



## Assembly and Operating Instructions



Art. No. CST-CB

CSTCB.01.02

**Cardiostrong Heart Rate SensorSmart**



# Content

<b>1</b>	<b>GENERAL INFORMATION</b>	<b>7</b>
1.1	Technical Data	7
1.2	Personal Safety	8
<b>2</b>	<b>ASSEMBLY- AND OPERATING INSTRUCTIONS</b>	<b>9</b>
2.1	General Instructions	9
2.2	Scope of Delivery	9
2.3	Assembly	10
2.4	Assembly of the Transmitter Battery	12
2.5	Initial Operation of the Heart Rate Transmitter	13
2.5.1	Bluetooth Smart	13
2.5.2	ANT+	14
2.5.3	5.3 Khz	14
<b>3</b>	<b>TROUBLESHOOTING, CARE AND MAINTENANCE</b>	<b>15</b>
3.1	General Instructions	15
3.2	Faults and Fault Diagnosis	15
3.3	Care and Maintenance of the Textile Elastic Strap	17
<b>4</b>	<b>DISPOSAL</b>	<b>17</b>
<b>5</b>	<b>WARRANTY</b>	<b>17</b>
<b>6</b>	<b>CONTACT</b>	<b>18</b>



**Dear customer,**

Thank you for choosing a high-quality equipment of the brand cardiostrong®. cardiostrong® offers sports and fitness equipment for the sophisticated home sport and the equipment of fitness studios and business customers. With cardiostrong® fitness equipment, the focus is on what sport is all about: maximum performance! Therefore, the equipment is developed in close consultation with athletes and sports scientists. Because athletes know best what makes perfect fitness equipment.

Further information can be found at [www.sport-tiedje.com](http://www.sport-tiedje.com).

**Intended Use**

The equipment may only be used for its intended purpose.

The equipment is only suitable for home use. The equipment is not suitable for semi-professional (e.g. hospitals, associations, hotels, schools, etc.) and commercial or professional use (e.g. fitness studios).

**Legal Notice**

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Product and manual are subject to change. Technical data can be changed without advance notice.

## ABOUT THIS MANUAL

Please carefully read the entire manual before installation and first use. The manual will help you to quickly set up the system and explains how to safely use it. Make sure that all persons exercising with the equipment (especially children and persons with physical, sensory, mental or motor disabilities) are informed about this manual and its contents in advance. In case of doubt, responsible persons must supervise the use of the equipment.



Due to ongoing changes and software optimisations, the manual may have to be updated. If you notice any discrepancies during assembly or use, please refer to the manual uploaded to the webshop. The latest manual is always available there.

This equipment has been manufactured according to the latest safety knowledge. As far as possible, potential safety hazards which could cause injury have been eliminated. Make sure to carefully follow the instructions and that all parts are securely in place. If required, read through the instructions again to correct any mistakes.

Please pay close attention to the safety and maintenance instructions given here. The contract partner cannot be held liable for damage to health, accidents or damage to the equipment when it is not used in accordance with these instructions.

The following safety instructions may appear in this manual:

► **ATTENTION**

This notice indicates potentially hazardous situations which, if not avoided, may result in property damage.

⚠ **CAUTION**

This notice indicates potentially hazardous situations which, if not avoided, may result in slight or minor injuries!

⚠ **WARNING**

This notice indicates potentially hazardous situations which, if not avoided, may result in death or serious injuries!

⚠ **DANGER**

This notice indicates potentially hazardous situations which, if not avoided, will result in death or serious injuries!

ⓘ **NOTICE**

This notice indicates further useful information.

Retain these instructions in a safe place for future reference, maintenance or when ordering replacement parts.

## 1.1 Technical Data

Strap length:	88 cm (suitable for chest: 70-120cm/ 27.5"-47.2")
Battery lifetime (approx.):	300 hours (1 hr/day usage)
Battery:	CR2032 x 1 pcs (included)
Transmission Range:	BLE smart and ANT + up to 10 meters; 5.3khz under 80cm
Waterproof :	IPX 7
Operating temperature:	0°C ~ 50°C (32°F~122°F)
LED light:	M 308053
Patent No:	NFC: M 466319
Weight:	53g (transmitter + textile strap + battery)
Compatible Android/ IOS version:	above IOS 6.0 and Android 4.3.

## 1.2 Personal Safety

### **DANGER**

- + Before you start using the equipment, you should consult your physician that this type of exercise is suitable for you from a health perspective.

### **WARNING**

- + This equipment may not be used by children under the age of 14.
- + Children should not be allowed unsupervised access to the equipment.
- + People with disabilities must have a medical license and must be under strict observation when using the equipment.
- + The equipment is strictly for use by one person at a time
- + Do not use the product on swollen and/or inflamed body parts or on irritated skin areas.
- + Do not use the product on painful areas of the body where the cause of the pain is unclear.
- + If you experience any unusual discomfort during use, turn the device off and do not use it any further. Contact your physician.
- + Your training equipment is not a medical device. The heart rate measurement of this equipment may be inaccurate. Various factors can affect the accuracy of the heart rate measurement. The heart rate measurement serves only as a training aid.

### **CAUTION**

- + This device is not a medical device. This device should never replace medical treatment.

### **ATTENTION**

- + Avoid hard hits to the sensors, as these may damage the sensor units.
- + Several factors can effect the detection and accuracy of the heart rate display such as dehydration, alcohol consumption and body hair. For accurate readings it is advised to wait until your body condition stabilizes before using the transmitter.
- + Too much moisture on the electrodes will reduce the battery life.

## 2.1 General Instructions



### DANGER

- + Do not leave any tools, packaging materials such as foils or small parts lying around, as otherwise there is a danger of suffocation for children. Keep children away from the equipment during assembly.



### WARNING

- + Pay attention to the instructions attached to the equipment in order to reduce the risk of injuries.



### CAUTION

- + Ensure to have sufficient room for movement in each direction during assembly.



### ATTENTION

- + To prevent damage to the equipment and the floor, assemble the equipment on a mat or packaging board.



### NOTICE

- + In order to make the assembly as simple as possible, some screws and nuts to be used can already be pre-assembled.
- + Ideally, assemble the equipment at its later set-up place.

## 2.2 Scope of Delivery

The scope of delivery consist of the following parts. At the beginning, check whether all parts and tools belonging to the device are included in the scope of delivery and whether damage has occurred. In the event of complaints, the contractual partner must be contacted directly.

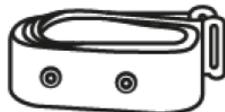


### CAUTION

If parts of the scope of delivery are missing or damaged, the assembly must not be carried out.



3 in 1 Heart Rate Transmitter



Textile Elastic Strap



Battery Cover (with O-ring)



CR2032 3V  
Lithium Battery

## 2.3 Assembly

### ① NOTICE

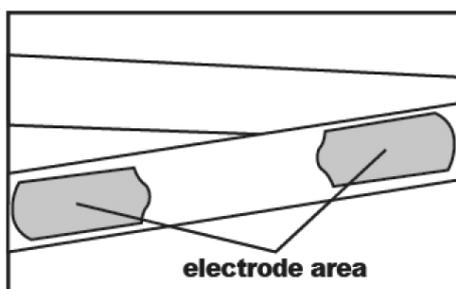
If you have difficulty recognising the graphics, we recommend that you open and/or download the PDF instructions stored in the webshop on your end device (e.g. smartphone, tablet or PC). There you have the option of zooming in closer. Please note that the Adobe Acrobat Reader programme must be installed on your end device in order to open the file.

### Step 1:

### ① NOTICE

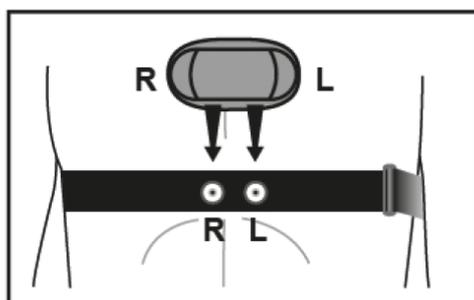
Use water or ECG gel to moisten the electrode area to help it attach to your skin.

Slightly moisten the electrode area on the textile strap (if necessary).



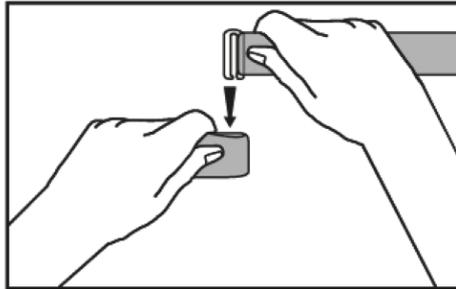
### Step 2:

Attach the Bluetooth smart transmitter to align it with the two connection buttons (right button to right side of the body/ left button to left side of the body).



### Step 3:

1. Adjust the strap length and wrap it around your chest.
2. Insert the clasp to the loop end of the strap and make sure the strap is wrapped properly around your chest.

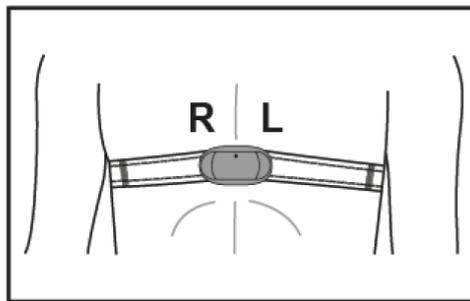


### Step 4:

#### ⓘ NOTICE

Do not use vaseline or oils which may insulate the transmitter and make it unable to detect the heart rate signals.

1. Make sure the electrodes are pressed firmly against your skin.
2. Centre the sensor on your chest in the upright position with the LED light on the top side.



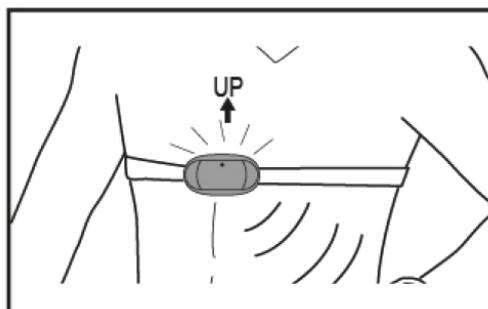
### Step 5:

#### ⓘ NOTICE

Be patient as the transmitter might take some time to achieve stable signals because skin types and heart rate signals vary from person to person.

*If the transmission is working, the red flash light will continue flashing 5 minutes when it detects active pulse.*

→ *After this period, it will enter the power saving mode without any flash light on.*

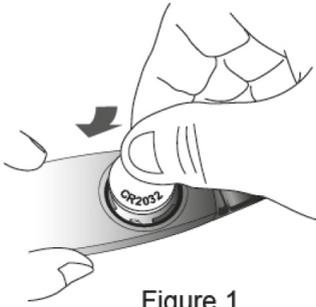


## 2.4 Assembly of the Transmitter Battery

**NOTICE**

During the insertion of the battery: Make sure that the battery is first pressed against the side contact (mark „+“ facing up) and then pressed into the battery compartment.

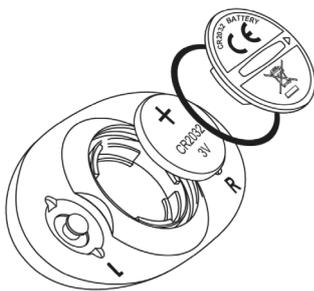
1. Slide the battery (CR2032) angled into the battery compartment (shown in Figure 2).



2. Check if the o-ring is already inserted in the battery cover to ensure the battery compartment is water proof.



3. Attach the battery cover and turn it to the right to close it with a coin/ turn left to open it.



**ATTENTION**

Make sure to close the battery cover properly to prevent the battery from sweat and moisture.

## 2.5 Initial Operation of the Heart Rate Transmitter

This heart rate chest belt has a soft adjustable textile strap which needs to be adjusted to the proper length to get the effective heart rate detection.

The BLE smart, ANT+ and 5.3Khz 3 in 1 Heart Rate Transmitter is compatible with versions above IOS 6.0 and Android 4.3.

### **NOTICE**

- + Before wearing the chest belt, you can check the transmission status by pressing the electrode area with your fingers. If the red LED light flashes, it's in good working condition.
- + To save power, make sure to take off the chest belt when training is finished.

### **Transmission distance range**

- + Bluetooth smart: up to 10 meters.
- + ANT+: up to 10 meters.
- + 5.3Khz: under 80cm.

The chest belt is suitable for treadmills, indoor bikes etc.



### 2.5.1 Bluetooth Smart

The 3 in 1 heart rate transmitter is compatible with many apps and some sport watches with BLE smart support.

Please follow the steps to wirelessly connect the chest belt to your device (e.g. smartphone).

1. Download the fitness app of your choice from Google Play Store or Apple App Store.
2. Open the app before switching on the Bluetooth in the setting menu of your device.

### **NOTICE**

Sensor pairing must be configured under APP mode instead of setting of the device.

3. Let the app automatically pair your device with the product. Don't use the Bluetooth pairing options from the setting menu of your device.

### **NOTICE**

- + Users must search correct ID number (HR09\_XXX XXX) to pair (one sensor for one ID number).

- + If the chest belt cannot pair in some apps, there might be certain limits on the chest belt, please confirm with the producer of the app.

4. Pair the bluetooth heart rate transmitter with the fitness app in the fitness apps settings.

## 2.5.2 ANT+

The 3 in 1 heart rate transmitter is compatible with some devices that are equipped with ANT+.

1. Go to Device Settings
2. Switch on ANT+
3. Pair your heart rate transmitter with the device.

*When you see the heart rate value, it means that the connection is successful.*

### ① NOTICE

- + Smartphones with embedded ANT+ connection can be used directly but other smartphones will need to use an ANT+ dongle to activate the ANT+ functions.
- + Every bluetooth smart and ANT+ device has it's setting and operating methods how to pair with the chest belt. Please refer to the user manual of the respective device.
- + The bluetooth smart and ANT+ devices can be used at the same time. There's no interference problem.

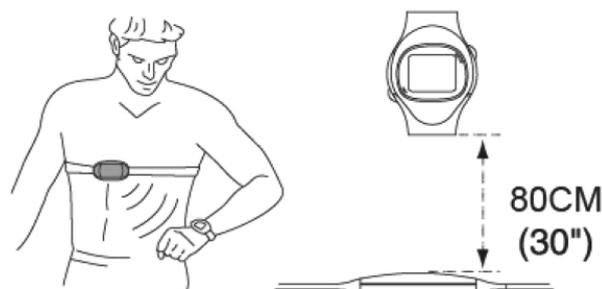
## 2.5.3 5.3 Khz

The 3 in 1 heart rate transmitter is compatible with most heart rate receivers, watches, treadmills and other 5Khz or 5.3KHz chest straps etc.

Keep the distance not over 80cm between your receiver and heart rate transmitter for good wireless reception as illustrated.

### ① NOTICE

- + Please keep the distance above 80 cm with two simultaneous users.
- + Parallel use could affect the transmission distance.
- + Wireless transmission distance: under 80 cm.



### 3.1 General Instructions



#### WARNING

- + Do not make any improper changes to the equipment.



#### CAUTION

- + Damaged or worn components may affect your safety and the life of the equipment. Therefore, immediately replace damaged or worn components. In such a case, contact the contract partner. The equipment must not be used until it has been repaired. If necessary, use only original spare parts.

#### ► ATTENTION

- + In addition to the instructions and recommendations for maintenance and care given here, additional service and/or repair work may be necessary; this must only be carried out by authorised service technicians.

### 3.2 Faults and Fault Diagnosis

The equipment undergoes regular quality controls during production. Nevertheless, faults or malfunctions may occur. Frequently, individual parts are responsible for these disturbances, an exchange is usually sufficient. Please refer to the following overview for the most common errors and how to correct them. If the equipment still does not function properly, contact your contract partner.

Fault	Cause	Solution
No heart rate/ heart rate shows "zero"	<ul style="list-style-type: none"> <li>+ Wrong position of chest strap.</li> <li>+ Sources of interference in the room.</li> <li>+ Chest strap defective or battery empty.</li> </ul>	<ul style="list-style-type: none"> <li>+ Rewear the product by following the instructions.</li> <li>+ Stay away from power lines or other electromagnetic sources.</li> <li>+ Moisten the electrode sensing area of the textile strap.</li> <li>+ Remove the battery and wait for 1 minute before re-inserting it.</li> </ul>
No bluetooth signal/ connection	Sources of interference in the room.	<ul style="list-style-type: none"> <li>+ Eliminate sources of interference (e.g. high-voltage tower, traffic light, adaptor, railway, light rail, cable car, wireless communication products, radar station, laptop and other electronic appliances at home)</li> </ul>

Bluetooth / Ant+ is not working or not paired with your device	<ul style="list-style-type: none"> <li>+ Bluetooth is only for one-on-one pairing.</li> <li>+ Phone is not equipped with Bluetooth smart 4.0 above Android version 4.3 or IOS 6.</li> </ul>	<ul style="list-style-type: none"> <li>+ Make sure that bluetooth in the app is paired with your product.</li> <li>+ If the sensor in your product has been paired with your phone's bluetooth (not from the app's bluetooth), turn it off first before reactivating the app's bluetooth.</li> </ul>
Wrong value	Weak battery / magnet interference.	<ul style="list-style-type: none"> <li>+ Stay away from any objects nearby electromagnetic waves. (e.g. railway tracks, transmitting stations for television, digital LED light or other wireless sensor etc.)</li> <li>+ Keep the sensor away from any object that may cause interference (e.g. smartphone, telephone, computer, notebook, TV etc.)</li> <li>+ 5.3 khz: keep the distance above 80 cm with two simultaneous users.</li> </ul>
Display delay	Ambient temperature is below/ over 0°C ~ 50°C.	Avoid using the heart rate transmitter outside the range of temperature.
Irregular data appears	Weak sensor transmitler/ battery empty/ too much magnetic interference.	<ul style="list-style-type: none"> <li>+ Remove the battery and wait for 1 minute before re-inserting it.</li> <li>+ Stay away from electromagnetic sources.</li> </ul>
Harmful interference to radio or television reception	Harmful interference to radio or television reception when turning the equipment off and on	<ul style="list-style-type: none"> <li>+ Reorient or relocate the receiving antenna.</li> <li>+ Increase the distance between the equipment and receiver.</li> <li>+ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.</li> <li>+ Consult the dealer or an experienced radio/TV technician for help.</li> </ul>

### 3.3 Care and Maintenance of the Textile Elastic Strap

**NOTICE**

- + The strap should be dried lying flat, hanging or dripping wet.
- + The strap does not resist soaking , dry - cleaning or bleaching.

The textile strap can be washed in a gentle washing programme in the machine at +40°C/104 °F with most common laundry detergents. Use of delergents with optical brightening agents, detergents with bleaching agents, soap or fabric softener is not recommended. It is recommended to wash it in the machine with a landry bag because machine washing has less variation than hand washing.

Detach the connector from the strap and rinse the strap under running water after every use.

**ATTENTION**

- + Do not stretch the wet strap or wring dry.
- + Do not iron or treat the strap with heat.
- + Do not tumble dry.
- + To avoid rust, wipe away the sweat of the metal buttons with clear water.



## 4 DISPOSAL

At the end of its operational life, this equipment cannot be disposed of in normal household waste. Instead, it must be disposed of via an electricals recycling centre. Further information can be obtained from your local authority's recycling service.



The materials can be recycled as per their symbols. Through the reuse, recycling of materials or other forms of recovery of old equipment, you make an important contribution to the protection of the environment.

## 5 WARRANTY

### Warranty period

The warranty periods, shown on our web shop, begin on delivery of the fitness equipment. The respective warranty periods for your equipment can be found on its product website.

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Please find a detailed overview including address and opening hours for all stores of the Sport-Tiedje Group in Germany and abroad on the following website:

[www.sport-tiedje.com/en/stores](http://www.sport-tiedje.com/en/stores)

# WE LIVE FITNESS

## WEBSHOP AND SOCIAL MEDIA

Sport-Tiedje is Europe's largest specialist store for home fitness equipment with currently over 70 stores and one of the world's most renowned online mail order companies for fitness equipment. Private customers order via the 25 web shops in the respective national language or have their desired equipment assembled on site. In addition, the company supplies fitness studios, hotels, sports clubs, companies and physio practices with professional equipment for endurance and strength training.

Sport-Tiedje offers a wide range of fitness equipment from renowned manufacturers, high-quality in-house developments and comprehensive services, such as a build-up service and sports scientific advice before and after the purchase. The company employs numerous sports scientists, fitness trainers and competitive athletes.

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**Cardiostrong Chest Belt Smart**