

Polar FS1/FS2c/FS3c™

User Manual

POLAR®
LISTEN TO YOUR BODY

Dear Customer,

Congratulations on your purchase of a new Polar FS1/FS2c/FS3c™ Fitness Heart Rate Monitor!

This manual contains the information you need to use and maintain your product. Please read this through to understand how to use the functions and get the most out of your Polar heart rate monitor.

Please check our web sites for your personalized exercise program and online diary, as well as for versatile tips and background information for your exercise:

www.polarpersonaltrainer.com

www.polar.fi

QUICK GUIDE

Time of Day Display

In the Exercise mode you can measure your heart rate.

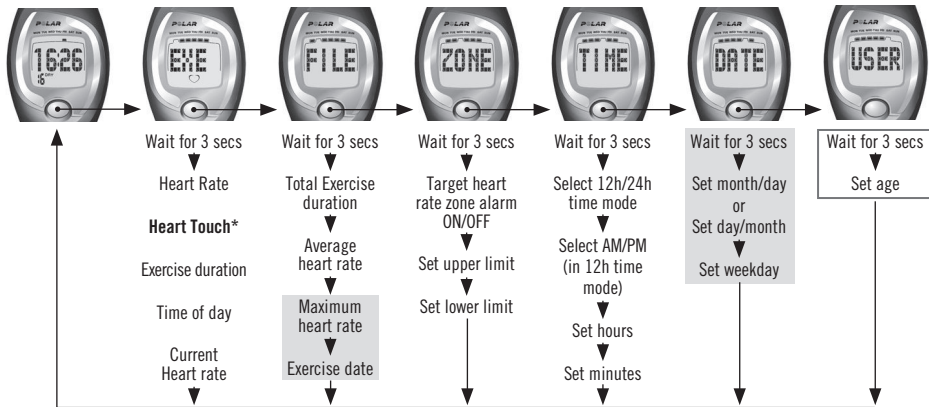
In the File mode you can see your latest exercise information.

In the Zone mode you can set the heart rate limits manually.

In the Time mode you can set the time of day.

In the Date mode you can set the date. (FS2c/FS3c)

In the User mode you can set your age. (FS3c)



You can return to the Time of Day display from any mode except Exercise mode by pressing and holding the front button.

**Heart Touch changes display in Exercise mode.*

CONTENTS

Information specific to both of the FS2c/FS3c products is marked in gray background.

Information specific only to the FS3c product is marked with an outline.

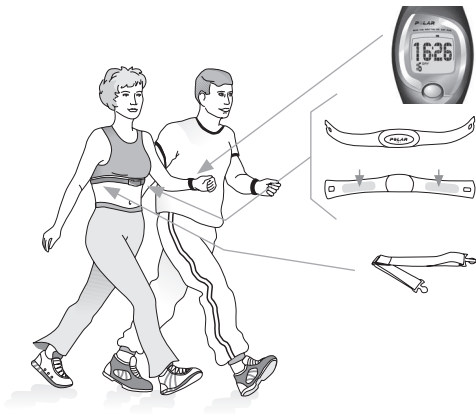
All other information applies to all three products: FS1, FS2c and FS3c.

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1. INTRODUCTION TO THE FS1, FS2c AND FS3c HEART RATE MONITORS

The following chapter contains information on the elements of the FS1/FS2c/FS3c heart rate monitors and how to get started.

1.1 HEART RATE MONITOR ELEMENTS



Wrist Unit

The wrist unit displays your heart rate, exercise time, and the time of day. You can also wear it as a watch.

Polar Transmitter

Wear the transmitter while exercising. The electrode areas are on the back of the transmitter. The electrodes detect your heart rate continuously and it is transmitted to the wrist unit.

Elastic Strap

The elastic strap holds the transmitter around your chest.

Polar Web Services

www.polarpersonaltrainer.com is a complete web service tailored to support your exercise. Free registration gives you access to the exercise diary, tests and calculators, reports and useful articles. Moreover, you can get the latest product tips and support online at www.polar.fi.

1.2 WRIST UNIT FRONT BUTTON AND DISPLAY SYMBOLS

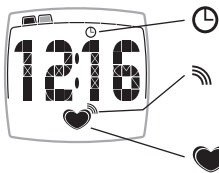
This section contains information on how to operate the wrist unit and a symbols guide for reading the data on the display.

Polar FS1, FS2c and FS3c heart rate monitors have one operating front button.

Front button functions:

- Start and stop heart rate measurement and stopwatch.
- Move forward to the next mode.
- Lock your selection/desired value.
- Return to the Time of Day display from any mode except Exercise mode (EXE) by pressing and holding the button.
- Activate the target heart rate zone alarm in Exercise mode by pressing and holding the button.
- Activate the backlight (FS2c/FS3c)
 - You can activate the night mode in the Time of Day display by pressing and holding the front button. A button press activates the backlight in any mode if the night mode is active. The night mode is turned off automatically after five minutes timeout if you do not press the front button. If you press the front button again before the timeout occurs, the backlight is activated again, and the timeout is reset. If you start to exercise when the night mode is on, the mode stays on until the end of the exercise. During the exercise you can activate the backlight with Heart Touch.

Display symbols



Clock symbol indicates the time of day in Exercise and Time Setting mode.

The target heart rate zone alarm symbol indicates when the target heart rate zone alarm is on in the Exercise mode.


Heart symbol indicates that your heart rate is being measured and that heart rate is inside the target heart rate zone.



Weekday indicator indicates the weekday in the Time of Day display. Weekdays are printed on the display frame (FS2c/FS3c).

The battery symbol in the Time of Day display indicates that the wrist unit battery is low. For further information see the Care and Maintenance chapter on page 49.



The menu level indicator shows you the number of menu items. When browsing the menu, the  symbol indicates where you are in the current menu level.

2. EXERCISING

This chapter contains information on how to start to use your heart rate monitor for the first time, and how to wear the transmitter.

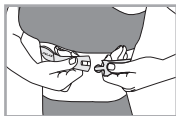
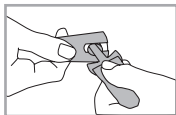
Before you start exercising it is recommended that you set your target heart rate limits and alarm. For further information, see Heart Rate Limits chapter on page 46.

2.1 MEASURING YOUR HEART RATE

To measure your heart rate you need to wear the transmitter.

Heart rate coding reduces interference from other heart rate monitors that are close by. To make sure that the code search is successful and to ensure trouble-free heart rate monitoring, keep the wrist unit within 3 feet/1 meter of your transmitter (FS2c/FS3c).

Check that you are not near other people with heart rate monitors or any source of electromagnetic disturbances (for further information on interference, see the Precautions chapter on page 50).



1. Attach one end of the transmitter to the elastic strap.
2. Adjust the transmitter's strap length to fit snugly and comfortably. Secure the strap around your chest, just below the chest muscles, and buckle the strap to the transmitter.
3. Lift the transmitter off your chest and **moisten the two grooved electrode areas on the back**. Check that the wet electrode areas are firmly against your skin and that the Polar logo is in a central, upright position.
4. Wear the wrist unit as a watch.



- In the Time of Day display, press the front button to enter the menu. **EXE** (Exercise) is displayed. If you will need the backlight during the exercise, activate the night mode by pressing and holding the front button in the Time of Day display (FS2c/FS3c).




- After three seconds the wrist unit goes into Exercise mode and the stopwatch starts. The stopwatch is displayed and the outline of the heart symbol will flash until your heart rate is detected.



- Your heart rate and the heart symbol will appear within 15 seconds.

A flashing heart symbol indicates an ongoing heart rate measurement. The heart symbol flashes at the pace of your heart. The outline indicates that the heart rate reception is coded (FS2c/FS3c).

Note:

- Please allow sufficient time for signal pick up.
- If the wrist unit does not receive your heart rate, the stopwatch keeps running and the flashing heart frame symbol disappears. Check that the transmitter electrodes are wet and that the strap is snug enough.
- If the code search was unsuccessful, the frame around the heart symbol will disappear after 15 seconds. In order to repeat the code search, bring the wrist unit close to the Polar logo on the transmitter. If you still do not succeed in code searching, but your heart rate is displayed and the heart symbol without a frame  is flashing, you may start exercising, but your wrist unit may be disturbed by other heart rate monitors (FS2c/FS3c).

2.2 FUNCTIONS DURING EXERCISE

Checking Exercise Information



Heart Touch

By bringing the wrist unit close to the Polar logo on the transmitter you can change the display information

(Heart Rate / Exercise Duration / Time of Day) during the exercise. Keep the wrist unit close to the logo, until the desired information is displayed.



1. Current Heart Rate

♥ symbol indicates that your heart rate is inside the target heart rate zone.

♥♡ symbol indicates that you are below your target heart rate zone.

♡♥ symbol indicates that you are above your target heart rate zone.

The heart rate value also flashes and the target heart rate zone alarm beeps (if you have set the alarm on) outside the target zone.



2. Exercise Duration
(Displayed as minutes and seconds up until one hour of exercise, then displayed as hours and minutes.)



3. Time of Day

Illuminating the Display (FS2c/FS3c)

If you have activated the night mode in the Time of Day display before starting the exercise by pressing and holding the front button, Heart Touch activates the backlight.

Note: If you have activated the night mode, first Heart Touch activates the backlight. In order to change the display information, you need to keep the wrist unit close to the Polar logo on the transmitter until the desired information is displayed.

Exercise Time Indicator

Each of the six exercise time indicators represents 10 minutes of exercising. When you start the exercise, minutes and seconds are displayed, and the first exercise time indicator starts to flash. You can see exercise duration graphically all the time, in every exercise mode.




After 10 minutes of exercising the second indicator starts to flash.



After one hour of exercising, the indicators start to fill in again.

Switching Target Heart Rate Zone Alarm ON or OFF

In the Exercise mode you can turn the audible target heart rate zone alarm **ON** or **OFF** by pressing and holding the front button. The target heart rate zone alarm symbol  beside the heart symbol will appear/disappear.

***Note:** It is recommended to switch the target heart rate zone alarm **ON** or **OFF** before you start exercising in order to avoid accidental ending of the exercise.*

2.3 STOPPING THE EXERCISE



Press the front button to stop the exercise recording. **STOP** is displayed and the wrist unit returns to the Time of Day display.

3. CHECKING SAVED EXERCISE INFORMATION

Your exercise information is in the memory of the wrist unit until the next time you start the stopwatch. Then your previous training information will be replaced by the new one. FILE is protected for accidental start and information is saved only if the exercise recording has been on for more than one minute.



1. In the Time of Day display, press the front button until **FILE** is displayed.



2. Wait for three seconds to enter the File. Your total exercise duration is displayed.



3. Press the front button. Your average heart rate of the exercise session is displayed.



4. Press the front button. Your maximum heart rate of the exercise session is displayed (FS2c/FS3c).



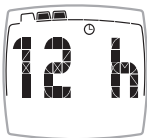
5. Press the front button. The date of your latest exercise session is displayed (FS2c/FS3c).

6. Press the front button to return to the Time of Day display.

4. SETTINGS

4.1 TIME SETTING

1. In the Time of Day display, press the front button until **TIME** is displayed. Wait for three seconds to enter the time settings.



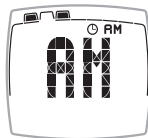
2. **12h** or **24h** is flashing.
Press the front button to select **12h** or **24h**.



Wait until **OK?** is displayed.
To approve your choice, press the front button.

If you do not approve your choice within three seconds, the wrist unit will return to the time mode selection.

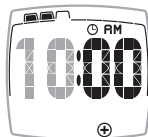
3. If you selected 12h time mode, **AM** or **PM** is flashing.



Press the front button to select **AM** or **PM**.

Wait until **OK?** is displayed.
To approve your choice, press the front button.

4. Hours flash on the display.



When **+** is on the display, increase the value by pressing the front button.

If you increase the value, the wrist unit goes into decrease mode **-** after two seconds.

When **-** is on the display, you can decrease the value by pressing the front button.
If you decrease the value, the wrist unit returns to increase mode **+** after two seconds.

When the desired value is on the display, wait until the wrist unit goes to minutes setting.

5. Minutes flash on the display.



When ⊕ is on the display, increase the value by pressing the front button. If you increase the value, the wrist unit goes into decrease mode ⊖ after two seconds.

When ⊖ is on the display, you can decrease the value by pressing the front button. If you decrease the value, the wrist unit returns to increase mode ⊕ after two seconds.

When the desired value is on the display, wait until **OK?** is displayed. To approve your choice, press the front button. The wrist unit will return to the Time of Day display.

4.2 DATE SETTING (FS2c/FS3c)

The date is displayed differently depending on which time mode (12h or 24h) has been chosen.

12h time mode:
MONTH - DAY

24h time mode:
DAY - MONTH

1. In the Time of Day display, press the front button until **DATE** is displayed. Wait for three seconds to enter the date settings.
2. The value for the month (in 12h time mode) or the day (in 24h time mode) is flashing.



When ⊕ is on the display, increase the value by pressing the front button. If you increase the value, the wrist unit goes into decrease mode ⊖ after two seconds.

When ⊖ is on the display, you can decrease the value by pressing the front button. If you decrease the value, the wrist unit returns to increase mode ⊕ after two seconds.

When the desired value is on the display, wait until the wrist unit goes to the day (in 12h time mode) or the month (in 24h time mode) setting.

3. The value for the day (in 12h time mode) or the month (in 24h time mode) is flashing.



When **+** is on the display, increase the value by pressing the front button. If you increase the value, the wrist unit goes into decrease mode **-** after two seconds.

When **-** is on the display, you can decrease the value by pressing the front button. If you decrease the value, the wrist unit returns to increase mode **+** after two seconds.

When the desired value is on the display, wait until **OK?** is displayed. To approve your choice press the front button.

4. **DAY** is displayed. The weekday indicator is flashing. The weekdays are printed on the display frame.

When **+** is on the display, press the front button to select the weekday.



Weekday Indicator

MON = Monday
TUE = Tuesday
WED = Wednesday
THU = Thursday
FRI = Friday
SAT = Saturday
SUN = Sunday

If you need to move the weekday indicator to the previous weekday, wait until **-** is on the display and then press the front button.

Wait until **OK?** is displayed, and press the front button to approve your choice. The wrist unit returns to the Time of Day display.

Note: In a leap year, the wrist unit will skip the 29th of February. Correct the date in the date settings.

4.3 USER SETTINGS (FS3c)

Setting Age

1. In the Time of Day display, press the front button until **USER** is displayed. Wait for three seconds to enter the user settings.
2. **AGE** is displayed for two seconds.
The digits for years are flashing.



When ⊕ is on the display, increase the value by pressing the front button.

If you increase the value, the wrist unit goes into decrease mode ⊖ after two seconds.

When ⊖ is on the display, you can decrease the value by pressing the front button.

If you decrease the value, the wrist unit returns to increase mode ⊕ after two seconds.

3. When the desired value is on the display, wait until **OK?** is displayed. To approve your choice, press the front button.

ZONE SET is displayed to inform that the age-based heart rate limits are set.

The wrist unit returns to the Time of Day display.

Note: *When setting your age, current heart rate limits will be overwritten by age-based heart rate limits (if you have earlier set heart rate limits manually). If you want, you can change the age-based heart rate limits in ZONE mode afterwards.*

Note: *If you do not change the value within three seconds, **OK?** is displayed. To approve your choice, press the front button. If you do not approve your choice within three seconds, the wrist unit returns to selection mode.*

4.4 HEART RATE LIMITS

Before exercising, it is recommended that you set your target heart rate limits and alarm. In this way you can make sure that you are exercising at the right intensity level. For further information on your personal target heart rate, see chapter 5. Target Heart Rate Zone.

The Polar heart rate monitor automatically calculates your heart rate limits based on age, if you have set your user information (FS3c).

Setting Audible Target Heart Rate Zone Alarm ON/OFF

1. In the Time of Day display, press the front button until **ZONE** is displayed. Wait for three seconds to enter the target zone alarm settings.
2. **BEEP** is displayed for two seconds. **ON** or **OFF** is flashing.



Press the front button to select **ON** or **OFF**.
Wait until **OK?** is displayed.
To approve your choice, press the front button.

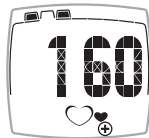
The wrist unit goes to the manual setting of heart rate limits.

Setting Target Heart Rate Limits Manually

3. **HIGH** is displayed for two seconds.

A default setting of 160 for the upper limit is flashing.

Alternatively, an age-based limit is displayed if you have set your user information (FS3c).



When **+** is on the display, increase the value by pressing the front button.

If you increase the value, the wrist unit goes into decrease mode **-** after two seconds.

When **-** is on the display, you can decrease the value by pressing the front button.
If you decrease the value, the wrist unit returns to increase mode **+** after two seconds.

4. When the desired value is on the display, wait until **OK?** is displayed. Press the front button to approve your choice.
5. **LOW** is displayed for two seconds.

A default setting of 80 for the lower limit is flashing.

Alternatively, an age-based limit is displayed if you have set your user information (FS3c).



When **+** is on the display, increase the value by pressing the front button.
If you increase the value, the wrist unit goes into decrease mode **-** after two seconds.

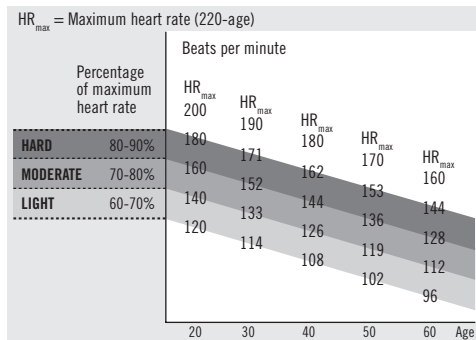
When **-** is on the display, you can decrease the value by pressing the front button.
If you decrease the value, the wrist unit returns to increase mode **+** after two seconds.

6. When the desired value is on the display, wait until **OK?** is displayed. Press the front button to approve your choice.
The wrist unit returns to the Time of Day display.

5. TARGET HEART RATE ZONE

Heart rate is an accurate measure of workout intensity.

Maximum heart rate, or HR_{max} , is the highest number of heartbeats per minute (bpm) in an all-out effort. Training intensities can be expressed as percentages of HR_{max} . There are three different exercise zones: Hard, Moderate, and Light.



HARD

Benefits: Maximizes performance capacity.

What it feels like: Heavy breathing, intense sweating and tiredness in muscles.

Recommended for: Fit persons and for short exercise sessions.

MODERATE

Benefits: Improves aerobic fitness.

What it feels like: Good, easy breathing, moderate sweating.

Recommended for: Everybody, for sessions of moderate length.

LIGHT

Benefits: Helps in weight management. Improves basic endurance and is good for recovery exercise.

What it feels like: Comfortable, easy breathing, light sweating, low loading for muscles.

Recommended for: Everybody, for longer sessions.

6. CARE AND MAINTENANCE

Your Polar heart rate monitor is a high-tech instrument and should be treated with care. The suggestions below will help you fulfill the guarantee obligations.

Store your heart rate monitor in a cool, dry place. Do not store it in any kind of non-breathing material, such as a plastic bag or a sports bag if it is wet.

Service

During the two-year guarantee/warranty period, we recommend that your product is serviced by an authorized Polar Service Center only. The warranty does not cover damage or consequential damage caused by any service not authorized by Polar Electro.


Taking Care of Your Polar Heart Rate Monitor

- Keep your unit clean. Clean it with a mild soap and water solution. Dry it carefully with a soft towel. Never use alcohol or any abrasive material such as steel wool or cleaning chemicals.
- Never store the transmitter when it is wet. Sweat and moisture can keep its electrodes wet and the transmitter activated, which shorten the lifespan of the battery.
- Keep your heart rate monitor out of extreme cold and heat. The operating temperature is 14°F to 122°F / -10°C to +50°C.
- Do not expose the heart rate monitor to direct sunlight for extended periods, eg. by leaving it in a car.
- Do not bend or stretch the transmitter. This may damage the electrodes.
- Do not dry the transmitter in any other way than with a towel. Mishandling may damage the electrodes.

Transmitter Battery

The estimated average battery lifespan of the transmitter is 2500 hours of use. If you suspect that the transmitter battery has discharged, contact your authorized Polar Service Center for a replacement transmitter. Polar recycles used transmitters.

Wrist Unit Battery

The estimated average battery lifespan of the wrist unit is two years with normal use (1h/day, 7 days a week). The  indicates a low battery and that the battery should be replaced. Please note that excessive use of the alarm signal and the backlight (FS2c/FS3c) will drain the battery more rapidly. Do not open the wrist unit yourself. To ensure the water resistance properties and the use of qualified components, the wrist unit battery should be replaced by an authorized Polar Service Center only. At the same time, a full periodic check of the Polar heart rate monitor will be done.

Note:

- *In cold conditions, the low battery indicator may appear, but the indicator is deactivated when you return to a normal temperature.*
- *Water resistance cannot be guaranteed after unauthorized service.*
- *The sounds and the backlight (FS2c/FS3c) are disabled when the battery is low, in order to optimize the battery lifespan.*

7. PRECAUTIONS

7.1 INTERFERENCE DURING EXERCISE

Electromagnetic Interference


Interference may occur near high voltage power lines, traffic lights, overhead lines of electric railways, electric bus lines or trams, televisions, car motors, bike computers, some motor-driven exercise equipment, cell phones or when you walk through electric security gates.

Exercise Equipment

Several pieces of exercise equipment with electronic or electrical components such as LED displays, motors, and electric brakes may cause interference with stray signals. To try to solve the problem, relocate your wrist unit as follows:

1. Remove the transmitter from your chest and use the exercise equipment as you would normally.
2. Move the wrist unit around until you find an area where it displays no stray reading or the heart symbol does not flash. Interference is often worst right in front of the display panel of the equipment, while the left or right side of the display is relatively free from interference.
3. Put the transmitter back on your chest and keep your wrist unit in this interference-free zone as much as possible.
4. If the Polar heart rate monitor still does not work with the exercise equipment, this piece of equipment may be electrically too noisy for wireless heart rate measurement.

Crosstalk

The Polar wrist unit in non-coded mode  of operation picks up transmitter signals within 3 feet/1 meter. Simultaneous non-coded signals from more than one transmitter can cause incorrect readings.

Using Your Polar Heart Rate Monitor in Water

Your Polar heart rate monitor is water resistant and can be used when swimming. To maintain the water resistance, do not press the button of the wrist unit under water.

Users measuring their heart rate in water may experience interference for the following reasons:

- Pool water with a high chlorine content and seawater are very conductive. The electrodes of a transmitter may short-circuit, which prevents ECG signals from being detected by the transmitter.
- Jumping into water or strenuous muscle movement during competitive swimming may cause water resistance that shifts the transmitter on the body to a location where it is not possible to pick up an ECG signal.
- ECG signal strength is individual and also varies depending on an individual's tissue composition. The percentage of people who have difficulties with heart rate measurement is considerably higher in water than in other use.

7.2 MINIMIZING POSSIBLE RISKS WHEN EXERCISING

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

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

- Have you been physically inactive 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, psychological conditions, asthma, breathing etc. as well as some energy drinks, alcohol and nicotine can affect your 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 a pacemaker, 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, page 53. 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.

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

8. FREQUENTLY ASKED QUESTIONS

What should I do if...

...there is no heart rate reading (--)?

1. Check that the electrodes of the transmitter are moistened and that you are wearing it as instructed.
2. Check that you have kept the transmitter clean.
3. Check that there are no sources of electromagnetic radiation in close vicinity to the Polar wrist unit, such as TV sets, cell phones, CRT monitors, etc.
4. Cardiac arrhythmia may cause irregular readings or a cardiac event may have altered your ECG waveform. In these cases, consult your physician.

...heart symbol flashes irregularly?


1. Check that your wrist unit is inside the transmission range and not further than 3 feet/1 meter from the Polar transmitter you are wearing.
2. Check that the elastic strap has not become loose during exercise.
3. Make sure that the electrodes of the transmitter are moistened.
4. Make sure that there is no other heart rate transmitter within the reception range (3 feet/1 meter).
5. Cardiac arrhythmia may cause irregular readings. In this case, consult your physician.

...the heart rate reading becomes erratic or extremely high?

Strong electromagnetic signals can cause erratic readings. So move away from possible sources of disturbance such as high-voltage power lines, traffic lights, overhead lines of electric railways or trams, car motors, bike computers, some motor-driven exercise equipment (like fitness testers) or cell phones.

If moving away does not help and the heart rate reading remains erratic, slow down your speed and check your pulse manually. If you feel it corresponds to the high reading on the display, you may be experiencing cardiac arrhythmia. Most cases of arrhythmia are not serious, but consult your doctor nevertheless.

...the display is fading?

Usually the first sign of a discharged battery is the low battery indicator  or the fading of the digits when using the backlight (FS2c/FS3c). Have the batteries checked.

...the wrist unit battery needs changing?

We recommend that all services should be done by an authorized Polar Service Center. The 2-year International Guarantee/Warranty does not cover damage or consequential damage caused by services not authorized by Polar Electro. A Polar Service Center will test your wrist unit for water resistance after battery replacement and makes a full periodic check of your complete Polar heart rate monitor.

9. TECHNICAL SPECIFICATIONS

The FS1/FS2c/FS3c heart rate monitor is designed

- to help the users to achieve their personal fitness goals.
- to indicate the level of physiological strain and intensity during an exercise session.

No other use is intended or implied. Heart rate is displayed as the number of heartbeats per minute (bpm).

Water resistance of Polar products is tested according to International Standard ISO 2281. Products are divided into three different categories according to their water resistance. Check the back of your Polar product for the water resistance category and compare it to the chart below. Please note that these definitions do not necessarily apply to products of other manufacturers.

Marking on the case back	Wash splashes, sweat, raindrops etc.	Bathing and swimming	Skin diving with snorkel (no air tanks)	SCUBA diving (with air tanks)	Water resistant characteristics
Water resistant	X				Splashes, raindrops etc.
Water resistant 50m	X	X			Minimum for bathing and swimming
Water resistant 100m	X	X	X		For frequent use in water but no SCUBA diving

Wrist Unit

Battery type: CR 2025
Battery life: average 2 years (1h/day, 7 days/week)
Operating temperature: 14 °F to 122 °F/-10 °C to +50 °C
Wrist strap material: Thermoplastic Polyurethane (TPU)
Back cover material: Stainless steel complying with the nickel release regulations of the EU (EU Directive 94/27/EU and its amendment 1999/C 205/05).
Watch accuracy: better than ± 2.0 seconds/day

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

Heart rate measuring range: 15 - 240 bpm

Watch: 12 h or 24 h
Exercise duration: 0 - 23:59
Heart rate limits: 30 - 199 bpm
Exercise time display < 1 h: mm:ss
Exercise time display > 1 h: hh:mm

10. LIMITED POLAR INTERNATIONAL GUARANTEE

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
Water resistant	100m

Elastic Strap

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

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