

# TENStem eco basic

Transcutaneous nerve and muscle stimulator

Art.-No. 104041



Instruction Manual Art.-No. 100863-V03

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# General Information

## Intended use

The TENStem eco basic has been designed for the generation of the transcutaneous electrical nerve and muscle stimulation and may not be used for any other purposes.

## Safety instruction

**Please read the operating instructions carefully before using the TENStem eco basic.**

- The TENStem eco basic is only to be used for stimulation purposes on one patient at any one time.
- Only use the TENStem eco basic with original accessories.
- The size of the electrodes should be not less than 2 cm<sup>2</sup>.
- The electrodes should be positioned in such ways that the current flow will not cross through the heart.
- Keep the TENStem eco basic away from water or other liquids. Do not drop the TENStem eco basic, do not use it inappropriately or expose it to extreme temperatures or high levels of humidity (not less than 10 °C or more than 40 °C or a relative humidity of more than 90 %).
- Do not use the TENStem eco basic if it is not working properly or if it has been damaged in any way.
- Be careful when using the TENStem eco basic near or on children. Keep the unit away from children.
- Always store the TENStem eco basic in its case to protect it from damage and dust.
- To avoid reciprocal interference, the TENStem eco basic should not be operated in the vicinity of other electronic devices. If this is not possible, the various unit functions should be closely monitored during operation so that proper use in accordance with the regulations is ensured.
- The simultaneous connection to the patient of a high frequency surgical unit can lead to burning under the electrodes or around the probe.
- Operating close (for example 1m) to short wave and microwave units or mobile telephone systems can cause fluctuations in the output values of the electric current stimulation unit.
- Do not use the machine during the simultaneous operation of other machines, when driving or when asleep.
- Do not use P16 for more than 20 minutes.

## Contra-indication

**Please check with your physician before using the TENStem eco basic if one of these apply to you:**

- Patients with electronic implants such as heart pacemakers, defibrillators or pumps
- Patients with cardiac rhythm disorders
- During pregnancy
- Patients subject to seizure disorder / epilepsy
- Patients with skin disorders in the vicinity of the electrodes
- Patients with malignant diseases in the region of application

## Side effects

- Pain caused by the stimulation: The stimulation can be perceived as uncomfortable/painful if the electric current is too intensive or if the electrodes have been positioned unfavorably. Unpleasant side effects can be avoided by adjusting the intensity, using another program with other parameters and the possible re-positioning of the electrodes.
- Skin intolerance which can result from the electrodes, the electrode gel or the electric current impulses. The physician should be consulted in cases of reddening, burning, itching or blistering under the electrodes or in the vicinity of the electrodes. Slight skin reddening of short duration in the area of the electrodes following stimulation is quite normal because blood circulation has been improved by the effects of the stimulation.
- Muscular pain: If the stimulation has been too intense or too long muscular aches in terms of sore muscle can occur. Shorten the treatment time and the intensity of stimulation at the beginning of muscle stimulation to avoid muscle ache.

## Symbols



Attention: Read accompanying documents, especially user manual!



BF type application part. Protection against electric shocks.



The year of construction of the product follows this symbol.



The article or order number of the product follows this symbol.



The serial number of the product follows this symbol.  
The letter indicated the series.



This equipment is marked with the recycling symbol. It means that at the end of the life of the equipment you must dispose of it separately at an appropriate collection point and not place it in the normal domestic unsorted waste stream. This will benefit the environment for all.



By labelling with CE certificate, the manufacturer states that the product meets all active requirements of the regarding EU Directive. A conformation evaluation process has been successfully completed. The code number of the conformation evaluation process is given in accordance with the CE labelling of the involved notified body.

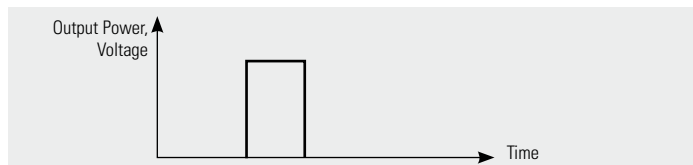
### Technical data

2-channel nerve and muscle stimulator with electrically insulated channels, 12 integrated constant current characteristic programs and from series C 3 user programs for own settings.

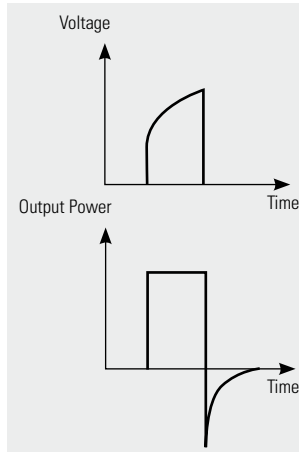
Power supply:	6.0 V (4 x 1.5 V battery AAA type micro e. g. LR03) or 4.8 V (4 x 1.2 V rechargeable battery AAA)
Output current:	Max. 100 mA (therapy) Approx. 30 $\mu$ A (power down)
Dimensions:	Approx. 140 mm x 64 mm x 28 mm
Weight:	Approx. 96 g (without batteries)
Output current:	0 - 60 mA (with 1 k $\Omega$ load)
Pulse form:	Positive rectangle with negative component (P1-P15) Positive rectangle without negative component (P16)
Frequency range:	Series A & B: 2 - 100 Hz / from series C: 1 - 120 Hz
Pulse width:	Series A & B: 75 - 250 $\mu$ s / from series C: 75 - 300 $\mu$ s
Operating conditions:	Temperature range: 10 °C to 40 °C Relative humidity: 30 % to 90 %

### Pulse forms

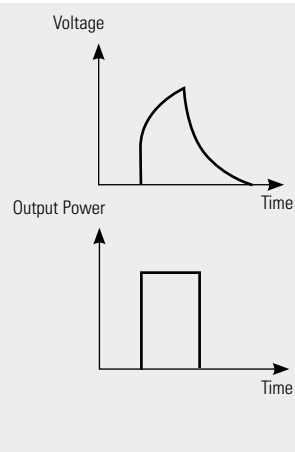
with 1k $\Omega$  load (P1-P16)



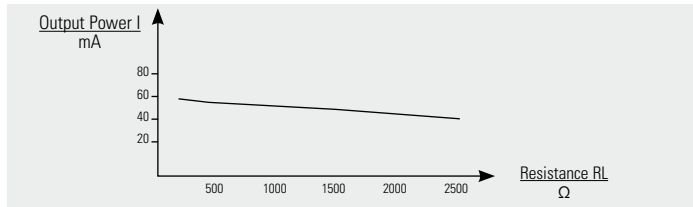
(P1-P15)



(P16)



change in output current depending on load



## Features

- 16 programs (12 pre-set, 4 for own settings)
- Large LCD that shows:
  - Selected program
  - Therapy time
  - Intensity (two separated channels)
  - Frequency
  - Pulse width
- Automatic cut-off after 2 minutes of no use.
- Easy handling via keypad
- Battery level control
- Electrode recognition: the intensity is reduced to 0 if no electrodes are connected or not properly connected.
- The selected program can be interlocked.
- Saving and read-out of operating parameters.

## Description

All parameters can be adjusted via the keypad and are indicated on the large display.

1. Display
2. Menu keys
3. Modification keys to adjust parameters and intensities
4. ON/OFF key
5. Battery compartment
6. Output sockets for the cables

## Keypad

- ⊙ to switch the device on and off and to stop stimulation
- P** to select a program
- E** to set the parameters
- ▲ to increase the intensity (left for channel 1, right for channel 2)
- ▼ to decrease the intensity (left for channel 1, right for channel 2)



# Operating the TENStem eco basic

## Starting the device

Insert the batteries into the battery compartment (no. 5). Please also read the chapter "Battery change" for more information. All symbols appear automatically on the display. An acoustic signal indicates that the unit is ready for use.



## Connecting electrodes and cables

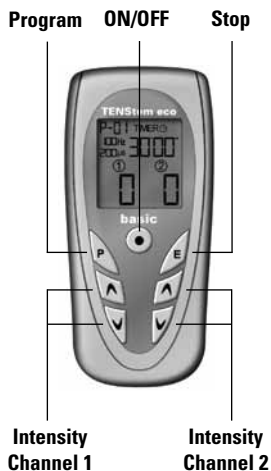
First connect the 2 mm diameter male connectors of the cables (red and white connector on each cable) to the black female connectors of the electrodes (always 2 electrodes per cable).



## Connecting the cables to the TENStem eco basic

Connect the white plug at the other end of the cable to the sockets on the upper front face of the TENStem eco basic (no. 6). You may use the device with one or two cables depending on the therapy.

## Switching ON the TENStem eco basic



Press  $\odot$  to switch ON the TENStem eco basic. A double beep sounds. The display indicates the selected program, the therapy time, the frequency, the pulse width and the intensity.

### Selecting a program

Press **P** until you have selected the program of your choice. Once you have reached P15 you will return to P1.

### Starting the stimulation / setting the intensities

Press the left  $\blacktriangle$  key to increase the intensity of channel 1.  
 Press the right  $\blacktriangle$  key to increase the intensity of channel 2.  
 Press the left  $\blacktriangledown$  key to reduce the intensity of channel 1.  
 Press the right  $\blacktriangledown$  key to reduce the intensity of channel 2.

It is not possible to adjust the intensity of both channels at the same time.

### Stopping the stimulation

The stimulation stops automatically at the end of each program. You can stop the stimulation manually at any time by pressing the **P** key or the  $\odot$  key.

### Switching OFF the device

Press the  $\odot$  key to switch OFF the device. A single beep sounds. The TENStem eco basic switches OFF automatically after 2 minutes if no key pressed.

## Setting date and time (From series C)

Before you can use the memory query mode you need to set the date and time. Pressing and holding the **E** key for about 3 seconds leads you to the date/time mode. In date/time mode the LCD shows two figures: The left figure indicates the date, the right figure indicates the time. Pressing the left  $\blacktriangle$  key increases the date by one day (max. 30). Pressing the left  $\blacktriangledown$  key decreases the date by one day (min. 1).

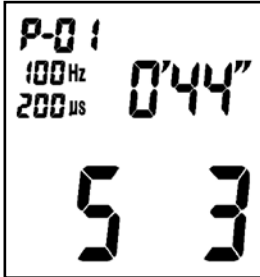
Pressing the right  $\blacktriangle$  key increases the time by one hour (max. 23). Pressing the right  $\blacktriangledown$  key decreases the time by one hour (min. 0).

Press the  $\odot$  key to save all parameters and to leave the date/time mode again. Date and time are continuously updated.

The TENStem eco basic switches OFF automatically after two minutes if no key is pressed. In this case none of the adjusted parameters are saved.

## Memory query mode



**(From series C)**

First set the date and time (see above). The memory query mode is used to read out saved therapy data from patients. By pressing and holding the left ▼ and **E** key for about 3 seconds you enter the memory query mode. If no values are saved, the display shows "null" for about 2 seconds and the device returns to standby mode automatically. If you have saved therapy data, the display shows the parameters of the last therapy session as shown below:

- Used program = P01
- Frequency = 100 Hz
- Pulse width = 200 µs
- Therapy duration = 0 min 44 s
- Day of therapy = 5 (fifth day)
- Therapy session no. = 3

You can save up to 90 therapy sessions respectively the first 3 of each day. With the left ▼ key you can return to the values of the previous day (until you reach the first recorded day). The left ▲ key lets you proceed to the next day (until you reach the current day). The right ▼ key brings you to the parameters of the last therapy session of the respective day (until you reach the first session of the respective day). The right ▲ key shows you the parameters of the next therapy session (until you reach the last session of the respective day).

**Resetting the memory**

Pressing and holding the **E** button for about 5 seconds will delete all saved data. The display shows "Clr" for about 2 seconds and the device can be used for stimulation again. The TENStem eco basic switches OFF automatically after two minutes if no key is pressed.

**Battery change**

If the battery voltage is less than 3.7 V, the battery symbol appears in the display and it is necessary to insert in 4 new 1.5 V batteries (AAA, e.g. LR03).

To change batteries:

- Switch OFF the device.
- Open the battery compartment on the back side of the device by sliding out the cover.
- Remove the old batteries.
- Insert the new batteries (check polarity).
- Close the battery compartment.

If you do not use the device for a longer period of time, always remove the batteries. In case you use rechargeable batteries, please follow the instructions of the charging unit. **Please dispose old batteries properly!**

## Overview of key combinations

### Locking/Unlocking a program

Simultaneously press left **▼** and **P** key for 3 seconds

### Changing stimulation time (From series C)

Press **E** key

### Setting own programs (From series C)

Select P13 - P15, press **E** key

### Entering date/time mode (From series C)

Press **E** key for 3 seconds

### Entering memory query mode (From series C)

Simultaneously press left **▼** and **E** key for 3 seconds

### Switching ON/OFF the sound (From series D)

Simultaneously press **E** key and right **▼** for 3 seconds.  
Press **E** to change between sound on/off.

## Pre-set programs

### Program 1: Gate control 1

Both channels work with the same frequency and pulse width.

Frequency: 100 Hz

Pulse width: 200  $\mu$ s

Therapy time: 30 min (10 to 90 min)

**Indications:** Acute nerve or joint pain

This program is used to treat acute neuropathic and joint pain. The effect is immediate.



### Program 2: Gate control 2

Both channels work with the same frequency and pulse width (see illustration Program 1).

Frequency: 80 Hz

Pulse width: 150  $\mu$ s

Therapy time: 30 min (10 to 90 min)

**Indications:** Acute nerve or joint pain

Program 2 is similar to program 1 but works with a lower frequency and may therefore be considered as more pleasant.

### Program 3: Low frequency

Both channels work with the same frequency and pulse width (see illustration Program 1).

Frequency: 2 Hz

Pulse width: 250  $\mu$ s

Therapy time: 30 min (10 to 90 min)

**Indications:** Diffuse nerve, joint or muscle pain, spasms, lower back pain, neck pain, fibromyalgia, chronic pain. This program is used to relax painful muscles and to achieve an endorphin release. Endorphins have an analgesic effect that lasts beyond stimulation, but you need to run program P3 to the end (30 min). To achieve particularly good effects use kaada electrodes placement (on the hand).

### Program 4: Gate control & low frequency

The channels work with different frequencies but with the same pulse width.

Therapy time 30 min (10 to 90 min)

**Channel 1:**

Frequency: 100 Hz

Pulse width: 200  $\mu$ s

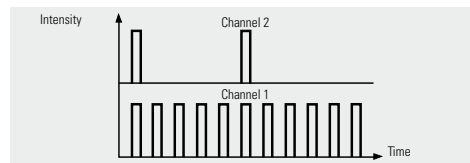
**Channel 2:**

Frequency: 2 Hz

Pulse width: 200  $\mu$ s

**Indication:** Joint pain

This program combines the effects of program 1 and 3, in case the analgesic effect off program 3 is not strong enough.



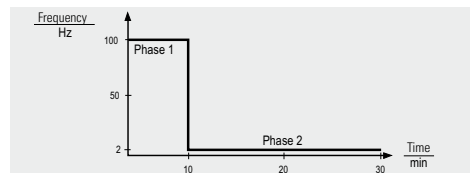
### Program 5: Adaptation

After phase 1 the program changes automatically to phase 2.

Therapy time: 30 min (10 to 90 min)

Phase 1:		Phase 2:	
Frequency:	100 Hz	Frequency:	2 Hz
Pulse width:	150 $\mu$ s	Pulse width:	200 $\mu$ s
Duration:	10 min	Duration:	20 min

**Indications:** Especially for lower back pain and sciatic pain syndrome  
 Program 5 starts with high frequency stimulation for 10 minutes, to give you immediate pain relief. After 10 minutes it automatically changes to a 20 minutes low frequency stimulation with acupuncture type impulses to release endorphins and to retain the analgesic effect even beyond stimulation.



The duration of phase 1 and 2 is adjusted in the ratio 3/8 to 5/8.

### Program 6: HAN stimulation

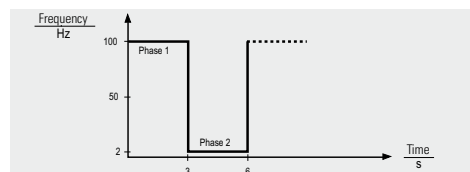
The device continuously changes between phase 1 and phase 2.

Therapy time: 30 min (10 to 90 min)

Phase 1:		Phase 2:	
Frequency:	100 Hz	Frequency:	2 Hz
Pulse width:	150 $\mu$ s	Pulse width:	200 $\mu$ s
Duration:	3 s	Duration:	3 s

**Indications:** All kinds of pain

This program combines the analgesic effect of high frequency stimulation with endorphin release caused by low frequency stimulation. Every 3 seconds it changes between a "pins and needles" stimulation and a pulsing stimulation.



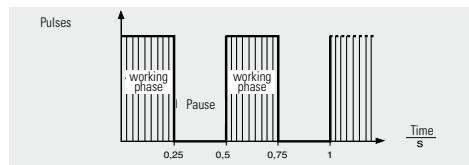
### Program 7: Burst

This generates pulse packages (Burst).

Frequency:	100 Hz
Pulse width:	150 $\mu$ s
Modulation:	Burst 0.5 s (0.25 s + 0.25 s)
Therapy time:	30 min (10 to 90 min)

**Indications:** Diffuse nerve, joint or muscle pain, spasms, lower back pain, neck pain, fibromyalgia.

This program covers the same indications as program 3, but the stimulation is often considered as more comfortable and pleasant than the normal low frequency stimulation.



### Program 8: Modulation

The frequency continuously changes within the frequency limits.

The pulse width adapts accordingly.

Minimal frequency:	2 Hz	(Pulse width: 200 $\mu$ s)
Maximal frequency:	80 Hz	(Pulse width: 100 $\mu$ s)
Modulation duration:	7.5 s (2 Hz $\rightarrow$ 80 Hz)	
Therapy time:	30 min (10 to 90 min)	

**Indications:** Acute nerve or joint pain (as an alternative to P1 and P2)

If you feel that the analgesic effect of program 1 or 2 is decreasing, change to program 8. With frequency modulation the body does not become accustomed to the stimulation.

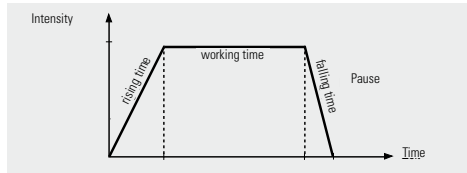
### Program 9: Muscle stimulation

The intensity continuously changes according to the indicated parameters.

Frequency:	50 Hz	Pulse width:	250 $\mu$ s
Rising ramp:	2 s	Working phase:	5 s
Falling ramp:	1 s	Pause:	12 s
Therapy time:	30 min (10 to 90 min)		

**Indications:** Prevention of muscular atrophy, muscle strengthening

This program is suitable to maintain the muscle volume, e.g. during injury or recovery, or to avoid muscle atrophy. In case of muscle atrophy, do not stimulate more than once a day for the first month. Certainly program 9 can also be used to strengthen a healthy muscle.



### Program 10: Gate control dynamic 1

The intensity continuously changes and the two channels operate alternately (massage effect).

Frequency: 80 Hz

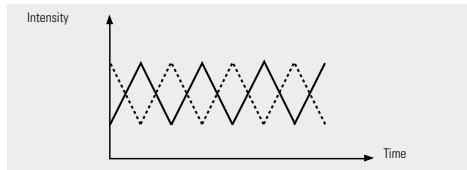
Pulse width: 150  $\mu$ s

Intensity modulation: 1 s rise, 1 s fall

Therapy time: 30 min (10 to 90 min)

**Indications:** Especially for acute back pain, lower back pain, sciatic pain

This program is recommended for the treatment of back pain. The massage effect provides a comfortable and pleasant stimulation. The so called Gate Control reflex which is achieved through this kind of stimulation is a natural reflex that you achieve e.g. by rubbing a painful area with your hands to calm acute pain. To achieve the massage effect it is essential to use both channels of the TENStem eco basic.



### Program 11: Gate control dynamic 2

The intensity continuously changes two channels operate alternately (massage effect). See illustration program 10.

Frequency: 80 Hz

Pulse width: 150  $\mu$ s

Intensity modulation: 0.25 s rise, 0.25 s fall

Therapy time: 30 min (10 to 90 min)

**Indications:** Heavy legs (venous return)

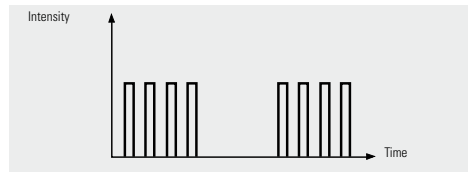
Program 11 is similar to program 10, but the movement of the massage waves is faster. It is used to improve the venous return for patients who suffer from heavy legs. To achieve the massage effect it is essential to use both channels of the TENStem eco basic.

### Program 12: Deep TENS

Program 12 works just like program 1. However, instead of just one pulse, four short pulses are generated.

Frequency:	100 Hz
Pulse width:	75 $\mu$ s
Modulation:	four pulses in a group, duration of periods 275 $\mu$ s
Therapy time:	30 min (10 to 90 min)

This program could be called the last recourse if none of the other programs give analgesic effect. However, because of the high frequency this program is often felt as less pleasant. Furthermore, high frequency stimulation needs more battery power.



## User programs for own settings (From series C)

### Program 13: Gate control

Both channels work with the same frequency and pulse width.

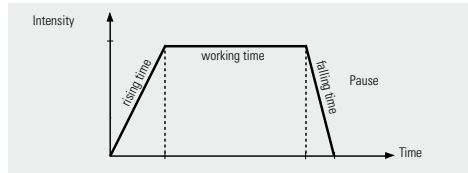
Frequency:	1 - 120 Hz
Pulse width:	75 - 300 $\mu$ s
Therapy time:	10 - 90 min



### Program 14: Muscle stimulation

The intensity continuously changes according to the indicated parameters.

Frequency:	1 - 120 Hz
Pulse width:	75 - 300 $\mu$ s
Rising ramp:	2 s
Working phase:	5 s
Falling ramp:	1 s
Pause:	12 s
Therapy time:	10 - 90 min



### Program 15: Gate control dynamic

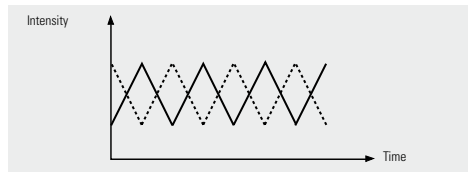
The intensity continuously changes and the two channels operate alternately (massage effect).

Frequency: 1 - 120 Hz

Pulse width: 75 - 300  $\mu$ s

Intensity modulation: 1 s rise, 1 s fall

Therapy time: 10 - 90 min



### Program 16: Iontophoresis, Nerv block (from series E)

Both channels work with the same frequency and pulse width. The current is monophasic.

We do not recommend to use P16 for more than 20 minutes. Check the skin underneath the electrodes after the stimulation.

Frequency: 1 - 120 Hz

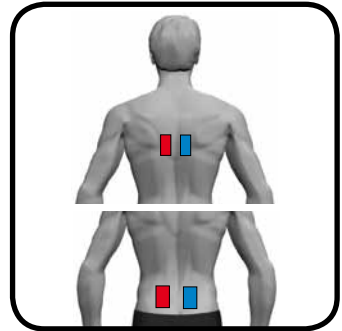
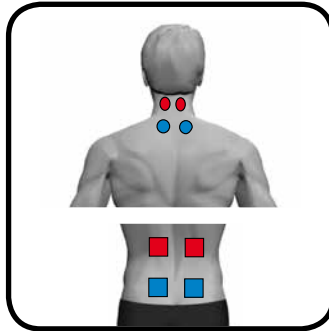
Pulse width: 75 - 300  $\mu$ s

Therapy time: 20 min

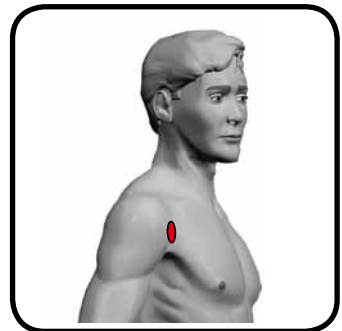
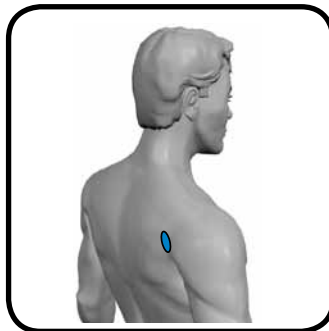


## Electrode placements for pain programs

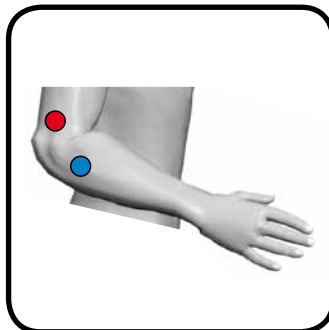
### Back pain



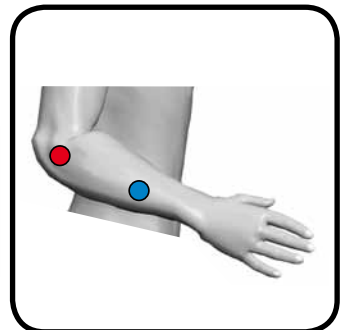
### Shoulder pain

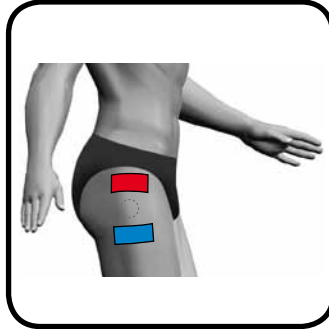
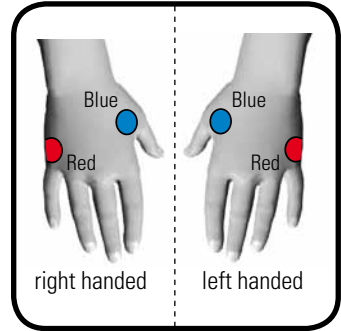
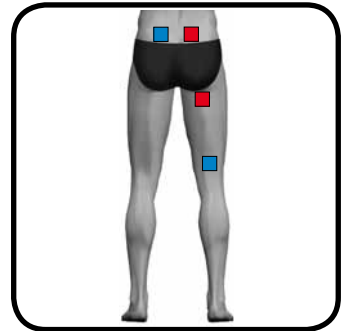
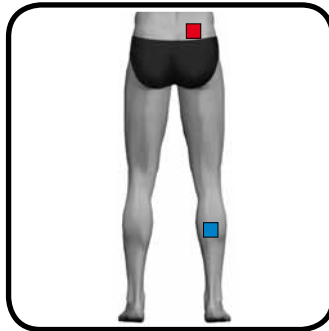
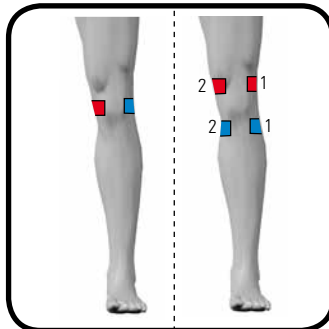
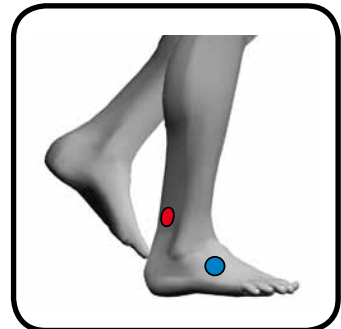


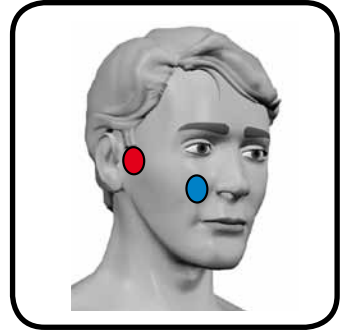
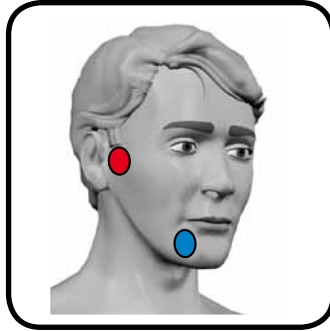
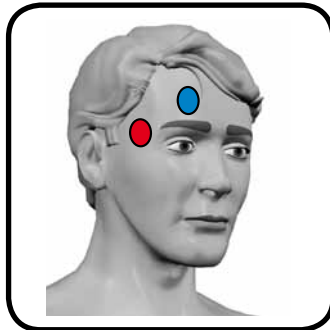
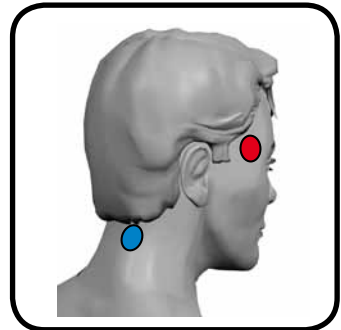
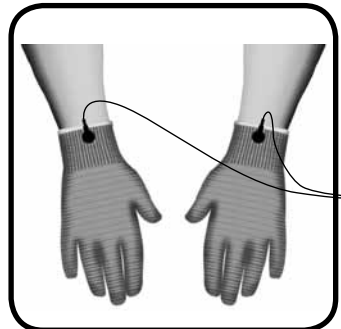
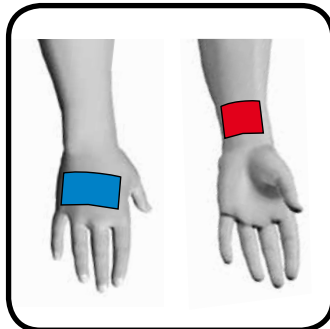
### Epicondylitis ulnaris



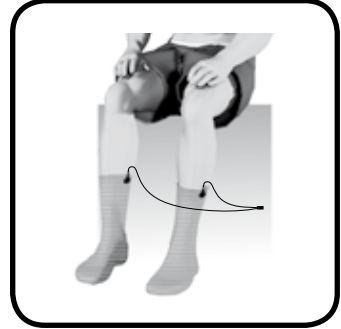
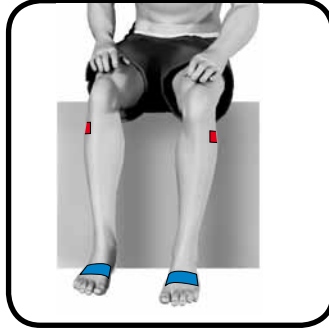
### Epicondylitis radialis



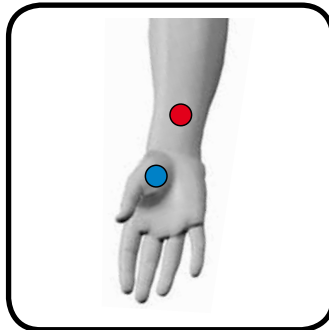
**Arthrosis (hip)****Kaada stimulation (1 channel only)****Sciatic pain****Gonarthrosis/knee pain****Ankle joint pain**

**Trigeminus neuralgia****Migraine****Tension headache****Polyarthritis**

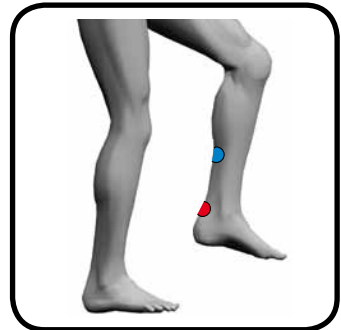
### Polyneuropathy



### Carpal tunnel syndrome



### Pain of achilles tendon/heel pain

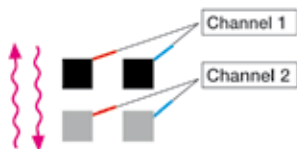


## Electrode placement for dynamic stimulation (P10, P11, P15)

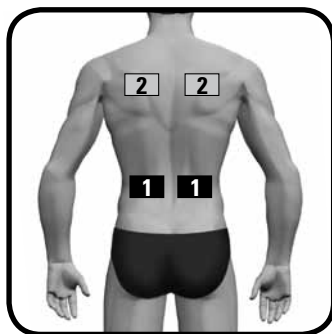
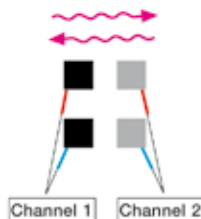
The stimulation is not administered simultaneously on both channels. The current flows from one electrode to the other just like a wave undulating on the body. This kind of stimulation is far more comfortable than traditional neuro-muscular stimulation. Dynamic stimulation can be used with high frequency parameters for a improved pain control or with low frequency parameters for optimized muscle stimulation. This treatment method also has an enhanced effect on lymphatic drainage stimulation.

The placement of electrodes for dynamic stimulation depends on the direction of stimulation (rising/falling stimulation or sideways stimulation)

Rising or falling stimulation  
for back or legs

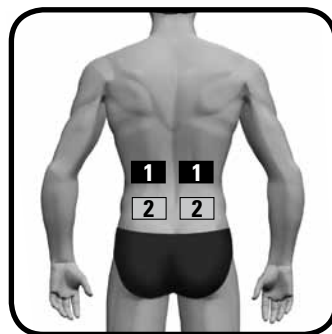


Sideways stimulation  
for gluteus or stomach muscle



**Rising wave:**

channel 2  
channel 1



**Falling wave:**

channel 1  
channel 2

## Classification

The TENStem eco basic is classified as being a Class IIa medical device in accordance with the law for medical devices.

## Settings, modifications and repairs

The manufacturer is only responsible for the safety and performance of the TENStem eco basic when settings, modifications and repairs are carried out by authorised persons, and when TENStem eco basic is used in accordance with the operating instructions.

## Warranty

Legal right of warranty is applied according to German Civil Code.

## Guarantee

The manufacturer issues a guarantee of 12 months from the date of purchase.

The guarantee does not apply in the following cases:

- damage due to improper handling
- defects the customer is aware of on the date of purchase
- damage caused by the customer
- for wearing parts and consumable supplies like, for instance, electrodes, batteries and cables

## Maintenance and cleaning

No special cleaning or care agents are required for the TENStem eco basic. Clean the unit with a soft, fluff-free cloth. Please ensure that no moisture permeates the unit. If moisture does permeate the unit, a technical check must be carried out before re-use.

## Delivery content

Quantity	Article	Art.-No.
1	TENStem eco basic	104041
1	Cable type 7 (1 pair)	104741
1	Stimex self-adhesive electrodes 50 x 50 mm (4 pieces)	281015
4	1.5 V battery LR03micro (AAA)	604000
1	Operating Manual	100839

## Frequently asked questions

### How many times a day can I use the TENStem eco basic?

We recommend to use the device 3 times a day. The pre-set therapy time of 30 minutes per program should not be extended. After a therapy session, wait for several hours before using the unit again.

### What intensity should I use?

Do not try to increase the intensity beyond the level which is comfortable. You will either feel pins and needles or pulses depending on the program or frequency used. You will notice that the intensity often feels different even if you stimulate the same area at different times of the day. This is normal. Do not hesitate to adjust the intensity to achieve a stronger but still pleasant stimulation.

**The intensity of my TENS unit cannot be increased to exceed 6/8 mA. Is my TENS unit defective?**

The TENStem eco basic is not defective. Check if the cables are connected correctly to the TENS and if the electrodes are connected correctly to the cables. Try to use new electrodes. The device is equipped with a special electrodes recognition function that prevents the increase of the intensity of improperly connected electrodes to the skin and also if electrodes are worn-out. If cables are defective.

**I have been using my TENStem eco basic for 2 months and I feel that the stimulation is less effective.**

This could be due to the following reasons:

- The electrodes need to be changed.
- Your body has adapted to the repeated stimulation. We recommend to change the program or the placement of the electrodes.

**Can electrodes adhere to hairy skin?**

In case of strong hair growth we recommend to shave the skin before placing the electrodes, but usually this is not necessary.



## Accessories

The following accessories can be combined with the TENStem eco basic.

**Stimex self-adhesive electrodes**

Art. No.	Article	Pieces
281000	Stimex 32 mm round	4
282000	Stimex 50 mm round	4
283400	Stimex 50x50 mm	4
281032	Stimex 50x50 mm	20
283600	Stimex 50x90 mm	2
281007	Stimex 50x90 mm	4
283000	Stimex 50x130 mm	2
283100	Stimex 80x130 mm	2
281027	Stimex sensitive 50x50 mm	4





### Silicone electrodes (to be used with contact gel)

Art. No.	Article	Pieces
107090	Silicone electrode 20 mm round	2
107060	Silicone electrode 25 mm round	2
107075	Silicone electrode 40x28 mm	2
107035	Silicone electrode 56x28 mm	2
107020	Silicone electrode 75x30 mm	2
107055	Silicone electrode 90x35 mm	2
107011	Silicone electrode 38x45 mm	2
107010	Silicone electrode 48x48 mm	2
107050	Silicone electrode 70x65 mm	2
107070	Silicone electrode 70x140 mm	2
108000	Contact gel for silicone electrodes (60 g)	1



### MedicoBack: for the treatment of low back pain

Low back support bandage with pelotte and integrated electrodes to be used with pain management programs of the TENStem eco basic.

MedicoBack P-type offers patients lumbar vertebrae stabilization and support as well as easy stimulation provided by the integrated electrodes. The pelotte with its massage nubs enhances the pain relieving effect. MedicoBack P-type may be used for slight or acute pain as well as for chronic pain in the lower back area.

Art. No.	Article	Size	Length
107034	MedicoBack P-type	S	80 - 90 cm
107036	MedicoBack P-type	M	90 - 100 cm
107037	MedicoBack P-type	L	100 - 110 cm
107038	MedicoBack P-type	XL	110 - 120 cm
107039	MedicoBack P-type	XXL	120 - 130 cm

### Stimex garment electrodes: gloves and socks

The gloves and socks used in combination with the TENStem eco basic provide stimulation of the entire hand and/or foot and ankle and avoid the sometimes tiresome attachment of self-adhesive electrodes on the hand or the foot.



#### Gloves

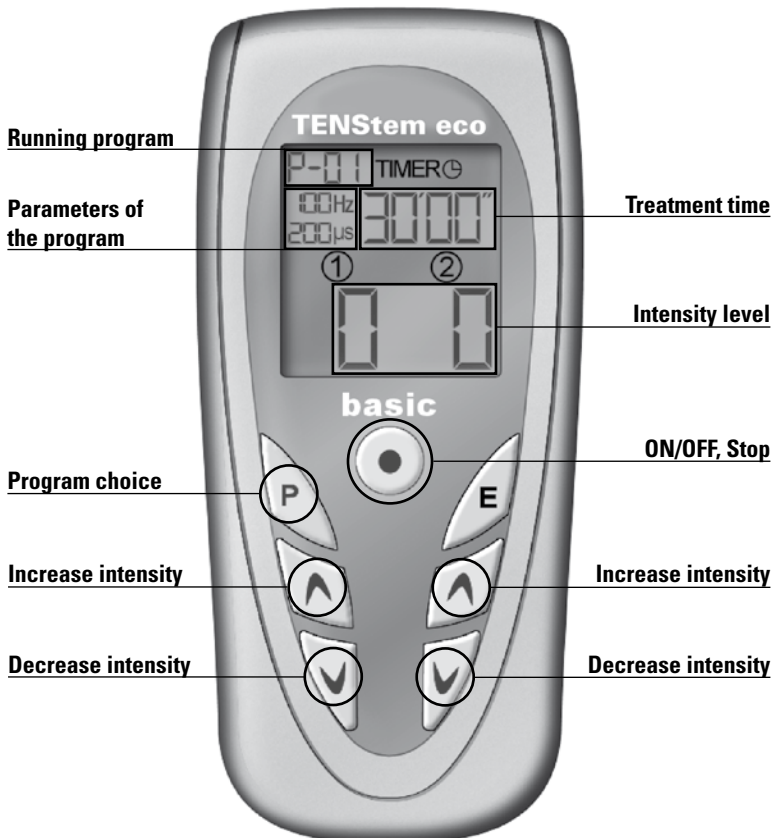
Art. No.	Article	Size	Pair
107014	Stimulation gloves	S	1
107021	Stimulation gloves	M	1
107022	Stimulation gloves	L	1





### Socks

Art. No.	Article	Size	Pair
107023	Stimulation socks	M	1
107024	Stimulation socks	L	1



<b>Program No.</b>	<b>Program name</b>	<b>Indication</b>
<b>1</b>	Gate control 1	Nociceptive pain, acute pain, neuropatic pain
<b>2</b>	Gate control 2	Alternative to program 1
<b>3</b>	Low frequency	Chronic nociceptive pain, improvement of blood circulation, Kaada stimulation
<b>4</b>	Gate control + low frequency	Combination of high and low frequency stimulation
<b>5</b>	Adaptation	Muscular pain
<b>6</b>	HAN	Suitable for almost all kinds of pain program
<b>7</b>	Burst	Alternative to program 3 (more comfortable)
<b>8</b>	Modulation	Alternative to the other programs in case of therapy resistance
<b>9</b>	Muscle stimulation	Atrophy prophylaxis, muscle strengthening
<b>10</b>	Gate control dynamic 1	Muscle relaxation
<b>11</b>	Gate control dynamic 2	Muscle relaxation, venous return
<b>12</b>	Deep TENS	Muscular pain, deep seatted pain
<b>User programs</b>		
<b>13</b>	TENS stimulation	Pain treatment (see programs 1-3)
<b>14</b>	Muscle stimulation	Muscular pain, deep seatted pain
<b>15</b>	Gate control dynamic	Muscle relaxation
<b>16</b>	Monophasic	Iontophoresis, nerv block, Jenkner block (stellate ganglion block)

Description	Frequency/Hz	Pulse width/ $\mu$ s	Time/min
Both channels	100	200	30
Both channels	80	150	30
Both channels	2	250	30
Channel 1: 100 Hz Channel 2: 2 Hz	Channel 1: 100 Channel 2: 2	200	30
First 10 min 100 Hz, then 20 min with 2 Hz	100/2	150/200	10/20
3 s 100 Hz, then 3 s 2 Hz etc.	100/2	150/200	30
100 Hz for 0.25 s	100	150	30
Automatic frequency run from 2 Hz to 80 Hz within 7.5 s	2 - 80	200 - 100	30
Increase 2 s, working time 5 s, decrease 1 s, pause 12 s, automatic intensity adaption	50	250	30
Intensity within 1 s to maximum, then within 1 s reduced to 50%. Both channels in alternating operation	80	150	30
Intensity within 0.25 s to maximum, then within 0.25 s reduced to 50%. Both channels in alternating operation	80	150	30
Impuls packages of 4 impulses. 200 $\mu$ s between each impuls	100	75	30
Both channels	1-120	75-300	10-90
Increase 2 s, working time 5 s, decrease 1 s, pause 12 s (automatic intensity adaptation)	1-120	75-300	10-90
Intensity within 1 s to maximum, then within 1 s reduced to 50%. Both channels in alternating operation	1-120	75-300	10-90
Both channels with monophasic current	1-120	75-300	20



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