

# Operating instructions



**SchweißKiller**

**SweatKiller**

**REF 462040**

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## Usage

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The Sweat Killer is a tap water iontophoresis device and is designed for treating excessive perspiration on hands and feet and under the arms. Do not use this device for any other purposes.

## Important safety instructions

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Please read the operating instructions thoroughly before using the device!

For the safe use of the device

- The Sweat Killer must be used with original accessories only.
- Keep the Sweat Killer device away from water and other liquids.
- Do not drop the Sweat Killer, use in an improper way or expose it to extreme temperatures or high humidity (only for use at temperatures between 10°C and 40°C and a relative humidity of 90%).
- Never use the Sweat Killer if it is not working properly or is damaged.
- Store the Sweat Killer in the original packaging to protect it from damage and soiling.

### **Cautionary measures**

Patients with an implanted electronic device (e.g. pacemaker) should not undergo a session of electrical stimulation with the device without first consulting a doctor beforehand.

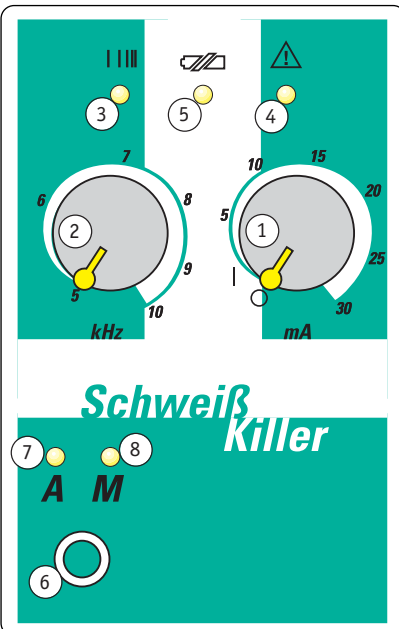
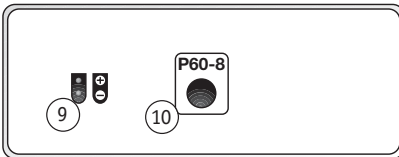
### **Warning!**

Simultaneously connecting the patient to a high frequency surgical device can cause burning underneath the EMS electrodes.

Portable and mobile communication equipment can influence the performance of medical, electrical devices. Operating the device near to (e.g. 1m) a short wave or microwave device can cause fluctuations in the output of the device.








The minimum area for the electrical stimulation electrodes should not be less than 2cm<sup>2</sup>.




## Operating elements



- 1 Turning knob ON / OFF and adjuster for intensity in mA (intensity controller)
- 2 Turning knob for adjusting frequency in KHz (frequency controller)
- 3 Frequency display
- 4 Power display
- 5 Operating display/battery status display
- 6 Button for operating mode
- 7 Automatic mode display
- 8 Manual mode display
- 9 Output socket
- 10 Battery charging socket

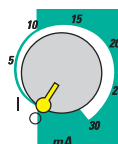
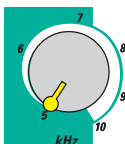
## Symbols

- Name plate** \_\_\_\_\_
- SN** Device serial number
- REF** Article or order number of device
-  Year of manufacture of the device
-  Output level of device
-  Device power supply
- CE** 0197 Conformity with Council Directive 93/42/EEC of 14th June 2003 on medical products
-  Read the operating instructions before use!
-  Type BF application
-  The device contains a NiMH chargeable battery. The battery is recyclable. Please observe the valid regulations on recycling. The manufacturer promises to take back all used devices and to dispose of batteries properly.
- NiMH**
-  The device must not be thrown into normal domestic waste.

- Housing** \_\_\_\_\_
-  Frequency display
-  Operating display
-  Power display

Frequency controller

Intensity controller  
and ON / OFF switch





Button for operating mode

A Operating mode (automatic)

M Operating mode (manual)

Connection point for plug-in charger P60-8

## Technical specification

Single channel medium frequency stimulator with constant voltage characteristic and 2 built-in programmes

Output current 30 mA (on 1k $\Omega$  real)

Frequency range 5-10 kHz

Pulse width 50-100  $\mu$ s

Current draw approx. 160 mA

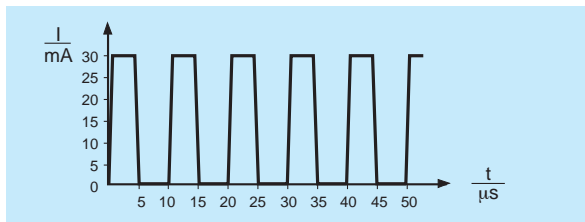
Power supply 9.6 V NiMH

Dimensions 17.5 x 10.5 x 6.0 cm

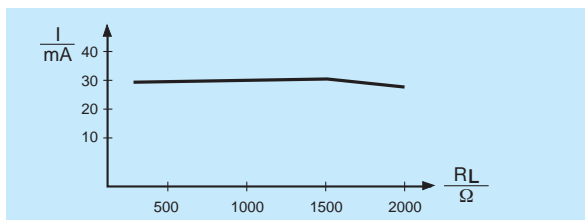
Weight approx. 390 g

### Output signal

Figure 1: Pulsed direct current on 1k $\Omega$  real



Changing output current depending on load resistance:



## Operating the device

### Initial operation of the device

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Before operating the device for the first time, the electrodes must be connected to the device and positioned.

Connect the electrodes to the individual cable connection points and then plug double plug into the connecting socket 7. The connecting socket is on the rear of the device.

The device is switched on using the turning knob 1. The operating display lights up green. If the operating display lights up red, the battery needs to be charged (see section “Charging the battery”). When the plug-in charger is plugged in, the device cannot be used for stimulation.

### Selecting operating mode

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Select the operating mode using the operating mode button 6 on the device. Two operating modes are available:

**A Automatic:** There are two options for setting the desired intensity.

**1. Automatic control up to setting on intensity controller:**

The intensity is automatically set to the pre-selected setting on the intensity controller 1 once the patient comes into contact with the water bath with electrodes (power display 4 lights up). A constant beep is sounded whilst the intensity is gradually being increased and stops when the pre-selected setting is reached.

## **2. Automatic control until hand or foot is removed from the water bath:**

The intensity is automatically set to the pre-selected setting on the intensity controller 1 once the patient comes into contact with the water bath with electrodes (power display 4 lights up). The intensity is automatically, gradually increased. Once the desired intensity is reached, the user removes a hand or a foot immediately from the water bath and the device saves the last setting before the interruption. The saved intensity setting is displayed when power display 4 flashes. The user can put the hand or foot back in the water bath and the device automatically adjusts the intensity to the saved setting. A constant beep is sounded whilst the intensity is being increased and stops when the pre-selected setting is reached.

To delete the saved intensity setting (flashing power display 4), press the operating button 6 twice or switch off the intensity controller 1.

### **M Manual:** intensity adjustment using the intensity controller

The intensity controller 1 can be used to increase the intensity once the patient is connected to the electrodes. A constant beep is sounded whilst the intensity is being increased and stops when the pre-selected setting is reached.

## Adjusting intensity

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To increase intensity, turn knob 1 clockwise. Once the therapeutic voltage is flowing through the patient, the power display 4 lights up.

## Adjusting frequency

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Set the therapy frequency to between 5 kHz and 10 kHz using the frequency controller 2. The frequency display 3 flashes in accordance with the frequency controller setting at between 5 Hz and 10 Hz.

## Duration of treatment

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The duration of treatment is restricted to a maximum of 15 minutes. The stimulation ends automatically on completion. The stimulation can be ended at any time, even before completion of the 15 minutes, by switching off the device using the intensity controller 1.

# Practical usage of the Sweat Killer

## Application (indication)

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- Excessive sweating (hyperhidrosis) on palms of hands and soles of feet or in armpits.

## Carrying out treatment

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According to the Recommendations on Quality Assurance of Tap Water Iontophoresis; Deutsche Dermatologische Gesellschaft (German Dermatological Society).

- Metal objects (bracelets, rings) are to be removed from the area of skin which is to be treated before treatment begins. Small, superficial wounds are to be covered using Vaseline.
- The filling level of the water bath should be measured out in such a way that, when hands or feet are introduced, only the palms of the hands or soles of feet and toes and fingers are covered by the water.
- Use strictly tap water without any prior demineralisation treatment. If only demineralised water is available, normal, commercially available, non-carbonated mineral water is recommended.
- Treatment should last 10 to 15 minutes using a constant polarity.
- The treatment should first be carried out every day (Monday to Friday) or at least three times a week (Monday-Wednesday-Friday). Polarity is established so that the leading hand (for right-handed users, the right hand) is connected to the anode (plus pole, red plug), as this is where the effect is first activated. Once the side which has been treated by the anode shows the desired therapy effects, re-start treatment with reversed polarity so that both extremities show equal signs of the desired therapy effect.
- In subsequent therapy sessions, change the direction of the current by changing the polarity with each treatment.
- The soles of the feet are treated in exactly the same way as in the above description for the treatment of the palms of the hands.
- For treatment of the armpits, use the moistened sponge electrodes. Treatment is carried out in exactly the same way as in the description of treatment for the palms of hands.

## Treating sweaty hands

- First find two suitable bowls, appropriate to the size of your hands. See example illustrated. Note: Use plastic bowls only!
- Connect the rubber electrodes supplied (size 100 x 250mm) with the connecting cables.
- Then push one electrode into each of the foam pads supplied.
- When both foam pads have been prepared, place one on the bottom of each bowl.
- Pour water into the bowls. Fill so that your palms can lie fully in the water. However, the whole of your hand should not be submerged (see illustration).
- Please make sure that your palms can make good contact with the foam pads.
- The Sweat Killer can now be started (see the section of these user instructions entitled 'Starting the appliance').
- Select 'Automatic' operating mode (see the section of these user instructions entitled 'Selecting operating mode').
- Set frequency regulator to 5kHz.
- Set intensity regulator to approx. 20mA.



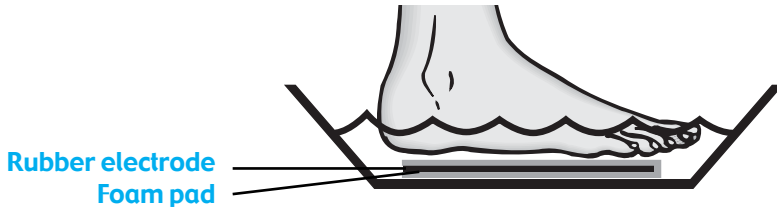
- Place your hands into the water bath. The intensity is now automatically regulated up to 20mA. The intensity is sufficient if you can sense a slightly prickly feeling on your palms.
- Treatment is ended automatically after 15 minutes.

## Treating sweaty feet

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- First find two suitable bowls, appropriate to the size of your feet. See example illustrated. Note: Use plastic bowls only!
- Connect the rubber electrodes supplied (size 100 x 250mm) with the connecting cables.
- Then push one electrode into each of the foam pads supplied.
- When both foam pads have been prepared, place one on the bottom of each bowl.
- Place your feet on the foam pads and pour water into the bowls. Fill until the sole of your foot is well in the water (see illustration).
- The Sweat Killer can then be started (see the section of these user instructions entitled 'Starting the appliance').
- Select 'Manual' operating mode (see the section of these user instructions entitled 'Selecting operating mode').
- Set frequency regulator to 5kHz.
- Place feet in the water bath.
- Set the intensity so that you can sense a slightly

prickly feeling on your soles. Intensity regulation is electronically controlled at 3mA per second. For maximum intensity, the appliance therefore needs about 10 seconds to get up to full power.

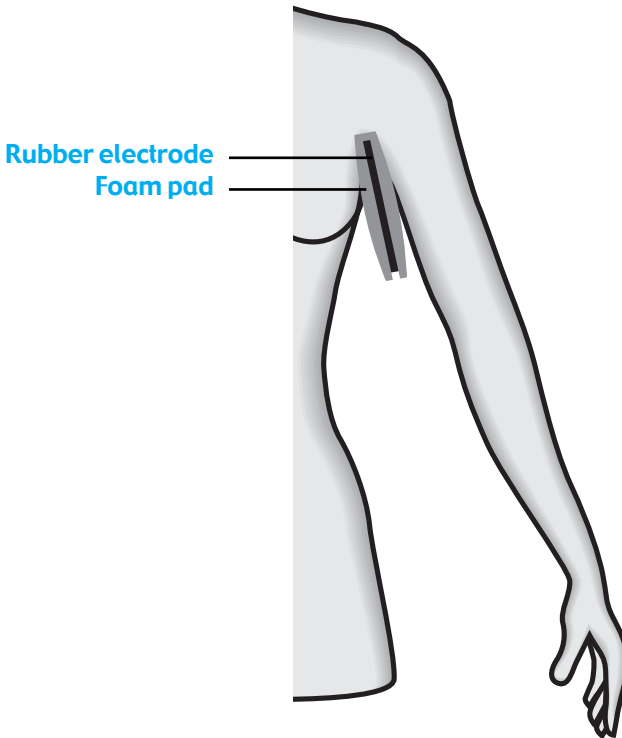


- Treatment is ended automatically after 15 minutes.

## Treating underarm sweat

- Connect the rubber electrodes supplied (size 48 x 68 mm) with the connecting cables.
- Then push one electrode into each of the foam pads supplied.
- Dampen the foam electrodes with water.
- With the rubber electrodes fitted, place one foam pad under each armpit and hold firm with your arm.
- The Sweat Killer can then be started (see the section of these user instructions entitled 'Starting the appliance').
- Then select 'Manual' operating mode (see the section of these user instructions entitled 'Selecting operating mode').
- Set frequency regulator to 5 kHz.

- Set the intensity so that you can sense a slightly prickly feeling. Intensity regulation is electronically controlled at 3mA per second. For maximum intensity, the appliance therefore needs about 10 seconds to get up to full power.
- Treatment is ended automatically after 15 minutes.



## Side effects

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- If the Sweat Killer is used improperly, it is possible that you will experience a small electric shock when suddenly introducing the parts of the body being treated into the current-carrying water bath or removing them from the current-carrying water bath.
- During treatment, shooting or tingling discomfort may occur on the current-carrying areas of skin depending on the level of voltage.
- If the voltage setting is too high, painful sensation may be experienced in all extremities being treated.
- Check for and keep under observation any reddening of the skin or blisters directly after treatment, particularly on the areas of skin along the water line. These will regress in full and only represent a short, subjective irritation.
- Metal objects (jewellery, wrist watch) being immersed in the current-carrying water bath, or the skin coming into direct contact with the current-carrying electrodes, can cause the described markings. Prevent this from happening by strictly removing all metal objects and covering the electrodes with insulating sponge pads.
- Any injuries to the skin must be covered with Vaseline to insulate them from the flow of voltage. Failure to observe this instruction may lead to voltage markings.

## Limitations for usage (contraindications)

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If the following applies, the Sweat Killer should not be used or should be used strictly according to the advice of a doctor.

- Patients with an implanted electronic device (e.g. pacemaker)
- Pregnancy
- Metal implants in the area of voltage flow (arms or legs)
- Intrauterine pessary containing metal (contraceptive coil)
- Severe skin injuries which cannot be covered by Vaseline

## Charging the battery

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If the operating display 5 light up red, the battery needs to be charged. To do so, use the charger P60-8 included in the scope of delivery.

### **TURN OFF THE DEVICE TO CHARGE THE BATTERIES!!**

Plug the plug-in charger to the socket and then connect the charger to the battery charging socket 8 on the rear of the Sweat Killer (yellow control display lights up on the plug-in charger).

The charging procedure is complete when the yellow control display goes out or flashes. Before the charger can be removed from the socket, the Sweat Killer must be disconnected from the charger by pulling the charger plug.

**Technical Specification of the  
plug-in charger P60-8:**

Input	230V / 50Hz / 35mA / 5W
Output	12.6V / 140mA
Type	FW 1199
Charging time	5 hours
Temperature range	0°C to + 40°C

**Attention!**

The P60-8 charger may only be used indoors and must be protected from moisture.

The P60-8 charger may be only used for charging the Sweat Killer.

Do not short circuit the charger or the charging socket of the Sweat Killer.

Batteries which are not rechargeable must not be used with the plug-in charger.

## Classification

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The Sweat Killer is classed as a class IIa medical product according to the law on medical products.

## Technical checks

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Carry out technical checks on the device every 24 months when using it for commercial or business purposes.

**Technical checks include:**

1. Checking the accompanying paperwork to make sure the operating instructions are available
2. Checking all equipment is still available

3. Visual spot checks
  - for mechanical damage
  - for damage to all lines and plug connections
4. Operating safety
  - Checking the output signals at a load resistance of 1 k $\Omega$  (current and voltage)
  - Checking frequency
  - Checking pulse width

The technical checks must be carried out by appropriately qualified personnel.

## Resetting, alterations and repairs

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The manufacturer is only liable for the safety and performance of the device as long as resetting, alterations and repairs are carried out by persons approved by the manufacturer and the Sweat Killer is operated in accordance with the operating instructions.

## Wiring diagrams, spare part lists and instructions for settings

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On request, we can supply appropriately qualified user personnel who are familiar with the technical construction of the device with wiring diagrams, spare part lists and instructions for settings.

## Warranty

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The Sweat Killer carries a warranty of 2 years, valid from the date of handover. Cables and electrodes are not included in the warranty.

## Care and cleaning

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The Sweat Killer requires no special care or cleaning agents.

The device can be cleaned using a soft, lint-free cloth.

Make sure that moisture is not allowed to penetrate the interior of the device.

The device must undergo a technical check before it can be used again if moisture is allowed to enter into the device.

## Scope of delivery

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1	Sweat Killer	REF 462040
1	Plug-in charger P60-8	REF 104704
1	Cable type 5.19 (blue)	REF 106355
1	Operation instruction	REF 451600-0214
1	Case	REF 450980-0060
2	Foam electrodes 50 x 70 mm	REF 462042
2	Foam electrodes 100 x 250 mm	REF 462043



CE 0197

Manufacturer: Pierenkemper GmbH  
Hörnshheimer Eck 19 · D-35578 Wetzlar  
[www.pieren-tech.de](http://www.pieren-tech.de)

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Version 1