01/04

Welby

Heart Rate Monitor

MD 7455 C€

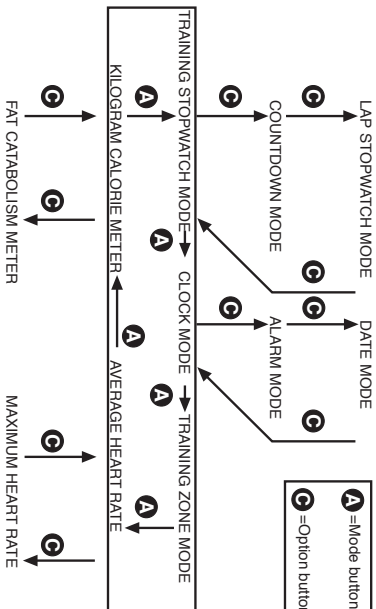## OPERATING INSTRUCTIONS

Welby

⚠ SAFETY NOTES

- The heart rate monitor is not medical device. It is a training instrument designed for measuring and indicating your heart rate, your calorie consumption and fat catabolism.

- Before starting your training programme, please consult your doctor or trainer to determine your individual upper and lower heart rate limit (training zone), training frequency and length of training.
With the parameters of your current fitness level, you will then achieve the best possible results.

- Do not use your heart rate monitor when practising any injury-prone sports.

- For changing batteries or with regard to the legally prescribed removal of the batteries prior to the disposal of your heart rate monitor, please contact the service hotline or an authorised service shop.

- Please read the operating instructions carefully and keep the instructions as long as you possess your heart rate monitor.

- **Individuals with cardiovascular disease or cardiac pacemaker bearers should use this heart rate monitor only after consultation with their doctor.**

CARE

Wipe off your heart rate monitor and the transmitter with a damp cloth after your training.
Please take care that the transmitter unit is kept in a dry place in order to avoid any premature discharge of the batteries.

FLOW CHART

LAP STOPWATCH MODE → DATE MODE

COUNTDOWN MODE

TRAINING STOPWATCH MODE

KILOGRAM CALORIE METER

FAT CATABOLISM METER

CLOCK MODE

ALARM MODE

TRAINING ZONE MODE

AVERAGE HEART RATE

MAXIMUM HEART RATE

A = Mode button

C = Option button

BUTTON FUNCTIONS

Your heart rate monitor has four buttons.

Mode **A**

Set **B**

D Alarm / light

C Option

BUTTON FUNCTIONS

The function Buttons must never be pressed or activated under water, since moisture could penetrate into the housing.

A Mode button
The **A** mode button is used for changing the different operating modes. Press the mode button briefly to switch from the clock mode to the training zone mode, to the heart rate mode, to the kilogram calorie mode, to the training stopwatch mode and to return again to the clock mode.

B Set button
The **B** set button is used for setting the upper and lower heart rate, normal time, date, alarm time, countdown timer and the calorie consumption parameters.
Furthermore, the set button is used for starting the countdown, training stopwatch and lap stopwatch functions.

C Option button
The **C** option button is used for switching between the individual options to the respective operating mode as follows:
From the normal time mode, you will get to the alarm mode, to the date mode and back again to the normal time mode.
From the heart rate mode, you will get from the average heart rate to the maximum heart rate and back again to the average heart rate.
From the training stopwatch mode, you will get to the countdown mode, to the lap stopwatch mode and back again to the training stopwatch mode.

D Alarm/ light button
The **D** alarm/ light button is used for switching on the back light or a signal tone. Press the alarm button to activate the signal tone. A sound symbol appears on the display, and when pressing the button or when leaving the training zone, a signal tone will be heard, provided this function has been activated.
Press the alarm button for 2 seconds for activate the back light for 5 seconds.

Name: _____

Normal pulse rate: _____

Lower pulse rate limit: _____

Upper pulse rate limit: _____

_____

_____

_____

_____

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_____

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_____

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To set the time, the monitor must be in the clock mode, i.e. the time will be indicated on the display on the upper right, and the current heart rate on the lower right. If this is not so, press the option button until you get to the operating mode. There, you press the mode button to get to the clock mode.

In the clock mode, keep the set button pressed for about 2 seconds until display "Hold" disappear. Press the set button now to choose between a 12 hour and 24 hour display of the time of day.
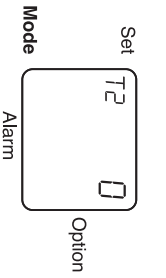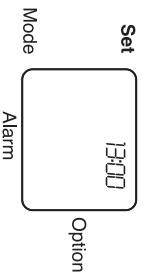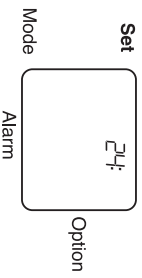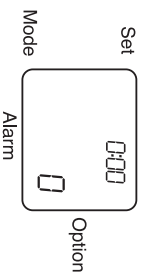

☞ When choosing the 12 hour display, the American calendar format of month/day will automatically be shown; when choosing the 24 hour display, the European format of day/month. In the case of the 12 hour setting, please note that AM will be displayed for the morning and PM for the afternoon.

You confirm your choice with the mode button, and the clock with a flashing display of the hours will appear. Set the current hour with the set button.

Or in case of a 12 hour setting:

Press the mode button. The display of minutes will start flashing. Set the minutes with the set button.

Press the mode button. The display of the time zone will start flashing. Set the desired time shift with the set button. By pressing the mode button, you will return again to the clock mode. By pressing the option button for 2 seconds, you will change to the second time zone.

For setting the alarm time, the monitor must be in the alarm clock mode, i.e. the alarm time, current heart rate and the letters "AL" will be indicated on the display. If this is not so, switch to the clock mode and press the option button to get to the alarm time mode.

In the alarm time mode, keep the set button pressed for about 2 seconds until the display "Hold" will disappear. Press the set button now for switching the alarm on ("on" and a bell symbol will appear on the display) or off ("off" will appear on the display).


☞ The bell symbol will remain visible in every operating mode, if any alarms are switched on.

With pressing the option button for about 2 seconds you can set up to eight personal alarms: Both individually on a daily basis as well as on a weekly basis.

You confirm your choice with the mode button, and the alarm clock will appear with a flashing display of the hours. Set the desired hour by pressing the set button.

Press the mode button. The display of minutes will start flashing. Now, set the minutes with the set button.


By pressing the mode button, you will return to the alarm time mode. By pressing the option button for two seconds, you can set the second up to the eighth alarm now (as described above).
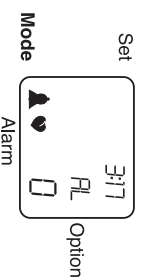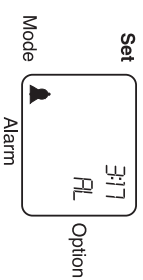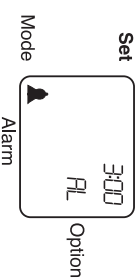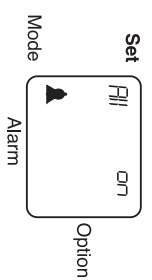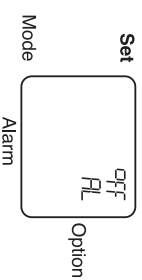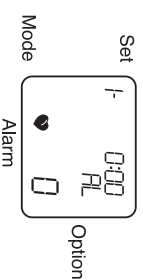
SETTING THE DATE DISPLAY

Your pulse rate monitor is equipped with a 50 year calendar which will compute for you the day of the week of the respective date up to the year 2050.

To set the date, the monitor must be in date mode, i.e. the date and the current heart rate are shown on the display. If this is not so, switch to the clock mode and press the option button to get to the date mode.

Mode [SA 01-1] Option — Set / Alarm
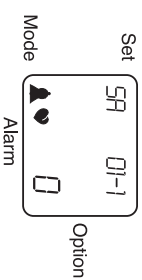
In the date mode, keep the set button pressed for about 2 seconds until the display "Hold" disappears. Now, press the set button for setting the year between the year 2000 and the year 2050.

Set [2001] Option — Mode / Alarm

You confirm your choice with the mode button, and the date will appear with a flashing display of the month. Set the desired month by pressing the set button.

Set [01-10] Option — Mode / Alarm
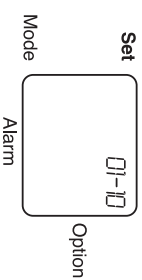
Press the mode button. The display of the day will start flashing. Set the day with the set button.

Set [SA 13-10] Option — Mode / Alarm

By pressing the mode button, you will return to the date mode. The day of the week will automatically be displayed as an English abbreviation in front of the date.
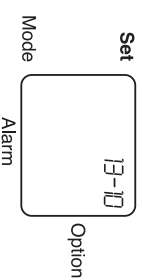
Mode [SA 13-10] Option — Set / Alarm

👉 If you have chosen the 12 hour display for your time setting, please note that the American calendar format of month/date will automatically be displayed; if you have chosen the 24 hour display, the European format of date/month will be shown.

Explanation of the abbreviations of the days of the week:
Monday = MO Tuesday = TU Wednesday = WE
Thursday =TH Friday = FR Saturday = SA
Sunday = SU

PUTTING ON THE TRANSMITTER AND THE HEART RATE MONITOR

The transmitter has to be worn on naked skin. Adjust the elastic strap so that the transmitter sits tightly your chest.
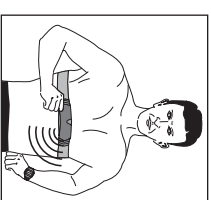
👉 To achieve a better contact with the skin, the transmitter cushion should be slightly moistened, e.g. with an ECG gel (available from your local chemist). Put on the strap a few minutes before you are going to start so it can heat to body temperature. Find the best possible strap position for you. The contact between the skin and the transmitter must not be interrupted at any time, even in the event of deep breathing.

Attach the heart rate monitor to your wrist. Press whatever button you choose for activating the monitor. If there is a problem-free reception, the heart symbol will start flashing with the incoming transmitted signals.

👉 It can take a few seconds until a heart rate display can be seen. If necessary, try varying positions of the transmitter to achieve an optimum contact.

HEART RATE DISPLAY

The heart symbol on the display will start flashing as soon as your heart rate monitor receives signals from the transmitter.

Set [SA 13-10] Option — Mode / Alarm

RADIO FREQUENCY INTERFERENCES

Wireless heart rate monitors can be influenced by interferences of external radio frequencies. Electronic training devices at fitness clubs, mobile phones, wireless bicycle computers, high voltage transmission lines or the like can cause irregular transmitter pulses and be the reason why "0" is indicated on the display during the training. When training in groups, other heart rate transmitters can interfere with your signal which will lead to a false heart rate display. To get correct signals, keep a distance of approx. 2 metres to other users of heart rate monitors.

SETTING THE TRAINING ZONE

The heart rate monitor will enable you to set a specific training zone with an upper and lower heart rate limit.

The display will indicate your current heart rate during the training. A flashing value and an arrow pointing upward or downward will tell you that you are outside of your set training zone.
In addition, an audible alarm can be set.
The arrows will disappear as soon as your current value is within the preset training zone.

For setting the training limits, the monitor has to be in the training zone mode, i.e. it will alternately be indicated on the display how long you were in the upper (HI), in the lower (Lo) and in the desired (In) training zone. If this is not so, switch to the clock mode and press the mode button to get to the training zone mode.

For calculating the training limits, your maximum heart rate (MHR) has to be taken as a basis. To determine your maximum heart rate, please consult your doctor or your trainer. If you do not know your maximum heart rate, you can estimate it on the basis of the following formula:

MEN : 220 minus age = maximum heart rate (MHR)
WOMEN : 230 minus age = maximum heart rate (MHR)

Calculate the upper and lower training limit of your kind of training by multiplying your maximum heart rate with the factors listed below.
Choose your desired kind of training here.

ATTENTION!

The types of training with the different heart rate zones are just examples.
Please ensure you discuss your choice of training with your doctor or qualified trainer.

TYPE OF TRAINING - HEALTH BENEFITS

Formula: lower limit: MHR x 0.50
upper limit: MHR x 0.65

TYPE OF TRAINING - ENDURANCE TRAINING

Formula: lower limit: MHR x 0.65
upper limit: MHR x 0.80

TYPE OF TRAINING - MAXIMUM LOAD

Formula: lower limit: MHR x 0.80
upper limit: MHR x 0.95

In the training zone mode, keep the set button pressed for about 2 seconds until the display "Hold" will disappear. Press the set button now for setting the upper limit between 100 and 240.

Confirm your choice with the mode button, and the lower flashing limit will be displayed. Set the desired lower limit by pressing the set button between 30 and 179.
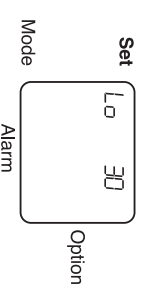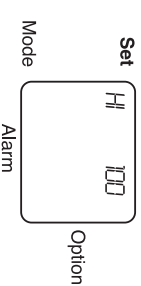
☞ You cannot set a lower limit which is higher than the upper limit. In this case, the upper limit will again be shown on the display so that you can set it again.

By pressing the mode button, you will return to the training zone mode.

WARNING SIGNAL FOR TRAINING ZONE

When exceeding or staying below the limits, you can also be informed about this by a warning signal tone besides the visual display. Press the alarm button for activating or deactivating the signal tone. If the signal tone is activated, a sound symbol will appear on the display. If the warning signal function is activated, a signal tone will be audible every six seconds, if your pulse rate is above or below the limits.
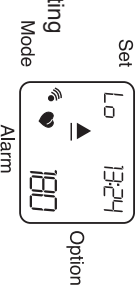
Your heart rate monitor provides the possibility of reading your average and maximum heart rate so that you will be able to adjust your training the best possible way and to avoid any overloading.

To be able to see the average or the maximum heart rate, your monitor must be in the heart rate display mode, i.e. the average heart rate will be indicated on the upper right on the display and the current heart rate value as well as the letters "AVG" on the lower right.
If this is not so, switch to the clock mode and press the mode button to get to the heart rate display mode.

Mode / Alarm
99
AVG 120
Set / Option

By pressing the option button again, you will return to the heart rate display mode.

In the heart rate display mode, press the option button, then the maximum heart rate value and the letters "MAX" will appear on the upper right on the display.

Mode / Alarm
99
MAX 120
Set / Option

CALORIE CONSUMPTION MODE

While the training stopwatch is switched on, the achieved calorie consumption and fat catabolism will be calculated on the basis of the measured heart rate. You must enter your sex, weight and current activity so that these values can be determined precisely. Proceed as follows:

For setting the data, the monitor must be in the kilogram calorie mode, i.e. the consumed kilogram calories will be indicated on the upper right on the display, and below the current heart rate as well as the letters "KCAL". If this is not so, switch to the clock mode and press the mode button to get to the kilogram calorie mode.

Set / Alarm
0
KCAL 120
Mode / Option

In the kilogram calorie mode, keep the set button pressed for about 2 seconds until the display "Hold" will disappear.
Press the set button now to choose your sex between "M" for men and "F" for women.

Set / Alarm
M
KCAL
Mode / Option
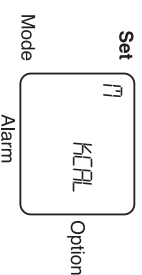
Confirm your choice with the mode button, and the flashing weight display will appear. Set your actual weight between 20kg (British pounds) and 225kg by pressing the set button.
By pressing the option button, you can choose between kilogram and the British pound (454g).

Set / Mode / Alarm
KG 075
KCAL
Option

Press the mode button. The calorie parameter will start flashing. Set the calorie parameter with the set button between the value of 00010 and the value of 00131.

Set / Mode / Alarm
0003b
KCAL
Option
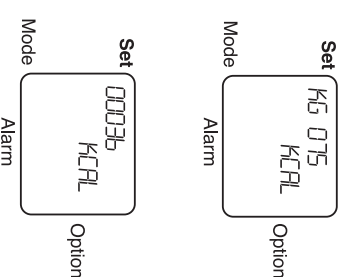
Some examples of different calorie parameters are as follows:

Aerobic	0.00047 – 0.00061	Climbing	0.00055
Badminton	0.00044	Running	0.00074 – 0.00131
Basketball	0.00063	Bicycle riding	0.00029 – 0.00079
Soccer	0.00060	Swimming	0.00028 – 0.00078
Gardening	0.00025 – 0.00057	Skiing	0.00052 – 0.00074
Handball	0.00063	Squash	0.00096
Jogging	0.00036 – 0.00069	Tennis	0.00050
Canoeing	0.00020 – 0.00047	Circuit training	0.00039 – 0.00060

☞ These calorie parameters are approximate values which are to serve as a rough guideline. You should decide individually, since each of these types of sport can be practised with different intensiveness.
The calorie consumption will only be measured from a heart rate of more than 100 beats/minute onwards and only after the training stopwatch has been started.

By pressing the mode button, you will get again to the kilogram calorie mode. Here, you can read the consumed kilogram calories while the training stopwatch is on in the training stopwatch mode.

Set / Mode / Alarm
48
KCAL 120
Option

Press the option button in order to read the exact fat catabolism achieved during your training sequence with a precision of 10 grammes. The maximum display amounts to 1.30 kg.

Set / Alarm
KG 075
0
Mode / Option

☞ If you have entered your weight in lb (British pound), the fat catabolism will be displayed in pounds.
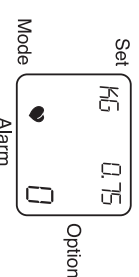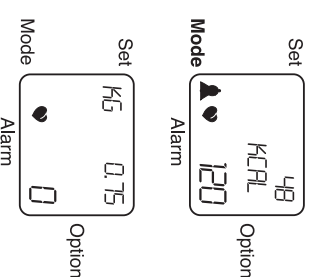
TRAINING STOPWATCH MODE

Your heart rate monitor is equipped with a training stopwatch with which you can read times up to 9 hours, 59 minutes and 59 seconds.

To start the training stopwatch, the monitor must be in the training stopwatch mode, i.e. the training time will be indicated on the upper right on the display, and below the current heart rate as well as the letters "STP". If this is not so, switch to the clock mode and press the mode button to get to the training stopwatch mode.

Set 0:00:00

Mode STP 0 Option

Alarm
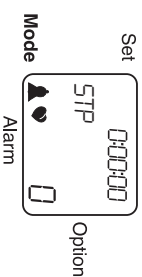
In the training stopwatch mode, press the set button in order to start the training time and thereby your training sequence.

Set 0:2h06

Mode STP 120 Option

Alarm

After pressing the set button again, a beep will be audible, a break of 3 minutes will begin. The training time stopped by you will remain visible for another 5 seconds. Thereafter, the break countdown will appear, which will automatically be effected down to 0 seconds.

Set R 2:38

Mode 120 Option

Alarm

At the end of the break, four beeps will be audible. The stored heart rate will be indicated in the upper line for comparison with the current heart rate in the lower line.

Set R 120

Mode 70 Option

Alarm

By pressing the set button (more than for 2 seconds), the training stopwatch will be reset to 0:00:00.

☞ By resetting the training stopwatch to 0:00:00, the memory for the heart rate will be deleted, and your heart rate monitor will be ready for the next training session.

COUNTDOWN TIMER MODE

Your heart rate monitor provides the possibility of programming a countdown timer from 1 minute up to 9 hours and 59 minutes.

For setting the countdown timer, the monitor must be in the countdown mode, i.e. the countdown timer will be indicated on the upper right on the display, and below this the current heart rate as well as the letters "CDT". If this is not so, change to the clock mode and press the mode button to get to the training stopwatch mode, then press the option button to get to the countdown mode.

Set 0:00:00

Mode CDT 120 Option

Alarm
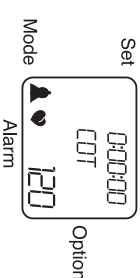
In the countdown mode, keep the set button pressed for about 2 seconds until the display "Hold" disappears. Press the set button now for setting the number of hours between 0 and 9 hours.

Set 0:00:00

Mode CDT 120 Option

Alarm
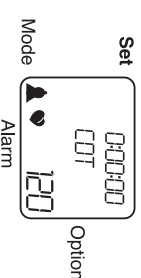
Confirm your choice with the mode button, and the minute display will start flashing. Press the set button now for setting the minutes.

Set 0:00:00

Mode CDT 120 Option

Alarm
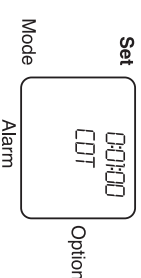
By pressing the mode button, you will return to the countdown mode.

Set 0:0h:00

Mode CDT 120 Option

Alarm
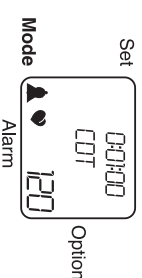
By pressing the set button, you will start or stop the countdown timer. By keeping the set button pressed for a longer time, the countdown timer will be reset to the originally set value.

Set 0:00:47

Mode CDT 120 Option
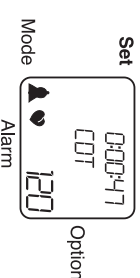
Alarm

☞ At the end of the countdown time, the display will stop when 0:00:00 is reached, and an alarm signal will be audible. By keeping the set button pressed for a longer time, the countdown timer will be reset to the originally set value.

LAP TIME STOPWATCH MODE

Your heart rate monitor provides a lap time stopwatch for up to 16 training laps. You can read back the measured lap times from the memory.

For setting the lap timer, the monitor must be in the lap time stopwatch mode, i.e. the lap and the lap time will be indicated on the upper right on the display, and below the current heart rate as well as the letters "LAP". If this is not so, change to the clock mode and press the mode button to get to the training stopwatch mode, then press the option button to get to the lap time stopwatch mode.

Set — LAP 0:00:00 / 120 — *Mode* ... *Alarm* ... *Option*

In the lap time stopwatch mode, press the set button in order to start the lap time measurement.

Set — LAP 1-00:32 / 120 — *Mode* / *Alarm* / *Option*

Press the set button in order to start the time measurement for the current lap.

Set — LAP 2-00:32 / 120 — *Mode* / *Alarm* / *Option*

Press the set button again to stop the time measurement for the current lap. The stopwatch will automatically start with the time measurement for the next lap.

Set — LAP 3-01:27 / 120 — *Mode* / *Alarm* / *Option*

The maximum lap time amounts to 99 minutes and 59 seconds. Thereafter, the time display will again start with 00:00.

Set — LAP 3-01:30 / 120 — *Mode* / *Alarm* / *Option*

By pressing the mode button, you will stop the time measurement without continuing automatically with the next lap.

Set — LAP 3-01:30 / 120 — *Mode* / *Alarm* / *Option*

Press the set button to start the time measurement for the next lap, or press the option button for leaving the lap time mode again.

👉 Press the set button and hold it pressed for more than 2 seconds to reset the lap time mode again to the original state.

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LAP TIME MEMORY

After your training, you have the possibility to call up from the lap time memory the training values for the total time of all laps and the total number of laps with the average time for all laps, together with the respective average heart rate. In addition you can call up the times of the individual laps together with the respective average heart rate.

Set — LAP 3-01:30 / 120 — *Mode* / *Alarm* / *Option*

For calling up the lap memory, the monitor must be in the lap time stopwatch mode, i.e. the lap and the lap time will be indicated on the upper right on the display, and below this the current heart rate as well as the letters "LAP". If this is not so, change to the clock mode and press the mode button to get to the training stopwatch mode, and then press the option button to get to the lap time mode.
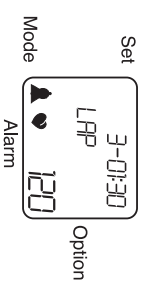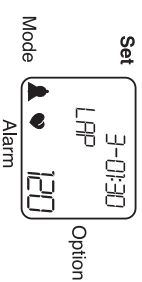
👉 In the lap time mode, keep the mode button pressed for about 2 seconds to start the lap time memory.

Set — LAP 3-00:45 / 120 — *Mode* / *Alarm* / *Option*

Now the total lap time and the total number of laps will be indicated from the lap time memory in intervals of 2 seconds, together with the average time for all laps as well as with the respective average heart rate.

*Mode* — LAP AVP / 120 — *Set* / *Alarm* / *Option*

Press the set button for indicating the average heart rate and the time stopped for each lap. By pressing the set button, you will change the individual laps.

Set — LAP 3-01:30 / 120 — *Mode* / *Alarm* / *Option*

Press the mode button to leave the lap time memory and to return again to the lap time mode.

Mode — LAP 3-01:30 / 120 — *Set* / *Alarm* / *Option*

👉 Press the set button and hold it pressed for more than 2 seconds to delete the lap time memory.

Set — LAP 0-00:00 / 120 — *Mode* / *Alarm* / *Option*

- 13 -
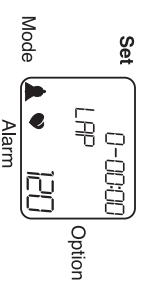
POWER SAVING MODE

If no signal is received for approx. 5 minutes, your heart rate monitor will automatically switch to the power saving mode, and the current time will be indicated. Press any button to "wake up" your heart rate monitor. Thereafter, you will again be back in the training stopwatch mode.

Set   Option

Mode   Alarm

`13:24`
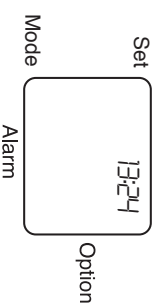
ATTACHING THE HEART RATE MONITOR TO THE HANDLEBARS OF A BICYCLE

Attach the fixing device supplied to the handlebars. Attach your heart rate monitor to the fixing device and adjust the watch strap in such a way that the fixing device will be pressed together on the handlebar.

TROUBLESHOOTING

The heart rate is not displayed.
-Is the transmitter flat against your chest.
-Is the transmitter too far away from the monitor?
-Are there any electronic interference sources interfering with a problem-free transmission?
-Is the transmitter battery flat?
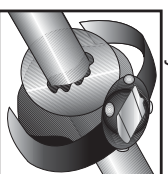
The display is black.
-The ambient temperature is outside of the operating range (0° C to 55° C).

The display is blank.
-The receiver battery is flat. For changing the receiver battery, please contact a watchmaker's shop or the service hotline.

Reset – resetting the receiver
1. Keep all 4 buttons pressed for about 3 seconds.
2. Press the set button. The monitor will then count down from 3 to 0.
3. Press the mode button and thereafter the option button.
Your heart rate monitor is now in the state it was delivered from the factory.

ENVIRONMENTAL NOTE

Old batteries must not be disposed of via your household waste, but have to be disposed of properly via the collecting boxes.
Prior to the disposal of your heart rate monitor (at the end of its life), the batteries must be removed in any case!
Open the battery compartment at the chest strap by turning the battery cover in the direction of the arrow by means of a coin. Now you can remove the transmitter battery and dispose of it.
As for your heart rate monitor, remove the four screws on the back of the housing by means of a small screwdriver for slotted screws. Now lift carefully one of the watch strap halves out of its anchoring and take off the cover. Now remove the securing clip and then remove the battery for proper disposal.
Caution: This procedure must only be applied in connection with the disposal of the monitor, since the monitor will be destroyed while doing so.

SPECIFICATIONS

Batteries:

Receiver   1 x CR 2025   3V
Station   1 x CR 2032   3V

Transmitter frequency: 5.3 KHz

Subject to technical modifications!

CE