

Operation Guide 2981

CASIO®

Introduction

Thank you for purchasing this CASIO product. To ensure that it can provide you with the years of service for which it is designed, be sure to read this manual carefully and follow the instructions contained herein. Pay particular attention to the Safety Precautions on the following pages. Be sure to read the Safety Precautions before trying to use this product. Keep this manual in a safe place for future reference.

Safety Precautions

Danger

Never use this product if you are wearing a cardiac pacemaker.

Do not use this product in the vicinity of anyone who is wearing a cardiac pacemaker or any other type of medical device.

Should you ever feel any discomfort or any other abnormal feeling while using this product, immediately stop using it and contact your physician.

Do not use this product inside of an aircraft.

Warning!

Do not use this product during scuba diving or other type of diving that requires special equipment.

- This product is not a diving watch. Improper use can lead to serious accident. Do not wear the chest strap while you are immersed in water.

For Safe Operation

Do not use this product in the vicinity of a microwave oven, TV, computer, or cell phone, or while inside of an automobile or train. This product may not produce correct readings if used in the vicinity of a TV or radio transmitter.

Do not leave this product on the dashboard of an automobile or in any other location that is subject to very high temperatures. Never put on the chest strap after it has been in a very hot location for a long time. Doing so creates the risk of burn injury.

If you do not have the stamina to exercise for long periods, if you are suffering from any type of ailment, or if you are unsure of your physical condition, consult a physician before using this product. Should you ever start to feel discomfort or any other abnormal feeling while using this product, immediately stop using it and remove the chest strap.

Always take care of the situation around you whenever operating or using this product.

Keep the chest strap out of the reach of young children.

Handling Batteries

Whenever removing the button type battery that powers the watch or sensor bar, take care to ensure that the battery is not swallowed accidentally. Special care is required where young children are present.

Keep batteries out of the reach of small children. Should a battery ever be swallowed accidentally, contact a physician immediately.

Caution!

Skin Irritation

Should you ever experience any skin irritation or any other abnormality while wearing the chest strap, immediately take it off.

Since the watch and the chest strap come into direct contact with the skin, the following conditions may cause irritation of the skin.

- When a wearer is allergic to metal or leather
- When the watch or chest strap is rusty dirty, sweaty, etc.
- When the wearer is in poor physical condition
- Tightening the chest strap too tightly can cause you to sweat, and can make it hard for air to pass under the strap, which can lead to skin irritation. Do not over-tighten the chest strap.
- Should you ever notice any abnormality, immediately stop using the product and consult a physician.

Caring for This Product

To clean the product, wipe it with a soft, dry cloth, or with a cloth that has been moistened in weak solution of water and a mild neutral detergent. Wring out all excess liquid from the cloth before wiping. Never use thinner, benzene, alcohol, or any other volatile agent to clean the product.

Use of the Product

When putting on or taking off the chest strap, make sure you do not twist, bend, or stretch it excessively.

Take care not to drop the product or otherwise subject it to strong impact.

To avoid unexpected accidents, always check around you to ensure you are in a safe place before looking at the display of the watch. Looking at the watch while marathoning or jogging on the open road, while riding a bicycle, or operating a motor vehicle can lead to accidents.

Takes care to avoid running into others.

Should the watch stop running, have the battery replaced as soon as possible.

Take care to avoid breaking your fingernails when fastening and unfastening the band. Particular care is required by people with long fingernails.

To avoid skin irritation due to unexpected injury or allergy, do not wear the watch while sleeping.

When picking up or otherwise coming into contact with a child, remove the watch from your wrist to avoid injury to the child or causing irritation of the child's skin.

Never try to take the watch apart!

Never try to take the watch apart. Doing so creates the risk of personal injury and malfunction of the watch.

Battery Replacement

When the watch's battery is replaced, foreign matter adhering to contact surfaces can cause a loss of water resistance. In order to ensure water resistance is maintained and the watch performs at the level for which it is designed, make sure you always request battery replacement from your dealer or CASIO distributor.

Keep backup copies of data!

Make sure you always keep separate written copies of important data to protect against its loss. Malfunction, repair, and battery replacement can cause memory contents to be deleted.

Features

■ Heart Rate Monitor

Keeps track of your heart rate, exercise intensity, and exercise time.

Measurement system:

Constant monitoring of electrocardiogram by strap type electrodes

Transmission method:

Heartbeat picked up by the sensor bar is calculated and sent to the watch together with anti-interference code



■ Stopwatch

100 hours maximum, 1/100 second, lap/split times

■ Lap/split memory

• Number of lap/split memories: 300 max.

Lap time, split times, lap average heart rate, lap average intensity

• Exercise data memory:

Total exercise time, exercise time within target heart rate range, exercise time in excess of target heart rate range, exercise time below target heart rate range, best lap time, average heart rate, high heart rate, energy consumed, cumulative exercise time, cumulative energy consumed

■ Timer

Number of timers: 2

Measurement unit: 1/10 second

Measurement range: 100 hours

Setting unit: 10 seconds

Number of repeats: 1 to 99, endless

- Settable number of repeats; single/twin switching

■ World Time

31 cities (29 time zones), summer time ON/OFF

■ Alarms

Three (hour and minute setting, ON/OFF)

Hourly Time Signal (ON/OFF)

■ Display Illumination

For easy reading in the dark

Display Illumination

In any mode, press the **F** button to illuminate the display for easy reading in the dark.



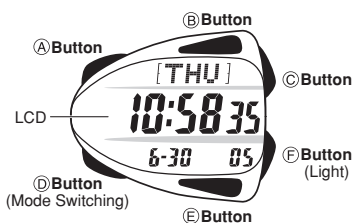
You can specify 1.5 seconds or 3 seconds as the duration of display illumination.

Important!

- The light may be difficult to see if you turn it on under bright sunlight.
- Illumination will turn off if any beeper operation (alarm or button operation tone) is performed while the display is illuminated.
- You may notice a slight sound from the watch while the face is illuminated. This is the sound of EL panel vibration, and does not indicate malfunction.

General Guide

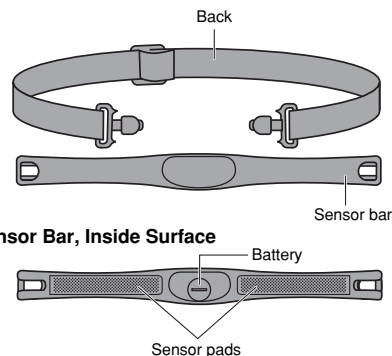
Watch



• Selecting 12-hour or 24-hour Timekeeping

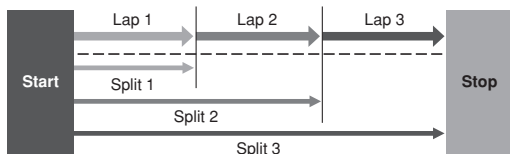
Each press of the **B** or **E** button toggles the timekeeping format between 12-hour and 24-hour.

Chest Strap



Lap Time and Split Time

A lap time is the time that elapses during a specific portion of the race, such as a lap around a track, while a split time is the time spent from the beginning of a race up to a certain point.



Lap Time Example

Measuring the lap time for one lap of a track event, car race, etc.

Split Time Example

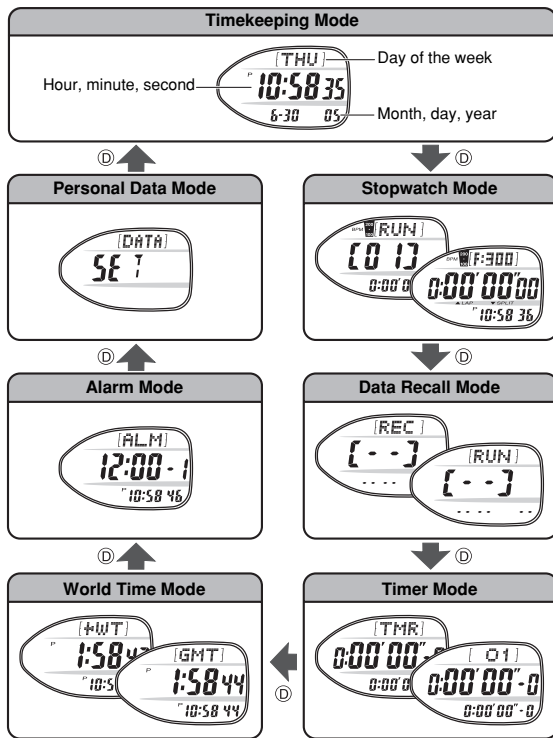
Measuring the split at the 5 km and 10 km points of a marathon.

Read this first!

This product is intended for use as an exercise support tool only. It is not a medical device.

- Never use this product if you are wearing a cardiac pacemaker or any other type of medical device.
- Do not use this product in the vicinity of anyone who is wearing a cardiac pacemaker or any other type of medical device.
- Do not wear this product while riding on an aircraft. Doing so creates the risk of interference with the aircraft's equipment.
- Do not wear this product while swimming. The water resistance of the sensor bar does not cover immersion in water. Communication between the sensor bar and watch is not possible in water.
- Do not use this product if the strap causes skin irritation or any other abnormality.
- To clean the product, wipe it with a soft, dry cloth, or with a cloth that has been moistened in weak solution of water and a mild neutral detergent. Wring out all excess liquid from the cloth before wiping. Never use thinner, benzene, alcohol, or any other volatile agent to clean the product.

Modes and Display Screens



Using the Stopwatch

This section provides information about the stopwatch, and some basic information about the heart rate monitor.

Using the Stopwatch

- Measuring Unit: 1/100 second
- Measuring Capacity: 99:59'59.99"
- Lap/Split Count Range: 999
- Cumulative Exercise Time: 9,999 hour, 59 minutes
- Cumulative Consumed Energy: 239,005 kcal (999,999 kJ)

To use the stopwatch

Before measuring heart rate and exercise intensity, be sure to first configure your personal information and put on the chest strap.

To enter the Stopwatch Mode, press the **D** button once while in the Timekeeping Mode.



■ Elapsed Time Measurement

- Stop
- Reset (Data to memory)



• Start

Whenever you press the **B** button to reset the stopwatch to all zeros, the data from the last measurement operation are stored in memory.

- **Cumulative Time Measurement**
 Pressing the **E** button to restart the stopwatch without resetting it to all zeros resumes elapsed time measurement from where it was last stopped.

■ Recording Lap/Split Times

- Stop
- Reset (Data to memory)



- Start
- Lap/Split

The watch will exit the lap/split screen automatically after about eight seconds.

Stopwatch Mode Screens

Reset Screen

Number of remaining laps

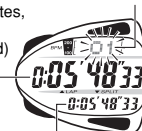


Current time

Elapsed Time Screen

Lap time
 (Hours, Minutes,
 Seconds,
 1/100 second)

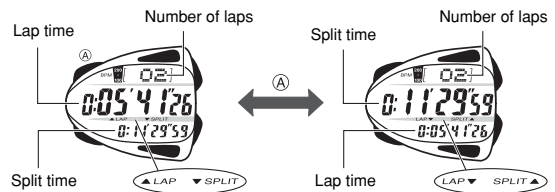
Number of laps



Split time
 (Hours, Minutes, Seconds,
 1/100 second)

To switch between lap time and split time

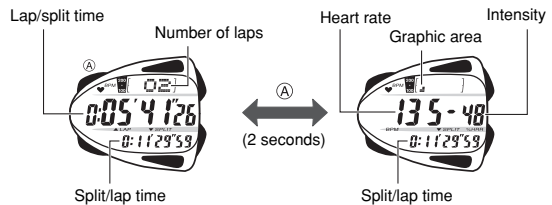
Each press of the **A** button switches the display between lap time and split time.



To display the heart rate screen

Hold down the **A** button for about two seconds to switch from the lap time or split time screen to the heart rate screen.

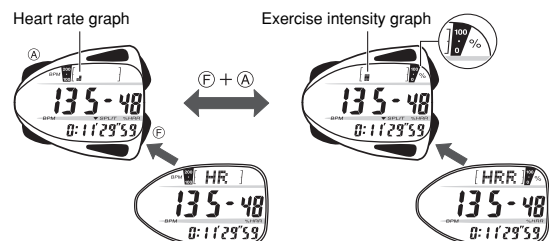
- Pressing the **A** button while the heart rate screen is displayed will switch between lap time and split time screen.



To switch between graph types

While the heart rate screen is on the display, hold down the **F** button as you press the **A** button. This will cause the graph at the top of the display to switch between the heart rate graph and exercise intensity graph.

- The graph you select here will also appear in the Data Recall Mode.



- The data shown on the heart rate graph and exercise intensity graph represents readings at one-minute intervals.

Configuring Personal Information

Before the watch can calculate the energy you consume and your exercise intensity, you need to configure a number of personal information settings. When configuring personal information, you can also turn the target alarm on or off, and specify the units of measurement to use for energy and body weight.

Personal information settings are configured in the Personal Data Mode, which you enter by pressing the **(D)** button six times while in the Timekeeping Mode.



Personal Data Mode Screen

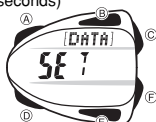


Important!

- You will not be able to perform the following procedure if the Stopwatch Mode is not reset to all zeros. If you have trouble performing the following procedure, enter the Stopwatch Mode and press the **(B)** button to reset it to all zeros.

To configure personal data settings

(2 seconds)



- In the Personal Data Mode, hold down the **(A)** button for about two seconds until the ALM screen appears with either OFF or On flashing at the bottom of the display.
- Configure your personal data settings.
 - Use the **(D)** button to scroll between setting screens.
 - Use the **(E)** and **(B)** buttons to change the currently selected setting. Holding down either button changes the setting at high speed.
 - For information about each setting, see "Personal Information Settings".
- After all the settings are the way you want, press the **(A)** button to exit the setting screen.
 - The watch also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

Personal Information Settings

Target Alarm On/Off



- Press the **(E)** button to toggle the target alarm on and off.
- When turned on, the target alarm will sound whenever your heart rate goes outside of the target range you set. The target alarm will also sound every minute if your heart rate remains outside of the target range.

Target Range Upper Limit



- Use the **(E)** (+) and **(B)** (-) buttons to change the displayed value in the range of 1 to 220.

Target Range Lower Limit



- Use the **(E)** (+) and **(B)** (-) buttons to change the displayed value in the range of [resting heart rate setting plus 1] to [target range upper limit minus 1].

Resting Heart Rate



- Use the **(E)** (+) and **(B)** (-) buttons to change the displayed value in the range of 30 to [target range lower limit minus 1] (145 maximum).
- Measure your heart rate before getting up when you awake in the morning. This is your resting heart rate.

Age



Use the **(E)** (+) and **(B)** (-) buttons to change the displayed value in the range of 15 to 70.

Gender



Use the **(E)** or **(B)** button to toggle between MALE and FEMALE.

Consumed Energy Unit



Use the **(E)** or **(B)** button to toggle between KCAL (kilocalories) and KJ (kilojoules).

Body Weight Unit



Use the **(E)** or **(B)** button to toggle between kg (kilograms) and lb (pounds).

Weight



Use the **(E)** (+) and **(B)** (-) buttons to change the displayed value in the range of 20 to 200 kilograms or 40 to 440 pounds.

Monitoring Your Heart Rate During Exercise

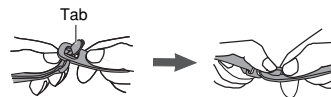
This section explains what you need to do to monitor your heart rate while exercising. This section assumes that you have already configured your personal information settings.

Getting Ready

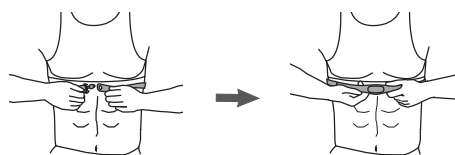
Before exercising, you need to attach the chest strap to your chest and synchronize the signal between the sensor bar and watch.

To attach the chest strap to your chest

- Slightly moisten the two sensor pads (diamond pattern areas) on the inside surface of the sensor bar. This will provide better contact for the sensor pads.
- Insert one of the tabs on either end of the strap into one of the holes in the sensor bar, from the inside of the sensor bar. Secure the tab in place so it lays down flat as shown in the illustration.



- Wrap the chest strap around your chest so it is in direct contact with your skin, and secure the tab at the other end of the strap to the other hole of the sensor bar. Fasten the strap securely to ensure that it does not slip down while you are exercising.
- Make sure that the sensor pads are located above your rib cage.
 - Take care that you do not fasten the chest strap too tightly.



Synchronizing the Watch with the Sensor Bar

Before you start exercising, make sure that the watch is receiving the anti-interference code transmitted from the sensor bar, and synchronize the watch with the sensor bar. See "Anti-interference Code" for more information.

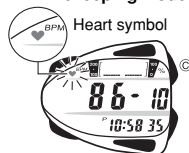
- If you don't synchronize the watch with your sensor bar, your watch may start picking up the signal transmitted from another sensor bar.
- The sensor bar starts transmitting automatically as soon as you put on the chest strap and the sensor pads start picking up your heart beat.

While you are wearing the chest strap, press the \odot button while the watch is in the Timekeeping Mode, Stopwatch Mode, or Timer Mode to start synchronization.

After synchronization is complete, the watch will receive the signal from the sensor bar and display your heart rate and exercise intensity.

- The heart symbol will flash on the display while your heart rate is being monitored.
- Pressing the \odot button while the watch is monitoring your heart rate will perform synchronization again.
- Synchronization will be cancelled automatically if the watch is not able to receive any signal from the sensor bar for about 60 seconds.

Timekeeping Mode



Stopwatch Mode



Important!

- Never use this product if you are wearing a cardiac pacemaker or any other type of medical device.
- Do not use this product in the vicinity of anyone who is wearing a cardiac pacemaker or any other type of medical device.
- Do not wear this product while riding on an aircraft. Doing so creates the risk of interference with the aircraft's equipment.
- Do not wear this product while swimming. The water resistance of the sensor bar does not cover immersion in water. Communication between the sensor bar and watch is not possible in water.
- Do not use this product if the strap causes skin irritation or any other abnormality.

Anti-interference Code

The anti-interference code is a special unique code the sensor bar sends to the watch to identify its signals, which ensures that the watch is able to know what signal is coming from the sensor bar. If there are people around you who are also using this type of watch, anti-interference codes ensure that the watches don't accidentally pick up another signal by mistake.

In some rare cases, two watches that are near each other may end up using the same anti-interference code. When this happens, you could simply move away from the person whose watch is using the same code to avoid picking up its signal by mistake. If this is impossible for some reason, perform the following steps to change the anti-interference code of your watch.

To eliminate signal interference

1. Take off the chest strap, and leave it off for about 90 seconds. Then, put it back on again.
 - If the chest strap cannot detect a pulse for more than 90 seconds, it will change to a new anti-interference code automatically.
2. In the Timekeeping Mode, Stopwatch Mode, or Timer Mode, press the watch's \odot button to start signal reception.
 - The watch will receive the new anti-interference code from the sensor bar and synchronize with it.
 - If there is someone nearby using the same type of watch the first time your watch receives a signal from the sensor bar, your watch may synchronize with the wrong anti-interference code. Be sure to move away from any other people who are also using this type of watch before starting signal reception.
 - If your watch synchronizes with the wrong anti-interference code, move away from the other person and press the \odot button while in the Timekeeping Mode, Stopwatch Mode, or Timer Mode. Perform the synchronization procedure again so your watch synchronizes with your chest strap.
 - If you are about to run a race or in some other event with a large number of people, be sure no one around you is using the same type of watch at the start. If someone is, move away from them to avoid synchronizing with the wrong anti-interference code. It is best to perform the first receive from the sensor bar before starting the race.

Heart Rate Monitor Troubleshooting

If this happens:	Check this:
No heart rate appears on the display, or displayed values are excessive or vary widely.	<ul style="list-style-type: none"> <input type="checkbox"/> Is the strap attached to your chest correctly? <ul style="list-style-type: none"> • Your heart rate cannot be detected correctly if the strap is not attached to your chest correctly. • See "Monitoring Your Heart Rate During Exercise". <input type="checkbox"/> Are the sensor bar's sensor pads (diamond pattern areas) wet? <ul style="list-style-type: none"> • Your heart rate cannot be detected if your skin is dry. • Warm up until you start sweating or moisten the sensor pads with water. <input type="checkbox"/> Are the sensor bar's sensor pads dirty? <ul style="list-style-type: none"> • Dirty sensor pads interfere with stable heart rate pickup. • Clean the sensor pads as required. To clean the sensor pads, wipe them with a soft, dry cloth, or with a cloth that has been moistened in weak solution of water and a mild neutral detergent. Wring out all excess liquid from the cloth before wiping. Never use thinner, benzene, alcohol, or any other volatile agent to clean the sensor pads. <input type="checkbox"/> Is the sensor bar's battery dead? <ul style="list-style-type: none"> • If so, contact your dealer or CASIO distributor to have the battery replaced. <input type="checkbox"/> Is there some source of electromagnetic waves (high-tension power lines, TV, cell phone, etc.) nearby? <ul style="list-style-type: none"> • Electromagnetic waves can make normal heart rate detection and communication impossible. • Possible sources of electromagnetic waves are: signal equipment, overhead railway cables, electric bus cables, streetcars, automobiles, motorcycles, computers, motorized fitness equipment, medical devices, electronic security gates, radios, railway crossings, TV transmitters, radar sites, etc. <input type="checkbox"/> Do you have heart trouble? <ul style="list-style-type: none"> • Normal readings are not possible if you have a heart abnormality that causes changes in the waveform of an electrocardiogram, or if you are suffering from arrhythmia. <input type="checkbox"/> Is the watch too far from the chest strap? <ul style="list-style-type: none"> • The maximum allowable distance between the strap and watch is about 90 cm (35.4 inches). Communication is not possible when they are too far apart. <input type="checkbox"/> Do you have a hairy chest? <ul style="list-style-type: none"> • Hair on the chest can interfere with heart beat detection.
Heart rate measurement suddenly stops automatically.	<ul style="list-style-type: none"> <input type="checkbox"/> Did more than one minute pass without the watch detecting any signal from the chest strap? <ul style="list-style-type: none"> • This will cause measurement to stop automatically. Restart the measurement operation. <input type="checkbox"/> Did the battery of the sensor bar or watch go dead during measurement? <ul style="list-style-type: none"> • The RECOV indicator will appear on the watch's display when its battery is low. If the RECOV indicator appears frequently, have the watch's battery replaced. • If communication is not possible and the RECOV indicator is not displayed, it could mean that the sensor bar battery is dead or that the system is malfunctioning. Take the watch in to your dealer or CASIO distributor. <p>Important!</p> <ul style="list-style-type: none"> • Data in the watch's memory will be deleted when you have the battery replaced.
Interference in the signal from the chest strap.	<ul style="list-style-type: none"> <input type="checkbox"/> Is someone nearby using the same type of watch as this one? <ul style="list-style-type: none"> • See "Anti-interference Code" for more information.
The watch does not calculate energy consumed.	<ul style="list-style-type: none"> <input type="checkbox"/> Is your heart rate above 90 bpm? <ul style="list-style-type: none"> • The watch will not calculate energy consumed unless your heart rate is 90 bpm or higher.
The energy consumed value is strange.	<ul style="list-style-type: none"> <input type="checkbox"/> Are your personal information settings correct? <ul style="list-style-type: none"> • The watch calculates energy consumed using your heart rate and personal information. Make sure your personal information settings are correct and up to date.



Memory

The watch maintains exercise records that contain a wealth of information about each workout. An exercise record is created for your last workout that you timed in the Stopwatch Mode and stored automatically whenever you clear the stopwatch to all zeros. Note that memory is shared by lap/split time records and exercise records. There is also a cumulative record that keeps track of long-term cumulative totals.

The following will give you some idea about how much memory capacity is available.

- If you use memory to store lap/split time records only (no exercise records), you can store up to 300 records during a single workout.
- If you use memory to store exercise records only (Start → Stop → Reset), you can store up to 62 records.

Memory Data

The following details the contents of each type of record that can be stored in memory.

■ Lap Record Data

- Lap/split times
- Average heart rate and exercise intensity per lap

■ Exercise Record Data

- Date
- Exercise time
- Exercise time within target heart rate range
- Exercise time in excess of target heart rate range
- Exercise time below target heart rate range
- Best lap time
- Average heart rate and average exercise intensity
- High heart rate and high exercise intensity
- Energy consumed during exercise

■ Cumulative Data

- Cumulative exercise time: 9,999 hours, 59 minutes
- Cumulative energy consumed: 239,005 kcal (999,999 kJ)
- Average heart rate and average exercise intensity per workout

Data Save Timing

The following shows what data is stored in memory when you perform a particular Stopwatch Mode operation.

■ When you start an elapsed time operation (from all zeros)

- Date

■ When you record lap/split times

- Lap time
- Split time
- Average heart rate and exercise intensity per lap

■ When you reset the stopwatch to all zeros

- Exercise time
- Exercise time within target heart rate range
- Exercise time in excess of target heart rate range
- Exercise time below target heart rate range
- Best lap time
- Average heart rate and average exercise intensity
- High exercise heart rate and high exercise intensity
- Energy consumed during exercise

The following data items are also updated when you reset the stopwatch to all zeros.

- Cumulative exercise time
- Cumulative energy consumed
- Average heart rate and average exercise intensity per workout

Memory Full

Storing data when memory is full automatically deletes the oldest record currently in memory to make room for the new data.

Example 1: When the exercise record currently being created is the only one currently in memory

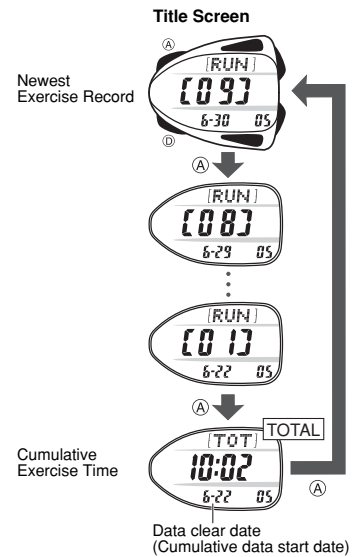
Recording a new lap/split time while memory is full causes the oldest lap/split time currently in memory to be deleted to make room for the new one.

Example 2: When there are already exercise records in memory

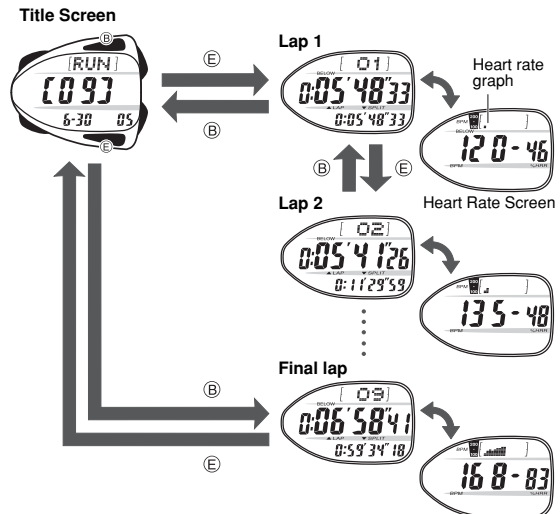
All of the data of the oldest exercise record is cleared to make room for the new data.

To recall memory contents

1. In the Timekeeping Mode, press the (D) button twice to enter the Data Recall Mode.
2. Use the (A) button to scroll through the exercise records currently in memory.

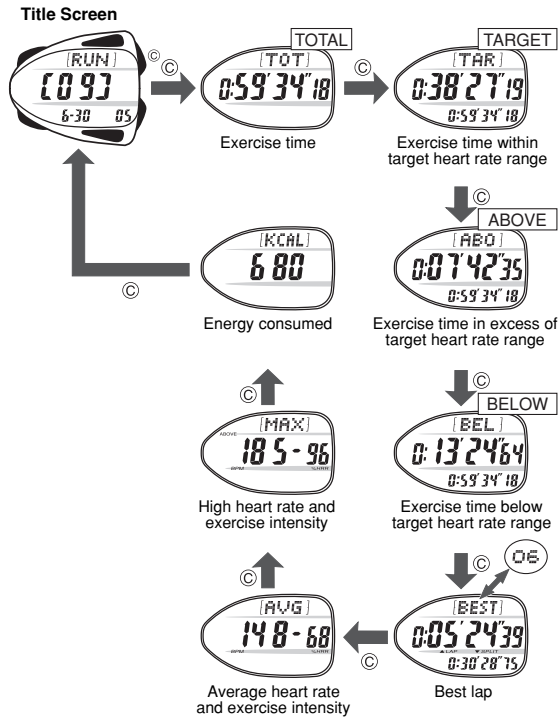


- The factory default setting for the data clear date is January 1, 2000. Before using the watch for the first time, be sure to perform the procedure under "To clear cumulative exercise data" to clear the factory default date. If you don't, the factory default date will remain on the screen without changing to the cumulative data start date.
- 3. While the exercise record whose contents you want to view is displayed, use the (E) and (B) buttons to scroll through the record's lap data.

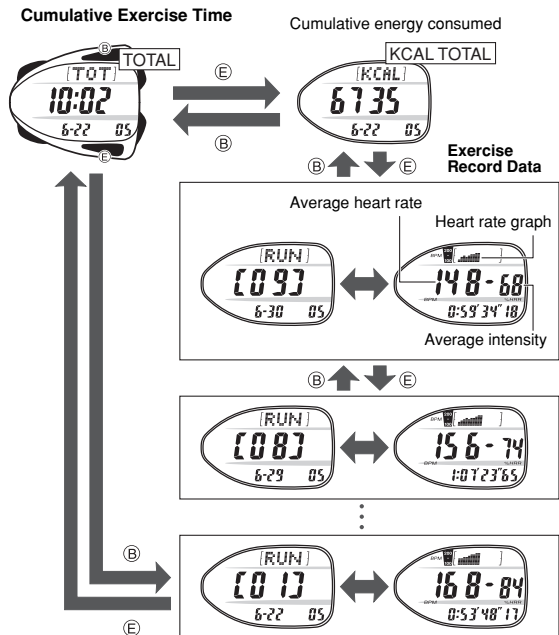


- If you turned on display of the exercise intensity graph in the Stopwatch Mode, it will also appear in the Data Recall Mode.
- The heart rate graph and exercise intensity graph show data from the average heart rate or intensity of each lap.

4. Use the (C) button to scroll through the data for the currently displayed exercise record.



5. After displaying the Exercise Time (TOT) screen in step 4, use the (E) and (B) buttons to display cumulative energy consumed or cumulative exercise intensity.



- The heart rate graph and exercise intensity graph show data from the average heart rate or intensity of each lap.



6. After viewing all the data you want, press the (D) button five times to return to the Timekeeping Mode.

Clearing Memory Data

To clear a specific exercise record



- In the Data Recall Mode, display the exercise record whose data you want to clear.
- While holding down the (B) button, hold down the (E) button.
- When the confirmation message appears, keep the (B) and (E) buttons depressed to clear the data.
 - If you do not want to clear the data, release the (B) and (E) buttons when the confirmation message appears.

To clear cumulative exercise data



- In the Data Recall Mode, display the cumulative exercise time screen or the cumulative energy consumed screen.
- While holding down the (B) button, hold down the (E) button.
- When the confirmation message appears, keep the (B) and (E) buttons depressed to clear the data.

- If you do not want to clear the data, release the (B) and (E) buttons when the confirmation message appears.
- After data is cleared, the date memory was cleared will appear at the bottom of the display.
- Clearing cumulative exercise data does not clear individual exercise records.

Using the Timer

The twin timer supports interval training by letting you use one timer for the high-intensity phase and the other timer for the recovery phase of your workout.

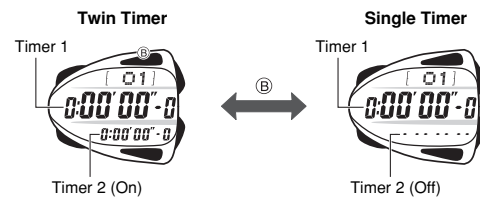
- You can select either a single timer or twin timer.

To enter the Timer Mode, press the (D) button three times while in the Timekeeping Mode.



To select the timer type

- In the Timer Mode, check the display to make sure the timer is stopped and reset to all zeros.
 - If the timer is running, press the (B) button to stop it. To reset the timer to all zeros, press the (B) button again.
- Press the (B) button to toggle between the single timer and twin timer.



To configure timer settings

(2 seconds)



- In the Timer Mode, check the display to make sure the timer is stopped and reset to all zeros.
 - If the timer is running, press the (B) button to stop it. To reset the timer to all zeros, press the (B) button again.
- Hold down the (A) button for about two seconds until the number of repeats at the top of the display starts to flash.
 - This is the setting screen.
- Configure the timer settings as shown below.
 - Use the (D) button to move to the next setting. Use the (E) (+) and (B) (-) buttons to change the currently selected setting.
 - Holding down the (E) or (B) button changes the current setting at high speed.
 - For a starting time of 100 hours, set 0 hours 00 minutes 00 seconds.
- After all the settings are the way you want, press the (A) button to exit the setting screen.
 - The watch also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.



■ **Number of Repeats**
Range: 1 to 99 repeats, or unlimited (when "--" is displayed)
Buttons: (E) (+), (B) (-)



■ **Timer 1 Hours**
Range: 0 to 99
Buttons: (E) (+), (B) (-)



■ **Timer 1 Minutes**
Range: 0 to 59
Buttons: (E) (+), (B) (-)



■ **Timer 1 Seconds**
Range: 0 to 50 (10-second increments)
Buttons: (E) (+), (B) (-)



■ **Timer 2 Hours**
Range: 0 to 99
Buttons: (E) (+), (B) (-)



■ **Timer 2 Minutes**
Range: 0 to 59
Buttons: (E) (+), (B) (-)



■ **Timer 2 Seconds**
Range: 0 to 50 (10-second increments)
Buttons: (E) (+), (B) (-)

To use the timer



- Stop
- Reset
- Start

Before measuring heart rate and exercise intensity, be sure to first configure your personal information and put on the chest strap.

- Heart rate and exercise intensity values measured in the Timer Mode are not stored in memory.

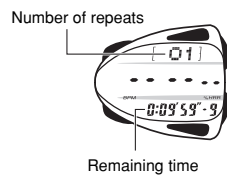
In the Timer Mode, press the (E) button to start the countdown, and the (B) button to stop it.

To start heart rate reception from the chest strap, press the (C) button.

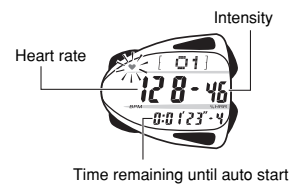
- Pressing the (B) button while the countdown is stopped resets the display time to the start time.
- Pressing the (E) button while the timer countdown is stopped restarts the countdown.

Timer Mode Screens

Countdown Screen



Countdown Screen with Heart Rate Monitor



- The number of repeats flashes while Timer 2 is counting down.

Timer Alarm

The alarm sounds for five seconds when the end of each countdown is reached. The alarm sounds for 10 seconds when the end of the final countdown is reached.

To stop the alarm beeper

Press any button. Pressing a button will stop the alarm only, without performing the normal function assigned to that button.

Using World Time

World time lets you display the current time in any one of 31 cities (29 time zones) around the world.

- When you enter the World Time Mode, the screen for the city that was displayed when you last exited the mode appears first.
- The seconds count in the World Time Mode is linked with the Timekeeping Mode seconds count.
- The same 12-hour/24-hour format you select for the Timekeeping Mode time is also applied in the World Time Mode.

Important!

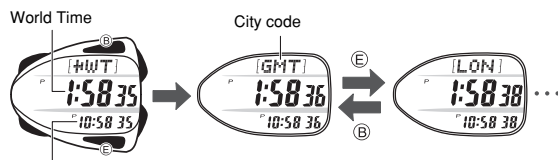
- If the World Time Mode time is incorrect, correct the setting of the current time in the Timekeeping Mode.

To enter the World Time Mode, press the (D) button four times while in the Timekeeping Mode.



To search for a city code

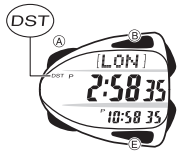
In the World Time Mode, use the (E) (westward) and (B) (eastward) buttons to scroll through city codes.



Current time

- Holding down either button scrolls at high speed.
- See the "World Time City Code List" for the meaning of each city code and the sequence that city codes appear.

To turn summer time on and off



1. In the World Time Mode, use the (E) and (B) buttons to select the city whose summer time setting you want to change.
2. Hold down the (A) button for about two seconds to toggle the summer time setting for the currently displayed city on and off.

- The "DST" indicator appears on the display and timekeeping is advanced by one hour when summer time is turned on.
- You can turn summer time on or off independently for each World Time Mode city. Note, however, that you cannot change the summer time setting for the "GMT" (Greenwich Mean Time) zone.
- If you turn on summer time for the city that you are using for your Home Time city, summer time is also turned on in the Timekeeping Mode.

Summer time, or Daylight Saving Time (DST) as it is called in some countries, calls for setting clocks ahead one hour during the summer season. Note that the use of summer time depends on the country and even the local area.

World Time City Code List

City Code	City Name	GMT Differential	City Code	City Name	GMT Differential
GMT	Greenwich Mean Time	±0	SEL	Seoul	+9
LON	London	±0	TYO	Tokyo	+9
PAR	Paris	+1	ADL	Adelaide	+9.5
BER	Berlin	+1	SYD	Sydney	+10
ATH	Athens	+2	NOU	Noumea	+11
CAI	Cairo	+2	WLG	Wellington	+12
JRS	Jerusalem	+2	---	---	-11
JED	Jeddah	+3	HNL	Honolulu	-10
THR	Teheran	+3.5	ANC	Anchorage	-9
DXB	Dubai	+4	LAX	Los Angeles	-8
KBL	Kabul	+4.5	DEN	Denver	-7
KHI	Karachi	+5	CHI	Chicago	-6
DEL	Delhi	+5.5	NYC	New York	-5
DAC	Dhaka	+6	CCS	Caracas	-4
RGN	Yangon	+6.5	RIO	Rio De Janeiro	-3
BKK	Bangkok	+7	---	---	-2
HKG	Hong Kong	+8	---	---	-1
BJS	Beijing	+8			

- The contents of the above table are current as of December 2004.
- Time differentials in the above table are in accordance with Universal Time Coordinated (UTC).

Using the Alarms and Hourly Time Signal

Your watch comes with three alarms and an hourly time signal.

Daily Alarms (ALM 1, ALM 2, ALM 3)

The watch beeps for about 10 seconds when an alarm time is reached.

Hourly Time Signal

The hourly time signal causes the watch to beep every hour on the hour.

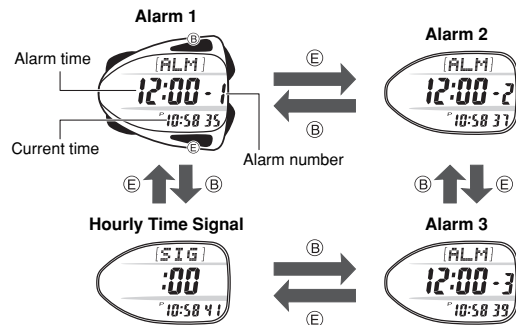
Alarm and hourly time signal settings are configured in the Alarm Mode, which you enter by pressing the (D) button five times while in the Timekeeping Mode.



To display an alarm screen

In the Alarm Mode, use the (E) (+) and (B) (-) buttons to scroll through the alarm screens.

- Holding down either button scrolls at high speed.



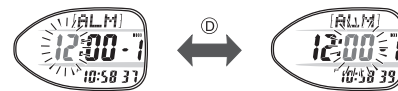
To set an alarm time

(2 seconds)



1. In the Alarm Mode, display the screen of the alarm whose setting you want to change.
2. Hold down the (A) button for about two seconds until the hour digits of the current alarm time start to flash. This is the setting screen.
 - Displaying the setting screen also turns on the alarm automatically and causes the alarm on indicator to appear on the screen.

3. Use the (E) (+) and (B) (-) buttons to change the hour setting.
 - Holding down either button changes the setting at high speed.
 - When setting the hour, make sure you specify AM or PM (P) correctly when using 12-hour timekeeping, or that you specify the correct 24-hour time. The same 12-hour/24-hour format you select for the Timekeeping Mode time is also applied in the Alarm Mode.
 - The timekeeping system (12-hour or 24-hour) used in the Alarm Mode is the same one you select for the Timekeeping Mode.
4. Press the (D) button to move the flashing to the minutes.

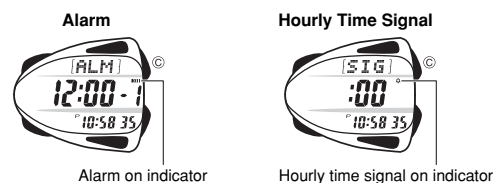


5. Use the (E) (+) and (B) (-) buttons to change the minute setting within the range of 0 to 59.
 - Holding down either button changes the setting at high speed.
6. After all the settings are the way you want, press the (A) button to exit the setting screen.
 - The watch also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

To turn an alarm or the hourly time signal on or off

While the screen for an alarm or the hourly time signal is on the display, press the (C) button to toggle it on (alarm on indicator displayed) and off (indicator not displayed).

- When any alarm is turned on, the alarm on indicator is displayed in all other modes.



To stop the alarm beeper

Press any button.

To test the alarm

In the Alarm Mode, hold down the (C) button to sound the alarm.

Configuring Home Time Settings

(2 seconds)



- In the Timekeeping Mode, hold down the (A) button for about two seconds until the seconds digits of the current time start to flash. This is the setting screen.
- Configure the Home Time settings as shown below.
 - Use the (D) button to move to the next setting. Use the (E) (+) and (B) (-) buttons to change the currently selected setting.
 - Holding down the (E) or (B) button changes the current setting at high speed.
- After all the settings are the way you want, press the (A) button to exit the setting screen.
 - The watch also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

- When setting the hour, make sure you specify AM (no indicator) or PM (P) correctly, or that you specify the correct 24-hour time.
- You can set a date in the range of January 1, 2000 to December 31, 2099.
- The day of the week is set automatically in accordance with the date you set.
- The watch makes adjustments for leap years and month lengths automatically.
- Summer time, or Daylight Saving Time (DST) as it is called in some countries, calls for setting clocks ahead one hour during the summer season. Note that the use of summer time depends on the country and even the local area.

1.5 seconds 3 seconds



■ 00 Reset/Illumination Duration

- 00 Reset: Press the (E) button.
- 00 to 29, no change in minutes.
 - 30 to 59, increases minutes by 1.
- Illumination Duration: Press the (B) button.
- Switches between 1.5 seconds and 3 seconds.
 - Current setting indicated in the upper display.



■ Summer Time (DST)

- Press the (E) button to switch.
Settings: On, OFF



■ Home City

- Use the (E) (westward) and (B) (eastward) buttons to select.
See "World Time City Code List" for city codes.



■ Hour

- Use the (E) (+) and (B) (-) buttons to change.



■ Minute

- Use the (E) (+) and (B) (-) buttons to change.
Range: 00 to 59



■ Year

- Use the (E) (+) and (B) (-) buttons to change.
Range: 00 to 99 (2000 to 2099)



■ Month

- Use the (E) (+) and (B) (-) buttons to change.
Range: 1 to 12



■ Day

- Use the (E) (+) and (B) (-) buttons to change.
Range: 1 to 31 (auto month length setting)