

Table of Contents

Overview

Indications	1
Contraindications	1

Cervical Spine

Neck Pain	2
Cervical Radiculopathy.....	3
Back Pain (thoracic).....	4

Back

General Low Back (lumbar).....	5
Lumbar Radiculopathy	6

Facial

Trigeminal Neuralgia.....	7
TMJ	8

Shoulder

Shoulder Pain.....	9
--------------------	---

Elbow

Elbow Pain	10
------------------	----

Wrist

Wrist Pain	11
------------------	----

Hand

Hand Pain	12
-----------------	----

Abdomen/Ribs

Rib Pain/ Intercostal Neuralgia.....	13
---	----

Hip

Hip Pain	14
----------------	----

Knee

Knee Pain	15
-----------------	----

Foot/Ankle

Bunionectomy	16
Foot/Ankle Pain	17

General

Peripheral Neuropathy (upper extremities).....	19
---	----

Peripheral Neuropathy (lower extremities).....	20
---	----

Phantom Limb Pain (upper extremities)	22
--	----

Phantom Limb Pain (lower extremities).....	23
---	----

Post-Herpetic Neuralgia/ Shingles.....	25
---	----

RSD/CRPS (upper/lower extremities)	26
---	----

Interstitial Cystitis/Pelvic Pain...	28
--------------------------------------	----

Incisional Pain	30
-----------------------	----

Dysmenorrhea.....	31
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TENS Indications

- Symptomatic relief and management of chronic, intractable pain
- Adjunctive treatment for post-surgical and post-traumatic acute pain
- Relief of pain associated with arthritis

TENS Contraindications

TENS should not be used if the patient has any of the following:

Cardiac Pacemaker:

Do not use this device if the patient has a demand-type cardiac pacemaker or any implanted defibrillator.

Transcerebral Stimulation:

Do not apply electrical stimulation transcerebrally (through the head).

Carotid Sinus:

Do not use electrical stimulation over the carotid sinus nerves (throat).

Unknown Etiology:

Do not use this device when pain syndromes are undiagnosed. Use only after origin of pain has been diagnosed.

For other warnings and contraindications, refer to the instruction manual that is packaged with the device.

Neck Pain

Setting/Mode

Quick Select  or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

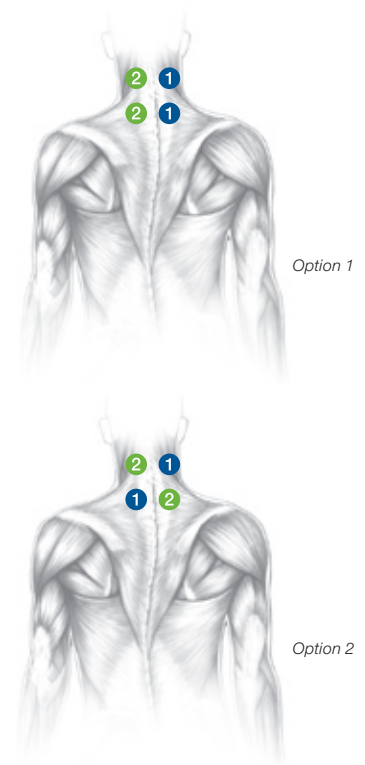
Electrode Placement

Option 1

Parallel placement may be used when pain is caused by muscle and/or other soft tissue. Place one electrode in the suboccipital fossa and the other at the cervicothoracic junction paravertebrally. For the second channel, use the same placements on the opposite side.

Option 2

A crossed pattern may be used when pain is caused by joint, disc, or bone problems. Place one electrode of each pair in the suboccipital fossa and one electrode of each pair on the motor or trigger point of the upper trapezius muscle, in crossed fashion.



Cervical Radiculopathy

Setting/Mode

Quick Select  or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

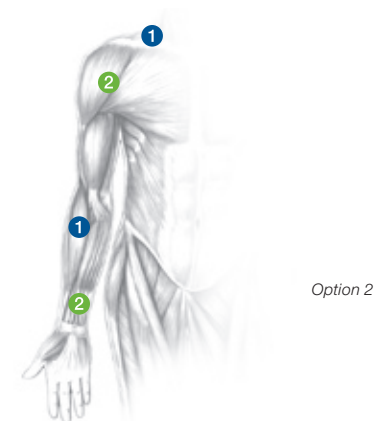
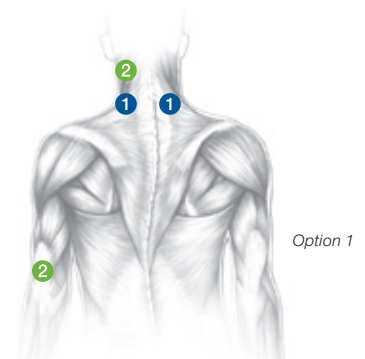
Electrode Placement

Option 1

Linear arrangements may be used with pain caused by nerve irritation (radicular symptoms). A crossing circuit may provide additional effect. Place Channel 1 electrodes at the bilateral cervicothoracic junction paravertebrally. Place one Channel 2 electrode at the suboccipital fossa on the side of the radicular symptoms, and the other Channel 2 electrode at the tender spot within the radicular distribution.

Option 2

Place electrodes along the pain pathway; overlapping channels may enhance effects.



Back Pain (thoracic)

Setting/Mode

Quick Select  or Burst

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

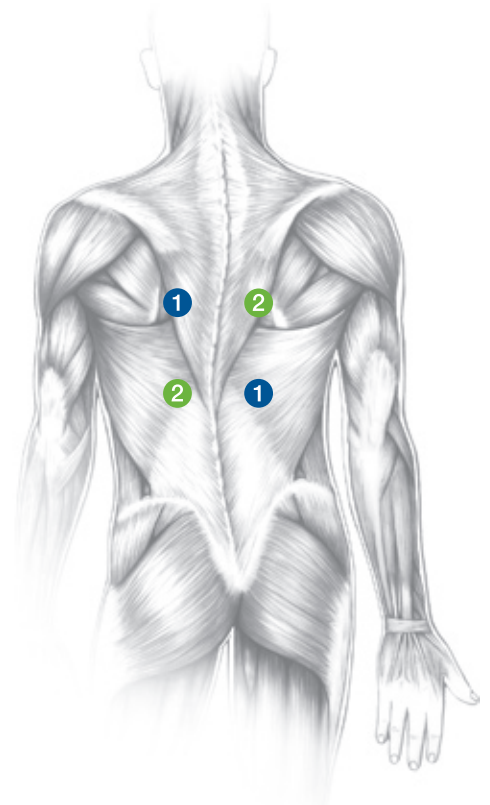
Electrode Placement

Single Channel

Place electrodes unilaterally on paraspinals at proximal and distal pain limits.

Dual Channel

Place electrodes at paraspinals, at proximal and distal pain limits, in a crossed pattern.



General Low Back Pain (lumbar)

Setting/Mode

Quick Select  or Modulation

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

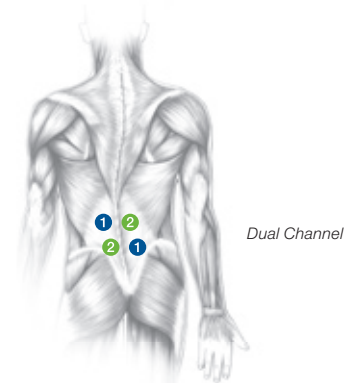
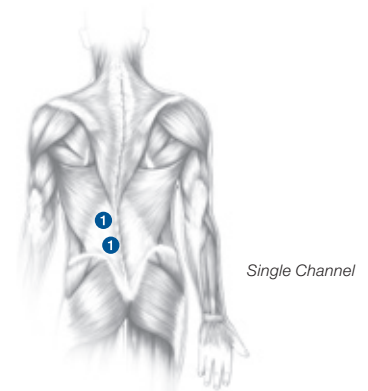
Electrode Placement

Single Channel

Place electrodes unilaterally on paraspinals at proximal and distal pain limits.

Dual Channel

Place electrodes at paraspinals, at proximal and distal pain limits, in a crossed pattern.



Lumbar Radiculopathy

Setting/Mode

Quick Select  or SMP

Treatment Time

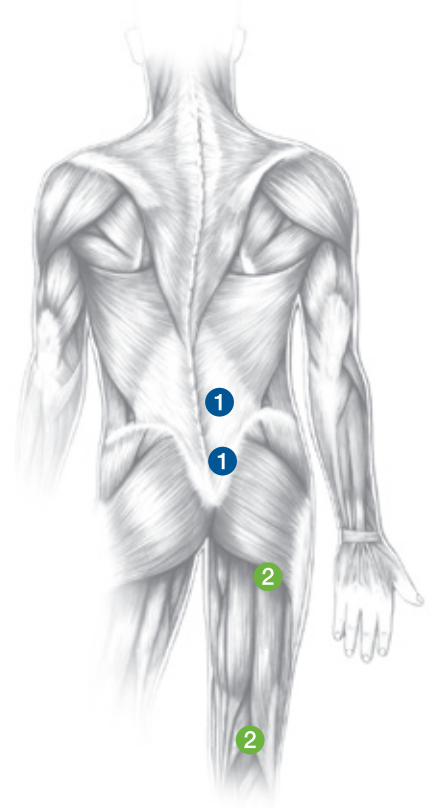
30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Place one pair of electrodes on paraspinal sites at the appropriate spinal level. Place the other pair on the superficial aspects of the peripheral nerve involved in the radicular pattern.



Trigeminal Neuralgia

Setting/Mode

Continuous or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Use two electrodes — 1.25" round or 2" round or square.

Option 1 (One Channel)

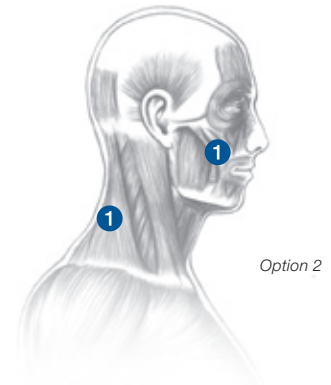
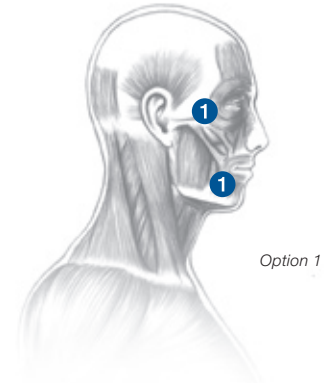
Place one electrode over the trigeminal ganglion (temporal region).

Place the other electrode over the appropriately involved nerve branch along the pain pathway.

Option 2 (One Channel)

(use when facial placement is uncomfortable for patient)

Place one electrode on the face over the most affected or painful area. Place the other electrode on the high cervical region of the involved side.



TMJ

Setting/Mode

Burst, Continuous, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

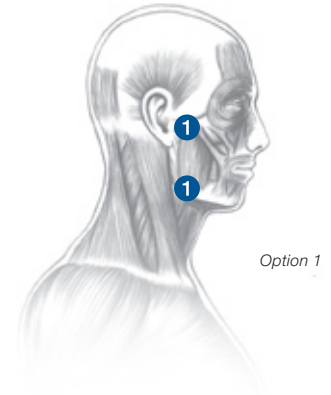
Electrode Placement

Option 1

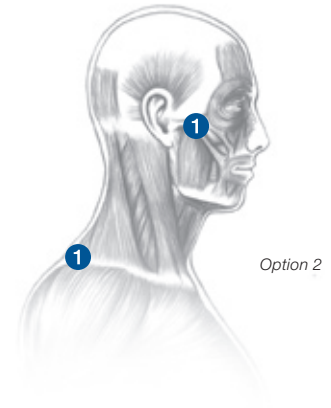
Place one electrode over the TMJ on the affected side. Place the other electrode along the jawline on or near the masseter muscle. For bilateral TMJ, use Channel 2 in the same configuration.

Option 2

Place one electrode over the TMJ on the affected side. Place the other electrode on the posterior cervical or upper trapezius muscle area.



Option 1



Option 2

Shoulder Pain

Setting/Mode

Burst or SMP

Treatment Time

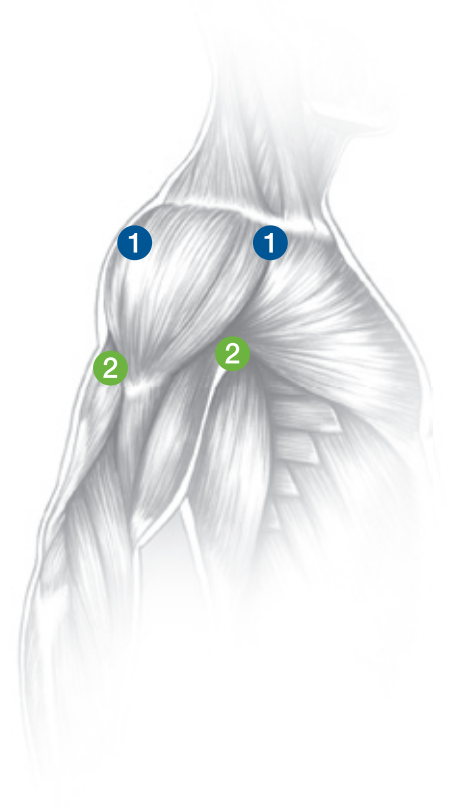
30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Place electrodes surrounding the painful site using a bracketed method.



Elbow Pain

Setting/Mode

Burst, Continuous, or SMP

Treatment Time

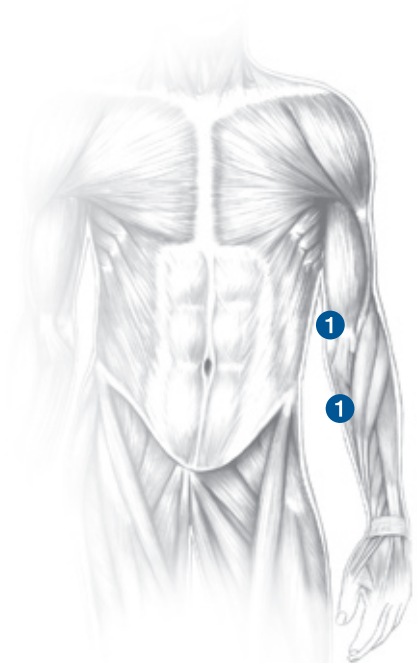
30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Place electrodes above and below the painful area on the elbow.



Wrist Pain

Setting/Mode

Quick Select  or Modulation

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Place electrodes surrounding painful site, using one channel on either the dorsal or ventral side, distal and proximal to the area of pain.



Dorsal



Ventral

Hand Pain

Setting/Mode

Quick Select  or Modulation

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Channel 1: Place one electrode over the dorsal aspect of the wrist, proximal to the distal crease, and the other electrode 2 to 3 inches proximal to the first electrode.

Channel 2: Place one electrode over the ventral aspect of the wrist, proximal to the distal crease, and the other electrode 2 to 3 inches proximal to first electrode.

Note: Electrode placement can be adjusted to stimulate the affected nerve.



Rib Pain/Intercostal Neuralgia

Setting/Mode

Burst, Modulation, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Option 1

Bracket electrodes in a crossed pattern over the painful site on the ribs.

Option 2

Channel 1: Place one electrode paraspinally along the involved rib or intercostal nerve distribution. Place the other electrode at the most anterior aspect of the pain.

Channel 2: Place electrodes superior and inferior to the pain.

Note: Do not treat transthoracically; adjust electrode placements as needed.




Option 1



Option 2

Hip Pain

Setting/Mode

Quick Select  , Burst, or Modulation

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Option 1

Channel 1: Place electrodes medial and lateral to the pain site.

Channel 2: Place electrodes superior and inferior to the pain site.

This creates a crossed pattern over the hip joint.

Option 2

Using one channel, place two larger electrodes above and below the pain site.



Option 1



Option 2

Knee Pain

Setting/Mode

Quick Select , Burst, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

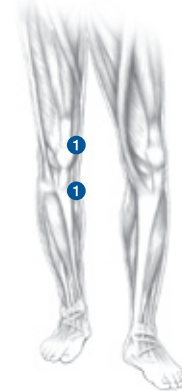
Option 1

Place one channel above and below the knee joint on the medial or lateral aspect of the joint.

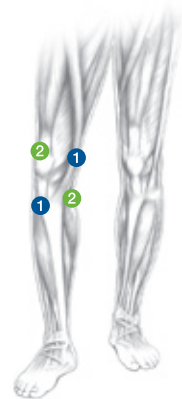
Option 2

Place electrodes in a crossed pattern surrounding the knee joint.

Note: Do not place electrodes over incision sites.



Option 1



Option 2

Bunionectomy

Setting/Mode

Burst, Continuous, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Place the electrodes on either side of the incision.



Foot/Ankle Pain

Setting/Mode

Burst or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Option 1

Channel 1: Place electrodes in the groove between the Achilles tendon and both malleoli.

Channel 2: Place electrodes on the midpoint of the dorsum of the forefoot and on the plantar aspect of the forefoot.

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Option 1

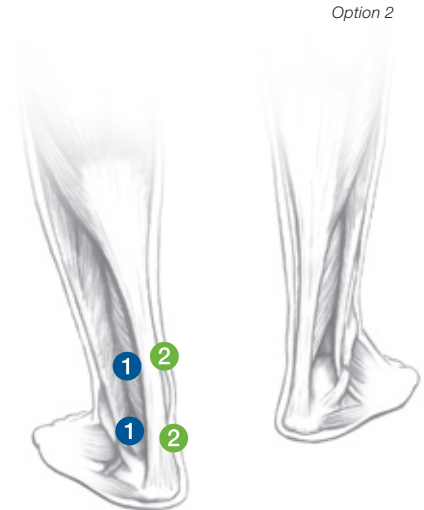


Foot/Ankle Pain *continued*

Electrode Placement

Option 2

Place one pair of electrodes just superior and inferior to the lateral malleolus; place the second pair just superior and inferior to the medial malleolus.



Option 2

Peripheral Neuropathy (upper extremities)

Setting/Mode

Burst or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Channel 1: Place one electrode anterior and inferior to the acromion. Place the other electrode near the lateral epicondyle.

Channel 2: Place one electrode over the anterior wrist. Place the other electrode over the carpal area. Keep electrodes off any affected areas with little or no sensation.

Note: Electrodes need to be placed on areas of skin with good sensation. If patient cannot feel stimulation on suggested areas, move electrodes proximal to the painful site, placing them along nerve pathway.



Peripheral Neuropathy (lower extremities)

Setting/Mode

Burst or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Option 1

Channel 1: Place one electrode midline on the posterior calf, two-thirds of the way down to the Achilles tendon insertion. This will stimulate the sural and lateral cutaneous nerves of the calf. Place the other electrode in the depression between the medial malleolus and the Achilles tendon.

Channel 2: Use if treating bilaterally, using the same electrode placement on the second calf as in Channel 1.

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Peripheral Neuropathy (lower extremities) *continued*

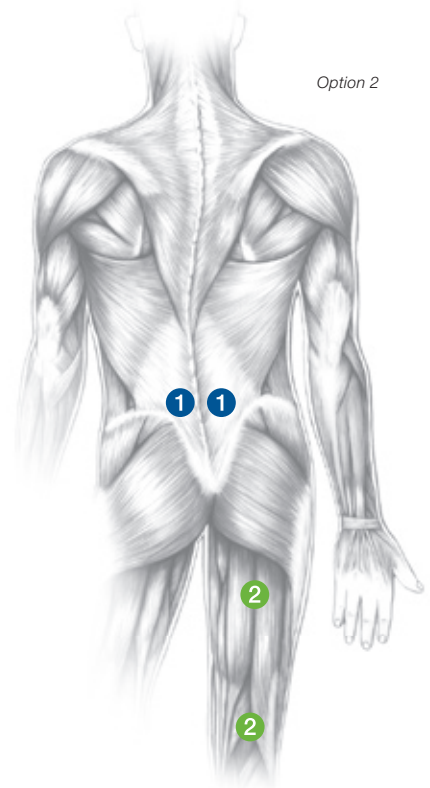
Electrode Placement

Option 2

Channel 1: Place electrodes bilaterally on the low back at the nerve root level of involvement.

Channel 2: Place electrodes along nerve distribution on the hamstrings or on the lower leg as in Option 1.

Note: Electrodes need to be placed on areas of skin with good sensation. If patient cannot feel stimulation on suggested areas, move electrodes proximal to the painful site, placing them along nerve pathway.



Phantom Limb Pain (upper extremities)

Setting/Mode

Quick Select  or Burst

Treatment Time

30 – 60 minutes

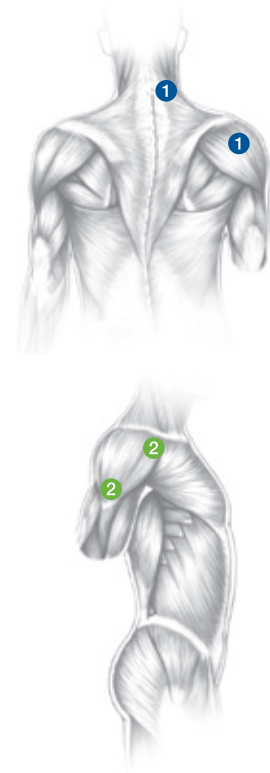
3 – 4 times per day

or as prescribed

Electrode Placement

Channel 1: Place one electrode over lower cervical paraspinal muscles on the affected side. Place the other electrode on the posterior shoulder in the depression below the acromion.

Channel 2: Place one electrode at the insertion of the deltoid. Place the other electrode on the anterior shoulder just below the acromion.



Phantom Limb Pain (lower extremities)

Setting/Mode

Quick Select , Burst, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

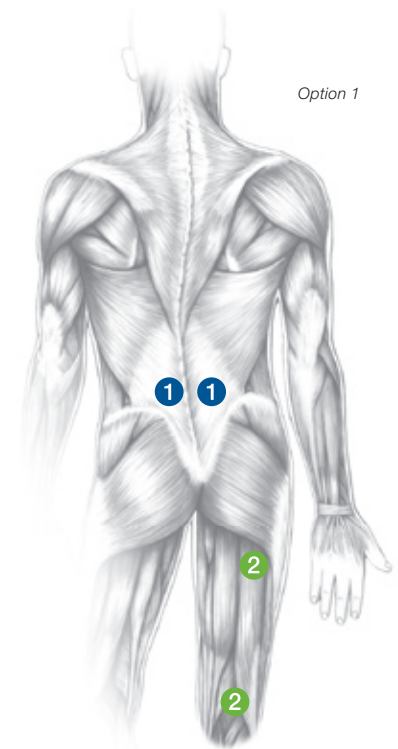
Electrode Placement

Option 1

Channel 1: Place electrodes from one channel at the low lumbar paraspinal muscles.

Channel 2: Place one electrode on the posterior knee, at the midpoint of the popliteal crease, and the other electrode at the mid-posterior thigh region over the sciatic nerve.

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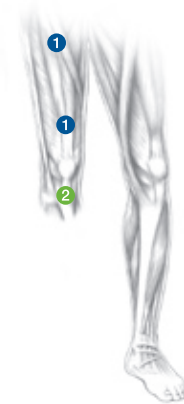
Phantom Limb Pain (lower extremities) *continued*

Electrode Placement

Option 2

Channel 1: Place one electrode just above the superior border of the patella at the midline. Place the other electrode on the upper anterior thigh over the femoral nerve.

Channel 2: Place one pair of electrodes at the front and back of the stump (on either side of any incisional scar).



Option 2



Post-Herpetic Neuralgia/Shingles

Setting/Mode

Quick Select  or SMP

Treatment Time

30 – 60 minutes

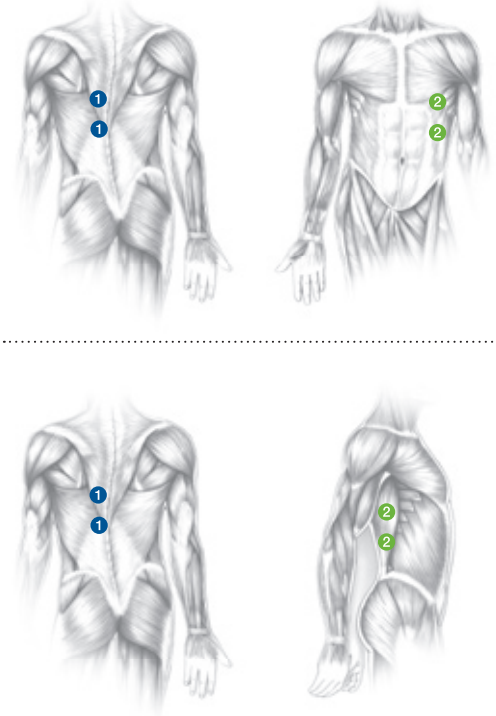
3 – 4 times per day

or as prescribed

Electrode Placement

Using a bracket method, place one channel superior and inferior, adjacent to the spine, along the paraspinal muscles, bracketing the involved dermatome. The second channel should bracket, in superior and inferior positions, any sensitive point along the sensory nerve pathway. A placement of electrodes superior and inferior to the painful site along the distribution may also be effective.

Note: Do not place electrodes directly on active skin lesions.



RSD/CRPS (upper/lower extremities)

Setting/Mode

Burst, Continuous, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Upper Extremity

Channel 1: Place one electrode anterior and inferior to the acromion. Place the other electrode near the lateral epicondyle.

Channel 2: Place one electrode over the anterior wrist and one over the carpal area. Keep electrodes off very sensitive or affected areas if they cannot tolerate stimulation.

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Upper Extremity

RSD/CRPS (upper/lower extremities) *continued*

Electrode Placement

Lower Extremity

Channel 1: Place one electrode between the malleolus and the Achilles tendon and one between the lateral malleolus and the Achilles tendon.

Channel 2: Place one electrode on the plantar aspect of the forefoot and one on the dorsum of the forefoot.



Lower Extremity



Interstitial Cystitis/Pelvic Pain

Setting/Mode

Burst, Continuous, or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

Use 2" round or square electrodes.

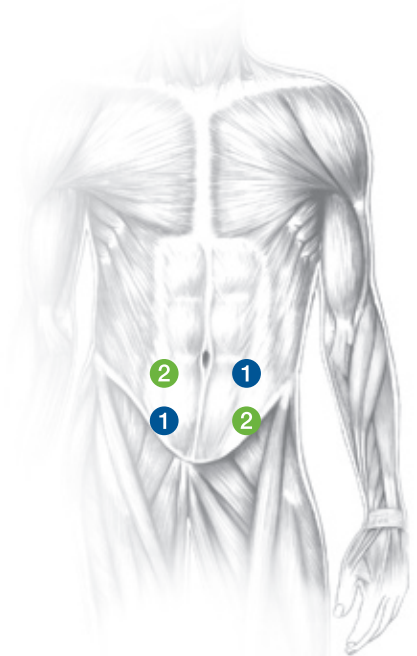
Option 1

Channel 1: Place one electrode on the abdomen immediately above the RIGHT edge of the pubic bone. Place the other electrode 2 to 3 inches above the LEFT side of the pubic bone.

Channel 2: Place one electrode on the abdomen immediately above the LEFT edge of the pubic bone. Place the other electrode 2 to 3 inches above the RIGHT side of the pubic bone crossing with Channel 1.

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Option 1



Interstitial Cystitis/Pelvic Pain *continued*

Electrode Placement

Use 2" round or square electrodes.

Option 2

Channel 1: Place one electrode on the LEFT sacroiliac joint and one electrode above the RIGHT side of the pubic bone.

Channel 2: Place one electrode on the RIGHT sacroiliac joint and one electrode above the LEFT side of the pubic bone. The sacroiliac joints are the two “dimpled” areas on the lower back directly behind where the abdominal pads were placed.



Option 2



Incisional Pain

Setting/Mode

Continuous or SMP

Treatment Time

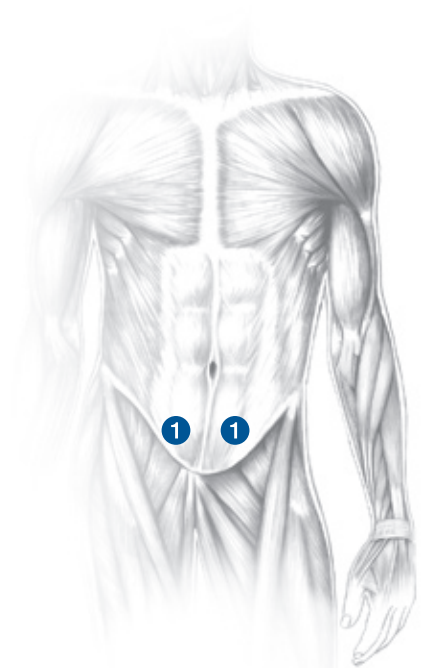
30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

One or two channels may be used with either 2" or 2" x 3.5" electrodes, or with four 2" electrodes, parallel on each side of the incision or using a crossed pattern.



Dysmenorrhea

Setting/Mode

Continuous or SMP

Treatment Time

30 – 60 minutes

3 – 4 times per day

or as prescribed

Electrode Placement

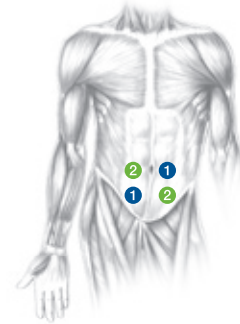
Option 1

Channel 1: Place one electrode to the RIGHT of the pubic bone and one electrode 2 to 3 inches above the LEFT side of the pubic bone.

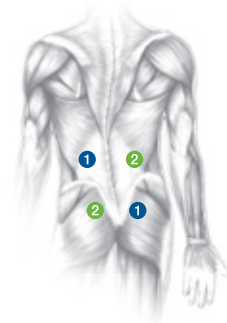
Channel 2: Place one electrode to the LEFT of the pubic bone and one electrode 2 to 3 inches above the RIGHT side of the pubic bone in a crossed pattern.

Option 2

Place Channel 1 and Channel 2 electrodes in a crossed pattern over the lower back.



Option 1



Option 2