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 Portable

BY

Richmar®

01546 US

MANUFACTURED BY

PHYSIOMED®

TECHNOLOGY FOR THERAPY

Legal Notice

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HIVAMAT® 200 Portable is made in Germany in compliance with the quality requirements of ISO 13485, 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

Operating Instructions last updated on 2017-04-10.

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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 practicioners 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 explicitely inform the patient about this.

Charge the battery according to the instructions found in this manual.

Never attempt to charge the battery on any other charging mechanism.

NiMH Batteries contain Class E Corrosive materials. In the event of battery cell rupture or leakage, contact the Technical Support (ref. Service, Repairs, Maintenance on page 18) and avoid contact with the battery acid.

CAUTION

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

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

During the charging procedure, the patient must neither be connected with the titanium neutral element, nor with the hand applicator!

The treatment card must not be copied, and any attempt to reproduce it or read out the data will invalidate it. PHYSIOMED ELEKTROMEDIZIN AG accepts no responsibility for damage incurred in this way.

Contact the Technical Support (refer to Technical Support on page 21) 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.

1.1 Indications for Use

WARNING

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

The function of HIVAMAT® 200 Portable 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 hand applicator or the therapists' gloved hands, a vibrating or pumping effect with deep impact is induced in the patient's tissue.

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

- muscles are relaxed
- alleviation of pain is enhanced
- mobility is promoted

1.2 Contraindications

Therapy with HIVAMAT® 200 Portable 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

1.3 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 Portable 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.

1.4 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 Portable should only be used under medical supervision.

Chapter 2 Introduction

With HIVAMAT® 200 Portable you have acquired an extremely versatile 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.

2.1 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.

2.2 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 must be avoided for this reason, as well as simultaneous connection of the patient to a high-frequency surgical instrument.

The instrument may only be operated in dry rooms. 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.

2.3 Instrument Overview

Front Panel

Rear Face (Back Cover removed)

Legend

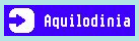
1	Display	4	Card Reader
2	Data Selector	5	Battery Compartment
3	Ports	6	Control Light

Rear Face (with Back Cover)

Bottom

2.4 Symbols in the Display

You find the following symbols in the **Display <1>**:

	Battery Indicator (refer to Battery Operation on page 10)
	Setup Menu (refer to Basic Settings on page 19)
	Confirm Settings
	Contrast of the **Display <1>** (refer to Basic Settings on page 19)
	Bar View (Contrast, Intensity), here e.g. 50%
	**Back** button
	Indications Menu
	Therapy Parameters (Therapy Frequency, Therapy Phase)
	Timer Symbol (to Adjust the Therapy Time)

2.5 Instrument Description

CAUTION

During the charging procedure, the patient must neither be connected with the titanium neutral element, nor with the hand applicator, nor via connection cable and adhesive electrode.

HIVAMAT® 200 Portable is a deep oscillation system which is successfully used in various areas of medicine.

HIVAMAT® 200 Portable has two modes of operation:

- *Treatment*: In this mode, the instrument is separated from the mains. When the battery charger is plugged in, the instrument cannot be switched on and treatment can not be continued. Connecting the battery charger with the mains will reduce the instensity automatically to zero, treatment will be interrupted, and the instrument will be switched off.
- *Charging*: While charging, treatment is not possible.

The instrument complies with all 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 3 Controls and Indicators

The design of HIVAMAT® 200 Portable allows for easy operation, in combination with a variety of functions. Because of its small size, the instrument is very easy to transport. It has been designed for operation also outside of therapy rooms, and is powered by rechargeable batteries for that reason.

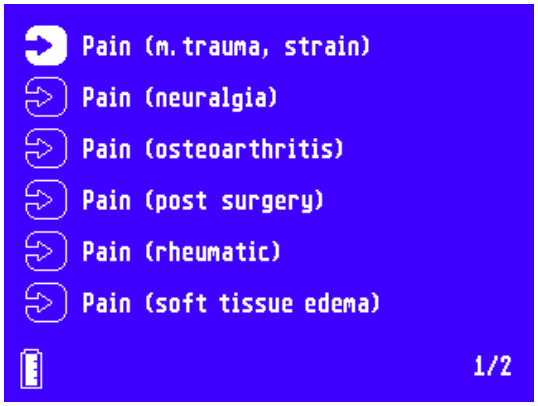
All controls and indicators are integrated into the housing, thus allowing for easy cleaning of the instrument's surface and protecting it from dust.

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

3.1 Function of Controls and Indicators

The following section introduces the individual indicators and controls of HIVAMAT® 200 Portable. The numbers in angle brackets refer to the Instrument Overview on page 6.

3.1.1 Display <1>



In the **Display <1>** are examples of available programs.

The battery symbol on the bottom left shows you the current state of charge of the batteries (also refer to Battery Operation on page 10).

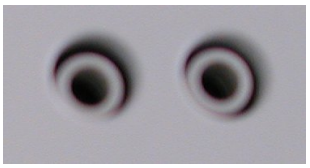
You can select a program using the **Data Selector <2>**.

3.1.2 Data Selector <2>

The **Data Selector <2>** serves to select the therapy programs shown in the **Display <1>** as well as to adjust the intensity.

You can switch between the individual options by rotating the selector and select the respective function by pressing it.

3.1.3 Ports <3>

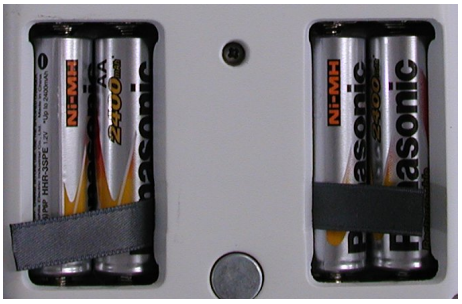


The **Ports <3>** serve to connect the supplied cables for the hand applicator and the adhesive or neutral electrode with the instrument.

3.1.4 Card Reader <4>

The **Card Reader <4>** serves to insert the therapy card which enables access to the user menus, and on which the therapy programs are stored. The therapy card has to be inserted with the chip side facing down.

3.1.5 Battery Compartment <5>



The **Battery Compartment <5>** receives the rechargeable batteries and connects them with the instrument. It is protected by a rear cover made of metal, which is attached to the instruments housing by three magnets (refer to How to Recharge the Batteries on page 10).

3.1.6 Control Light <6>

The **Control Light <6>** under the **Data Selector <2>** is on as soon as the intensity is increased. In case of low therapy frequency, the light is flashing in sequence with the pulses. When the electrostatic field is interrupted, the light goes out even with intensity increased. The **Control Light <6>** can also be used to check the cables (refer to Cable Check on page 13).

3.2 Charger Socket <7>

The **Charger Socket <7>** can be found on the bottom of the instrument. The supplied battery charger (Ref.-No. 00277) to charge the batteries is plugged in here.

Chapter 4 Instrument Operation

4.1 Battery Operation

NOTICE

The battery has to be fully charged before operating the instrument for the first time. The first charging procedure must not be interrupted, and an overnight charge is recommended. If the instrument is not in use for some time, the battery should be fully charged before storage. Otherwise the battery lifespan might be reduced.

HIVAMAT® 200 Portable uses rechargeable 1.2 V AA NiMH batteries for power supply, which allow for operation independently from the line current. You can see the current state of charge of the batteries from the battery symbols in the **Display <1>**:

	Battery completely charged

A completely charged set of batteries is sufficient for about five hours of treatment.

To avoid unnecessary discharge of the batteries, the instrument shuts off automatically after a few seconds unless treatment is started by setting a non-zero intensity or if the intensity is not decreased to zero when therapy is finished. You will hear an acoustic signal when the instrument switches off. Additionally, the background illumination of the **Display <1>** is switched off, if no input has occurred after several seconds.

4.2 Battery Charger

The supplied battery charger (Ref. No. 00277) has an LED to indicate the current state of the batteries.

Battery Charger

Charging Cycle and LED Readings

LED	Mode
Yellow	Battery not connected
Yellow	Battery initialization and analysis
Orange	Quick charge mode
Green with yellow flashing light	Intermediary mode with low charging voltage
Green	Maintenance charge mode
Flickering orange - green alternately	Error

The Instrument Should not Be Stored with the Charger Plugged in

If the instrument is stored with a plugged in charger, the battery discharges faster, since a discharge current also flows through the charger. This reduces the above mentioned timespan up to the excessive discharge of the battery.

NOTICE

The battery charger can be equipped with different primary adaptors to match the line voltage of the destination country. One primary adaptor for the respective country is in the scope of delivery. Refer to Optional Accessories on page 23 for available primary adaptors.

Please find more information on the operation of the battery charger in the supplied operating instructions.

4.3 Important Notes on Handling the Batteries

WARNING

Charge the battery according to the instructions found in this manual.

Never attempt to charge the battery on any other charging mechanism.

NiMH Batteries contain Class E Corrosive materials.

In the event of battery cell rupture or leakage, contact the Technical Support (ref. Service, Repairs, Maintenance on page 18) and avoid contact with the battery acid.

NOTICE

Rechargeable batteries discharge over an extended period, even if the instrument is switched off. This self-discharge process cannot be prevented; the following instructions must therefore be considered to guarantee the battery a long service life.

If the instrument is not used for a longer period of time, please charge the battery completely at least once every two months.

This will help to avoid exhaustive discharge, which might permanently affect the battery, so it cannot be recharged. In this case, a replacement will be required.

The optimum charging temperature ranges between 50°F and 86°F (10°C to 30°C).

Charge the battery within this temperature range to avoid damage.

At temperatures below 32°F (0°C) the gas absorption reaction is not sufficient and causes an increase of gas pressure inside the battery. This condition can activate the safety vent and lead to alkaline gas leaking and battery performance deterioration. Charging efficiency of the battery drops at temperatures above 104°F (40°C) and can disrupt full charging, lead to deterioration in performance and battery cell leakage.

Operate, transport and store the instrument at temperatures between 50°F and 104°F (10°C and 40°C), with relative humidity ranging from 30%-60%.

Please refer also to Technical Data on page 20.

4.4 Economy Mode

The unit automatically switches over to the economy mode to save power. This will occur after approx. 20 seconds. The **Display <1>** is no longer illuminated. Pressing any key will re-activate the illumination.

4.5 Preparations and Start-Up

How to Start up the Instrument

(1) Press the **Data Selector <2>** for one second. You will hear an acoustic signal and the **Display <1>** is illuminated. The message **No CARD available in the unit! Please insert CARD.** is displayed.
(2) Insert your card with the chip side facing down into the **Card Reader<4>**. The welcome screen is displayed.

> **Important**
>
> If the card is defective or incompatible, a respective error message will be displayed.

(3) Click the OK symbol. The program menu is displayed.
You can now select a program and begin your treatment (refer to How to Perform a Treatment on page 16).

How to Switch off the Instrument

(1) Press the **Data Selector <2>** for five seconds. The **Display <1>** goes out.
(2) Remove the therapy card and unplug the cables from the **Ports <3>**.

4.6 Function Check

A function check is always necessary when you are unsure about whether the instrument is working properly.

How to Check the Function of the Instrument

(1) Press the **Data Selector <2>** for several seconds until the instrument switches off.
(2) Press the **Data Selector <2>** again until the instrument switches on:
- If the instrument is working properly, the available options are displayed on the **Display <1>**. You can operate the instrument without any further precaution.
- If a monitoring note is displayed, there is an instrument error. Proceed as described under Monitoring Notes on page 14 .

4.7 Cable Check

If you should have the impression that a cable is defective during treatment, you can check it using the instrument.

How to Check a Cable

(1) Select a therapy and set the intensity to 100% using the **Data Selector <2>**.
(2) Plug the ends of the cable to be tested into the **Ports <3>**.
(3) Move the cable and pay attention to the **Control Light <6>** under the **Data Selector <2>**:
- The **Control Light <6>** is permanently on: *The cable is defective.*
- The **Control Light <6>** is off: *The cable is OK.*

- The **Control Light <6>** flashes when moving the cable: ***The cable is defective.***

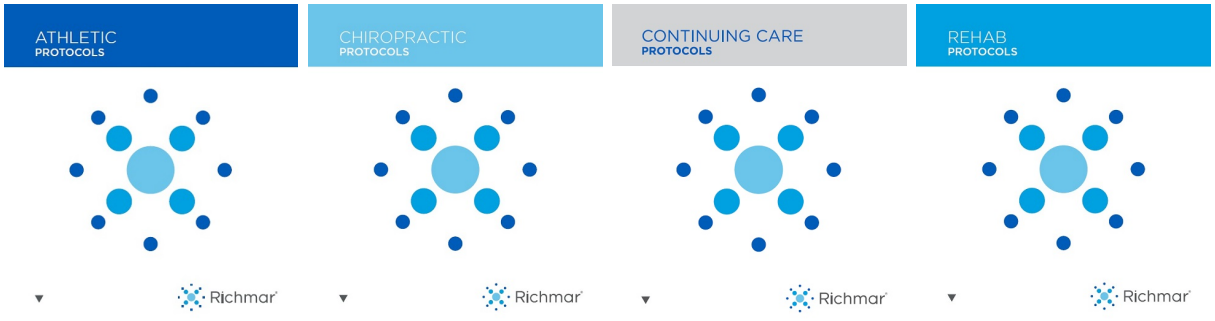
(4) Replace the defective cable immediately.

4.8 Therapy Card

CAUTION

The treatment card must not be copied, and any attempt to reproduce it or read out the data will invalidate it. PHYSIOMED ELEKTROMEDIZIN AG accepts no responsibility for damage incurred in this way.

All programs available for HIVAMAT® 200 Portable are stored on the therapy card. The therapy card must be inserted to perform a treatment or to access the basic settings.



Therapy Card ATHLETIC *Therapy Card CHIROPRACTIC* *Therapy Card CONTINUING CARE* *Therapy Card REHAB*

4.9 Monitoring Notes

CAUTION

Contact the Technical Support (refer to Technical Support on page 21) 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.

If a functional error is detected during the automatic function check or operation, one of the following monitoring notes is shown on the **Display <1>**:

- **NOTE_01** ... **NOTE_05**

In this case, treatment is automatically interrupted. Switch off the instrument by pressing the **Data Selector <2>** and switch it on again. If the monitoring note persists even after several automatic function checks, you must consult the technical service.

Chapter 5 Treatment

WARNING

The instrument must only be operated by medical practicioners who have undergone special training.

CAUTION

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

Before each treatment, check the gloves for damages (e.g. tears, holes). A pneumatic test by inflating the gloves has to be conducted before each usage to reveal possible leakages. The gloves have to be replaced in cases of especially sensitive perception (prickling sensation).

Before treatment, prepare the patient's skin area to be treated by drying or powdering.

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

Important

You must choose the intensity according to the minimum dose principle, i.e. in the lower effective range.

The hand applicator or glove should stay in contact with the patient's skin and should be moved on the body surface without lifting or stopping. Distinguish between therapy movement and leading movement: The therapy movement (to the center of the body) has to be performed with the appropriate pressure, the leading movement (back from the center of the body) without pressure.

When treating with low frequencies (10 - 40 Hz), perform the therapy movement especially slow. The leading movement may be quicker.

After switching to a new therapy phase, it might be necessary to re-adjust the intensity to reach the same strength of oscillation.

Important

Only Hivamat electrodes by Richmar (Ref.No. 201-131) should be used. Only electrodes that are 15 ohms or less should be used as electrodes with a higher resistance reduce the efficacy of the treatment. If an optional oscillating head is used, it must be absolutely dry before using.

With HIVAMAT® 200 Portable you can perform treatments according to preset programs which are stored together with the corresponding therapy parameters on the therapy card. Each program features a sequence of different frequencies.

Basically, there are two forms of treatment:

- *Treatment using special gloves*: In this case, an adhesive electrode has to be attached to the skin of the therapist.
- *Treatment using the applicator*: In this case, no adhesive electrode for the therapist is required.

How to Prepare the Special Gloves

(1) Connect both of the ***Connection Cables Grey for Adhesive Electrodes*** (Ref.-No. 00262) with adhesive electrodes and plug them into the **connector ports <3>**. Since the instrument operates in biphase mode, you don't have to pay attention to the polarity.
(2) Attach one of the adhesive electrodes on your skin (preferably at your wrist).
(3) Put on one or two fresh special gloves, according to intended treatment.
(4) Attach the second adhesive electrode on the patient's skin.

NOTICE

As an alternative to the second adhesive electrode, plug the *Titanium Neutral Element* (Ref.-No. 00382) into the *Connection Cable DEEP OSCILLATION* (Ref.-No. 00261). Plug this cable into the free side of the **connector ports <3>** and and let the patient grip the element.

(5) Continue with the steps described under How to Perform a Treatment on page 16.

How to Prepare the Hand Applicator

(1) Plug one of the ***Connection Cables DEEP OSCILLATION*** (Ref.-No. 00261) into one of the **connector ports <3>**. Since the instrument operates in biphase mode, you don't have to pay attention to the polarity.
(2) Connect the ***Applicator Handhold*** (Ref.-No. 00379) with remaining end of the cable.
(3) Connect one of the ***Connection Cables Grey for Adhesive Electrodes*** (Ref.-No. 00262) with an adhesive electrode and plug it into the free side of the **connector ports <3>.**
(4) Attach the adhesive electrode on the patient's skin.

NOTICE

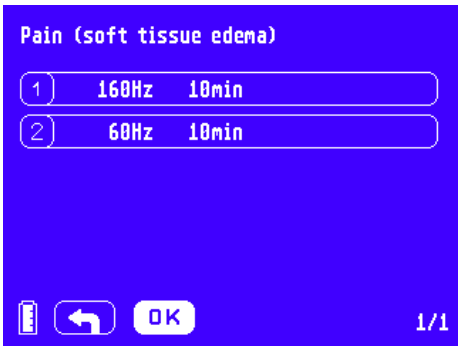
As an alternative to the adhesive electrode, plug the *Titanium Neutral Element* (Ref.-No. 00382) into the second *Connection Cable DEEP OSCILLATION* (Ref.-No. 00261). Plug this cable into the free side of the **connector ports <3>** and and let the patient grip the element.

(5) Continue with the steps described under How to Perform a Treatment on page 16.

How to Perform a Treatment

(1) Start up the instrument as described under How to Start up the Instrument on page 13.
(2) Select a program from the program menu. The therapy parameters of the selected program are dis-

played.



Therapy Instructions - Parameters

(3) Click the OK symbol. The preset therapy parameters are displayed.

(4) Click the INTENS symbol and set the desired intensity by rotating the **Data Selector <2>**. As soon as the intensity is set, treatment begins, the therapy time elapses, and the **Control Light <6>** under the **Data Selector <2>** flashes.
In the example shown here, treatment with two different therapy phases is performed. Perform the treatment and pay attention to the therapy instructions shown before.
In the case of treatments with more than one phase, therapy parameters are automatically switched after the end of the first therapy phase. As soon as the time for the last treatment phase has elapsed, the intensity decreases to zero. You can now perform one more treatment, or switch off the instrument.

In case of adverse reactions of the patient during the treatment (e.g. in cases of inflammation) you can also cut short the therapy steps. Proceed in the following way:

(1) Click the timer symbol with the **Data Selector <2>** to make it flash.

(2) Rotate the **Data Selector<2>** to the left and cut short the therapy time to the desired value.

(3) Press the **Data Selector <2>** to confirm the selected therapy time.

Appendix A Reference Information

A.1 Service, Repairs, Maintenance

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.

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

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

Use a soft sponge cloth for cleaning. Ensure that the back cover is secured tightly and use caution so that no liquid substances penetrate into the instrument.

For the hand applicator, use a new or disinfected oscillator head for each patient. Clean, disinfect or sterilize the hand applicator regularly. The clamping ring, oscillator plate and handle are resistant against disinfecting agents and can be sterilized up to 275°F (135°C).

A.3 Limited Warranty

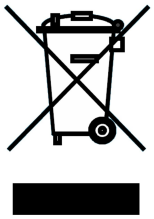
Three-year limited warranty covers parts and labour on HIVAMAT® 200 Portable.

A.4 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 ac-

cording to national, local and facility rules, regulations and procedures.



Environment Protection Symbol

A.5 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.6 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.7 Basic Settings

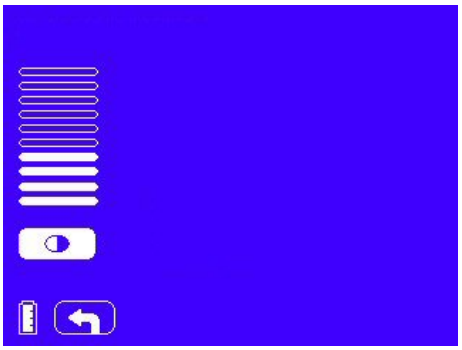
In the *Basic Settings* menu, you can configure the following instrument settings:

Symbol	Meaning
	Contrast of the **Display <1>**

You can access the basic settings menu from the welcome screen which is displayed as soon as you insert the therapy card.

How to Configure the Basic Settings

(1) Ensure that the instrument is switched off or press the **Data Selector <2>** for a few seconds until the **Display <1>** goes out.
(2) Press the **Data Selector <2>** again, until the instrument switches on.
(3) Insert the therapy card into the **Card Reader <4>**. The welcome screen opens.
(4) Click the  symbol. The basic settings are displayed.



Basic Settings

(5) Click the symbol of the parameter you want to configure (e.g. for the contrast).

(6) Rotate the **Data Selector <2>** until the parameter has the desired value.

(7) Click the symbol. The indications menu opens.
The new settings are immediately active.

A.8 Technical Data

Protection Class	BF type class 1 equipment (according to IEC 60601-1)
Output Voltage (max.)	400 Vs
Output Impedance	10 MOhm
Output Frequency	5 ... 250 Hz
Modulation	1/4, 1/3, ½, 2/3, 3/4
Dimensions (W x H x D)	3.9 x 1.2 x 7.5 inch (10.0 x 3.1 x 19.0 cm)
Weight	1.5 lb (0.7 kg)

A.8.1 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.9 Manufacturer

PHYSIOMED ELEKTROMEDIZIN AG
Hutweide 10
91220 Schnaittach
Germany

A.10 Technical Support

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

RICHMAR
4120 South Creek Road
Chattanooga TN 37406
USA
PHONE: 423.648.7730
FAX: 423-667-2325
E-MAIL:richmartechnicalsup-port@richmarweb.com
WEB: www.richmarweb.com

Appendix B Scope of Delivery 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 Portable is supplied with the following accessories:

Ref.-No.	Designation	Quantity
RM00383	Battery, set of 4	1
RM00277	Battery charger	1
RM00262	Connection cable grey for adhesive electrodes	2
RM00348	Powder	1
RM55004, RM55002, RM55023, RM55003	Therapy Card ATHLETIC, CHIROPRACTIC, CONTINUING CARE or REHAB	1
RM55035	Transportation bag	1
01546	Operating Instructions (English, USA)	1

Accessories Additionally Supplied through Naimco, Inc. Dba Richmar.

Ref.-No.	Designation	Quantity
201-131	3" (7.6 cm) 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.2 Optional Accessories

The following accessories are available for HIVAMAT® 200 Portable:

Ref.-No.	Designation
00387	Oscillator head 1.5 cm
00396	Pin applicator

B.2.1 Self-Care Kit

Ref.-No.	Designation	Quantity
00379	Applicator handhold	1
00382	Titanium neutral element	1
00261	Connection cable DEEP OSCILLATION	2
00381	Oscillator head Ø 5 cm	1
00386	Oscillator head Ø 9,5 cm	1

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