttock.

E-Set and U-Set: 1 Small Round Electrode for Primary Point of Pain and 1 Larger Rectangular Electrode for Secondary Point of Pain or for Bony Prominence (Comfortable Location)

By pairing an electrode of smaller area with an electrode of larger area, the density of the therapeutic low frequency electric field is **greater** in the volume of tissue beneath the **smaller** area electrode. Therefore, the smaller round electrode needs to be placed directly over the primary painful area. The larger rectangular electrode is still active (it is not a grounding pad) and should be placed over a secondary point of pain. If there is no secondary point of pain, then the larger rectangular electrode must be placed over a **bony prominence** near the treatment site. Placement of the larger electrode over a **bony prominence** allows the patient to more comfortably increase the intensity of the signal to higher levels allowing a stronger electric field to encompass the pain site under the smaller primary electrode.

Body Position During Treatment

Position of the body during the treatment is important. Generally, the tissue being treated should be a little taut. Generally, sitting in a supported position on an athletic training or physical therapy table is best for most treatment locations on the body.

Low Back and Buttocks

Torso should be at approximately 90 degrees to the legs causing tissue in low back and buttocks to be more taut. If necessary, patient can be in a prone position during the treatment.

Groin, Quadriceps, Hamstrings

A better treatment result may occur if the tissue in the area of treatment is kept a little more taut. Sitting with the knee bent at 90 degrees is best for quadricep treatments. Lying supine with the legs straight is best for groin treatments. Sitting with the

torso at 90 degrees to the legs and the legs straight out is best for treatments on the hamstring.

Knees

Knee should be bent at approximately 80 to 90 degrees. This angle provides the strongest sensation in the knee during the treatment which will yield the best outcome. For posterior knee treatments, the knee should be kept straight so the tissue on the posterior side is a little more taut.

Ankles and Feet

Sitting with the foot flat against a surface is the best position. The foot should be at approximately 90 degrees to the tibia. If necessary, the foot may be elevated during the treatment.

Neck and Shoulders

Generally, sitting is the most comfortable position during neck and shoulder treatments. For neck treatments, the head should also be bent forward to keep the tissue on the back of the neck more taut.

Elbows, Wrists, Hands and Fingers

The arm should rest at the side of the body with the elbow bent at approximately 80 degrees. The patient should rest their forearm on a table and hold a ball or a rolled up towel to keep their hand and fingers in a comfortable position during the treatment.

Motion During Treatment

The sensation from the treatment is a deep smooth tingling and pressure sensation as the muscle is held in tension in the volume of tissue being treated. Motion may cause a stronger or weaker sensation and will cause the electrical field to shift slightly internally. Shifting of the electrical field is most prevalent when treating shoulders, elbows, wrists, hands and fingers.

The goal is to have the patient slightly articulate the joint at the treatment location to shift the sensation caused by the electrical field so that it focuses directly onto the primary point of pain. This is a fine tuning of the treatment that will provide the best treatment result.

Treatment Regimen Protocols

Athletic Training

Three 30-minute treatments separated by 2-3 hours: immediately before practice or a game, immediately after practice or a game, and time permitting 2-3 hours later.

Physical Therapy

Use at the beginning of the physical therapy regimen in place of heat (can be used in conjunction with heat) for 5 to 10 minutes. Then decrease the intensity by 2 - 3% and continue the BiowavePRO treatment **during** range of motion or exercise therapy to significantly increase range of motion with less pain and facilitate exercise therapy. The patient will be able to do more resistance through a greater range of motion.

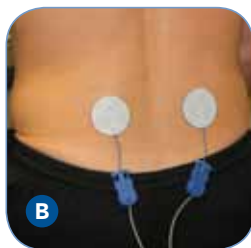
Pain Management

One 30-minute treatment per day or on an as needed basis. May be used up to four times per day with each 30 minute treatment separated by at least 2 to 3 hours.

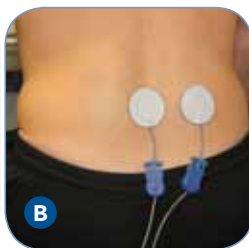
BiowavePro is complimentary with heat or cold therapy.

Electrode Placement Examples

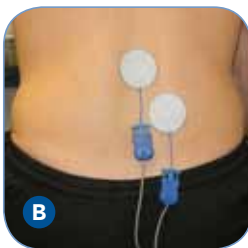
Low Back



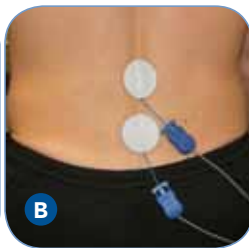
Bilateral Low Back Pain



Unilateral Low Back Pain Focused on one Side of Spine



Unilateral Low Back Pain Focused Over a Facet Joint



Low Back Pain Focused Over the Spine

Hips/Ribs/Groin/Quadriceps



Hip Pain in One Location



Rib Pain in One Location

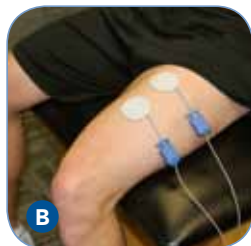


Groin Pain in One Location



Quadriceps Pain in One Location

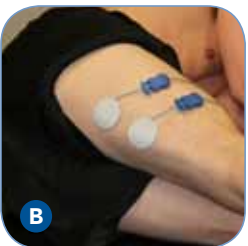
Quadriceps/Hamstrings



Quadriceps Pain Over Large Area



Hamstring Pain in One Location



Hamstring Pain Over Large Area



Central Knee Pain (e.g. ACL Sprain)

Knees



Medial Knee Pain (e.g. MCL Sprain)



Quadriceps Tendinitis



Patellar Tendinitis



Lateral Knee Pain (e.g. LCL Sprain)

Knees



Pain Throughout Entire Knee (e.g. Total Knee Arthroplasty)



High Ankle Sprain



Low Ankle or Foot Sprain with Pain in One Location



Low Ankle or Foot Sprain with Secondary Medial Pain

B Bilateral/
Back Set

E Extremity
Set

U Unilateral Set for
Mid Torso Region

WARNING: Electrodes must not touch each other.
See back cover for electrode descriptions.

Ankles and Feet



Plantar Fasciitis



Achilles Tendinitis



Metatarsal Joint Pain (e.g. Turf Toe) Focused on Side of Foot



Metatarsal Joint Pain Focused on Top of Foot

Neck



Cervical or Neck Pain with Secondary Pain in Trapezius



Cervical or Neck Pain with Secondary Pain in Rhomboid



Bilateral Neck Pain (Two Equal Points of Pain)



Shoulder Pain at AC Joint (e.g. AC Sprain)

Shoulders

Shoulders



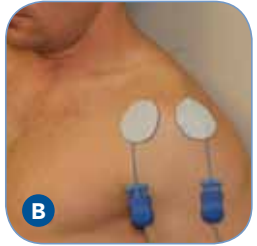
Anterior Shoulder Pain (e.g. Biceps Tendinitis)



Posterior Shoulder Pain (e.g. Infraspinatus Strain)



Trapezius Pain in One Location



Pain Throughout the Entire Shoulder

Shoulders

Elbows



Bilateral Trapezius Pain (Two Equal Points of Pain)



Lateral Elbow Pain (e.g. Lateral Epicondylitis)



Medial Elbow Pain (e.g. Medial Epicondylitis)



Posterior Elbow Pain (e.g. Triceps Tendinitis)

Wrists, Hands and Fingers



Posterior Wrist Pain (e.g. Sprains, Strains, Tendinosis)



Anterior Wrist Pain (e.g. Sprains, Strains, Tendinosis)



Finger Sprain at Base of Thumb (e.g. UCL Sprain)



Pain at Metacarpal Phalangeal or Interphalangeal Joint

- B** Bilateral/ Back Set
- E** Extremity Set
- U** Unilateral Set for Mid Torso Region

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Manufactured by
Biowave Corporation
Norwalk, CT

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Device must only be
used with power
supply provided.

See User's Manual for
more information.

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