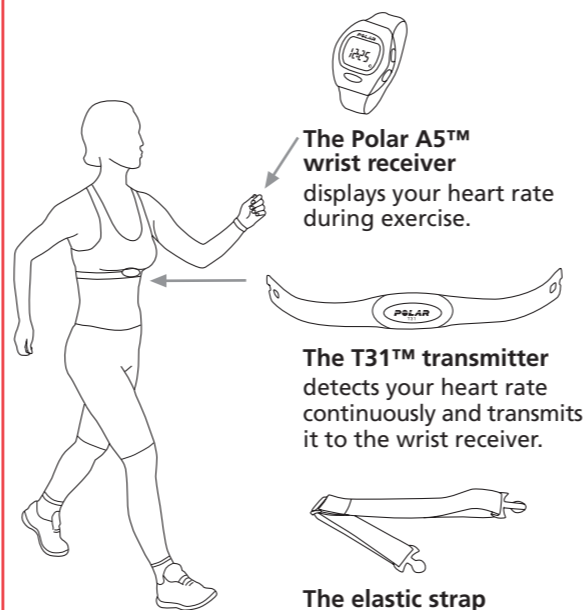


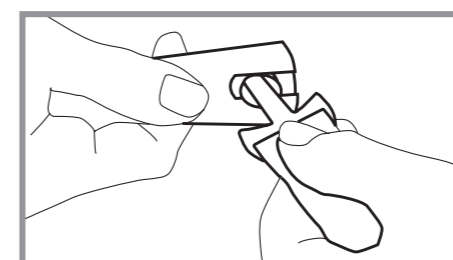
## Contents

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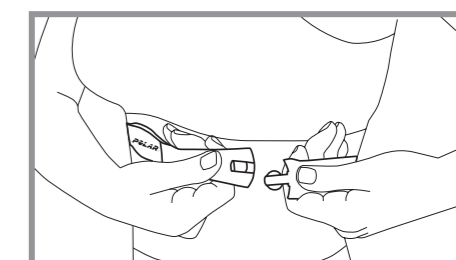
## 1. How to Put Your Heart Rate Monitor On



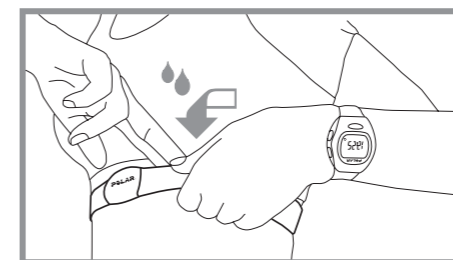
Keep the wrist receiver within 1 metre/3 feet of your transmitter. Check that you are not near other people with heart rate monitors or any source of electromagnetic disturbance.



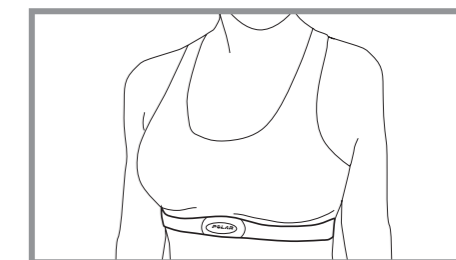
1. Attach the transmitter to the elastic strap.



2. Adjust the strap length to fit snugly and comfortably. Secure the strap around your chest, just below the chest muscles, and buckle it.

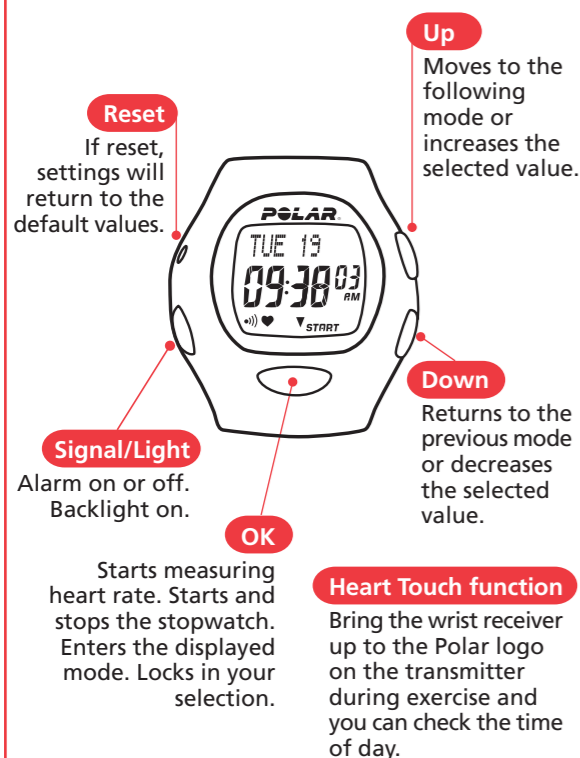


3. Lift the transmitter off your chest and moisten the two grooved electrode areas on the back.



4. Check that the wet electrode areas are firmly against your skin and the Polar logo is in a central, upright position.

## 2. Functions and Modes of Polar A5



### How to operate the set buttons

- To move forward or back, use Up or Down button.
- To choose the value to begin adjusting, press OK. It will begin blinking.
- Press Up or Down button to adjust the value (The digits run faster if you press and hold the button).
- Wherever you are in the settings, you can return to the Time of day display by pressing and holding OK.

### Time of day display mode

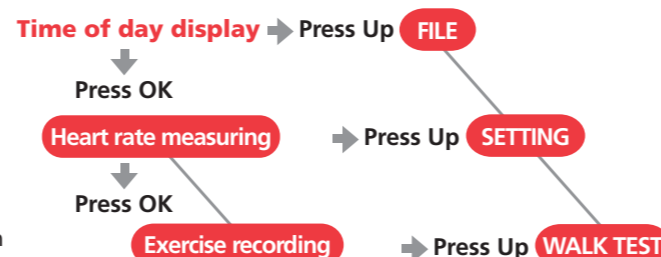
- Starting point for all functions
- Shows date and time

Press and hold OK to return to the Time of day display, wherever you are in the Settings or File recalling cycle.

When the alarm is turned on, the symbol appears on the Time of day display. When the alarm comes on it will sound for one minute or you can turn it off by pressing any of the four buttons.

### Exercise recording mode

- In the Exercise mode you measure your heart rate and record your exercise information in a file
- You can view different information while the heart rate monitor is measuring heart rate



### File mode

- Shows the data recorded during the exercise

### Setting mode

- Set different values
  - unit measurement; weight, height, time
  - user data
  - target heart rate limits
  - watch functions; alarm, time, date

### Walk Test mode

- Based on 2 km/1,24 miles brisk walk
- Measures cardiorespiratory fitness

## 3. How to Start and Stop

### How to Set up Your New Polar A5 Receiver

- Press any of the four buttons twice to activate the receiver. Unit is displayed. LBS/INCH is flashing.
- Once awakened, the receiver will guide you through the necessary settings. Scroll up or down to set the right values. Press OK to lock your selection.

Set the following:  
 Measuring units – kg/cm or lbs/inch  
 24h or 12h time mode  
 Time of day  
 Date  
 Weight  
 Height  
 Sex  
 Birthday

After setting your birthday, your target heart rate zone based on your age is automatically calculated.

After the settings are complete, the receiver automatically goes to the Time of day display.

**You can cancel the setting by pressing and holding OK, but you can not start measuring the heart rate before you have completed the settings.**

### How to Start

- In the Time of day display press OK. Your heart rate appears in a few seconds.
- Press OK again. The stopwatch starts running and you can start exercising. The exercise data will only be stored if you have turned the stopwatch on.

### How to Stop

- Press OK to stop the stopwatch. QUIT and paused stopwatch appear. Measurement is paused. Exercise is no longer recorded.
- Press Up or Down button to exit the Exercise mode.

The receiver shows the Time of day display within 5 minutes if you forget to quit the heart rate measurement mode when you stopped the stopwatch and removed the transmitter from your chest.

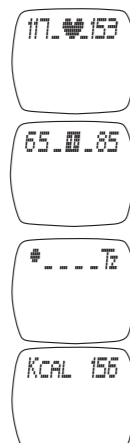
## 4. Functions During Exercise

- Press Signal/Light to turn the light on.
- Press and hold Signal/Light to turn the zone alarm sound on or off.
- Check the time of day by bringing the wrist receiver up to the Polar logo on the transmitter.
- Scroll up to select what values you want to view in the upper row of the display during exercise.

- Heart rate in the target zone is displayed
  - as absolute heart rate
  - or as a % of maximum heart rate according to your lower row selection.

- Fitness bullets  
For every 10 minutes in TZ, a appears.

- Calorie expenditure



- Scroll down to select what you want to view in the lower row of the display.

- Heart rate in beats per minute.
- Heart rate as a % of your maximum heart rate.
- Exercise time.
- Time of day.

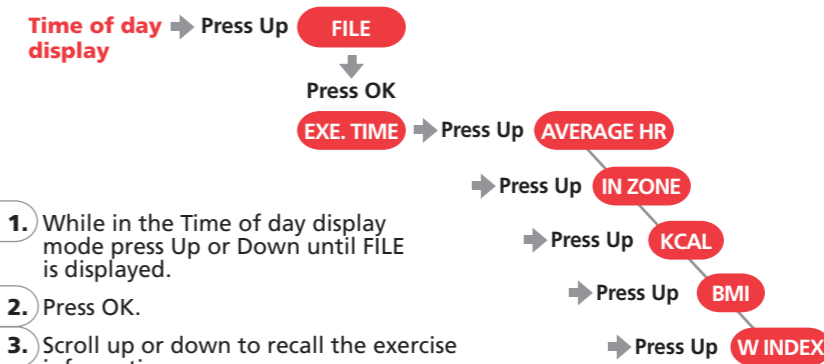
- You can pause the stopwatch by pressing OK. Repeating OK will restart the stopwatch.

After restart you will see heart rate in the lower row.

## 5. After Exercising

- Carefully wash the transmitter with a mild soap and water solution.
- Rinse it with pure water.
- Dry the transmitter carefully with a soft towel.
- Keep the wrist receiver clean and wipe off any moisture.
- Store the heart rate monitor in a clean and dry place. Dirt impairs the elasticity and functioning of the transmitter. Sweat and moisture can keep the electrodes wet and the transmitter activated, which shortens battery life.

## 6. How to Recall File Stored in Memory



- While in the Time of day display mode press Up or Down until FILE is displayed.
- Press OK.
- Scroll up or down to recall the exercise information:

EXE. TIME Total exercise time  
 AVERAGE HR Average heart rate of the exercise  
 IN ZONE Time spent in target zone  
 KCAL Calories expended during the exercise  
 BMI Body mass index  
 W INDEX WalkIndex, the result of the walking test

The training information is saved if the stopwatch has been on for more than one minute.

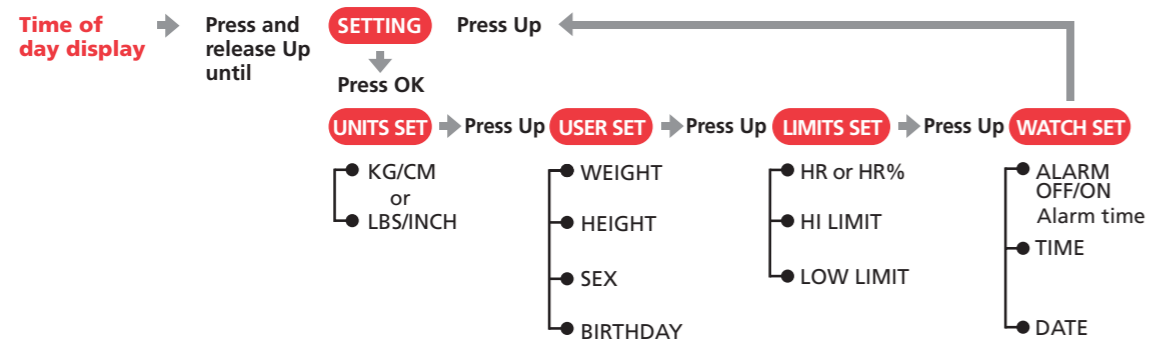
The most convenient way to determine whether a person is overweight is to use the Body Mass Index, BMI. The body mass index does not describe the amount of fat tissue but merely serves as a means for comparing adult persons in terms of overweight or underweight.

BMI	Interpretation
< 18.5	Underweight
18.5 - 24.9	Normal weight
25.0 - 29.9	Overweight
≥ 30.0	Obesity

Reference: World Health Organization. Obesity: preventing and managing the global epidemic. Report of a WHO Consultation on Obesity. Geneva: World Health Organization, 1998.

The BMI value does not distinguish between muscular and fat tissue. Thus, a weight-lifter may have a BMI value which indicates obesity although the person only has large muscles and little fat tissue.

## 7. Settings



### Settings step by step

#### 1. To set the units

- Start from the Time of day display
- Press Up or Down until display changes to SETTING
- Press OK, UNITS SET is displayed
- Press OK again
- Use Up or Down button to select kg/cm or lbs/inch
- Press OK to accept

#### 2. To set your personal data

- Press Up to advance, USER SET is displayed
- Press OK, WEIGHT is displayed

#### 2.1. WEIGHT – setting weight

- With the number blinking, use Up or Down button to set your weight
- Press OK to accept
- HEIGHT is displayed

#### 2.2. HEIGHT – setting height

- Following weight acceptance, display changes to HEIGHT
- With number blinking, use Up or Down button to set your height
- Press OK to accept
- SEX is displayed

#### 2.3. SEX – setting gender

- Following height acceptance, display changes to SEX; MALE or FEMALE blinks
- Use Up or Down button to make your selection and press OK
- BIRTHDAY/DAY is displayed

#### 2.4. BIRTHDAY – setting your date of birth

- Use Up or Down button to select the correct day
  - Press OK
  - Use Up or Down button to select the correct month
  - Press OK
  - Use Up or Down button to select the correct year
  - Press OK, USER SET is displayed
- 12h time display sequence: MONTH -> DAY -> YEAR

#### 3. LIMITS – setting target heart rate zone limits

- USER SET is displayed
- Press Up to advance, LIMITS SET is displayed
- Press OK
- With HR or HR% blinking use Up or Down to select whether you want to set the limits in beats per minute or as a percentage of a maximum heart rate
- Press OK to accept, HI LIMIT is displayed
- Use Up or Down button to determine the upper limit
- Press OK, LO LIMIT is displayed

- Use Up or Down button to determine the lower limit (the lower limit cannot be set above the upper limit)
- Press OK, LIMITS SET is displayed

#### 4. WATCH – time and day determination

##### Alarm

- Use Up button to advance from LIMITS display to WATCH SET, press OK (or in the Time of day display press and hold Signal/Light button -> WATCH SET)
- ALARM ON or OFF blinks
- Select alarm on or off
- Press OK
- If you set the alarm on: set the alarm time
- In 12h time mode, select AM/PM, press OK
- Hours blink on the display, use Up or Down button to select the correct hour, press OK
- Minutes blink on the display, use Up or Down button to select the correct minutes
- Press OK

##### Time

- TIME is displayed
- Press Up or Down button to select 24h or 12h time display
- Press OK
- In 12h time mode, select AM/PM with Up or Down button, press OK
- TIME and blinking hours are displayed

- Use Up or Down button to select correct time, press OK
- TIME and blinking minutes are displayed
- Use Up or Down button to select correct time, press OK

##### Date

- DAY and blinking day of month are displayed
- Use Up or Down button to select the correct day
- Press OK
- MONTH and the blinking month are displayed
- Use Up or Down button to select the correct month
- Press OK
- YEAR and the blinking number are displayed
- Use Up or Down button to select the correct year
- Press OK, press and hold OK to return to the Time of day display

12h time display sequence: MONTH -> DAY -> YEAR

## 8. Target Heart Rate Zone

Your target heart rate zone is a high and low range, which represents percentages of your current HR<sub>max</sub>.

When your heart beats at 50-60% of your HR<sub>max</sub>, you're in the **light intensity** zone. This kind of exercise is easy (a walk, for instance), but delivers some health benefits.

Push on to 60-70% of your HR<sub>max</sub> and you're in the **light to moderate intensity** zone. This is good for improving fitness, building endurance and recommended for weight loss.

At 70-85% of your HR<sub>max</sub>, you've moved into the **moderate to heavy intensity** zone. This is harder work, but good for strengthening your aerobic fitness.

You can set your target limits in beats per minute or as a percentage of your maximum heart rate. The percentage limits can not be set if you have not set your birthday.

When you set your birthday, the receiver automatically calculates the limits, which are 65-85% of your estimated maximum heart rate (220 - age). For an accurate measure of your maximum (HR<sub>max</sub>) and exercise heart rates, visit your doctor for an exercise stress test.

Reference: American College of Sports Medicine. ACSM's Guidelines for Exercise Testing and Prescription. Williams & Wilkins, 1995.

## 9. Self Walk Test by Polar and UKK Institute™

Self Walk Test by Polar and UKK Institute is based on 2 km/1,24 miles brisk walk on a hard, even surface. The test especially measures cardiorespiratory fitness. The result of the test WalkIndex™ is based on age, body mass index, walking time and your heart rate at the end of the walk. It tells how fit you are compared to others your age and gender. WalkIndex corresponds to VO<sub>2max</sub> (ml/kg/min).

The test has been designed for healthy persons between the ages of 20 and 65. It does not give dependable results for people outside this age range or for those who are highly fit.

The Self Walk Test has been designed to be performed after a supervised test in order to get a reliable result. Anyone who participates in this test does so at his or her own risk.

Check your suitability to be tested by answering the following questions:

- | Question  | yes                   | no                    |
|---|-----------------------|-----------------------|
| 1. Do you have a heart defect or suffer from heart disease?                                 | <input type="radio"/> | <input type="radio"/> |
| 2. Are your joints sore, inflamed or swollen?   | <input type="radio"/> | <input type="radio"/> |
| 3. Do you experience tightness, burning sensations or pressure in your chest when you walk? | <input type="radio"/> | <input type="radio"/> |
| 4. Do you feel faint or dizzy when you walk?  | <input type="radio"/> | <input type="radio"/> |
| 5. Do you feel excessively tired?   | <input type="radio"/> | <input type="radio"/> |
| 6. Are you on medication?   | <input type="radio"/> | <input type="radio"/> |

If you answered 'no' to all of the above questions, you can perform the Self Walk Test safely.

If you answered one or more questions with 'yes', consult your doctor before carrying out the test.

### Carrying out the Test

- On the Time of day display, scroll up or down until WALKTEST is displayed. Press OK. The receiver guides you through the necessary settings unless you have done them earlier.
- Press OK to start the 5 minute warm up. At the end of the warm up you will hear an alarm sound. In case you already warmed up, you can skip the warm up by pressing OK.
- When START is displayed after the warm up, start the test by pressing OK. The heart rate appears on the display in few seconds.
- Walk exactly 2 km/1,24 miles on a hard, even surface (road or track) as fast as you can and at an **even pace**. If your heart rate decreases under the lower limit, WALK FASTER appears and the receiver begins beeping. Increase the walking speed.
- Press OK at the end of the test.
- Your WalkIndex, its interpretation and the date are displayed. Fitness category compares your WalkIndex with respect to others in the same age group (20 - 65 years). The latest WalkIndex is automatically updated to the file after the test.
- Press OK to return to the Time of day display.
- Stretch out after the test.  
If you do not want to have the sound signal on during the test, press and hold Signal/Light button. disappears from the display. You can interrupt the test anytime during the test by pressing OK.

### WalkIndex and Fitness Categories (VO<sub>2max</sub>, ml/kg/min)

#### WOMEN

Age (years)	Very poor	Poor	Fair	Average	Good	Very good	Excellent
20-24	< 27	27-31	32-36	37-41	42-46	47-51	>51
25-29	< 26	26-30	31-35	36-40	41-44	45-49	>49
30-34	< 25	25-29	30-33	34-37	38-42	43-46	>46
35-39	< 24	24-27	28-31	32-35	36-40	41-44	>44
40-44	< 22	22-25	26-29	30-33	34-37	38-41	>41
45-49	< 21	21-23	24-27	28-31	32-35	36-38	>38
50-54	< 19	19-22	23-25	26-29	30-32	33-36	>36
55-59	< 18	18-20	21-23	24-27	28-30	31-33	>33
60-65	< 16	16-18	19-21	22-24	25-27	28-30	>30

#### Very poor - fair:

Increase exercise for health and fitness benefits.

#### Average:

Maintain current exercise habits to ensure better health. Exercise increase is recommended for fitness improvements.

#### Good - excellent:

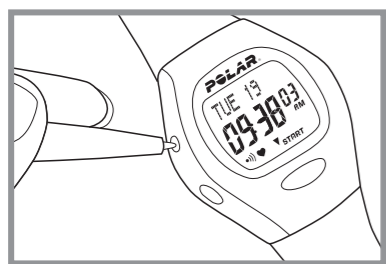
Maintain current exercise habits for good health and fitness.

References: Shvartz E, Reibold RC: Aerobic fitness norms for males and females aged 6 to 75 years: Aviat. Space Environ. Med. 61:3-11, 1990. Guide for The UKK Institute 2-km Walking Test. UKK Institute 1993. Laukkanen R. Development and evaluation of a 2-km walking test for assessing maximal aerobic power of adults in field conditions. Doctoral thesis. Kuopio University Publications D. Medical Sciences 23. Kuopio 1993.

#### MEN

Age (years)	Very poor	Poor	Fair	Average	Good	Very good	Excellent
20-24	< 32	32-37	38-43	44-50	51-56	57-62	>62
25-29	< 31	31-35	36-42	43-48	49-53	54-59	>59
30-34	< 29	29-34	35-40	41-45	46-51	52-56	>56
35-39	< 28	28-32	33-38	39-43	44-48	49-54	>54
40-44	< 26	26-31	32-35	36-41	42-46	47-51	>51
45-49	< 25	25-29	30-34	35-39	40-43	44-48	>48
50-54	< 24	24-27	28-32	33-36	37-41	42-46	>46
55-59	< 22	22-26	27-30	31-34	35-39	40-43	>43
60-65	< 21	21-24	25-28	29-32	33-36	37-40	>40

## 10. Resetting



Resetting clears the settings which return to the default values.

If there are no reactions to any buttons, reset the receiver.

- Press Reset button with a pen tip. Display becomes full of digits.
- Press any of the four buttons once. If you don't press any button after resetting, within one minute the wrist receiver goes to the battery saving mode. Wake up by pressing any of the buttons twice.

## 11. Minimising Possible Risks in Exercising with Heart Rate Monitor

Exercise may include some risk, especially for those who have been sedentary. To minimise possible risks consider the following advice:

- Before beginning a regular exercise program consult your doctor**
- if you are over 40 years of age and have not been following a regular exercise program during the past 5 years
  - if you smoke
  - if you have high blood pressure
  - if you have high blood cholesterol
  - if you have any signs or symptoms of any disease
  - if you are recovering from a serious illness or a medical treatment e.g. surgery
  - if you use a pacemaker or another implanted electronic device.

Note that in addition to exercise intensity, heart, circulation (particularly high blood pressure), asthma and other breathing medications as well as some energy drinks, alcohol and nicotine, can affect the heart rate.

It is important to be sensitive to your body's reactions during exercise. If you feel unexpected pain or excessive fatigue when exercising, it is recommended to stop the exercise or continue at a lighter intensity.

If you are allergic to any substance that comes into contact with the skin, check the Polar heart rate monitor materials from the 'Technical Specifications' chapter. It is recommended that you wear the transmitter against your bare skin to ensure flawless operation. However, if you wish to wear the transmitter over a shirt, moisten the shirt well under the electrodes.

**Notice to persons with pacemakers, defibrillator or other implanted electronic device.** Persons who have a pacemaker use the Polar heart rate monitor at their own risk. Before starting use, we always recommend an exercise test under doctor's supervision. The test is to ensure the safety and reliability of the simultaneous use of the pacemaker and the heart rate monitor.

## 12. Technical Specifications

All Polar heart rate monitors are designed to indicate the level of physiological strain and intensity in sports and exercise. No other use is intended or implied. Heart rate is displayed as number of heartbeats per minute (bpm).

#### Polar Transmitter

Battery type: Built-in Lithium Cell  
 Battery life: Average 2500 hours of use  
 Operating temperature: -10 °C to +50 °C / 14 °F to 122 °F  
 Material: Polyurethane

#### Elastic Strap

Buckle material: Polyurethane  
 Fabric material: Nylon, polyester and natural rubber including a small amount of latex

#### Wrist Receiver

Battery type: CR 2032  
 Battery life: Average 1 year (2h/day, 7 days/week)  
 Operating temperature: -10 °C to +50 °C / 14 °F to 122 °F  
 Water resistance: to 30 metres/100 feet, OK button can be pressed in water

#### Wrist Strap

Wrist strap buckle: Polyoxymethylene  
 Back cover: Stainless steel complying with the EU Directive 94/27/EEU and its amendment 1999/C 205/05 on the release of nickel from products intended to come into direct and prolonged contact with the skin.

Accuracy of heart rate measurement: ± 1% or ± 1 bpm, whichever larger, definition applies to steady state conditions

#### Default settings

Time of day .....12h  
 Alarm clock .....OFF  
 Zone alarm .....On  
 Age .....0  
 Upper Limit .....160  
 Lower Limit .....80

#### Limit values

Chronometer.....23 h 59 min 59 s  
 Heart rate limits.....30 – 240 bpm  
 Total time .....99 h 59 min 59 s  
 Age range for Self Walk Test.....20 – 65  
 Time range for Self Walk Test.....7 – 25 min  
 Birthday year range.....1900 – 1999

## 13. Limited Polar Warranty

- Polar Electro Oy warrants to the original consumer/purchaser of this heart rate monitor that the product will be free from defects in material or workmanship for one year from the date of purchase. **Please keep the receipt which is your proof of purchase!**
- Warranty does not cover receiver battery, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked or broken cases.
- Warranty does not cover damage or consequential damage caused by service not authorised by Polar Electro Oy.
- During the warranty period the product will be either repaired or replaced at an authorised service center free of charge.
- This warranty does not affect the consumer's statutory rights under applicable national or state laws in force, or the consumer's rights against the dealer arising from their sales/purchase contract.

This CE marking shows compliance of this product with Directive 93/42/EEC.

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Polar logotype is a registered trademark and Polar A5 is a trademark of Polar Electro Oy.

This product is protected by one or several of the following patents: FI 88223, DE 4215549, FR 92.06120, GB 2257523, HK 113/1996, SG 9591671-4, US 5491474, FI 88972, FR 92.09150, GB 2258587, HK 306/1996, SG 9592117-7, US 5486618, FI 96380, US 5611346, EP 665947, DE 69414362, FI 68734, DE 3439238, GB 2149514, HK 812/1989, US 4625733, FI 100924, FI 100452, US 5840039, FI 4150, FI 4069, DE 29910633, FI 104463. Other patents pending.

## 14. Disclaimer

- The material in this manual is for informational purposes only. The products it describes are subject to change without prior notice, due to the manufacturer's continuous development program.
- Polar Electro Oy makes no representations or warranties with respect to this manual or with respect to the products described herein. Polar Electro Oy shall not be liable for any damages, direct or incidental, consequential or special, arising out of, or related to the use of this material or the products described herein.

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