

**READ THIS MANUAL BEFORE USING THIS PRODUCT**  
**Important Safety Information Inside**

**Keep this manual in a safe location  
for future reference**

**OPERATING INSTRUCTIONS**  
**HIVAMAT® 200 Evident**  
**BY**



RM01625 US

**MANUFACTURED BY**  
***PHYSIOMED***®  
TECHNOLOGY FOR THERAPY

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HIVAMAT® is a registered trademark of PHYSIOMED ELEKTROMEDIZIN AG. The therapy mode is based on patented technology.

HIVAMAT® 200 Evident is made in Germany in compliance with the quality requirements of DIN ISO 13485:2003, FDA regulations, and the applicable safety standards:

- IEC 60601-1: Electronic medical devices, Part 1: General safety requirements
- IEC 60601-1-4 Electronic Medical Devices - Part 1-4: General Safety Requirements - Accompanying Standard: Programmable Electronic Medical Devices

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## Chapter 1 Important Safety Instructions



### WARNING

United States federal law restricts this instrument to sale by or on the order of a medical practitioner licensed by the law of the State in which he/she practices to use or order the use of the instrument.

The instrument must only be operated by medical practitioners who have undergone special training. Use by unqualified personnel or consumers bears the risk of serious injury.

You must operate the instrument properly, i.e. in accordance with the Operating Instructions.

If the patient experiences any unpleasant sensation during treatment, the practitioner must stop the treatment immediately. Prior to treatment, the practitioner has to explicitly inform the patient about this.



### CAUTION

United States federal law restricts this instrument to sale by or on the order of a licensed healthcare practitioner.

When making any swivel or rotary movements of the screen, make sure that no body parts (especially fingers) or accessories are pinched.

Operating the instrument in the proximity (e.g. 1 m) of a short-wave or micro-wave therapy unit may cause output irregularities and should be avoided for this reason, as well as simultaneous connection of the patient to high-frequency surgical instrument.

Contact the Technical Support (refer to [Customer Service](#) on page 36) if a monitoring note does not disappear even after several automatic function checks. Never perform a treatment when proper function of the instrument is not assured.

Before each treatment, adjust the intensity to match the respective conditions and pay attention to the contraindications (refer to [Contraindications](#) on page 2).

The instrument is to be used exclusively with original accessories. Otherwise, treatment results might be insufficient.

## Chapter 2 Overview

### 2.1 Indications for Use

**WARNING**

The instrument must only be operated by medical practitioners who have undergone special training. Use by unqualified personnel or consumers bears the risk of serious injury.

The function of HIVAMAT® 200 Evident is based on a pulsed electrostatic field which is built up in the patient's body region to be treated. Its frequency changes between 5 - 250 Hz, according to the selected program. Due to the movement of the handheld applicator, a vibrating or pumping effect with deep impact is induced in the patient's tissue. The treatment is carried out with the supplied handheld applicators.

Treatment with HIVAMAT® 200 Evident has the following positive effects on the treated tissue:

- muscle relaxation
- relief of muscle aches and pains
- increased local blood circulation

### 2.2 Contraindications

Therapy with HIVAMAT® 200 Evident is not indicated in the following cases:

- acute infections
- acute inflammations with participation of pathogenic agents
- active tuberculosis
- acute venous diseases (untreated thromboses)
- untreated malignant processes
- erysipelas
- patients and therapists with cardiac pacemakers and other electronic implants
- heart disorders and diseases, especially cardiac insufficiency, decompensated cardiac edema, and cardiac arrhythmia
- pregnancy
- hypersensitivity to electrostatic fields
- infectious skin diseases
- vertebrobasilar insufficiency (VBI)

## 2.3 Warnings

- (a) Pulsed electrostatic fields should not be applied over swollen, infected, or inflamed areas or skin eruptions, e.g., phlebitis, thrombophlebitis, varicose veins, etc.
- (b) Pulsed electrostatic fields should not be applied over, or in proximity to, cancerous lesions.
- (c) Set the line voltage at the mains module to match the incoming line voltage.
- (d) HIVAMAT® 200 Evident must not be used in the operating room, or in the presence of flammable anesthetic gases mixed with air, oxygen or nitrous oxide.

Please also note the contraindications to pulsed static electromagnetic fields in [Contraindications](#) on page 2.

## 2.4 Precautions

- (a) Caution should be used for patients with suspected or diagnosed heart problems.
- (b) Caution should be used for patients with suspected or diagnosed epilepsy.
- (c) Caution should be used:
  - When there is a tendency to hemorrhage following acute trauma or fracture;
  - following recent surgical procedures when vibration may disrupt the healing process;
  - over the menstruating uterus; and
  - over areas of the skin which lack normal sensation.
- (d) Instrument settings should be based on the guidance of the prescribing practitioner.
- (e) Massage-intensifying systems should be kept out of the reach of children.
- (f) Massage-intensifying systems should be used only with the accessories recommended by the manufacturer.
- (g) Massage-intensifying systems should not be used while driving, operating machinery, or during any activity in which vibration may put the user at undue risk of injury.
- (h) Massage-intensifying systems emit electromagnetic waves: Maintain sufficient separation from other electronic devices, and at least one-meter separation from any short wave or microwave therapy unit.
- (i) HIVAMAT® 200 Evident should only be used under medical supervision.

## Chapter 3 Introduction

With HIVAMAT® 200 Evident you have acquired an extremely versatile two-channel deep oscillation system. The instrument will only show its true potential, however, if you are well informed about its functions. For this reason, carefully read these Operating Instructions and familiarize yourself with the use of the instrument.

### 3.1 Definition of Symbols Used

Please note the following typographical symbols in these Operating Instructions:




- Cross references and important terms used for the first time in this document are written in *italics*.
- Names of menus and symbols on the display are written in **bold typeface**.

Paragraphs that deserve special attention are highlighted in the following way:

| Type    | Meaning   |
|---------|---|
| DANGER  | Alerts of extremely dangerous situations that might lead to death or serious injury.    |
| WARNING | Warns of other situations that might also lead to death or serious injury.              |
| CAUTION | For risks that might lead to less serious injury.                                       |
| NOTICE  | Only for dangerous situations that might lead to damage to the product or other assets. |

### 3.2 Instrument Symbols

The meanings of the symbols placed on the instrument are as follows:

| Symbol  | Meaning   |
|---|---|
|  | CAUTION! Refer to the Operating Instructions and consider the physiological effects of the parameters.  |
|  | Application part Type BF, not connected to the protective conductor   |
|  | Ensure environment-friendly disposal. Instruments that have reached the end of their life cycle (see <a href="#">Disposal</a> on page 34) must by any means be disposed of separately from household garbage. |



### 3.3 General Notes

**CAUTION**

Operating the instrument in the proximity (e.g. 1 m) of a short-wave or micro-wave therapy unit may cause output irregularities and should be avoided for this reason, as well as simultaneous connection of the patient to high-frequency surgical instrument.

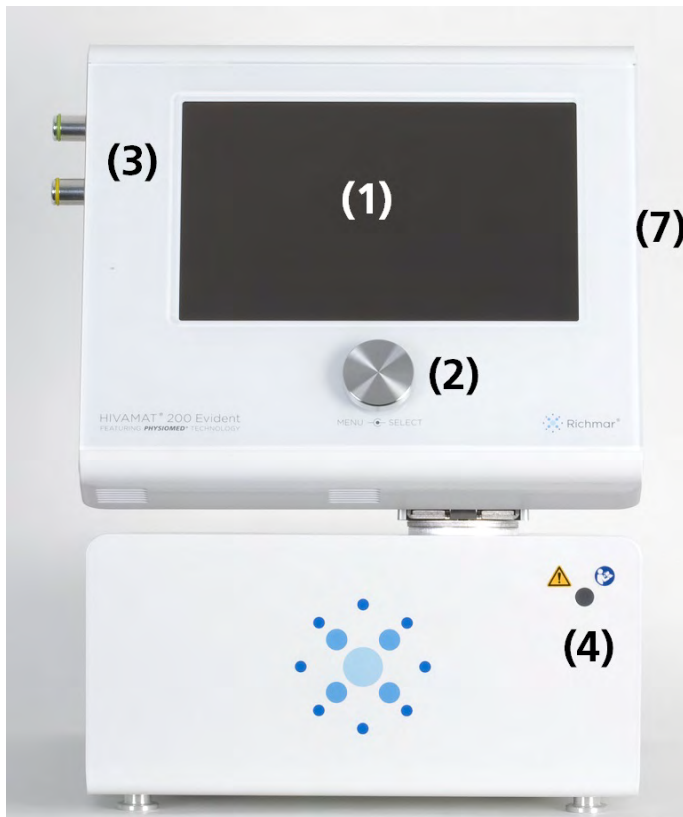
The instrument may only be operated in dry rooms designed for medical purposes. It complies with the technical specifications of IEC 60601-1.

It is not intended for operation in explosion hazard zones or hydrotherapy rooms. Drastic temperature changes should be avoided, since condensation could be caused within the instrument. Do not start up the instrument until it is in thermal equilibrium with its environment.

The instrument is to be operated properly, i.e. in accordance with the Operating Instructions.

The instrument housing must not be opened.

### 3.4 Instrument Overview



**Legend**

|   |                    |   |                             |
|---|--------------------|---|-----------------------------|
| 1 | Display            | 2 | Data Selector               |
| 3 | Intensity Controls | 4 | Output Indicator            |
| 5 | Mains Module       | 6 | Connecting Sockets HIVAMAT® |
| 7 | Card Reader        |   |                             |

## 3.5 Instrument Description

HIVAMAT® 200 Evident is a deep oscillation system which is successfully used in various therapeutic fields of medicine. It is designed as a therapy device mainly for use in clinical and therapeutic environment.

You have a total of 150 memory locations available for individual treatment programs (see [Individual Programs](#) on page 26).

You can store patient-specific treatment programs on a therapy card (one treatment program per card), which can be read by HIVAMAT® 200 Portable. You can thus allow for individual, patient-specific therapy even outside the treatment rooms.

The instrument complies with all the valid safety standards, especially:

- IEC 60601-1: Electronic medical devices, Part 1: General safety requirements
- IEC 60601-1-4 Electronic Medical Devices - Part 1-4: General Safety Requirements - Accompanying Standard: Programmable Electronic Medical Devices

## Chapter 4 Controls and Indicators

The design of HIVAMAT® 200 Evident allows for easy operation, in combination with a variety of functions.

All screen and control elements are integrated in the casing, so its surface is easy to clean and the product is protected from dust.

The instrument's microprocessor monitors the safety-related components, prevents erroneous operation and checks the instrument after switching it on.

### 4.1 Function of Controls and Indicators

The individual screen and control elements of the HIVAMAT® 200 Evident are presented in the following sections. The numbers in the angle brackets refer to the [Instrument Overview](#) on page 7.

#### 4.1.1 Display <1>



#### CAUTION

When making any swivel or rotary movements of the screen, make sure that no body parts (especially fingers) or accessories are pinched.

The touch-sensitive **Display <1>** shows the selectable menu items or therapy parameters, according to context.

The parameters can be selected using the **Data Selector <2>** or by tipping directly on the display (touchscreen).

The **Display <1>** can be rotated and swivelled, thus allowing for optimum ergonomics, depending on the treatment situation.

### 4.1.1.1 Symbols in the Display

In the **Display <1>** you find the following symbols:

| Symbol  | Meaning   |
|---|---|
|    | Back to previous menu   |
|    | Forward to next step  |
|    | Back to start screen  |
|    | Confirm and accept  |
|   | Cancel/discard  |
|  | Perform example or program  |
|  | Current step in a treatment sequence (here: step 1); also serves to move to the next step |
|  | Call <b>TREATMENT EXAMPLES / TREATMENT PROGRAMS</b> menu                                  |
|  | Call the <b>INDIVIDUAL</b> menu to save selected parameters                               |
|  | Show video  |
|  | Page 1 of 5   |
|  | Treatment with HIVAMAT®   |

### 4.1.2 Data Selector <2>



Data Selector <2>

The **Data Selector <2>** below the **Display <1>** is for selecting the treatment parameters.

Rotate the **Data Selector <2>** to change the individual menu items and press to confirm selection.

The **Data Selector <2>** is also used for switching over to the standby mode and back, by keeping it pressed until the instrument starts up or goes in the standby mode.

### 4.1.3 Intensity Controls <3>



The **Intensity Controls <3>** serve to select the intensity of the deep oscillation therapy in the channels 1 and 2. When increasing the intensity the corresponding therapy timer in the **Display <1>** is started simultaneously.

The **Intensity Controls <3>** have a colour ring to indicate which control belongs to which channel:

- green: channel 1
- yellow: channel 2

Press the **Intensity Control <3>** briefly to select the desired menu or set the therapy parameters.

### 4.1.4 Output Indicator <4>



The **Output Indicator <4>** lights up as soon as the intensity of a deep oscillation therapy is turned up. At a low therapy frequency, the light flickers in the rhythm of the impulses. If the electrostatic therapy field is short-circuited, the light will go off even if the intensity is turned up.

The **Output Indicator <4>** can also be used for checking the supplied connection cable DEEP OSCILLATION (Item no. RM00261) (refer to [Cable Check](#) on page 18).

### 4.1.5 Mains Module <5>



#### CAUTION

For mains supply only use the mains cable provided by the manufacturer!

Make sure that you operate the instrument only with the displayed voltage.



The **Mains Module <5>** with the mains switch is located at the rear face of the instrument. With the mains switch, you can switch the mains voltage of the HIVAMAT® 200 Evident on and off. After switching it on, the instrument will execute an automatic function test (refer to [Automatic Function Test](#) on page 13).

### 4.1.6 Connecting Sockets HIVAMAT <6>



The **Connecting Sockets HIVAMAT <6>** on the rear of the instrument are to be used for plugging in the supplied patient lead wire DEEP OSCILLATION (Item, No. RM00260).

The patient lead wire HIVAMAT sockets are for inserting the supplied connection cable DEEP OSCILLATION (Item No. RM00261) for the handheld applicator and the titanium neutral element. Tips for connecting the cable are given under [How to Perform a Treatment with HIVAMAT](#) on page 18.

### 4.1.7 Card Reader <7>



The **Card Reader <7>** on the side to the right of the **Display <1>** is for inserting the therapy card, on which the specific treatment parameters can be stored.



The therapy card must be inserted *with the chip facing back*.



## Chapter 5 Instrument Operation



### CAUTION

The **screen <1>** can be rotated and swiveled.

When making any swivel or rotary movements of the screen, make sure that no body parts (especially fingers) or accessories are pinched.



### NOTICE

Before beginning the first treatment with the HIVAMAT® 200 Evident, you must first put the instrument through the proper initial start-up.

### 5.1 Starting up the Instrument

Before you can execute the first treatment with the HIVAMAT® 200 Evident, you must put the instrument through the proper initial start-up.

#### How to Start up the Instrument

Proceed as follows, if you wish to start up the instrument for the first time:

- (1) Make sure that the instrument is switched off (the switch on **Mains Module <5>** is in the position **0**).
- (2) Insert the supplied power cord (Item No. RM00778) in the **Mains Module <5>** firmly on the rear side of the instrument and connect it to the plug socket. A secure connection is made through a socket outlet with earthing contact with protective conductor.
- (3) Align the **Display <1>** in a position, which ensures good visibility.
- (4) Put the switch on the **Mains Module <5>** in the ON position.
- (5) The instrument completes an automatic function test, checking all functions and initialization values. The instrument is now ready for operation. You are now in the **MAIN MENU**.

### 5.2 Automatic Function Test

If you are not sure that your HIVAMAT® 200 Evident is working properly, you can run an automatic function test.

#### How to Check the Function of the Instrument

Proceed as follows, if you wish to run an automatic function test:

- (1) Switch on the instrument by putting the switch on **Mains Module <5>** off and on again. The instrument completes an automatic function test, checking all functions and initialization values. The instrument is now ready for operation. You are now in the **MAIN MENU** (or in the start menu defined by you, see [Basic Settings](#) on page 32).

## 5.3 Instrument Errors



### NOTICE

Inform your service partner if the monitoring note does not disappear even after several function tests! Never perform a treatment when the proper function of the instrument is not assured!

You will find the manufacturer's address under the menu item **Help** or at the beginning of this manual.

If a functioning error is detected in the automatic function test or during operation, the **Display <1>** shows a message. It is easy to pinpoint and rectify faults on the basis of these messages. If a fault occurs, the consequences are:

- A message is shown on the **Display <1>** in the bottom half (e.f. for a communication error: **Monitoring Note 110**).
- The intensity (and therefore the voltage on the **Connecting Socket <6>**) is lowered to zero.
- The operation of the instrument is blocked; pressing the **Data Selector <2>** will hide the message.

If the message was triggered by a brief malfunction that does not persist, the instrument is ready to operate immediately, without switching on and off.

If the fault however persists, the message appears again. Switch the instrument on and off repeatedly. The instrument will then run an automatic function test (see [Automatic Function Test](#) on page 13). Check whether the message continues to appear.

## 5.4 Power Saving Mode



### NOTICE

The instrument never goes into the power saving mode if there is voltage at the **Connecting Sockets HIVAMAT <6>** or while the instrument is in operation.

If the HIVAMAT® 200 Evident has not been used for a long time, it switches over into the power saving mode. You can see whether the power saving mode is active, as well as the interval after which it switches over, in the menu **SETTINGS** (see [Basic Settings](#) on page 32).

If the instrument is in the power saving mode, you can reactivate it by pressing or rotating the **Data Selector <2>**. You can immediately continue to operate it.

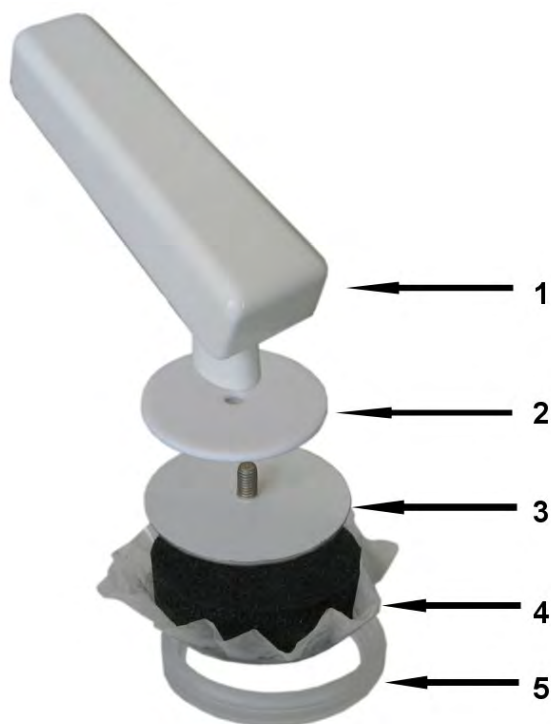
## 5.5 Handheld Applicator



### CAUTION

Replace the treatment heads immediately if damaged. Any damage to the oscillator membrane might lead to harmless (but unpleasant) sensations on the skin.

The handheld applicator consists of the following parts:



(1) Handle (Ref.-No. RM00379)

(2) Cover

(3) Oscillator Plate

(4) Membrane

(5) Clamp Ring



**Important**

(2) - (5) make up the oscillator head in the respective size.

*Hand Applicator (Exploded View)*

The oscillator head is screwed into the handle. To remove the head from the handle, you must rotate it to the left.

## Chapter 6 Deep Oscillation Therapy

Your HIVAMAT® 200 Evident offers you the following options to start deep oscillation therapy:

- via the menu **HIVAMAT**
- via the menu **TREATMENT EXAMPLES/TREATMENT PROGRAMS** (refer to [TREATMENT EXAMPLES / TREATMENT PROGRAMS](#) on page 20)
- via the menu **INDIVIDUAL** (refer to [Individual Programs](#) on page 26)



HIVAMAT® menu

In the menu **HIVAMAT** you can select the following therapy parameters:

|                             |  |
|-----------------------------|--|
| <b>Total treatment time</b> | Relevant only for two or more treatment steps; in case of an extension or reduction, the corresponding durations of all affected treatment steps are being extended or reduced accordingly, in order to be able to react on differently large areas of treatment or therapeutic situations . |
| <b>Duration</b>             | Duration of the respective therapy step  |
| <b>Oscillation</b>          | Relation between impulse time and pause time   |
| <b>Burst</b>                | Burst frequency for the application of impulses in salvos (1...10 Hz, off)   |
| <b>Frequency mode</b>       | <b>Selective, Band 1 ... Band 5.</b> You find an overview of the parameters of the different frequency bands under <a href="#">Parameters for Frequency Bands or Selective Frequency</a> on page 34.   |
| <b>Lower freq.</b>          | Minimum frequency of the frequency band or selective frequency   |
| <b>Upper freq.</b>          | Maximum frequency of the frequency band  |
| <b>Lower hold time</b>      | Hold time for the minimum frequency  |
| <b>Up / Down</b>            | Transition time between maximum and minimum frequency (and back)   |
| <b>Upper hold time</b>      | Hold time for the maximum frequency  |

**CAUTION**

Adjust the intensity before each application to match the respective treatment and pay attention to the contraindications (refer to Contraindications on page 2)!

**NOTICE**

Your HIVAMAT® 200 Evident automatically makes sure that the lower frequency is not greater than the upper frequency. The lower frequency always has to be at least 5 Hz smaller than the upper frequency.

**Example for a frequency cycle**

Let's assume you have selected the frequency band 5 ... 150 Hz as well as the durations 1s, 2s und 3s:

The frequency is initially at the maximum value (150 Hz) for one second. Afterwards the frequency takes two seconds to reduce continuously down to 5 Hz. This frequency is kept for three seconds. Finally, the frequency increases continuously, until after two seconds, the upper limit frequency (250 Hz) is attained and the cycle begins anew.

**Example for Using a Burst Frequency**

Selecting a burst frequency causes the impulses to be emitted in packets. The burst value here corresponds to the number of the compounded packets per second. If you, for example, select a burst of the value 1 is set for a selected fixed frequency of 10 Hz (i.e. 10 impulses per second), the impulses are emitted in the initial half of a second; no impulses are emitted in the second half. This sequence is continuously repeated.

**How to Prepare the Handheld Applicator**

- (1) Plug the patient lead wire DEEP OSCILLATION into the **Connecting Sockets HIVAMAT <6>**. There's a patient lead wire for each channel (refer to *Scope of Delivery* on page 37).
- (2) Plug the connection cable DEEP OSCILLATION for the handheld applicator and for the titanium neutral element into the patient lead wire DEEP OSCILLATION.
- (3) Connect the titanium neutral element with the other end of a cable and have the patient grip it. Alternatively you can attach it to an arbitrary place of the patient's body.
- (4) Connect the handheld applicator with the corresponding cable.
- (5) Continue with the steps described under *How to Perform a Treatment with HIVAMAT* on page 18.

**How to Prepare the Treatment Gloves**

- (1) Plug the patient lead wire DEEP OSCILLATION into the **Connecting Sockets HIVAMAT <6>**.
- (2) Plug the supplied *connection cable snap (Item No. RM00262)* as well as one of both *connection cables DEEP OSCILLATION (Item No. RM00261)* into the patient lead wire DEEP OSCILLATION.
- (3) Connect one HIVAMAT® snap electrode (Item No. 201-131) (refer to *Accessories Additionally Supplied through Compass Richmar* on page 37) with the fastener button of the connection cable snap.

Attach the adhesive electrode to the arm or leg of the therapist. Avoid sensitive skin areas and remove grease and skin residues to ensure good conductivity.

- (4) Connect the connection cable DEEP OSCILLATION with the titanium neutral element and have the patient grip it.
- (5) Pull the gloves over the hands of the therapist.
- (6) Continue with the steps described under [How to Perform a Treatment with HIVAMAT](#) on page 18 .

### How to Perform a Treatment with HIVAMAT

- (1) Dry the skin area to be treated or powder it if necessary.
- (2) Press the **Intensity Control <3>** with the green (channel 1) or yellow (channel 2) ring. The menu **HIVAMAT** opens.
- (3) Select the desired therapy parameters as well as the duration.
- (4) Increase the intensity with the **Intensity Control <3>**. When the intensity is increased, the treatment starts; the treatment time starts to count down and the **Output Indicator <4>** lights up.
- (5) Place the handheld applicator or the special gloves onto the body region to be treated and execute the treatment.



#### Important

The intensity should be selected according to the minimum dosage principle i.e. in the lower effective range!

The handheld applicator or special gloves should always remain in contact with the patient's skin and be guided over the body surface without taking it off or stopping. Differentiate between therapy movement and guided movements: The proximal therapy movement (for the body centre) is executed with suitable pressure, the distal guided movement (from the body centre outwards) is done without pressure.

For low frequencies (5 ... 40 Hz) the therapy movement should be distinctly slow. The guided movement can always be faster.

When therapy time has elapsed, the timer reduces the intensity to zero.



#### NOTICE

You find information on how to create treatment sequences under [Individual Programs](#) on page 26.

## 6.1 Cable Check

If you get the impression during treatment that a connection cable DEEP OSCILLATION (order no. 00261) is defective, you can have the instrument check it.

### How to Check a Cable

- (1) Select a treatment and adjust the intensity by using the **Intensity Control <3>** to 100%. The treatment frequency should be at least 100 Hz.
- (2) Plug both the ends of the connection cable DEEP OSCILLATION to be checked into the patient lead wire DEEP OSCILLATION.

- (4) Move the connection cable and observe the **Output Indicator <4>**:
- The **Output Indicator <4>** lights up *continuously*: *The cable is defective.*
  - The **Output Indicator <4>** does not light up: *The cable is OK.*
  - The **Output Indicator <4>** *lights up when moving the cable*: *The cable is defective.*
- (5) Replace defective cables immediately!


## Chapter 7 TREATMENT EXAMPLES / TREATMENT PROGRAMS

With HIVAMAT® 200 Evident you can perform treatments according to preset programs which are stored together with the corresponding therapy parameters. For each displayed program you can refer to the recommended therapy instructions. Each program features a sequence of different frequencies.

The **TREATMENT EXAMPLES / TREATMENT PROGRAMS** menu offers you information on how to perform treatment at the individual body regions, as well as access to the preset treatment programs.

The treatment examples consist of:





- A list of body regions
- Instruction text
- Animations
- Videos




**NOTICE**

If you select an indication that consists of several steps, the number of steps is displayed on the tab of the respective channel on the bottom left. The instrument automatically proceeds to the next step as soon as the timer has elapsed. Nonetheless, you can go ahead to the next step selectively.






### Symbols in the TREATMENT EXAMPLES / TREATMENT PROGRAMS Menu

|   |   |
|---|---|
|  | Back to <b>MAIN MENU</b> or to the indications list |
|  | Show indications alphabetically sorted              |
|  | Show indications according to body region           |
|  | Scroll indications list                             |

### Symbols in the TREATMENT EXAMPLES Menu

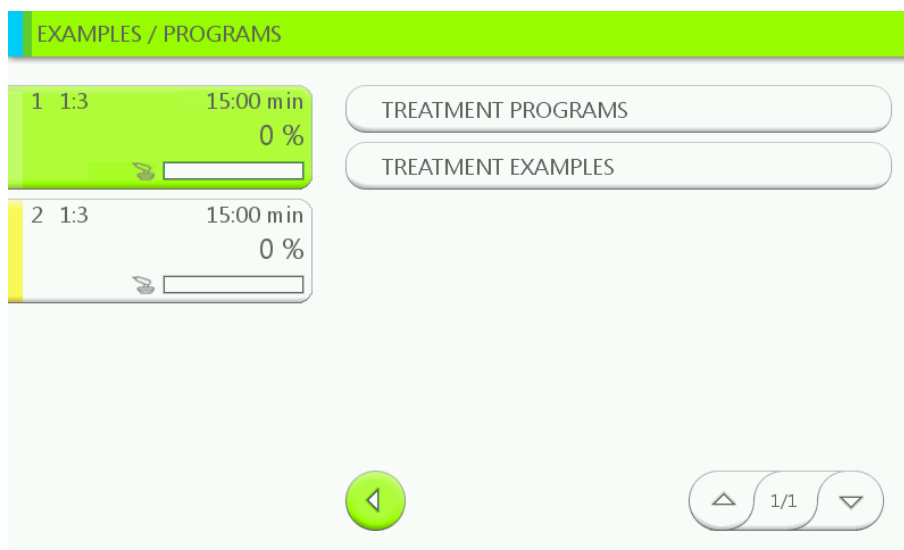
|   |  |
|---|--|
|  | Back to <b>MAIN MENU</b> or to menu <b>TREATMENT EXAMPLES / TREATMENT PROGRAMS</b> |
|---|--|



|   |   |
|---|---|
|  | Load the selected example to the desired channel or exit without action |
|  | Forward to next page or back to previous page                           |
|  | Call animation  |
|  | Start animation   |
|  | Discontinue animation (pause)   |

### How to Perform a Treatment via the TREATMENT PROGRAMS Menu

- (1) In the **MAIN MENU** select **TREATMENT EXAMPLES / TREATMENT PROGRAMS** . You can now choose between the options **TREATMENT PROGRAMS** and **TREATMENT EXAMPLES** :



*EXAMPLES / PROGRAMS*

- (2) Select the option **TREATMENT PROGRAMS** . The programs list will be displayed:




**TREATMENT PROGRAMS**

- (3) Select the desired program. The sequence of treatments is displayed:

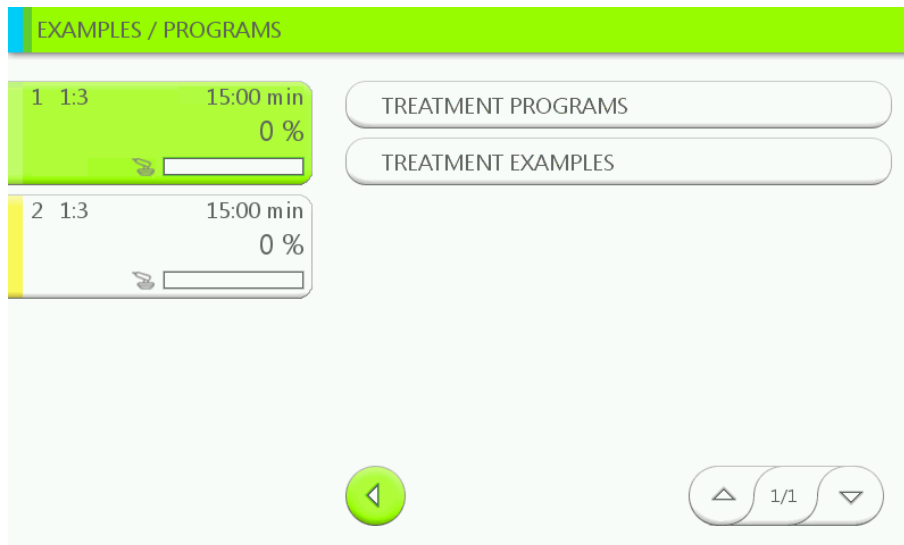


**Program Sequence**

- (4) Click the symbol . The individual therapy menu where you can start therapy is displayed. The relevant parameters have automatically been set.

### How to Perform a Treatment via the TREATMENT EXAMPLES Menu

- (1) In the **MAIN MENU** select **TREATMENT EXAMPLES / TREATMENT PROGRAMS**. You can now choose between the options **TREATMENT PROGRAMS** and **TREATMENT EXAMPLES**:




#### EXAMPLES / PROGRAMS

- (2) Select the option **TREATMENT EXAMPLES**. The examples list will be displayed:




#### TREATMENT EXAMPLES

- (3) Select the desired example. The initial screen is displayed.

 **Tip**

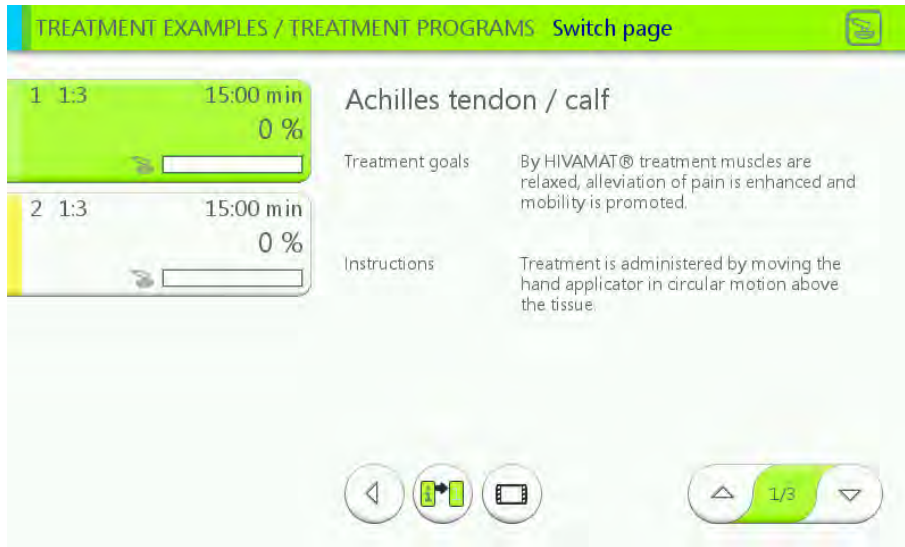
Here, you can activate further information and animation concerning the selected example (refer to [How to Display Further Information on the Selected Example](#) on page 24).

- (4) Click the symbol . The individual therapy menu where you can start therapy is displayed. The relevant parameters have automatically been set.

### How to Display Further Information on the Selected Example

The individual examples are illustrated by supplementary texts and animations.

- (1) To display further information on a selected example, click the symbol **1/3** on the initial page and move the **Data Selector <2>** one position to the right. The desired information will be displayed:



**EXAMPLE - Step 1**

- (2) On the next pages you'll find more information on treatment as well as, in most cases, a therapy animation:



**EXAMPLES - Step 2**

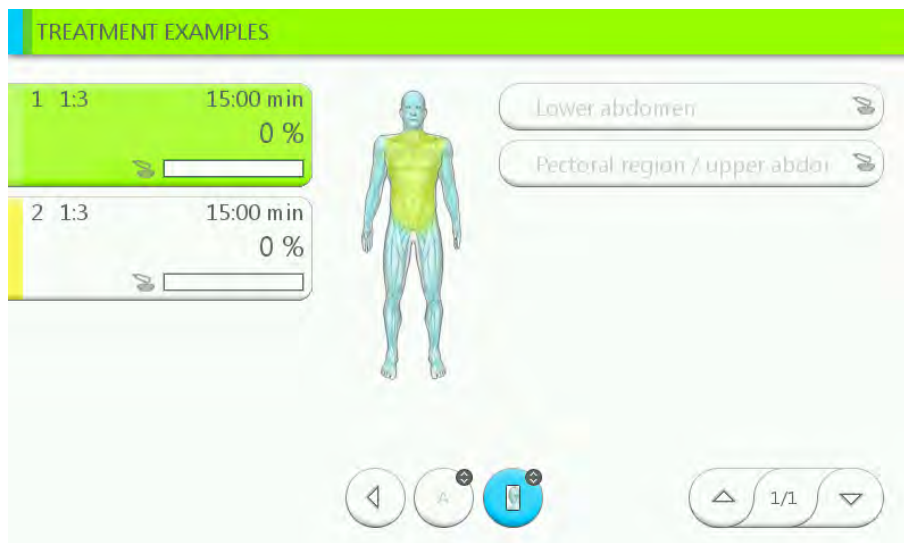
- (3) The last screen shows you information on the speed of movement as well as on the necessary pressure on the body parts to be treated:



*EXAMPLES - Step 3*

### How to Select an Example according to Body Region

- (1) Select **TREATMENT EXAMPLES / TREATMENT PROGRAMS** in the **MAIN MENU**.
- (2) Click the symbol . An anatomical model shows the different regions of the body.



*TREATMENT EXAMPLES - body regions*

- (3) Select a specific region (torso, head, arms, spine, legs).
- (4) Select the relevant example, set the parameters and start treatment (refer to [How to Perform a Treatment via the TREATMENT EXAMPLES Menu](#) on page 23).

## Chapter 8 Individual Programs

The **INDIVIDUAL** menu contains all individually stored therapy programs.

In this menu, you can save currently selected therapy parameters, as well as load or delete already stored parameters.

An individual program can always consist of up to five levels.

The parameters of two to five layers can be used to generate a therapy sequence, with the individual therapies being applied one after the other.



Menu *INDIVIDUAL*




### NOTICE

When there is a therapy card in the **Card Reader <7>**, the treatment sequences are not stored in or read from the instrument, but from the card, which is indicated by a corresponding symbol. A treatment sequence on the therapy card can consist of three therapy steps per maximum.







The therapy cards for HIVAMAT® 200 Portable, which are available for different fields of application, cannot be read with HIVAMAT® 200 Evident. A corresponding error message is shown if you try.

### Individual Programs - Symbols








|   |   |
|---|---|
|  | Browse levels (1 to 5). You can create treatment sequences by saving in two or more levels. |
|---|---|

### Symbols in the Name Row

|  |   |
|--|---|
|   | Save parameters in the selected level   |
|   | Quit without action   |
|   | Load the stored parameters  |
|   | Delete the entire record.   |
|  | <div style="background-color: yellow; border: 1px solid black; padding: 5px;">  <p><b>CAUTION</b><br/>All layers of the record are deleted.</p> </div> |
|  | Card access (only visible if a therapy card <i>with the chip side facing back</i> is in the <b>Card Reader &lt;7&gt;</b> )  |

### Layer-Related Symbols

|   |  |
|---|--|
|  | Save parameters in the selected layer      |
|  | Quit without action                        |
|  | Load stored parameters and start treatment |
|  | Delete storage space in the selected layer |
|  | Call a sequence                            |

## 8.1 Calling a Program

The **INDIVIDUAL** menu allows you to access all individually stored therapy programs.

### How to Call a Program


- (1) Select **INDIVIDUAL** in the **MAIN MENU**. The menu **INDIVIDUAL** will be displayed.
- (2) Select the active level by clicking on the symbol for scrolling.
- (3) Move the cursor e.g. to the line **HIVAMAT 1** and press the **Data Selector <2>** .

- (4) Turn the **Data Selector <2>** to the symbol indicating the loading of parameters.
- (5) Press the **Data Selector <2>** once. The stored parameters are loaded.
- (6) Use the **Intensity Control <3>** to turn up the desired intensity. Therapy time starts running.

## 8.2 Storing a Program

Use the **INDIVIDUAL** menu to store an individual therapy program.

### How to Store a Program

- (1) Click the symbol **m/n** in the name line, then move to **New...** The middle of the name line now reads **Create empty record**.
- (2) Press the **Data Selector <2>** and turn it by one position. The name will be displayed in green letters now. Enter the desired name of the individual program, as described in [Renaming an Individual Therapy Program](#) on page 28.
- (3) Move the cursor to the line **Deep Oscillation 1** and press the **Data Selector <2>**.
- (4) Press the **Data Selector <2>** a second time (the cursor appears at symbol ). The set parameters are stored.



#### NOTICE

The values selected in the individual channels will always be saved. Select these values and click on the storage symbol to move to the menu **INDIVIDUAL** directly.

## 8.3 Calling a Sequence

To perform several treatments in a row, you can call them in the form of a sequence.



#### NOTICE

To call a sequence, treatment data has to be saved in at least two layers.

### How to Call a sequence

- (1) Select **INDIVIDUAL** in the **MAIN MENU**. The menu **INDIVIDUAL** will be displayed.
- (2) Click the symbol **m/n** in the name line, then turn the selector until the desired storage place is reached.
- (3) Select the appropriate channel, press the **Data Selector <2>** and turn it to the sequences symbol.
- (4) Press the **Data Selector <2>**. Both sequence and treatment data for the first layer are called.
- (5) Use the **Intensity Control <3>** to set the intensity. Therapy time starts running and the settings of the different layers will be called one after the other.

## 8.4 Renaming an Individual Therapy Program

After generating a new individual therapy program, it will automatically be assigned a generic name based on the present date. You can rename the program later on.



### How to Rename an Individual Therapy Program

- (1) Select **INDIVIDUAL** in the **MAIN MENU**. The menu **INDIVIDUAL** will be displayed.
- (2) Click the symbol **m/n** in the name line, then turn the selector until the desired storage place is reached. The program name will subsequently be displayed in the name line.
- (3) Now turn the **Data Selector <2>** until the program name is displayed in green letters.
- (4) Press the **Data Selector <2>**. The blue font indicates that renaming is possible now.
- (5) Turn the **Data Selector <2>** until you see the desired character. The available characters are as follows:
  - **0...9** numbers
  - **A...Z** capital letters
  - **. , - \_** punctuation
  - **<--** delete previous character
  - **end** end procedure
- (6) Press the **Data Selector <2>** again to enter the next character.
- (7) To complete the procedure, select the **end** character and press the **Data Selector <2>**. The newly entered name will be adopted for the program. The text font switches back to green.

## 8.5 Deleting a Program

To free up storage space, you can delete all treatment data that is no longer useful.

You can either delete an entire program including data of all layers, or delete only one channel in one single layer.

### How to Delete a Program

- (1) Select **INDIVIDUAL** in the **MAIN MENU**. The menu **INDIVIDUAL** will be displayed.
- (2) Click the symbol **m/n** in the name line, then turn the **Data Selector <2>** until the desired program is visible.
- (3) Move two fields to the right, press the **Data Selector <2>** and turn it until the delete symbol is displayed.
- (4) Press the **Data Selector <2>**. A confirmation prompt is displayed: **Confirm to delete data**.
- (5) Press the **Data Selector <2>** again. The entire layer will be deleted.



#### NOTICE

Already deleted programs can not be restored.

### How to Delete the Parameters for a Single Level

- (1) Select **INDIVIDUAL** in the **MAIN MENU**. The menu **INDIVIDUAL** will be displayed.
- (2) Click the symbol **m/n** in the name line and turn the **Data Selector <2>** until you reach the desired program.
- (3) Click on the scroll symbol in the lower section and rotate the **Data Selector <2>** until you get to the desired level.
- (4) Move the cursor to **HIVAMAT 1** or **HIVAMAT 2**.
- (5) Press the **Data Selector <2>** and turn it until you see the deletion symbol.

- (6) Press the **Data Selector <2>**. A confirmation prompt is displayed: **Confirm to delete data**.
- (7) Press the **Data Selector <2>** again. The parameters of the selected layer will be deleted.

**NOTICE**

Keep in mind that deleted layers can not be restored.

## Appendix A Reference Information

### A.1 Service, Repairs, Maintenance

The manufacturer guarantees the safety of the instrument only in its original state. The instrument must be operated in accordance with the Operating Instructions.

Repairs to the instrument may only be performed by parties duly authorized by PHYSIOMED ELEKTROMEDIZIN AG. Any repairs performed by an authorized agent must be accompanied by written certification, describing the nature and extent of the repairs undertaken, as applicable with details regarding changes to nominal operating values or the operational range. The certification must also contain the date performed, the name of the repair company and the signature of the service person. When defective, components affecting the safe operation of the instrument must be replaced by manufacturer's original parts. Upon request, wiring diagrams, parts lists and service instructions can be made available to qualified technical personnel employed by the customer.

We recommend having the instrument, including all accessories, serviced at regular intervals.

### A.2 Cleaning and Disinfection



#### NOTICE

The oscillator plate must only be disinfected using an agent, but not be sterilized using heat.

All parts of the oscillator head must be absolutely dry before using them next time.


Clean the device and the accessories regularly with an aldehyde-based disinfectant. Switch off the instrument by any means before cleaning.

Clean the instrument and the handle by using a soft foam cloth. Use caution so that no liquid substances penetrate into the instrument.

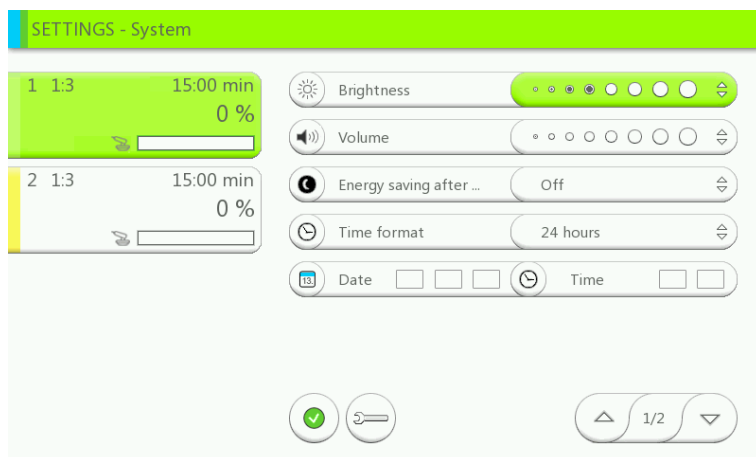
Use a new or disinfected oscillator head on the handheld applicator for every patient. Clean, disinfect or sterilise the handheld applicator regularly. The clamping ring, oscillator plate and handle are resistant against disinfecting agents and can be sterilised up to 275°F (135°C).

## A.3 Basic Settings

### How to Change the Basic Settings

- (1) Choose **Settings** in the **MAIN MENU**.
- (2) Move to the symbol **1/4** and press the **Data Selector <2>** to activate.
- (3) Turn the **Data Selector <2>** to select the desired page and press it to confirm.
- (4) Select the parameter you want to change (e.g. **Brightness**) and press the **Data Selector <2>** to confirm.
- (5) Turn the **Data Selector <2>** until the parameter has reached the desired value and press it to confirm.
- (6) Change all the desired parameters and click on the symbol  to accept the settings. You return to the main menu. The new settings are immediately effective.

### A.3.1 SETTINGS - System

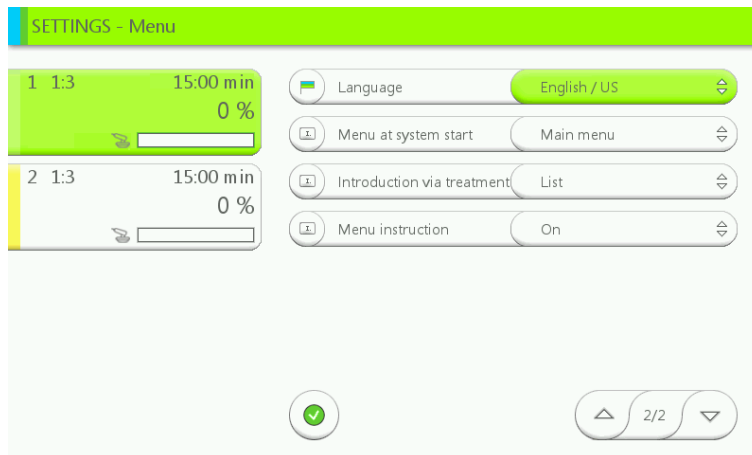


SETTINGS - System

In the menu **SETTINGS - System** you can configure the following instrument settings:

| Symbol                        | Meaning  |
|-------------------------------|--|
| <b>Brightness</b>             | Brightness of the <b>Display &lt;1&gt;</b> (8 values)  |
| <b>Volume</b>                 | Volume of the acoustic signal (8 values)   |
| <b>Energy saving after...</b> | Interval after which the instrument switches to energy saving mode ( 5...60 min in steps of five or <b>Off</b> ) |
| <b>Time format</b>            | <b>24 hours</b> or <b>12 hours</b>   |
| <b>Date</b>                   | Date in the format DD-MM-YYYY  |
| <b>Time</b>                   | Time in the format HH:MM (for the <b>12 hours</b> time format <b>AM</b> or <b>PM</b> is added)                   |

### A.3.2 SETTINGS - Menu



SETTINGS - Menu

In the menu **SETTINGS - Menu** you can configure the following instrument settings:

| Symbol                            | Meaning  |
|-----------------------------------|--|
| <b>Language</b>                   | Dialog language  |
| <b>Menu at system start</b>       | <b>MAIN MENU, Body Region, List, Individual</b>                                  |
| <b>Introduction via treatment</b> | <b>List, Body Region</b>   |
| <b>Menu instruction</b>           | <b>On:</b> Notes on the menu are displayed, <b>Off:</b> Notes are not displayed. |

### A.4 Limited Warranty

Three-year limited warranty covers parts and labor on HIVAMAT® 200 Evident.

## A.5 Parameters for Frequency Bands or Selective Frequency

### HIVAMAT

| Parameter                                 | Selective   | Band 1                   | Band 2                   | Band 3                   | Band 4                   | Band 5                   | Manual  |
|---|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|
| <b>Lower freq.</b> or selective frequency | 5...250 Hz in single steps, or steps of two or five | 10 Hz                    | 25 Hz                    | 50 Hz                    | 70 Hz                    | 5 Hz                     | 5...245 Hz in single steps, or steps of two or five |
| <b>Upper freq.</b>                        | -   | 30 Hz                    | 50 Hz                    | 75 Hz                    | 150 Hz                   | 150 Hz                   | 10...250 Hz   |
| <b>Lower hold time</b>                    | -   | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps                            |
| <b>Up / Down</b>                          | -   | 1...60 s in single steps | 1...60 s in single steps | 1...60 s in single steps | 1...60 s in single steps | 1...60 s in single steps | 1...60 s in single steps                            |
| <b>Upper hold time</b>                    | -   | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps | 0...60 s in single steps                            |

## A.6 Disposal

After the service life of the instrument, dispose of it in conformance with the applicable regulations for environment protection.

Handle, clean, and dispose of components and accessories that have come in contact with bodily fluids according to national, local and facility rules, regulations and procedures.



*Environment Protection Symbol*

## A.7 Training

Training is given in the course of the introduction to the instrument.

Should the need arise however, continued training can be provided by a medical device consultant. Please contact Richmar.

## A.8 UL 60601-1-2 Electromagnetic Compatibility Declaration

Medical electrical devices are subject to particular precautions regarding electromagnetic compatibility and must be used in accordance with the instructions on electromagnetic compatibility contained in the accompanying documents.

Portable and mobile HF communication devices can affect medical electrical devices (see the supplement on electromagnetic compatibility, technical description).

## A.9 Technical Data

|                        |  |
|------------------------|--|
| Protection class       | 1, Type BF (according to IEC 60601-1)                                |
| Mains connection       | 100 - 240 VAC $\pm$ 10%  |
| Power frequency        | 50 ... 60 Hz   |
| Power consumption      | 20 - 30 VA   |
| Current consumption    | 0.1 A (at 230 V) or 0.2 A (at 115 V)                                 |
| Output voltage         | 400 V <sub>peak</sub>  |
| Load impedance         | 10 MOhm  |
| Outlet frequency       | 5 ... 250 Hz   |
| Impulse-pause ratio    | 3:1, 2:1, 1:1, 1:2, 1:3  |
| Curve form             | Rectangular pulse, dual phase  |
| Dimensions (W x H x D) | 10.2 x 13.8 x 14.6 inch (26.0 x 35.0 x 37.0 cm; screen set vertical) |
| Weight                 | 13.7 lb (6.2 kg)   |

### A.9.1 Environmental Conditions

#### Operation

|                      |                                       |
|----------------------|---------------------------------------|
| Temperature          | 50°F ... + 104°F (+10°C ... +40°C)    |
| Relative humidity    | 30% ... 75%                           |
| Atmospheric pressure | 23.6 ... 31.3 inHg (800 ... 1060 hPa) |

#### Storage and Transport

|                      |                                       |
|----------------------|---------------------------------------|
| Temperature          | 14°F ... 122°F (-10°C ... +50°C)      |
| Relative humidity    | 10% ... 90%                           |
| Atmospheric pressure | 14.8 ... 31.3 inHg (500 ... 1060 hPa) |

## A.10 Manufacturer

|                                    |
|------------------------------------|
| <b>PHYSIOMED ELEKTROMEDIZIN AG</b> |
| Hutweide 10                        |
| 91220 Schnaittach                  |
| Germany                            |

## A.11 Customer Service

When you have questions concerning HIVAMAT® 200 Evident please refer to the following address or call the phone number below:

|  |
|--|
| <b>Richmar</b>   |
| 4120 South Creek Road  |
| Chattanooga TN 37406   |
| USA  |
| PHONE: 423.648.7730  |
| FAX: 423.667.2325  |
| E-MAIL: <a href="mailto:richmartechsupport@richmarweb.com">richmartechsupport@richmarweb.com</a> |
| WEB: <a href="http://www.richmarweb.com">www.richmarweb.com</a>                                  |



## Appendix B Scope of Supply and Accessories



### CAUTION

The instrument is to be used exclusively with original accessories. Otherwise, treatment results might be insufficient.

The manufacturer excludes any liability associated with the use of accessories which are not supplied through PHYSIOMED ELEKTROMEDIZIN AG.

### B.1 Scope of Delivery

HIVAMAT® 200 Evident is supplied with the following accessories:

| Item No. | Name  | Quantity |
|----------|---|----------|
| RM00262  | Connection cable snap for adhesive electrodes | 2        |
| RM00261  | Connection cable DEEP OSCILLATION             | 4        |
| RM00379  | Handheld applicator                           | 2        |
| RM00381  | Oscillator head, Ø 5.0 cm                     | 2        |
| RM00386  | Oscillator head, Ø 9.5 cm                     | 2        |
| RM00260  | Patient lead wire DEEP OSCILLATION            | 2        |
| RM00348  | Powder  | 1        |
| RM55019  | Therapy card PATIENT PROTOCOLS                | 6        |
| RM00382  | Titanium neutral element                      | 2        |
| RM00778  | US Hospital grade power cord                  | 1        |
| RM01625  | Operating Instructions (English, USA)         | 1        |

### B.2 Accessories Additionally Supplied through Compass Richmar

| Item No. | Name  | Quantity |
|----------|---|----------|
| 201-131  | 3" (7.6 cm) HIVAMAT® snap electrode (100 pcs) | 1        |
| RM00200  | Treatment Gloves (100 pcs)                    | 1        |



### CAUTION

The manufacturer excludes any liability associated with the use of accessories which are not supplied through PHYSIOMED ELEKTROMEDIZIN AG.

## B.3 Available Accessories

The following accessories are available for HIVAMAT® 200 Evident:

| Item No. | Name  |
|----------|---|
| RM00261  | Connection cable DEEP OSCILLATION   |
| RM00262  | Connection cable snap for adhesive electrodes   |
| RM00379  | Handheld applicator   |
| 201-131  | 3" (7.6 cm) HIVAMAT® snap electrode (100 pcs)   |
| RM00387  | Oscillator head, Ø 1.5 cm   |
| RM00381  | Oscillator head, Ø 5.0 cm   |
| RM00386  | Oscillator head, Ø 9.5 cm   |
| RM00260  | Patient lead wire DEEP OSCILLATION  |
| RM00589  | PHYSIOPADS adhesive electrode for DEEP OSCILLATION, set of 4  |
| RM00396  | Pin applicator  |
| RM00348  | Powder  |
| RM1012   | Self Treatment/Applicator Kit<br><br>Consists of handheld applicator, connection cables, oscillator head 5 cm, oscillator head 9.5 cm, titanium neutral element |
| RM55019  | Therapy card PATIENT PROTOCOLS  |
| RM00382  | Titanium neutral element  |
| RM00778  | US Hospital grade power cord  |

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