

## USAGE INSTRUCTIONS



- Neck collar for TENS- and EMS-stimulation devices
- For pain/migraine and muscle applications
- Universal size
- Electrode positions can be individually adjusted with hook-and-loop tape
- For all Tens devices with 2 mm plug diameter
- Paddings can be removed individually
- Collar outer fabric washable
- 4 electrodes can be moistened with water
- 2 electrodes can be controlled with one channel of the stimulation device each
- Incl. usage instructions
- 24 months' warranty



**TNM 275**

Version 2, 2012-08

**1**



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# BASIC INFORMATION



## 1.0 What do the icons mean?

The safety icons which are displayed in the operating instructions are notes on the proper use of the neck collar and for protection of your safety.

The icons represent the following contents:



Read and observe operating instructions!



**Warning/danger:** In case of improper use, there is a danger of serious injury/damage!



Always comply with these notes!



**Warning/danger:** The device must not be used by any persons with a pacemaker!

## 2.0 Basic information

### 2.1 What does TENS + EMS mean?

TENS: T= transcutaneous (transferred through the skin), E= electrical,  
N= nerve, S= stimulation.

EMS: electrical muscle stimulation = the muscle tissue is electrically stimulated

### 2.2 Application of the neck collar with TENS + EMS devices

A TENS or EMS device uses electrical current in the low-frequency range for therapy. The electrical impulses that are generated, their intensity, frequency and frequency width are controlled by the respective application programme. The electrodes of the neck collar are used to conduct electrical impulses into the nervous system and the muscles. The current flows from one electrode to the other, depending on impulse type of the device. This procedure influences the pain transfer to the brain when applying TENS therapy. The user no longer perceives pain or perceives it at reduced intensity only. EMS-application generates tension for the respective muscle. The intensity of the neck collar electrodes depends on the setting of the respective device. If your device has two channel outputs, two electrodes can be connected per channel.

## 3.0 Safety notes



### 3.1 General safety notes

- 3.1.1 In case of a defect, the neck collar must not be repaired, used or modified (changed) on your own. Incorrect use may lead to the stimulation current causing pain, injury and burns.
- 3.1.2 If skin changes, pain, pain, swelling, feeling unwell or other irregularities occur during application of the neck collar, terminate use at once and consult a doctor!
- 3.1.3 Take off all metallic objects like jewellery, belts, watches and other utensils you are wearing before application to prevent them from getting into contact with the neck collar.
- 3.1.4 Do not use the neck collar when driving a car and do not perform any other activities during use.
- 3.1.5 If you have any doubts regarding application of the neck collar, consult your doctor beforehand.
- 3.1.6 Do not use the neck collar without consulting your doctor or in any locations that are painful without explanation, on swollen muscles or after severe muscle injury. Application of the neck collar does not replace medical diagnosis and treatment.
- 3.1.7 Keep these usage instructions for later questions and hand them on along with the neck collar if you pass the device on to any third parties. Make the usage instructions available to third parties as well. The usage instructions are part of the neck collar.
- 3.1.8 Misuse and non-application-oriented use must be avoided. No other accessories from other devices must be used. Observe the operating instructions of your TENS device's manufacturer when connecting the neck collar TNM 275 to it.
- 3.1.9 Do not place any heavy or sharp-edged objects onto the neck collar.
- 3.2.0 Check that the electrodes are placed correctly in the area of the neck before every application.
- 3.2.1 If there are any irregularities during application, application must be terminated at once.
- 3.2.2 The instructions must be retained during the product's service life.
- 3.2.3 Avoid too-high pressure on the neck when applying the neck collar so that there will not be any lack of circulation or blood arrest. The neck collar pressure must be set so that the pressure on the neck is perceived as comfortable and the electrodes touch the neck. If the pressure is too high, the blood vessels are constricted and there may be irreparable tissue damage and loss of limbs. Attention! There is danger of suffocation!

### **3.3 For which areas of use/environments is the neck collar suitable?**

- 3.3.1 Only use the neck collar for the intended use: for low-frequency applications (max. electrical impulses in the area up to 120 Hz and max. 120 mA) at the neck of the human body.
- 3.3.2 The neck collar is only intended for external use (application via the skin) on humans, specifically for treatment of doubtlessly diagnosed chronic pain.
- 3.3.3 Apply the neck pain collar for:  
Tense muscle, migraines, pulled muscles, pain and for muscle stimulation.

### **3.4 For which areas of use/environments is the neck collar not suitable?**

- 3.4.1 The neck collar must not be used concurrently with other medical and electrical devices of any kind.
- 3.4.2 Do not use the neck collar in the shower, when swimming, in the sauna, when bathing or in any other environment with high humidity. Keep any liquids away during application. There may be injury and danger to health from increased stimulation or short circuit - danger to life.
- 3.4.3 Do not use the neck collar in bed or when sleeping.
- 3.4.4 Do not use the neck collar close to slightly flammable substances and gases or close to explosives.
- 3.4.5 The neck collar may interfere with other electrical devices in application or be interfered with by other electrical devices. Therefore, never use the neck collar close to other electrical devices.
- 3.4.6 Do not use the neck collar at less than 1.5 metres distance to a short- or micro-wave device or a high-frequency HF surgical device, since there is a danger of skin irritation or burns below the electrodes. Do not use the neck collar and the stimulator in the mountains at altitudes above 3000 metres.

### **3.5 For which areas application is the neck collar suitable?**

- 3.5.1 Treatment with a TENS device is purely symptomatic. They cannot heal. Contact your doctor if you have any therapeutic questions.

### **3.6 For which areas of application is the neck collar not suitable?**

- 3.6.1 Never use the neck collar under the following circumstances: a. in case of cardiac diseases and arrhythmia (may cause cardiac arrest), b. directly on wounds, c. if pregnant in the area of the uterus or in labour, d. in the eye area, e. for patients with a pacer, f. in badly circulated areas of the body, g. for persons with psychological and emotional interferences, h. in persons with a diagnosis of dementia, i. for persons with a low IQ (intelligence quotient).
- 3.6.2 Under the following circumstances, coordinate with your doctor before taking the neck collar into operation: a. in case of acute sickness, b. in case of tumours, c. in case of infectious disease, d. in case of fever, e. in case of blood pressure problems, f. in case of skin disease, g. after an accident, h. in case of nausea or vertigo, i. in case of eruption of sickness, j. once irregularities occur, k. in case of pain with unclear cause, l. in case of diabetes, m. in case of seizures, n. during menstruation, o. if parts of the body have no perception of pain, p. for persons with metals in the body.
- 3.6.3 In case of unspecific pain, such as unspecific headache, treatment with the neck collar will be ineffective.
- 3.6.4 Do not use the neck collar if sudden scare may cause you to injure yourself.
- 3.6.5 The neck collar must not be placed on open wounds, sensitive skin areas and fresh scars.
- 3.6.6 The following persons should not use the neck collar: Children, helpless persons, persons suffering from allergies, persons with weak immune systems, persons with pain from unclear causes or diabetes, persons with circulation problems of the outer arteries and tissue, severe cardiovascular disease. In doubt, ask your physician.
- 3.6.7 If a person cannot perceive pain properly, this neck collar must not be applied. Frail and disabled persons may not be able to make clear when the stimulation reaches too high an intensity.

# SAFETY NOTES



## 3.7 Use by children and teens

- 3.7.1 Never treat any children with this neck collar!
- 3.7.2 The neck collar must be kept inaccessible for children and teens below 18 years!

## 3.8 Use of the neck collar

- 3.8.1 The neck collar must only be connected to stimulators with a 2 mm plug. Please ensure that the device/stimulator is switched off during application or removal of the neck collar.
- 3.8.2 If you want to re-position the neck collar during application, switch off the device/stimulator first.
- 3.8.3 Use of the neck collar may cause skin irritation. In case of skin irritation, e.g. reddening, blistering or itching, no longer use the neck collar. Do not use the neck collar permanently at the same place of the body because this may lead to skin irritation.
- 3.8.4 Before application, clean and dry off the skin regions intended for the neck collar thoroughly. The skin areas should be grease-free and clean.
- 3.8.5 The cables and neck collar must only be connected when the stimulation device (TENS device) is switched off.
- 3.8.6 To avoid cable damage, avoid direct pulling at the cables when removing the plug connections from the neck collar. Only pull or push the plugs to connect or remove the neck collar.
- 3.8.7 Plugging the neck collar in and out to and from the TENS device is possible by the plug connection to the electrical cable.
- 3.8.8 Every person reacts differently to electrical nerve stimulation. If application is not successful, coordinate with your doctor.
- 3.8.9 Do not pull on the cable to disconnect the plug connections of the neck collar.
- 3.9.0 The neck collar must not be used on body areas with skin inflammation, open and fresh wounds.
- 3.9.1 Only apply the neck collar to the intended body area of the foot!
- 3.9.2 If not ordered differently by the doctor, we recommend an average treatment duration of 30 minutes up to three times per day.
- 3.9.3 Intensity perception does depend on the day-to-day condition and may be adjusted by the user according to individual needs by adjusting the stimulator intensity.



### 4.0 Where must the neck collar not be used?

- 4.0.1 The neck collar must not be used on body areas with skin inflammation, open and fresh wounds.
- 4.0.2 Only apply the neck collar to the intended body area of the neck and observe the application notes.

### 4.1 Storage/maintenance of the neck collar

- 4.1.1 The neck collar is maintenance-free.
- 4.1.2 Clean the neck collar after each application. Do not disassemble or repair the neck collar, because this may cause technical or physical accidents/damage.
- 4.1.3 The connection lines and neck collar must not be bent sharply.
- 4.1.4 For commercial or economic use of the neck collar, safety-technical inspection is required every 24 months according to § 6 MPBetreibV. The safety-technical inspections must be performed by a specialist for medical products. For more information, see our service centre (see page 12).

### 4.2 Cleaning and care of the neck collar

- 4.2.1 The neck collar must not be exposed to direct sunlight. Do not place the neck collar on hot surfaces!
- 4.2.2 Clean the surfaces of the neck collar carefully with a moist cloth. The device/stimulator must not be switched on for this. Remove the batteries from the device/stimulator before cleaning the device because of this. Then let the neck collar dry off well.
- 4.2.3 For hygienic reasons, every user should use his own neck collar.
- 4.2.4 The TENS device/stimulator must not be switched on.
- 4.2.5 A suitable commercial disinfectant can be used for disinfection. Then let the neck collar dry off well.
- 4.2.6 Let the neck collar dry off well after each cleaning. Disconnect the electrode collar from the neck collar to permit it to dry well.
- 4.2.7 Observe the washing icons on the neck collar.

### 4.3 Disposal of the neck collar

- 4.3.1 If the neck collar is to be recycled at some point, disposal must be performed according to the statutory provisions. Ask your community or a disposal company about this. Dispose of the neck collar according to the EC directive on waste electrical and electronic equipment 2002/96/EC-WEEE.



# SCOPE OF DELIVERY



## 4.4 Scope of delivery/package content

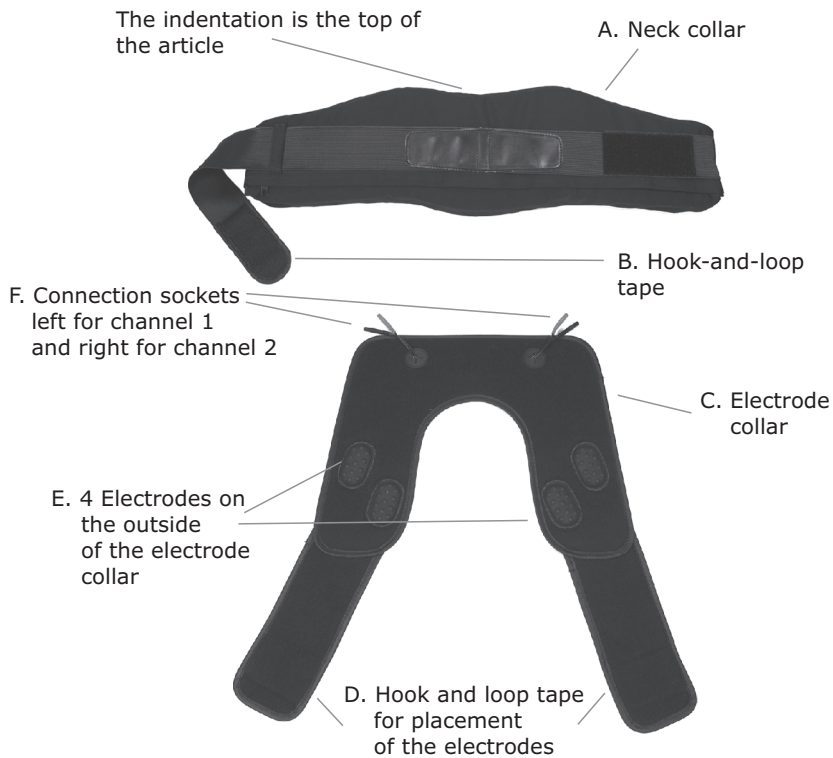


1 x neck collar



1 x usage instructions

## 4.5 Setup of the neck collar



## 5.0 Setting, application and use of the neck collar

### Application with a stimulation device (TENS)

C. Electrode collar

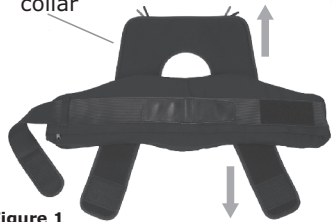


Figure 1

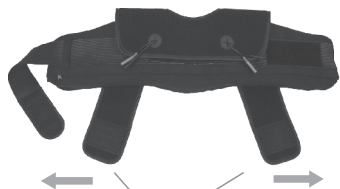


Figure 2

D. Hook and loop tapes



Figure 3

B. Hook-and-loop tape



Figure 4

E. 4 electrodes

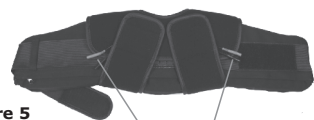


Figure 5

F. 4 connection sockets

#### Step 1:

First set the electrodes to your size for application. Open the electrode collar as in figure 1. Pushing up and down sets the electrode height. Then place the top part of the electrode collar onto the neck collar as in figure 1.

#### Step 2:

To adjust the distance between the right and the left electrodes, move the tow hook and loop tapes inward or outward. Pushing the electrodes inward reduces the electrode distance. Pushing the electrodes outwards increases the electrode distance.

#### Step 3:

Then place the 4 electrodes of the neck collar so that they are placed on the left and right according to figure 3. This way, the current from one electrode can reach the other electrode through the nerves.

#### Step 4:

If the neck collar is set correctly, you need to moisten the 4 electrodes of the neck collar slightly with water (see figure 4). It is best to use a moistened cloth for this.

#### Step 5:

Now put the adjusted neck collar onto the neck and close the hook and loop tape (B). The electrodes must rest against the neck.

#### Step 6:

Now you may connect the Tens/EMS device with the connection sockets (F). Observe that the stimulation device (TENS) is switched off when connecting it. After the connection is established, you may start TENS application. The impulses flow on either side from one electrode (E) to the other and vice versa when applied.

#### Step 7:

If you want to terminate the application, the stimulation device must be switched off. Then you may loosen the plug connections (F) and take off the neck collar.

# TECHNICAL DATA/ICONS



## 6.0 Technical data, icons:

Model type: Neck Collar TNM 275  
 Dimensions: Approx. 530 x 140 x 65 mm, (LxWxH) mm  
 Electrode area: 4 x approx. 45 x20 mm diameter  
 Max. impulse voltage (V): Up to 130 volt at a load of 500 Ohm per channel  
 Max. frequency (HZ): Up to max. 120 Hz (Hz=oscillations per second)  
 Max. impulse strength (mA): Up to max. 120 mA at 1000 Ohm load, direct current (mA=milliampere, Ohm=electrical resistance)  
 Ambience temperature: 5 °C - 40 °C (degrees Celsius)  
 Max. humidity at regular work: 30% - 80% (percent)



Storage/transport temperature  
 5° C - 50° C (degrees Celsius)



Max. humidity at storage/transport  
 10% - 80% (percent)

Weight:  
 Material:

Approx. 180 g  
 Metals, plastics, polyester, nylon, silicone  
 The neck collar is compliant with EU-directive 93/42 EEC for medical products.



Batch designation **LOT** V5012TNM275  
 Manufacturer: Handelshaus Dittmann GmbH,  
 Kissinger Straße 68, D-97727 Fuchsstadt/Germany  
 Production date: 2012-08 (year-month)

Type label/neck collar:

<p><b>Neck Collar TNM 275</b>                  Handelshaus Dittmann GmbH                  Kissingerstraße 68                  D-97727 Fuchsstadt/Germany  <b>LOT</b> V5012TNM275</p>	<p>Material:                  38,8 % Polyester,                  31,5 % Rubber,                  29,7 % Nylon.</p> <p><b>Dittmann</b>                  www.dittmann-gmbh.com</p>
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Type label/neck padding:

<p><b>Neck Padding for TNM 275</b>                  Handelshaus Dittmann GmbH                  Kissingerstraße 68                  D-97727 Fuchsstadt/Germany  <b>LOT</b> V5012TNM275</p>	<p>Material:                  48,5 % Cotton,                  35,9 % Rubber,                  8,4 % Nylon,                  7,2 % Polyester.</p> <p><b>Dittmann</b>                  www.dittmann-gmbh.com</p>
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Meaning of the icon on the product, packaging or the usage instruction: Electrical devices are valuable resources and must not be disposed of in household waste at the end of their lifetime! Help us in environmental protection and resource protection and submit this device to the corresponding collection point. The organisation responsible for waste disposal can answer any questions you may have. Dispose of the neck collar according to the EC directive on waste electrical and electronic equipment 2002/96/EC-WEEE.



# WARRANTY

## 7.0 Warranty

The neck collar purchased by you was developed and produced with great care.

The statutory warranty period is 24 months from the date of the purchase regarding material and fabrication defects of the product. Please keep the receipt as proof of purchase of the neck collar to assert any warranty claims.

The following are excluded from warranty:

- Damage from improper use
- Defects that were already known to the customer at purchase
- Wear parts
- Damage from unauthorised manipulation and due to the customer's own fault

After the end of the warranty period, you may send the defective neck collar to the following address for repairs. Repairs after the warranty period are subject to charges.

For technical problems, questions and warranty claims regarding this neck collar, contact us as follows:

**NOTES:** If you have any complaints regarding the neck collar, contact the service centre first!  
If required, the service centre will initiate return of the device.  
Packages sent POSTAGE UNPAID are not accepted by the service centre!

Handelshaus Dittmann GmbH  
Abteilung Service-Center  
Kissinger Straße 68  
D-97727 Fuchsstadt/Germany  
Email: [hotline@servicecenter.tv](mailto:hotline@servicecenter.tv)  
Phone hotline: 0180-5012678 (0.14 € / min from German landlines;  
up to 0.42 € per minute from mobile phones)  
[www.dittmann-gmbh.com](http://www.dittmann-gmbh.com)

With kind regards



Manufacturer: Handelshaus Dittmann GmbH  
Kissinger Straße 68  
D-97727 Fuchsstadt/Germany



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