

Practical Guide TENS Therapy



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Introduction

This guide offers supplementary information to the general operation manual for ELPHA II 1000 TENS stimulator; it gives advice and recommendation to most frequent stimulation occurrences within pain therapy. For detailed information and settings of the device, we advise you to read the operation manual. We recommend getting a diagnosis before starting the treatment.

The ELPHA II 1000 includes a pain stimulator with four programmes which are preset based on recommendations from authorities within the field of electro therapy and well researched through clinical studies. Thanks to the user-friendly design private persons, doctors and physiotherapy clinics are using the ELPHA II 1000. Operating the ELPHA II 1000 is easy and clean and the user can carry out the treatment as required, i.e. at the very moment the pain occurs. And important: the treatment can be carried out at home.

On the last page of this guide you have the opportunity to write your own notes, your setting and placement for electrodes.

Pain Relief with TENS and BURST

TENS = Transcutaneous Electrical Nerve Stimulation

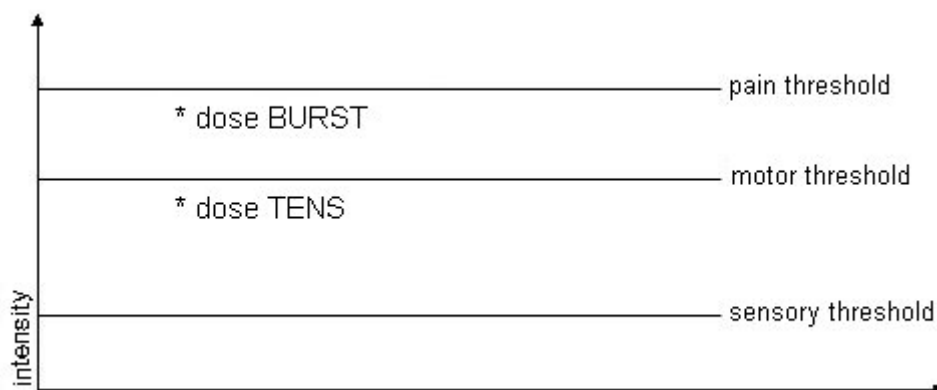
Pain therapy without taking drugs and without side effects.

TENS is a treatment method based on electrical stimulation of the nerve paths with the aim to relieve pain or make the pain cease. The idea of TENS is, after having located the pain, to place two electrodes on the skin, so that the electric current runs from one electrode to the other and passes through the pain location.

Stimulating with TENS blocks the pain signal, which normally is being transmitted through the nerves to the central nervous system, where the signal is registered as pain. The effect of the treatment sets in promptly, when treatment is used locally.

When stimulating with BURST at low frequency and strong enough to achieve strong muscle contractions in the stimulations area the pain relieving effect is achieved after approx. 30 minutes and with long cycle result.

People feeling pains and keep feeling pains are often victims of a self-increasing effect. One example is muscle tension, following the wake of pain experience. If pain occurs in one area of the body, the natural action is to flex the muscles to protect the aching area. However, when muscles are being kept tense, they become sore and get painful. Pain tires and tiredness makes it difficult to sustain pain. Chronic pain causes fear and depression, which increased the pain experience. A vicious circle has started! Pain is difficult to get rid of, though the vicious circle can be broken. As the ELPHA II 1000 can be used at home it is possible to relieve or eliminate most of the pain symptoms, whenever they occur.



Programmes

TENS with P0 & P1

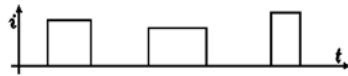


Suitable for pain relief. The Therapy consists of short electrical pulses where the stimulation may never be so strong that any muscle contractions occur. Electrodes are usually placed on the nerve paths around the pain site.

TENS stimulation can be used for pain therapy for the following:

Muscle pain, arthralgia, tennis elbow, arthritis, osteoarthritis, gout, fibromyalgie, tenosynovitis, carpal tunnel, hip and back pain, muscle tension (myalgia), sinusitis, neuritis etc.

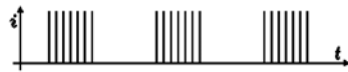
TENS with P2



Similar to P1 however with the difference that the stimulation pulses vary for both pulse width and stimulation current. The variation is random and built up as: pulse width multiplied by stimulation current being constant. This modulated TENS prevents any habituation to a set pulse width. P2 has the following variables: frequency, pulse width and treatment time.

Modulated TENS stimulation can be used for pain therapy as mentioned for P1. However, for chronic conditions where long-term treatment is required modulated TENS is recommendable.

BURST with P3



Stimulation form consisting of short series of pulses with high frequency that are repeated with low frequency. BURST stimulation is used for general pain relief and stimulation must be so strong that muscle contraction is perceived. In general terms the electrode is placed on a large muscle near the pain location. BURST has the following variables: frequency, pulse width and treatment time.

The effect of the stimulation has to be strong to achieve visible muscle movement; the muscle tension will be affected and forced to movement. A long-cycle pain relief is given with BURST stimulation due to the fact that the body increases its own production of the natural painkillers, the endorphins.

BURST stimulation can be used for relief of radiating pain like:

Sciatic pain, back pain, scleroses, tinnitus, circulatory disturbances, whiplash, etc.

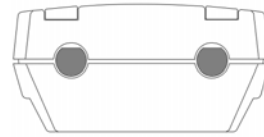
Get Started

ELPHA II 1000 has 2 output channels; channel A and B. Both channels are operated alike.

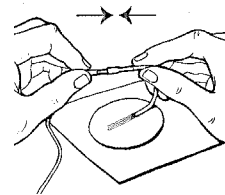
1. Retract the sliding lid. Insert the battery and replace the lid.



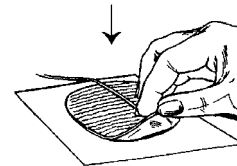
2. Connect the lead wires to the output channels on the device.



3. Connect the lead wires to the electrodes.




4. Clean the skin. Remove the plastic cover from the electrodes before attaching to the skin. The electrodes must not touch each other.



5. Turn on the ELPHA II 3000 by pressing the blue on/off button.



6. Choose programme and adjust the stimulation level. When the keyboard lock symbol appears , turn down the level to allow further adjustment of the required stimulation level.



7. The stimulation automatically stops when treatment time expires.

Neck

Pain in shoulder & neck cervical syndrome



Indications:

- Rheumatism (P2+P3)
- Whiplash (P1)
- Slipped disk (P2+P3)
- Cervical strain (P2)
- Head ache (P1+P3)
- Arthritis (P2)
- Suppleness (P3) etc.

Use P1 when pain has been located.

For long-term treatment use P2.

P3 BURST for non-focused neck pain and removal of the waste products in the neck if it has been immobilized for a long period.

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
♂		Electrode size: 50 x 50 mm 50 x 90 mm	

Back

Indications:

- Back pain (P1+P3)
- Scoliosis (P1)
- BWS syndrome (P1+P3)
- Bilateral radiation (P1+P3)
- Dysmenorrhoea (P1)
- Labor pain (P1)
- Slipped disk (P1)
- Suppleness (P3) etc.

Back pain




Electrode placement if pain is located in the upper part of the back.

Lower back pain & dysmenorrhoea



The area above Os Sacrum is a junction of the sensory nerve pathway for the lower back and the abdomen.

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm 50 X 90 mm	

Shoulder

Shoulder Subluxation

Shoulder Pain



Indications:

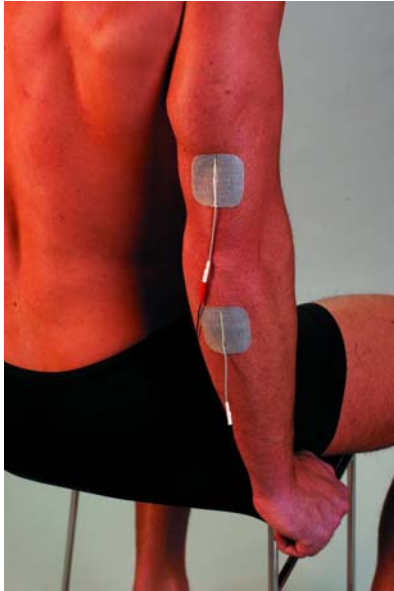
- Rheumatism (P1+P3)
- Subluxation (P1)
- Shoulder dislocation (P1)
- Shoulder sprain (P1)
- Arthritis (P1)
- Frozen shoulder (P3)
- Suppleness (P3) etc.

If the shoulder feels cold, P3 is particularly beneficially as BURST stimulation increases the local blood circulation

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
♂		Electrode size: 50 x 50 mm	


Elbow

Elbow pain & epocondylitis lateralis



Indications:

- Rheumatism (P2)
- Tennis elbow (P2+P3)
- Golf elbow (P2+P3)
- Sports injuries (P1)
- Arthritic pain (P1)
- Pain radiation (P3)

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm	

Arm, Hand and Wrist


Pain relief:

Indications:

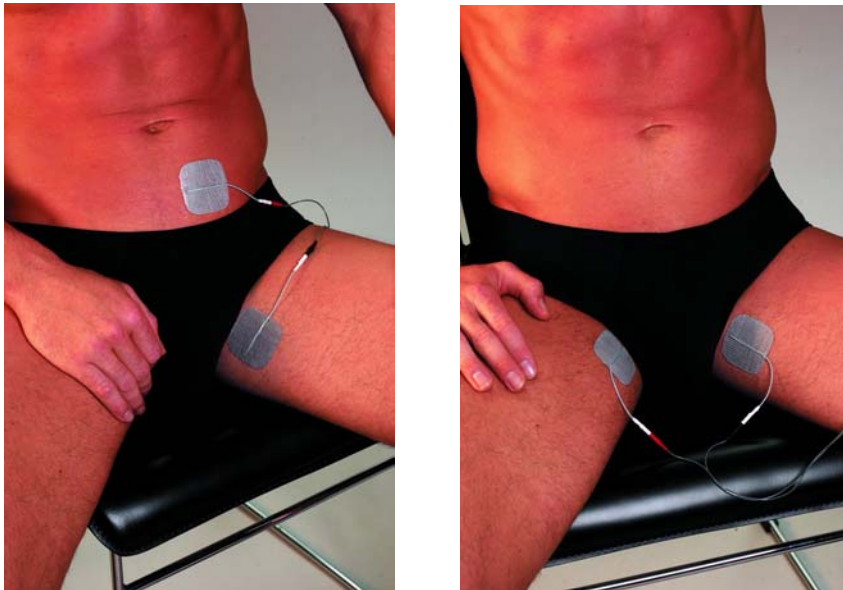
- Tendonitis (P1+P3)
- Carpal tunnel (Mouse Are) (P1+P3)
- Rheumatism (P2)
- Nausea & Vomiting (P3)
- Suppleness (P3) etc.



Nausea & Vomiting

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm	

Groin



Indications:

- Sports injury (P1)
- Overworked muscles and ligaments (P1+P2)
- Dysmenorrhoea (P2+P3)

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
♂		Electrode size: 50 x 50 mm	

Quadriceps

Sport injury, fibre pull and radiating pain



Indications:

- Radiating pain (back pain) (P3)
- Fibre pull (P0)
- Sciatic pain with impaired L4 sensibility (P3)
- Suppleness (P3) etc.

Programme	Type of stimulation	Intensity	Treatment time
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
P4	Muscle stimulation	Visible contraction	30 min ⌚
👤		Electrode size: 50 x 90 mm	

Knee & Ankle

Knee pain



Pain at the joint of the ankle




Indications:

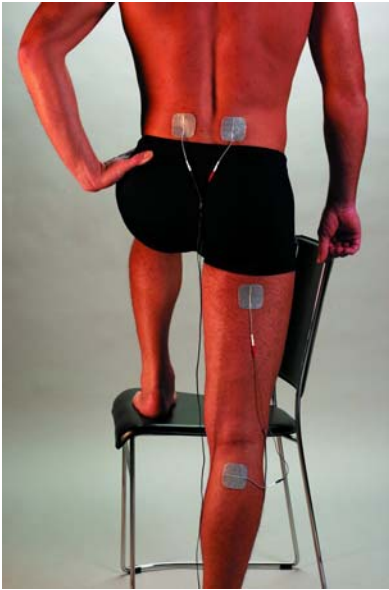
- Rheumatism (P2+P3)
- Sports injuries (P1)
- Sprain (P1)
- Gonarthrosis (P2)
- Ligament injury (P1)
- Arthritis (P2+P3)
- Ankle sprain (1)
- Ischaemic pain in the foot (P1+P3)
- Contusion (P1) etc.

If the pain is located on the inner side of the leg, use the electrode placement shown on the left knee

At lateral pain, place the electrode as on the right ankle; left ankle shows the electrode placements to treat medial pain

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm	

Sciatic Pain



Indications:

- Sciatic pain
- Post-Herpetic neuralgia of sciatic nerve
- Arthritic pain of sacroiliac joint

Channel A:

Negative electrode (black) placed posterior on the upper thigh and positive electrode (red) below popliteae crease.

Channel B:

Bilaterally at L5 –S1 level.

Programme	Type of stimulation	Intensity	Treatment time
Channel 1:			
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
Channel 2:			
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
♂		Electrode size: 50 x 50 mm	

Pull & Cardiovascular Insufficiency

Ankle plantar flexors, fibre pull & cardiovascular insufficiency

Indications:

- Fibre pull (P1)
- Sports injuries (P1)
- Claudicatio intermettens (P3)
- Thromboplebitis (P1+P3)
- Sciatica (P1)
- Arthritic (P1)
- Traumatic injury (P2) etc.

Treatment dealing with fibre pull can be carried out everywhere on the body. Electric muscle stimulation removes the metabolic waste products and improves condition for progress of healing.

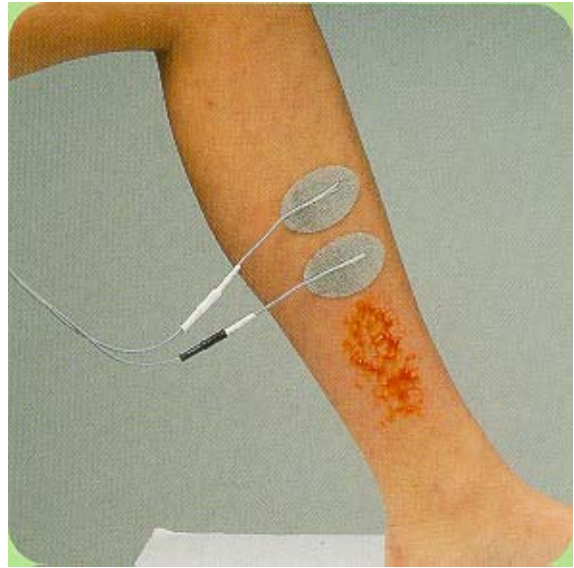


Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P2	TENS Long term pain relief	Tingling - Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
♂		Electrode size: 50 x 90 mm	


Leg Ulcer

Indication:

- Circulatory disturbances
- Venous stasis
- Wound healing
- Post-surgical pain
- General pain



Notice! The electrodes may not get in contact with any wound tissue.


Programme	Type of stimulation	Intensity	Treatment time
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm	

General Pain Treatment with BURST

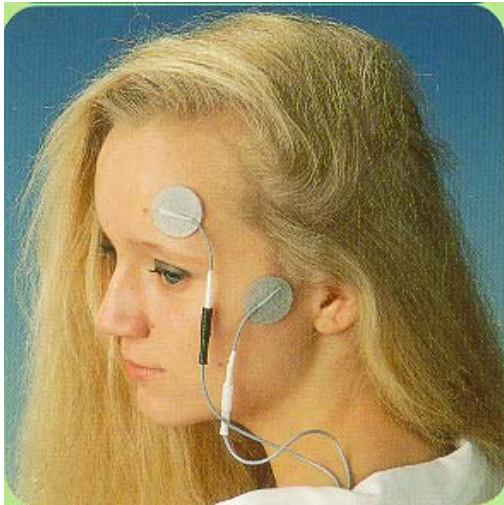


Indications:

- General pain
- Tinnitus
- Raynaud ´s phenomenon
- Fibromyalgie
- Circulatory disturbances
- Gout
- Cold hand etc.


Programme	Type of stimulation	Intensity	Treatment time
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: round Ø32 mm 50 x 50 mm	

Head



Indications:

- Trigemius (P1)
- Sinusitis (P1)
- Frontal headache (P1)
- Facial pain (P1)


Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
		Electrode size: round Ø32 mm	

Angina Pectoris

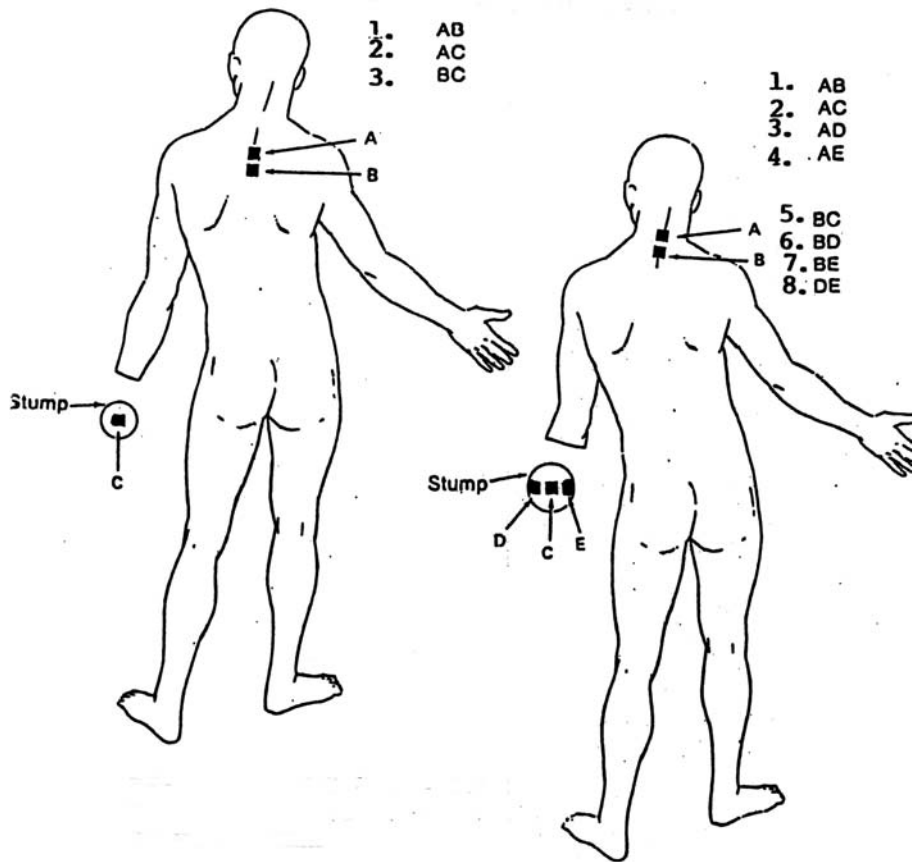
Indications:

- Angina Pectoris (P1)
- Radiating Pain (P1)




Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
		Electrode size: 50 x 50 mm	

Phantom Pain



Electrodes can be placed on painful trigger points, correlated to peripheral nerves and spinal cord segments that innervates the painful area (P1). Use the combinations of the letters. For general pain management the BURST therapy (P3) as shown at page 17 is recommendable.

Programme	Type of stimulation	Intensity	Treatment time
P1	TENS Acute pain relief	Tingling – Just below pain threshold	30 min ⌚
P3	BURST Chronic pain relief	Perceptible contraction	45 min ⌚
		Electrode size: 50 x 50 mm	

Notes for Settings Selected

Channel A	P0 Tens0	P1 Tens1	P2 Tens2	P3 Burst
Stimulation output	mA	mA	mA	MA
Treatment time		min	min	Min

Channel B	P0 Tens0	P1 Tens1	P2 Tens2	P3 Burst
Stimulation output	mA	mA	mA	MA
Treatment time	min	min	min	Min

Electrode Placement:

