

Operating Manual

V-ACTOR® II handpiece



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General Information

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1.1 Introduction

This manual contains warnings, safety instructions and specific operating instructions in accordance with liability regulations.



DANGER !

Refers to a situation of acute danger which, if not avoided, could lead to serious or fatal injury.



WARNING !

Refers to a situation of potential danger which, if not avoided, could lead to serious or fatal injury.



CAUTION !



Refers to a situation of potential danger which, if not avoided, could lead to minor injury.

ATTENTION

Warns against possibly harmful situations that could lead to damage to either the product or to the surrounding area.

NOTE

Additional information concerning specific features or operating instructions is preceded by the term "NOTE".

 	CAUTION !
	<p>Before you start using the V-ACTOR II for the first time, please make sure you have read and understood all information provided in this operating manual.</p> <p>Familiarity with the information and instructions contained in this manual is essential for ensuring efficient and optimal use of the instrument, for avoiding hazards to personnel and equipment and for obtaining good treatment results.</p> <p>Thorough knowledge of the information included in this manual will also enable you to react promptly and effectively in the event of malfunctions and errors.</p> <p>When using optional accessories, please also refer to the separate operating manuals for each of these accessories. It is imperative that users be familiar with the content of this manual before operating any part of this system.</p>

ATTENTION

The V-ACTOR II handpiece may only be connected to control devices that have been approved by the manufacturer for this purpose and are listed in **CHAPTER 2.3.1 COMPATIBILITY**.

1.2 V-ACTOR II

The V-ACTOR II is a “vibration therapy” handpiece and can be used as an optional accessory with the DUOLITH-/CELLACTOR-, the MP200-/D-ACTOR 200-, the MP100-/D-ACTOR 100- and MP50-/D-ACTOR 50 group of instruments for radial and focussed pulse therapy and/or for planar pulses and pressure pulses. By using this handpiece, it is possible to treat soft tissues using high-frequency pulses.

- 1 Trigger button
- 2 Transmitter head



Fig. 1-1 V-ACTOR II

The prerequisites for using the V-ACTOR II handpiece correspond to the prerequisites for operating your control device. Please read the PREREQUISITES FOR OPERATING chapter in the separate operating instructions for your control device.

Depending on the therapy to be performed, the handpiece can be equipped with one of the following three transmitter heads:

- with the V-ACTOR spherical transmitter 10 mm (V10) Fig. 1-2/1
- with the V-ACTOR transmitter 25 mm (V25) Fig. 1-2/2
- with the V-ACTOR transmitter 40 mm (V40) Fig. 1-2/3

- 1 V10
- 2 V25
- 3 V40

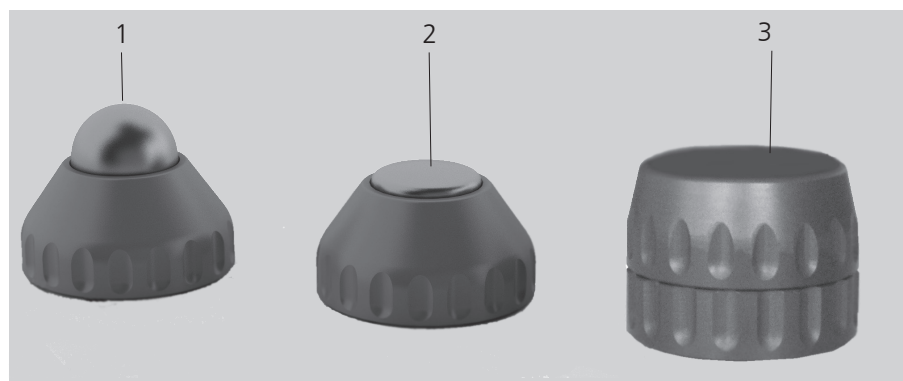


Fig. 1-2 V-ACTOR transmitters

Installation Instructions

2

2.1 Scope of supply

- V-ACTOR II handpiece with 3 transmitters
The V-ACTOR transmitters V25 and V40 are supplied with a transmitter screw cap. The V-ACTOR spherical transmitter V10 is supplied without a transmitter screw cap. It is mounted in the transmitter screw cap of the V-ACTOR transmitter V25

2.2 Unpacking

- Carefully remove the handpiece from the packaging.
- Check that all items are included in the packaging container and that they are not damaged.
- Contact your supplier or the manufacturer immediately if any items are missing or damaged.

2.3 Connecting the handpiece

NOTE

Please also refer to the separate operating manual of your control device.

- Connect the plug of the V-ACTOR II handpiece to the R-SW or D-ACTOR connector on the respective control device.
- Line up the red dots on the plug with the red dots on the connector (Fig. 2-1/1) before connecting.

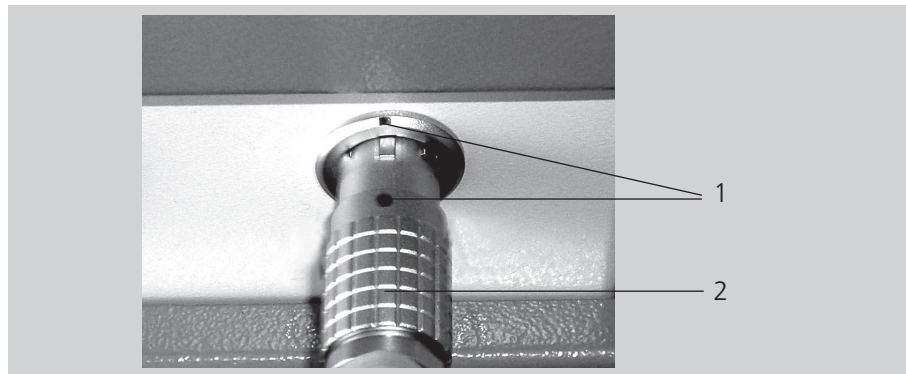


Fig. 2-1 Connecting the handpiece

- Gently pushing the plug into the connector will immediately lock the connection and will prevent the connector from disengaging automatically when the cable is pulled.
- To break the connection, pull the outside of the plug body (Fig. 2 - 1/2). This means the locking function is initially released, then the plug is pulled out of the socket.

2.3.1 Compatibility

The STORZ MEDICAL V-ACTOR II handpiece may be operated on the following control devices:

- STORZ MEDICAL DUOLITH SD1 T-Top and Tower version
- STORZ MEDICAL CELLACTOR SC1 T-Top and Tower version
- STORZ MEDICAL Masterpuls MP200
- STORZ MEDICAL D-ACTOR 200
- STORZ MEDICAL Masterpuls MP100
- STORZ MEDICAL D-ACTOR 100
- STORZ MEDICAL Masterpuls MP50
- STORZ MEDICAL D-ACTOR 50

2.3.2 Replacing the transmitter

- **V25 and V10**
 - To remove the 25 mm transmitter or the 10 mm spherical transmitter, unscrew the transmitter screw cap (Fig. 2-2/1) from the handpiece and pull the transmitter out (Fig. 2-2/2).
 - Clean all parts of the transmitter as described in **CHAPTER 4.1 CLEANING**.
 - Reassemble the transmitter in reverse order.
 - Screw the new transmitter onto the handpiece until finger-tight.

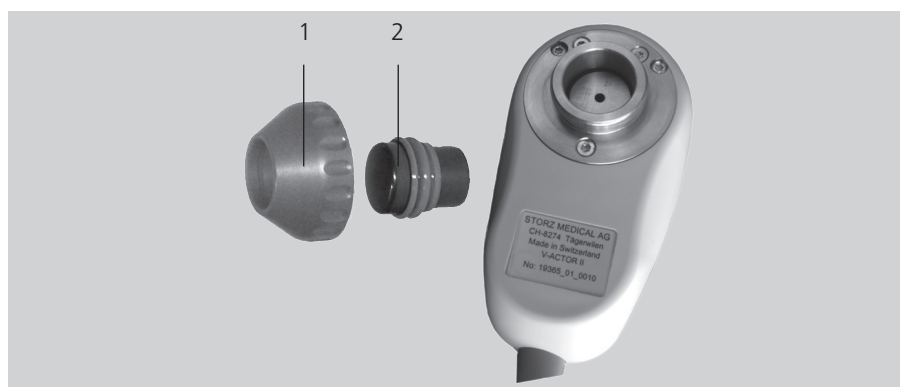


Fig. 2-2 Replacing the transmitter V25 und V10

– **V40**

- To remove the transmitter V40, unscrew the transmitter from the hand-piece.
- Unscrew the transmitter screw cap (Fig. 2-3/1 and Fig. 2-3/5), and pull the transmitter out.
- Remove the sealing ring (Fig. 2-3/3) by pressing it apart at the cut-through point.
- To clean, press the spring element (Fig. 2-3/4) together slightly and remove the residues underneath it.
- Clean all parts of the transmitter as described in **CHAPTER 4.1 CLEANING**.
- Reassemble the transmitter in reverse order.
- Make sure that the smooth side of the sealing ring (Fig. 2-3/3) is in contact (Fig. 2-4) with the transmitter head (Fig. 2-3/2).
- Screw the new transmitter onto the handpiece until finger-tight.

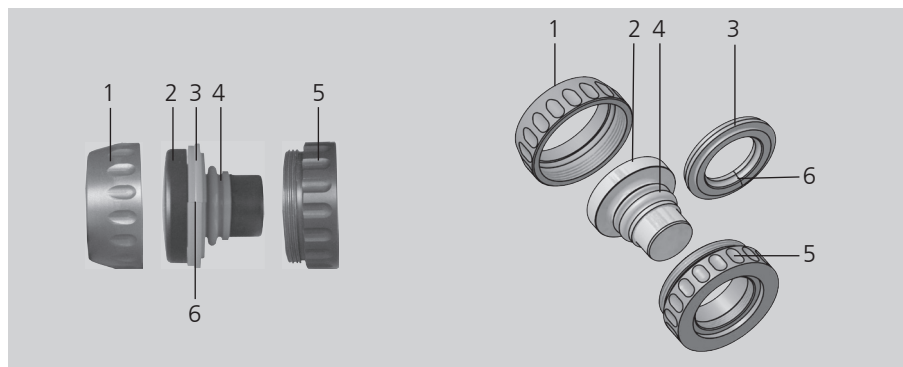


Fig. 2-3 Transmitter V40

- 1 Front cap
- 2 Transmitter head
- 3 Sealing ring
- 4 Spring element
- 5 Rear cap
- 6 Cut-through point

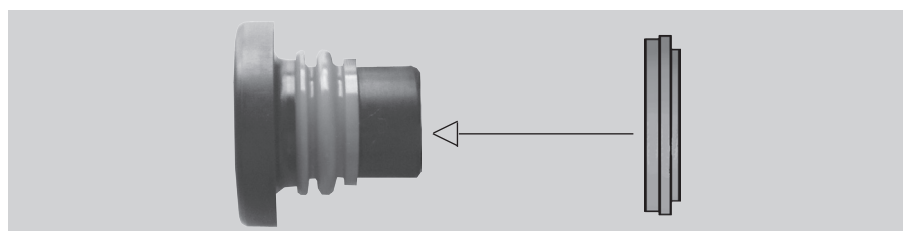



Fig. 2-4 Mount the sealing ring

Operation

3

3.1 General warnings and safety information

	CAUTION !
	<p>The V-ACTOR II handpiece is intended exclusively for use by medical specialists and must only be used by suitably qualified and trained medical personnel.</p> <p>The user is responsible for correctly positioning the handpiece.</p> <p>Correct determination of the location of the treatment zone is the responsibility of the user.</p> <p>Only perform treatments approved by STORZ MEDICAL AG!</p> <p>Risk of transmission of microorganisms! Clean the handpiece after each use! Refer to CHAPTER 4.1 CLEANING for details.</p>

3.2 Setting the V-ACTOR II treatment parameters

The V-ACTOR operating mode is called up automatically on the control device display when the V-ACTOR II handpiece is connected.

The grey status bar displays the active operating mode "V-ACTOR" in white text (Fig. 3-1).

NOTE

Refer to the OPERATION chapter in the separate operating manual for your control device to see the structure of the display and menu navigation.

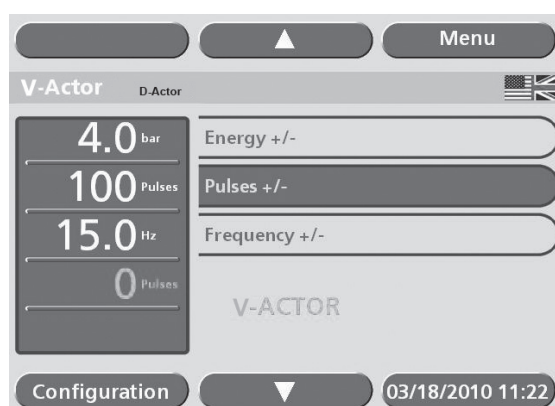


Fig. 3-1 V-ACTOR operating mode

The pulse frequency in V-ACTOR mode can be selected in steps up to 35 Hz at 1.4 to 5.0 bar.

3.3 Start-up

- Connect the V-ACTOR II handpiece to the control device.
- Set the energy in V-ACTOR operating mode to an initial value of 2 bar.
- Activate the V-ACTOR II trigger button (Fig. 1-1/1).

NOTE

The trigger button functions as an on/off switch when it is pressed briefly. Pressing it for longer causes it to function as a tip switch, i.e. the pulses will continue until the button is released.


3.4 Functional checks

- Set the energy level in V-ACTOR mode to 2.4 bar.
- Reset the actual number of pulses on the parameter display of the control panel.
- Release pulses with a frequency of 30 Hz.
- Release pulses by means of the foot switch, if used.
- Check that the triggered pulses are correctly counted on the treatment pulse counter of the control device.

3.5 Standard settings


- Start the V-ACTOR II treatment at an energy level of 2 bar and a frequency of 20 Hz.
- For more detailed instructions, refer to the application brochure and the treatment recommendations.


3.6 Treatment

	CAUTION !
	<p>Read CHAPTER 3.1 GENERAL WARNINGS AND SAFETY INFORMATION before beginning treatment.</p>

NOTE
 The maximum energy level used during treatment must not cause the patient undue pain under any circumstances.

- Apply a sufficient amount of massage oil to the patient's skin in the treatment area and to the V-ACTOR II transmitter (Fig. 1-1/2).
- Perform the V-ACTOR II treatment as recommended in the application brochure/treatment recommendations.


	CAUTION !
	<p>The handpiece may not be operated while idling (without an impact surface).</p> <ul style="list-style-type: none"> • Do not trigger pulses unless the pulse transmitter is in contact with the treatment zone!

	CAUTION !
	<p>We recommend that the user and the patient wear suitable hearing protection.</p> <ul style="list-style-type: none"> • Always offer the patient hearing protection.

Cleaning, Maintenance, Overhaul

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4.1 Cleaning

	CAUTION!
	Cleaning agents and disinfectants can form an explosive atmosphere. Disconnect the handpiece and the control device from the mains before starting any cleaning or maintenance work.

ATTENTION

Make absolutely sure that no liquid can seep into the handpiece.

The handpiece must be thoroughly cleaned and disinfected after each therapy session.

- Clean the remaining massage oil off the handpiece using a damp cloth.
- Disinfect the handpiece with a surface disinfectant.
- Clean the shock transmitters thoroughly after each use. Unscrew the shock transmitter screw cap and remove the shock transmitter insert if necessary.
- The shock transmitters can be cleaned using the usual cleaning agents and disinfectants.
- Clean the shock transmitters each day in an ultrasonic bath.
- Proceed as follows to clean the shock transmitters:

V40 shock transmitter:

- Unscrew the shock transmitter from the handpiece, disassemble the threaded two-part shock transmitter screw cap, remove the shock transmitter insert from the front cap and take out the front sealing ring. This is cut open so that it can be removed more readily. The spring element on the shock transmitter insert does not need to be removed.
- Clean all of the parts under running water.
- Clean and disinfect the shock transmitter insert and the sealing ring in an ultrasonic bath.
- For this purpose, use only instrument disinfectants for heat-sensitive, reusable medical devices.

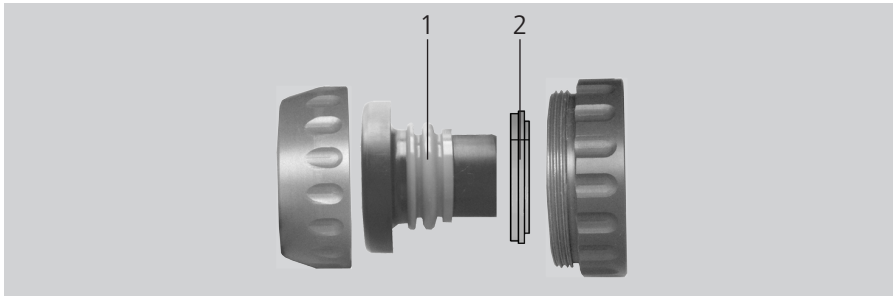


Fig. 4-1 V40 shock transmitter disassembled

- 1 Spring element
- 2 Front sealing ring

V25 shock transmitter and V10 spherical shock transmitter:

- Unscrew the shock transmitter from the handpiece and remove the shock transmitter insert from the front cap. The spring element on the shock transmitter insert does not need to be removed.
- Clean all of the parts under running water.
- Clean and disinfect the shock transmitter insert and the sealing ring in an ultrasonic bath.
- For this purpose, use only instrument disinfectants for heat-sensitive, reusable medical devices.

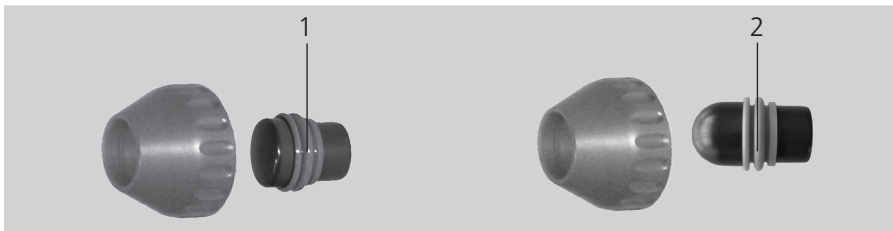


Fig. 4-2 V25 shock transmitter and V10 spherical shock transmitter disassembled

- 1 Spring element



Fig. 4-3 Ultrasonic bath with V-ACTOR shock transmitters



4.2 Disposal

No special precautions need be taken when disposing of the V-ACTOR II handpiece. Please proceed in accordance with applicable country-specific regulations. The instrument must be disposed of as waste electronic equipment at the end of its service life.

4.3 Repair

Repair work on defective instruments must only be carried out by personnel suitably authorised by STORZ MEDICAL. Only original STORZ MEDICAL spare parts may be used for this purpose. The personnel suitably authorised can be from STORZ MEDICAL or be representatives of STORZ MEDICAL agencies and dealers.

4.4 Service life

The average expected service life of the handpiece is approx. 5 million pulses. Exceeding the service life can be expected to result in a failure of the instruments.

No warranty claims shall be accepted beyond the information given in **CHAPTER 8 WARRANTY**.

For information about the service life of your control device, please refer to the separate operating manual for your control device.

Trouble-shooting

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5.1 Trouble-shooting

Fault description	Possible cause	Corrective action
No compressed air supply	Leaks in handpiece cable, or cable not properly connected	Check the cable and tube connections and replace them, if necessary.
No power output	Handpiece defective	Replace the handpiece.



CAUTION !

Disconnect the handpiece from the control device before starting any maintenance work!

Accessories and Spare Parts

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6.1 Accessories and Spare Parts

V-ACTOR II handpiece set	20212
25 mm transmitter	19154
40 mm transmitter	18246
10 mm spherical transmitter without transmitter screw cap	21348
V-ACTOR handpiece holder for: MASTREPULS MP200, D-ACTOR 200, DUOLITH SD1 T-TOP, CELLACTOR SC1 T-TOP, MASTREPULS MP100	18825
V-ACTOR handpiece holder for: DUOLITH SD1 TOWER, CELLACTOR SC1 TOWER	18826
Operating manual for V-ACTOR II handpiece	18601

Technical Specifications

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7.1 Technical Specifications

V-ACTOR II operating frequency	1 - 35 Hz
Energy selection	in steps from 1.4 to 5 bar
Ambient temperature during operation	10° – 30°C
Ambient temperature during storage and transport	0° – 60°C
Ambient air pressure	500 - 1060 hPa
Air humidity	5 – 95%, non-condensing
Weight	370g
Protection against the ingress of water	IPX0

Subject to technical modifications

NOTE

When the medical product is distributed to third parties, the following must be observed:

- The complete device documentation must be delivered together with the medical product.
- The medical product may only be exported to a foreign country when the medical product and the corresponding indications are allowed there.

Warranty

8

8.1 Warranty

The V-ACTOR II handpiece is a wearing part. We will replace new handpieces that have performed up to 1 million pulses at no charge to the customer upon the customer furnishing adequate proof that the defect is due to defects in material or workmanship. Transport costs and the risk of loss during the shipping of returned products shall be borne by the customer.

Warranty claims will only be accepted if the handpiece is returned in its complete and original state, cleaned and in the case, with the repair label filled in completely.

Missing components will be replaced subject to charge. Accessories also sent will be checked and, if necessary, replaced after we have assessed them. Pulse transmitters and overhaul kits are not covered by the handpiece's warranty.

ATTENTION

Modifications to the handpiece are not permitted.

Any unauthorised opening, repair or modification of the handpiece by unauthorised personnel will relieve the manufacturer of its liability and responsibility for safe system operation. This will automatically void the warranty even before the end of the warranty period.