

POLAR

a5

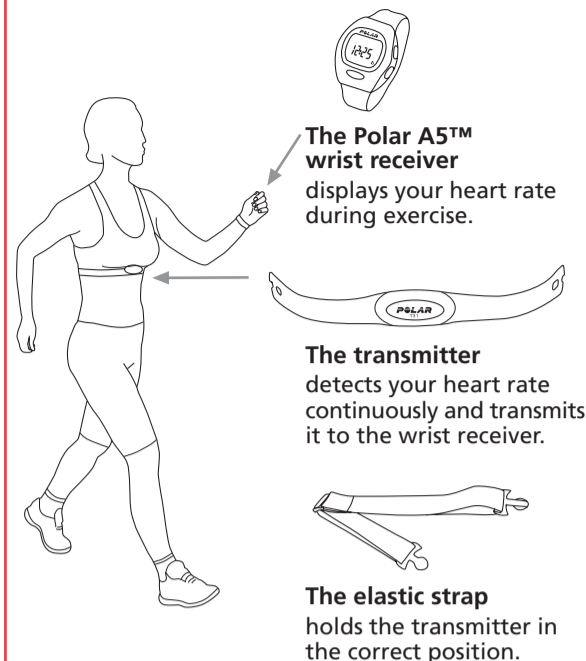
Heart Rate Monitor

User Manual
USA/GBR

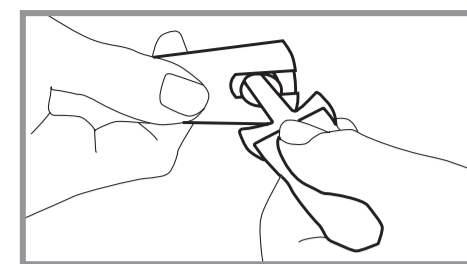
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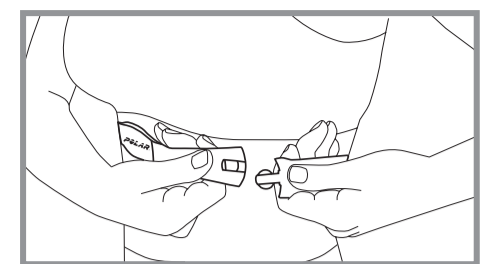
1. How to Put Your Heart Rate Monitor On



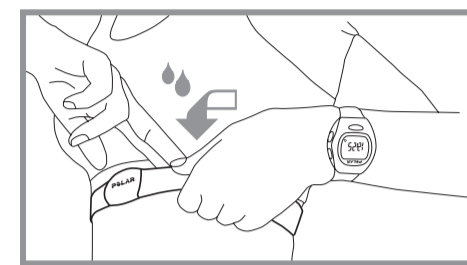
Keep the wrist receiver within 3 feet/ 1 meter of your transmitter. Check that you are not near other people with heart rate monitors or any source of electromagnetic disturbance.



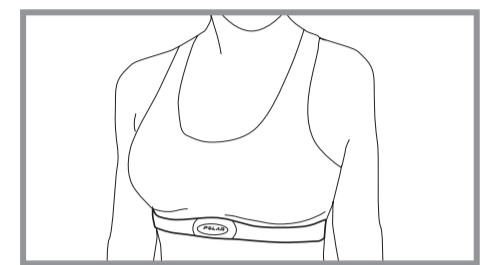
1. Attach the transmitter to the elastic strap.



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

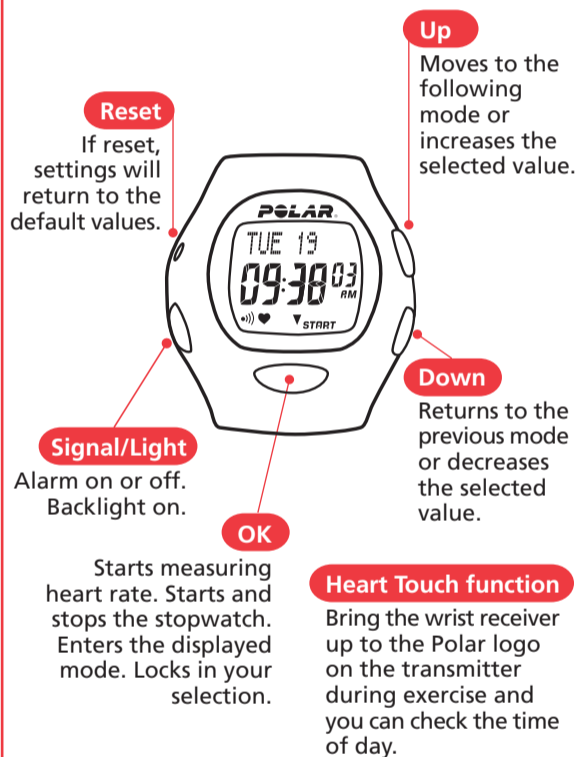


3. Lift the transmitter off your chest and moisten the two grooved electrode areas on the back.



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

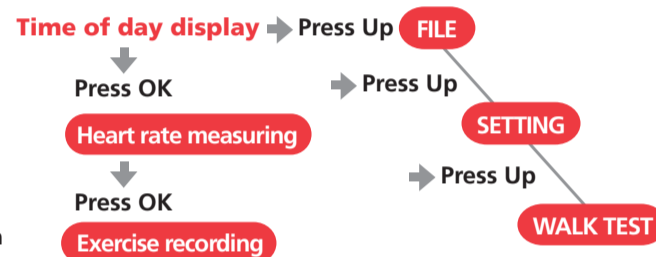
- Starting point for all functions
- Shows date and time

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 1.24 miles/2 km 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 – lbs/inch or kg/cm
- 12h or 24h 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
 - a) as absolute heart rate
 - or
 - b) as a % of maximum heart rate
 according to your lower row selection.
- Fitness bullets
For every 10 minutes in TZ, a appears.
- Calorie expenditure
The calorie calculation starts when your heart rate reaches 100 bpm.

- 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.

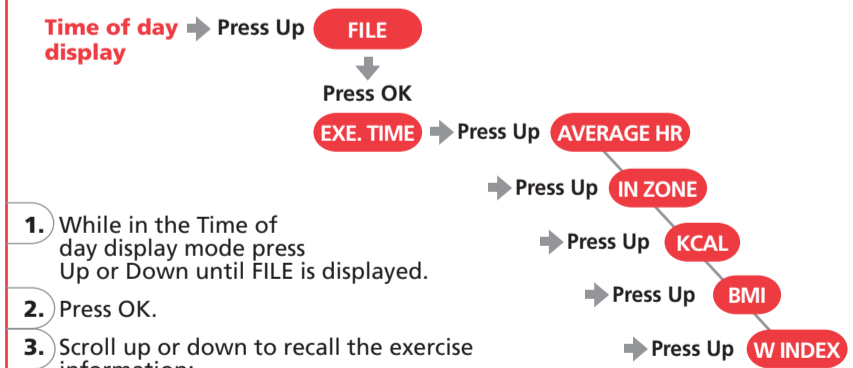
- You can pause the stopwatch by pressing OK. Repeating OK will restart the stopwatch. After restart you will see heart rate in the lower row.

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.

The combined impact of moisture and intense abrasion may cause a black color, which might stain light-colored clothes especially, to come off the transmitter's surface.

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

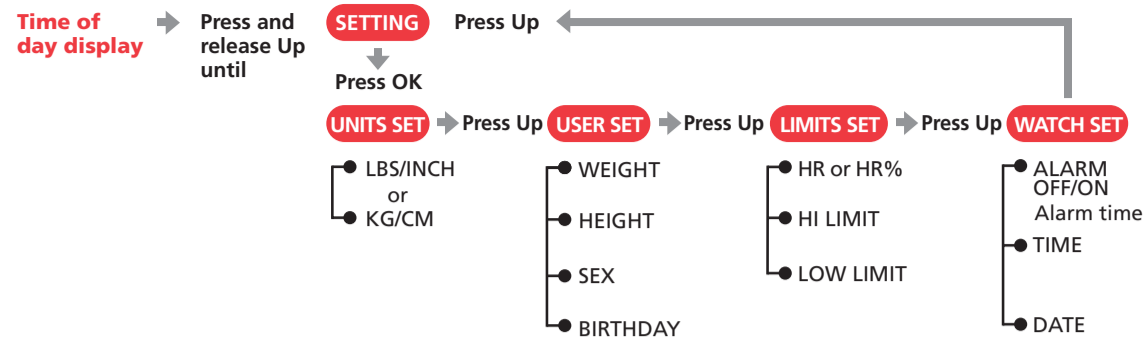
The most convenient way to determine whether a person is overweight is to use the Body Mass Index, BMI. The body mass index does not describe the amount of fat tissue but merely serves as a means for comparing adult persons in terms of overweight or underweight.

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 lbs/inch or kg/cm
- 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 select feet
- Press OK to accept
- With number blinking, use Up or Down button to select inches
- 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/MONTH is displayed

2.4. BIRTHDAY – setting your date of birth

- Use Up or Down button to select the correct month
 - Press OK
 - Use Up or Down button to select the correct day
 - Press OK
 - Use Up or Down button to select the correct year
 - Press OK, USER SET is displayed
- 24h time display sequence: DAY -> MONTH -> 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 12 h or 24 h time display
- Press OK
- In 12 h 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

- MONTH and blinking month are displayed
- Use Up or Down button to select the correct month
- Press OK
- DAY and the blinking day of the month are displayed
- Use Up or Down button to select the correct day
- 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

24h time display sequence: DAY -> MONTH -> YEAR

8. Target Heart Rate Zone

Your target heart rate zone is a range between the lower and upper heart rate limits expressed as percentages of your maximum heart rate (HR_{max}).

When your heart beats at 50-60% of your HR_{max}, you are in the **light intensity** zone. This includes easy exercises like daily activities and light chores. The light intensity zone delivers some health benefits.

Push on to 60-70% of your HR_{max} and you are in the **light to moderate intensity** zone. This is good for improving health, fitness and for weight loss. It also improves endurance.

At 70-85% of your HR_{max}, you have moved into the **moderate to heavy intensity** zone. This is harder work, but effective for strengthening aerobic fitness and endurance especially for people exercising more regularly.

You can set your target limits in beats per minute or as percentages 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 and exercise heart rates, visit your doctor for an exercise stress test.

9. Self Walk Test by Polar and UKK Institute™

Self Walk Test by Polar and UKK Institute is based on 1.24 miles/2 km 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_{2max} (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 the most 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:

- | | | |
|---|-----------------------|-----------------------|
| 1. Do you have a heart defect or suffer from heart disease? | yes | no |
| 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 1.24 miles/2 km 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_{2max}, 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:

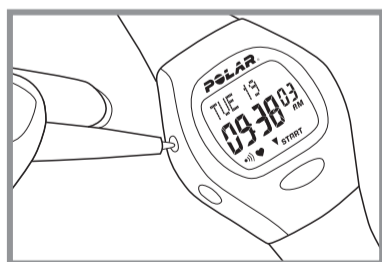
Maintain current exercise habits to ensure good health. Exercise increase is recommended for fitness improvement.

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.
 • Laakkonen 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.

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. Minimizing Possible Risks in Exercising with Heart Rate Monitor

Exercise may include some risk, especially for those who have been sedentary.

Before starting a regular exercise program you are recommended to answer to the following questions for health status checking. If the answer is yes to any of the questions, we recommend to consult a doctor before starting an exercise program.

- Have you not exercised for the past 5 years?
- Do you have high blood pressure?
- Do you have high blood cholesterol?
- Do you have symptoms of any disease?
- Are you taking any blood pressure or heart medication?
- Do you have a history of breathing problems?
- Are you recovering from a serious illness or medical treatment?
- Do you use a pacemaker or another implanted electronic device?
- Do you smoke?
- Are you pregnant?

Note that in addition to exercise intensity, medications for heart, blood pressure, psyche, asthma, breathing etc. as well as some energy drinks, alcohol and nicotine, can affect 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.

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.

If you are allergic to any substance that comes into contact with the skin or if you suspect an allergic reaction due to using the product, check the listed materials in the "Technical Specifications" chapter. To avoid any skin reaction risk with the transmitter, wear it over a shirt. However, moisten the shirt well under the electrodes to ensure flawless operation.

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: 14 °F to 122 °F / -10 °C to +50 °C
 Material: Polyurethane
 Waterproof

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: 14 °F to 122 °F / -10 °C to +50 °C
 Water resistance: to 100 feet/30 meters, OK button can be pressed in water

Wrist strap: Polyurethane
 Wrist strap buckle: Polyoxymethylene
 Back cover: Stainless steel complying with the EU Directive 94/27/EU 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 day12h
 Alarm clockOFF
 Zone alarmOn
 Age0
 Upper limit160
 Lower Limit80

Limit values
 Chronometer23 h 59 min 59 s
 Heart rate limits30 – 199 bpm
 Total time99 h 59 min 59 s
 Age range for Self Walk Test20 – 65
 Time range for Self Walk Test7 – 25 min
 Birthday year range1900 – 1999

13. Limited Polar International Guarantee

- This limited Polar international guarantee is issued by Polar Electro Inc. for the consumers who have purchased this product in the USA or Canada. This limited Polar international guarantee is issued by Polar Electro Oy for the consumers who have purchased this product in other countries.
- Polar Electro Inc. / Polar Electro Oy guarantees to the original consumer/purchaser of this product that the product will be free from defects in material or workmanship for two years from the date of purchase.
- Please keep the receipt or International Guarantee Card, which is your proof of purchase!
- The guarantee does not cover the battery, damage due to misuse, abuse, accidents or non-compliance with the precautions; improper maintenance, commercial use, cracked or broken cases.
- Guarantee does not cover any damage/s, losses, costs or expenses, direct, indirect or incidental, consequential or special, arising out of, or related to the product. During the guarantee period the product will be either repaired or replaced at an authorized service center free of charge.
- This guarantee 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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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 Inc. / Polar Electro Oy makes no representations or warranties with respect to this manual or with respect to the products described herein. Polar Electro Inc. / Polar Electro Oy shall not be liable for any damages, losses, costs or expenses, direct, indirect 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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Distributed in Canada by
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 c/o Lanco Logistics Inc.
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