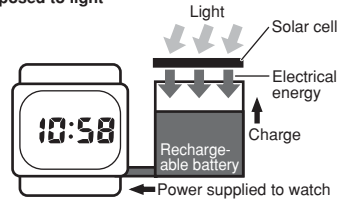# Operation Guide 2891

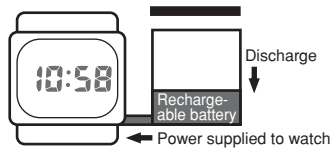## Keep your watch exposed to light!

Your watch runs on electrical power generated from light and stored by a chargeable battery.
To ensure stable operation, make sure that the solar cell of the watch is exposed to light as much as possible.

### 1. How the solar cell and battery work

When exposed to light

Light
Solar cell
Electrical energy
Charge
Recharge-able battery
Power supplied to watch

When not exposed to light

Discharge
Recharge-able battery
Power supplied to watch

Your watch continues to operate, even when it is not exposed to light. Leaving the watch in the dark can run down its battery and cause functions to become disabled.

2. Avoid overuse of display illumination.
• Over use of display illumination can run down the battery.

Discharge
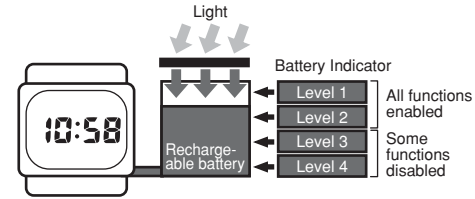Recharge-able battery
Power supplied to watch
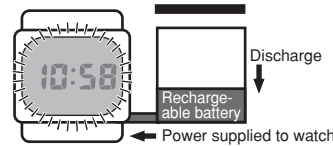
The following shows approximately how much exposure to light is required to recharge the battery by the amount used by one display illumination operation.
• Sunlight through a window: 5 minutes
• Indoor fluorescent lighting: 50 minutes

Care is required when using the full auto light switch, which can cause frequent display illumination.

3. Tips on how to keep the battery charged.
• Try to ensure that the watch is always exposed to enough light to keep its battery indicator at LEVEL 1 or LEVEL 2. Some of the watch's functions are disabled when battery power drops to LEVEL 3.

Light
Battery Indicator

Level 1	All functions enabled
Level 2	
Level 3	Some functions disabled
Level 4	

Recharge-able battery

• Whenever you are not wearing the watch on your wrist, position it so the face (solar cell) is pointed in the direction of a source of bright light.

Solar Cell
Light

Leave the watch under fluorescent lighting, near a window, etc.
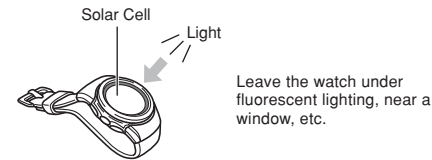
• When wearing the watch, try to keep your sleeve from blocking its face (solar cell).
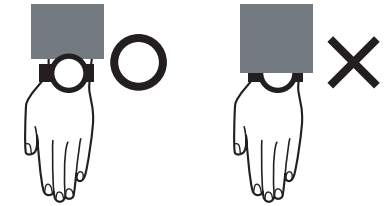

Charging efficiency is significantly reduced even if the face of the watch is only partially covered by your sleeve.

Using Your Watch for Mountain Climbing

Your watch has a number of built in sensors that allow you to take direction, altitude, barometric pressure, and temperature readings while mountain climbing or hiking.

Ⅰ. Before getting started...

Check changes in barometric pressure to get an idea of what kind of weather to expect.
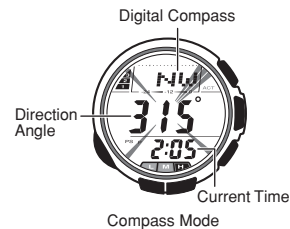• See "Taking Pressure and Temperature Readings" for more information.

Pressure Tendency Graph
Barometric Pressure
Pressure Differential Graphic
Temperature
Pressure/Temperature Mode
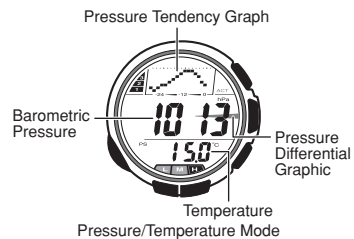
Ⅱ. After you start climbing...

• Monitor the altitude on the display to see how high you have climbed. You can also record altitude records (including date and time) in memory.
  • See "Taking Altitude Readings" for more information.

Altitude Graph
Altitude
Altitude Differential Graphic
Current Time
Altitude Mode
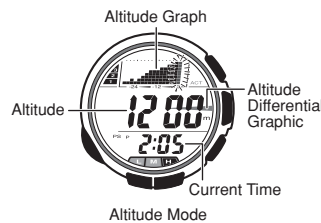
• Use the digital compass to keep track of your current bearing.
  • See "Taking Direction Readings" for more information.

Digital Compass
Direction Angle
Current Time
Compass Mode

• You can also keep track of the current barometric pressure and temperature while climbing.
  • See "Taking Pressure and Temperature Readings" for more information.

Pressure Tendency Graph
Barometric Pressure
Temperature
Pressure/Temperature Mode
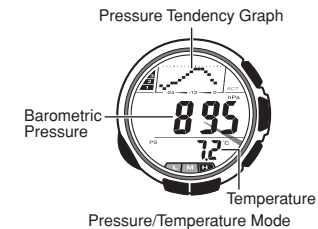
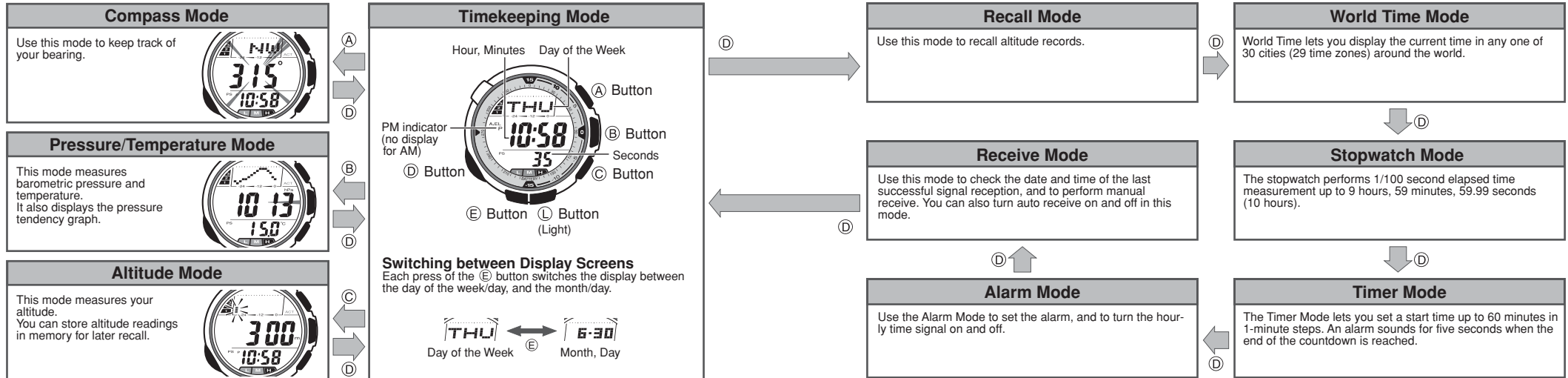### Ⅲ. After you get back home...

Recall altitude records from memory to retrace your climb and to make plans for your next climb.
• See "Viewing Altitude Memory Records" for more information.

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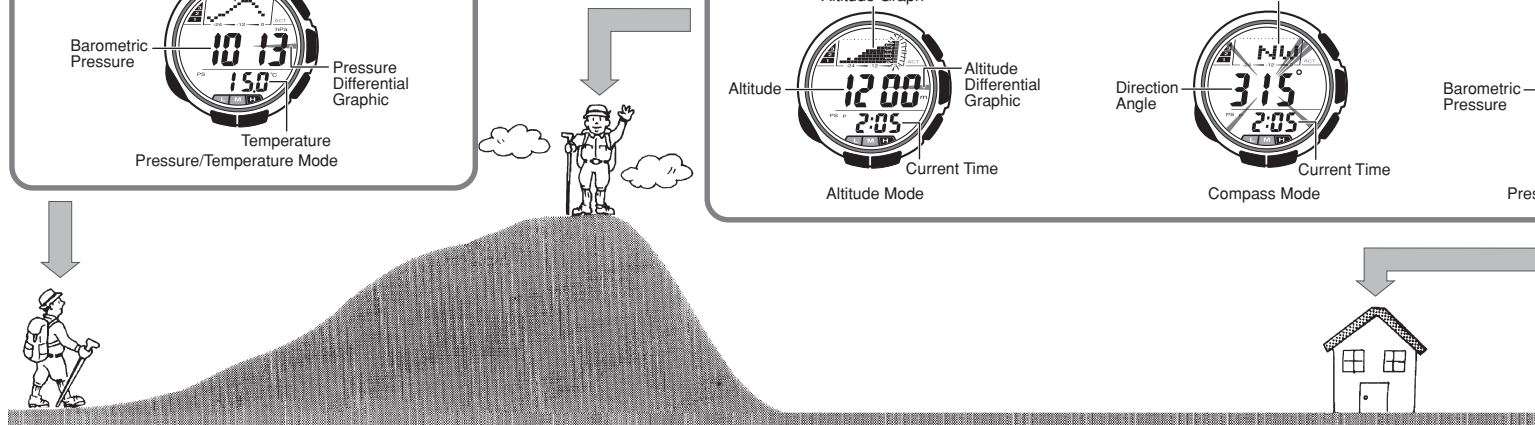
Modes and Display Screens

- Use the Ⓐ, Ⓑ, and Ⓒ buttons to enter each measurement mode, and automatically start taking the applicable readings. Press the Ⓓ button to return to the Timekeeping Mode.
- If your do not perform any button operation for about nine or ten hours while in the Altitude Mode, the watch automatically returns to the Timekeeping Mode.

- Each press of the Ⓓ button causes the watch to beep and cycles through the Recall Mode, World Time Mode, Stopwatch Mode, Timer Mode, Alarm Mode, and Receive Mode as shown below.
- If you do not perform any button operation for two or three minutes while in the Recall Mode, Alarm Mode, Receive Mode, Compass Mode, or Pressure/Temperature Mode, the watch will return to the Timekeeping Mode automatically.

Compass Mode

Use this mode to keep track of your bearing.

Pressure/Temperature Mode

This mode measures barometric pressure and temperature.
It also displays the pressure tendency graph.

Altitude Mode

This mode measures your altitude.
You can store altitude readings in memory for later recall.

Timekeeping Mode

Hour, Minutes   Day of the Week

Ⓐ Button
PM indicator (no display for AM)
Ⓑ Button
Ⓓ Button
Seconds
Ⓒ Button
Ⓔ Button   Ⓛ Button (Light)

Switching between Display Screens
Each press of the Ⓔ button switches the display between the day of the week/day, and the month/day.

Day of the Week   Ⓔ   Month, Day

Recall Mode

Use this mode to recall altitude records.

Receive Mode

Use this mode to check the date and time of the last successful signal reception, and to perform manual receive. You can also turn auto receive on and off in this mode.

Alarm Mode

Use the Alarm Mode to set the alarm, and to turn the hourly time signal on and off.

World Time Mode

World Time lets you display the current time in any one of 30 cities (29 time zones) around the world.

Stopwatch Mode

The stopwatch performs 1/100 second elapsed time measurement up to 9 hours, 59 minutes, 59.99 seconds (10 hours).

Timer Mode

The Timer Mode lets you set a start time up to 60 minutes in 1-minute steps. An alarm sounds for five seconds when the end of the countdown is reached.

Power Saving

Power Saving causes the watch to enter a sleep state automatically in order to save power whenever it is left in the dark. The Power Saving feature of the watch is turned on at the factory.
- Note that the watch may also enter the sleep state if the watch is blocked from light by your sleeve.

How the sleep state works

- **Display sleep state**
  The display sleep state is triggered whenever the watch is left in the dark for about one hour between the hours of 10 p.m. and 6 a.m.
  - The watch does not enter the sleep state if it is in the Timer Mode or Stopwatch Mode.
  - The display sleep state causes the display to go blank, except for a flashing Power Saving indicator. Alarm, hourly time signal, and Timer Mode progress alert and time up alert operate normally in the display sleep state.

Power Saving Indicator

- **Function sleep state**
  The function sleep state is triggered whenever the watch is left in the dark for six or seven days.
  - The Power Saving indicator stops flashing and remains on the display. Alarm, hourly time signal, and Timer Mode progress alert and time up alert do not operate in the function sleep state. In the function sleep state, 2-hour barometric pressure readings and auto receive also are not performed.
    - Digital timekeeping functions continue to operate normally in the function sleep state.
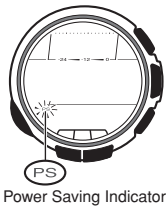
■ To recover from the sleep state

Place the watch in an area that is well-lit, press any button, or angle the watch toward your face to illuminate the face of the watch using the full auto light switch ("Positioning Your Arm Correctly").
- It can take up to two seconds before display figures re-appear after you place the watch in a well-lit area.

■ To turn Power Saving on and off

See the procedure under "To configure Home City settings" for information about turning off Power Saving.

Leaving the watch in a drawer or anywhere else it is dark can cause Power Saving to trigger in order to conserve battery power.

Power Supply

The power supply of this watch uses a solar cell to generate electrical power, which is stored by a rechargeable battery. Using or storing the watch where it is not exposed to light regularly or allowing it to be blocked from light by your sleeve as you are wearing it can cause the power of the rechargeable battery to run down. To ensure stable operation, be sure to allow the watch to be exposed to light as much as possible when you are wearing or storing it.

> Note that all data in memory and all settings are cleared whenever you allow the level of the rechargeable battery to drop to Level 5.

Recover Indicator

If you use the light or alarms a number of times during a short period, the RECOV indicator may appear on the display to indicate that the following operations are disabled in order to allow battery power to recover.

• Illumination
• Alarm and hourly time signal
• Timer Mode progress alert and time up alarm
• Sensor readings

Normal operation will return after the battery recovers.

Recover Indicator

Battery Indicator

Level 1		All functions enabled.
Level 2		All functions enabled.
Level 3		Illumination, alarms and other tones, sensor readings, and time calibration signal reception disabled.
Level 4		Digital display, illumination, alarms and other tones, sensor readings, and time calibration signal reception disabled.
Level 5		All functions, including timekeeping, disabled.

• Exposing the watch to direct sunlight or other strong light may cause the battery level indicator to indicate a level that is momentarily higher than the actual battery level. Because of this, you should wait for a short while after charging to check the battery level indicator.
• Even if the battery level drops all the way to Level 5, you still will be able to recharge the battery and use the watch again.
• If you start charging from Level 5, the display of the watch will flash when the battery reaches Level 4. Note, however, that the watch's functions will still remain disabled at this time, and you should continue to expose the watch to light so the battery can charge up the Level 2 or Level 1.

Charging Guide

Starting from a full charge, the watch should be able to continue operating for about five months without further charging under the example conditions described below.

Example Daily Use
• Illumination: 1.5 seconds/day
• Alarms: 10 seconds/day
• Direction Reading: 10 times/week
• Altitude Readings: 10 hours/month
• Signal Reception: 6 minutes/day
• Digital Display: 18 hours/day

Making sure the watch is exposed to light regularly ensure stable operation.

Required Daily Charging Time
• The following is the daily amount of charging required each day to support the operations under "Example Daily Use".

Exposure Level (Brightness)	Approximate Exposure Time
Outdoor Sunlight (50,000 lux)	5 minutes
Sunlight Through a Window (10,000 lux)	24 minutes
Overcast Daylight Through a Window (5,000 lux)	48 minutes
Indoor Fluorescent Lighting (500 lux)	8 hours

• **Charge Times Required to Advance to a Higher Level**

Exposure Level (Brightness)	Approximate Exposure Time		
	Level 5 ⇒ Level 4 ⇒ Level 3	⇒ Level 2	⇒ Level 1
Outdoor Sunlight (50,000 lux)	2 hours	13 hours	6 hours
Sunlight Through a Window (10,000 lux)	4 hours	63 hours	29 hours
Overcast Daylight Through a Window (5,000 lux)	8 hours	128 hours	58 hours
Indoor Fluorescent Lighting (500 lux)	80 hours	– – –	– – –

• Note that the above charging times are for reference only. Actual charging time depends on a variety of environmental factors.

Power Loss Drop during Sensor Readings

Regardless of whether the current battery level is Level 2 or higher, the watch may determine that the current power level is not enough to driver the sensor in the Compass, Pressure, or Altitude Mode. If this happens, the display will appear as described below.

	After Entering the Mode	During Readings
Compass	Blank	– – –
Pressure	Blank	– – –
Altitude	Blank	– – –

• Normal operation should return after battery power recovers.

Start charging at Level 4!

Battery Level 4 indicates that remaining battery power is very low. Be sure to expose the watch to light for recharging as soon as possible after the Level 4 indicator starts to flash. Frequent display of the recover indicator also means that the battery is low. Expose the watch to light to charge the battery.

Charging Precautions

Avoid charging the watch in the following locations, and anywhere else where the watch may become very hot.
• On the dashboard of an automobile parked in the sun
• Very close to an incandescent light source or other sources of heat
• In a location exposed to direct sunlight for long periods
Note that the display panel may become black under very high temperatures. This is temporary, and the display will appear normal again at lower temperatures.
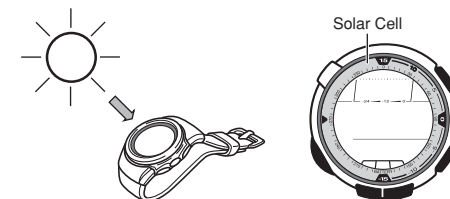
> ⚠ Depending on the light source you are using, the case of the watch may become quite hot during charging. Take care to guard against burn injury after charging.

■ To charge the battery

Point the solar panel (face) of the watch at a light source.
• Remember that even a partial blockage of the solar cell reduces charging efficiency.

Example: Positioning the watch

Solar Cell

• The illustration shows the resin band model.

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Illumination
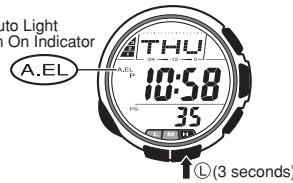
An EL (electro luminescent) panel is used for illumination for easy reading in the dark. A full auto light switch turns on illumination automatically when you angle the watch towards your face for reading.

■ To turn on illumination manually

In any mode, press the Ⓛ button.

• You can specify 1.5 seconds or 2.5 seconds as the duration of display illumination ("To specify the illumination duration").

• Pressing the Ⓛ button turns on illumination regardless of whether the full auto light switch is on or off.

You may hear a faint rattling sound when you move the watch around. This sound is caused by the movement of a metal bulb that controls operation of the full auto light switch, and does not indicate malfunction.

■ To turn the full auto light switch on or off

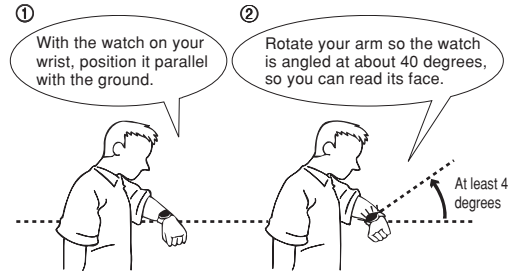| The full auto light switch turns on illumination automatically whenever you angle the watch towards your face for reading, but only when it is dark. • The full auto light switch does not turn on illumination when surrounding light is bright. The full auto light switch turns on illumination for the specified illumination duration in all modes when the watch is angled towards the face. |
| --- |

In any mode (except when a setting screen is on the display), hold down the Ⓛ button for about three seconds to toggle the full auto light switch on (A.EL indicator displayed) and off (no indicator displayed).

Full Auto Light Switch On Indicator
A.EL

Ⓛ (3 seconds)

■ Positioning Your Arm Correctly

① With the watch on your wrist, position it parallel with the ground.

② Rotate your arm so the watch is angled at about 40 degrees, so you can read its face.

At least 40 degrees

• You should be wearing the watch on the outside of your wrist when using the full auto light switch.
• Make sure that the left (9 o'clock) and right (3 o'clock) sides of the watch are within ±15 degrees of being parallel with the ground. The full auto light switch may not operate properly if the angle is greater than 15 degrees.

Illumination Precautions
• The light may be difficult to see under bright sunlight. • Illumination turns off automatically if an alarm sounds, etc. • You may notice a slight sound from the watch while illumination is turned on. This is the sound of EL panel vibration and does not indicate malfunction. • Illumination is disabled during time calibration signal reception, while configuring sensor measurement mode settings, and during direction sensor calibration ("Calibrating the Direction Sensor").

Full Auto Light Switch Precautions
• Frequent use of the full auto light switch can run down the battery.
• The full auto light switch may turn on illumination when the face of the watch is shaded by your sleeve.
• Illumination may not turn on immediately when you angle the watch towards your face. This does not indicate malfunction.
• Illumination remains on for the specified duration (1.5 seconds or 2.5 seconds) only, even if you leave the watch angled towards your face.
• The full auto light switch is disabled automatically whenever the battery indicator reaches Level 4.
• Illumination may turn on unintentionally when you wear the watch on the inside of your wrist, when you shake your arm, or when you raise your arm. **Be sure to turn off the full auto light switch whenever you do not need illumination**.
• Keep the full auto light switch turned off whenever you are wearing the watch on the inside of your wrist.
• Electro-static charge and magnetism can interfere with full auto light switch operation and even make operation impossible. If this happens, lower your arm to the starting position and then raise it again. If you still have trouble with illumination, try lowering your arm down to your side and then raise it to your face for reading.
• The full auto light switch is disabled during the 20 seconds required to take a direction reading with the digital compass.

To specify the illumination duration

1.
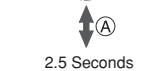| In the Timekeeping Mode, hold down the Ⓔ button for about two seconds until the city code and GMT differential start to flash. This is the setting screen. |
| --- |

City Code

(2 seconds) Ⓔ

2.
Press the Ⓓ button three times so the seconds are flashing.
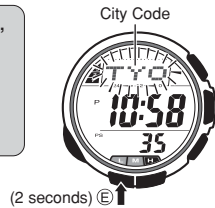
Ⓓ (3 times)

3.
Press the Ⓐ button to toggle the display illumination between 1.5 seconds and 2.5 seconds.

• : 1.5 seconds
  : 2.5 seconds

1.5 Seconds

Ⓐ

Ⓐ

2.5 Seconds

4.
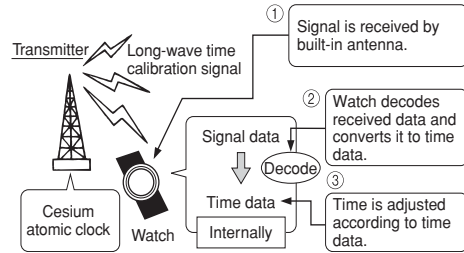| When the setting is the way you want, press the Ⓔ button to exit the setting screen. |
| --- |

• The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

Ⓔ

How a Radio-controlled Watch Works

What is a radio-controlled watch?

Your radio-controlled watch is designed to receive a time calibration signal that contains standard time data, and adjust its current time setting accordingly.

① Signal is received by built-in antenna.

Transmitter — Long-wave time calibration signal

② Watch decodes received data and converts it to time data.

Signal data → Decode

Cesium atomic clock — Watch

Time data → Internally

③ Time is adjusted according to time data.

After the watch receives the Standard Time signal, it performs internal calculations to determine the current time. Because of this, there may be an error of up to one second in the displayed time.

Calibration Signal

• The Japanese calibration signal (Call Sign: JJY) is maintained by the National Institute of Information and Communications Technology (NICT). It is transmitted 24 hours a day from the Mt. Otakadoya transmitter (40kHz) located in Tamura-gun, Fukushima Prefecture, and from the Mt. Hagane transmitter (60kHz) located on the border between Saga Prefecture and Fukuoka Prefecture.

Though the calibration signal normally is transmitted 24 hours a day, transmission may be interrupted occasionally due to maintenance, lightning, etc.

Reception Ranges

With this setting, the watch automatically selects either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz), whichever is strongest.
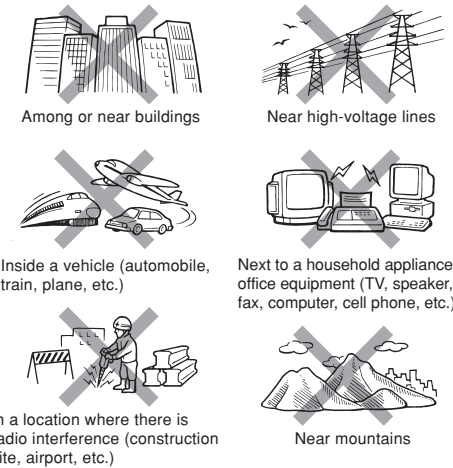
Transmitter Location

1000km
Mt. Otakadoya (40kHz)
500km 500km
Mt. Hagane (60kHz)
1000km
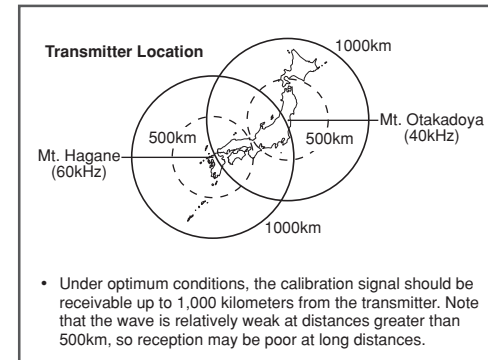
• Under optimum conditions, the calibration signal should be receivable up to 1,000 kilometers from the transmitter. Note that the wave is relatively weak at distances greater than 500km, so reception may be poor at long distances.

• Geographic contours, nearby buildings, the season, the time of day, can even make reception impossible even when you are within range of the transmitter.

• Best reception is possible late at night.

Location

Reception is difficult and may even be impossible in the locations described below. Avoid such locations when performing signal reception.

• You should think of your watch operating like a radio or TV when it is receiving the calibration signal.

Among or near buildings

Near high-voltage lines

Inside a vehicle (automobile, train, plane, etc.)

Next to a household appliance or office equipment (TV, speaker, fax, computer, cell phone, etc.)

In a location where there is radio interference (construction site, airport, etc.)

Near mountains

If you are experiencing problems with reception, move away from the types of locations described above to a location with better reception, and try again.
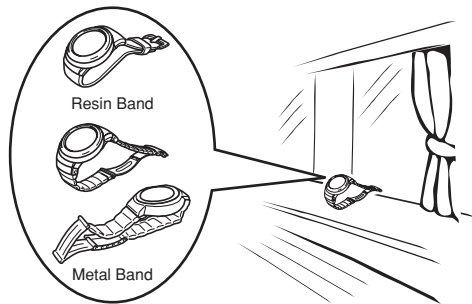
Receiving the Calibration Signal

There are two methods you can use to receive the time calibration signal.

• **Auto receive (Reception is performed automatically at midnight, 1:00, 2:00, 3:00, and 4:00 each morning.)**
• **Manual receive (You initiate reception using a button operation.)**

• Once auto receive is successful on a particular day, the auto receive operation for subsequent times are not performed for that day.

• If reception is not successful for any of the normal auto receive operations shown above, auto receive is performed one more time at 5:00 a.m.

• The watch is set up for auto receive at the factory, so all you need to do is to place it in a location that allows good reception each night.

■ To position the watch for optimum reception

Remove the watch from your wrist and place it somewhere so its top (12 o'clock, where the antenna is located) is facing approximately in the direction of the signal transmitter. Keep it away from metal objects.

Resin Band

Metal Band

• Orienting the watch so it is sideways to the transmitter makes it more difficult to receive the signal.
• Do not move the watch while it is receiving the calibration signal.

Time Required for Reception

Signal reception takes anywhere from about two to seven minutes.

• Under certain conditions, signal reception can take as long as 14 minutes.
• See "Configuring Auto Receive Settings" for more information about auto receive.

■ To perform manual receive

1. In the Timekeeping Mode, press the Ⓓ button six times to enter the Receive Mode.

2. Hold down the Ⓒ button for about two seconds.

• The watch will beep and reception will start. The display will flash and the receive icon will start to cycle through its numbers.

(2 seconds)

■ To interrupt reception

Press the Ⓒ button.

• All other buttons besides Ⓒ are disabled during signal reception.

When reception is successful
The watch terminates reception and adjusts the current time. Next it beeps and then displays the date and time the adjustment was performed.

• The " " icon (with all numbered segments visible) on the display also indicates successful signal reception.

When reception fails
The watch does not adjust its current time setting and displays "ERR" when signal reception is unsuccessful for some reason.

• The display will return to the normal timekeeping screen automatically if you do not perform any operation for about one or two minutes.

Receive Icon

Receive Icon

The receive indicator cycles from "Unstable" through "Stable" as shown below while reception is in progress. How far it cycles depends on the signal strength.
Keep the watch in a location where reception is stable while reception is in progress.

Unstable ←——————————→ Stable
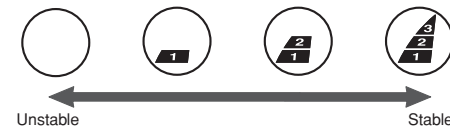
• Even under optimum reception conditions, it can take about 10 seconds for reception to stabilize.

• Use the receive icon to check reception status and to determine the best location for signal reception.
• Note that weather, the time of day, surroundings, and other factors can all affect reception.

■ To view the last reception date and time

In the Timekeeping Mode, press the Ⓓ button six times to enter the Receive Mode.

• This displays the date and time when signal reception was last successful, and the current time and date were last adjusted.
• To return to the Timekeeping Mode, press the Ⓓ button again.
• The display will return to the normal timekeeping screen automatically if you do not perform any operation for about one or two minutes.

Reception Time

(6 times)
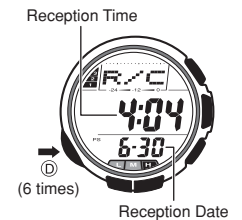
Reception Date

Configuring Auto Receive Settings

Use the procedure below to turn auto calibration signal reception on and off.
- The following is the procedure for configuring auto receive settings when TYO (Tokyo) is selected as the Home City.

1. In the Timekeeping Mode, press the Ⓓ button six times to display the last reception date and time.

(D)
(6 times)

2. Hold down the Ⓔ button for about two seconds until the current On/OFF setting starts to flash on the display. This is the setting screen.

(2 seconds) Ⓔ

3. Press the Ⓒ button to toggle the setting between On and OFF.

Ⓒ

Ⓒ

Ⓒ

4. When the setting is the way you want, press the Ⓔ button to exit the setting screen and return to the reception date and time screen.

Ⓓ

Ⓔ

- Press the Ⓓ button to return to the Timekeeping Mode.
- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

When the time zone setting is TYO

- **On**

  Selecting this setting turns on auto receive and auto transmitter selection. The watch automatically selects either the Otakadoya Mountain signal (40kHz) or the Hagane Mountain signal (60kHz), whichever is strongest.

- **OFF**

  Selecting this setting turns off auto receive and auto transmitter selection.

Calibration Signal Reception Precautions

- Auto receive can be performed while the watch is in the Timekeeping Mode or World Time Mode only.
- Signal reception is not possible when any one of the following conditions exists.
  - Timer operation in progress
  - Battery at Level 3 or Level 4
  - Recover indicator (RECOV) displayed
  - While altitude recording is being performed (Manual signal reception can still be performed.)
- Operating any button while auto receive is in progress will cause the watch to beep and then exit the receive operation.
- Make sure you are within the range of the calibration signal transmitter before performing the reception operation. Remember that geographic contours, nearby buildings, the season, the time of day, can even make reception impossible even when you are within range of the transmitter.
- Proper reception may be impossible if there is something blocking the signal. If reception is unsuccessful, try again.
- This watch is designed to adjust its current time setting in accordance with the calibration signal transmitted in Japan only. Note that you will need to make your own adjustments when using this watch outside of Japan, or in any area that is outside the range of one of the receivable time calibration signal transmitters.
- When the watch is unable to adjust its time signal using the calibration signal for some reason, timekeeping accuracy is within ±15 seconds per month.
- Strong electrostatic charge can cause timekeeping error.
- Signal reception is cancelled if an alert operation is starts while it is being performed.
- The watch's calendar shows dates up to the year 2099. Attempting a receive operation after that causes an error.

Troubleshooting

The watch cannot receive the time calibration signal.

- Is the signal being transmitted?
  Though the time data of the Japanese calibration signal (Call Sign: JJY) is maintained by the Japan Standard Time Group of the National Institute of Information and Communications Technology (NICT), it may sometimes be interrupted for periodic maintenance work, or because of lightning or other problems.
- Are you within the reception range of a transmitter?
  See "Reception Ranges" for information about areas where the watch can receive the signal.
- Is there something in the immediate area that may be interfering with reception?
  Even if you are within the reception range of a transmitter, objects between you and the transmitter or electrical noise can interfere with reception. Avoid such areas during signal reception. See "Location" for more information.
- Do you have the correct Home City code selected?
  Signal reception is not performed when the Home City setting is any city code other than TYO (Tokyo). For details about setting the correct Home City, see "To configure Home City settings".
- Is auto receive turned off?
  Use the procedure under "Configuring Auto Receive Settings" to turn on auto receive.
- Barometric pressure readings (at the top of each even-numbered hour) take precedence over auto receive. For hours when both are scheduled, auto receive is performed about one minute past the top of the hour.
- Is the watch in any mode other than the Timekeeping Mode or World Time Mode during the auto receive times (midnight, 1:00 a.m., 2:00 a.m., 3:00 a.m., 4:00 a.m., and 5:00 a.m.)?
  Auto receive is performed only when the watch is in the Timekeeping Mode or World Time Mode. It is not performed if the watch is in any other mode.

Time calibration signal reception is successful, but the hourly time signal and current time are slightly off.

- After the watch receives the time calibration signal, it performs an internal decoding process before updating its time setting. Because of this, the time setting may be slightly off (within one second).

Time calibration signal reception is successful, but the current time is one hour fast.

- Do you have summer time (DST) turned on? Use the procedure under "To configure Home City settings" to change the summer time setting to OFF.

Time calibration signal reception is successful, but the current time setting is wrong.

- Is TYO (Tokyo) selected for your Home City? For details about setting the correct Home City, see "To configure Home City settings".

Can you configure auto receive settings?

- Auto receive settings cannot be configured when the Home City setting is any city code other than TYO (Tokyo). For details about setting the correct Home City, see "To configure Home City settings".

When is auto receive performed?

- Auto receive is performed in the middle of the night, when reception conditions are best. Before going to bed at night, place the watch near a window, with 12 o'clock facing in the general direction of the transmitter.

How can I view the last reception date and time?

- In the Timekeeping Mode, press the Ⓓ button (lower left) six times to enter the Receive Mode.
  This will display the date and time that the time calibration signal was last received successfully. To return to the Timekeeping Mode, press the Ⓓ button again.

How can I perform manual receive?

- In the Receive Mode, hold down the Ⓒ button (lower right) for about two seconds. The watch will beep to indicate that manual receive has started. Place it near a window, with 12 o'clock facing in the general direction of the transmitter.

- If you cannot receive the calibration signal or if the current time setting is incorrect after signal reception, check the current setup of the watch.
  - The following are the watch's factory default settings, which are configured automatically whenever you have the battery of the watch replaced.

Auto Receive	ON	On
Home City	TYO	Tokyo
Summer Time	AT	Auto (according to signal data)

Taking Direction Readings

Your watch uses a built-in magnetic sensor to detect and display direction. You can use displayed data to determine the direction to an objective or your current bearing.
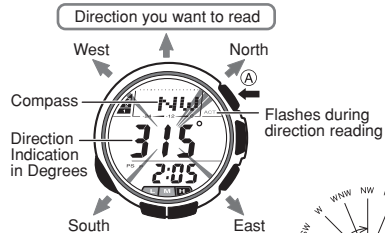• If you have reason to suspect that direction readings are not correct, you can calibrate the direction sensor using the procedure under "Calibrating the Direction Sensor".

■ To take a direction reading

In the Timekeeping Mode, Pressure/Temperature Mode, or Altitude Mode, orient the watch so it is level (either on your wrist or off your wrist).

Pointing 12 o'clock in the direction you want to read, press the Ⓐ button.

(When 12 o'clock is pointing northwest)

Direction you want to read

West   North
Ⓐ
Compass
Direction Indication in Degrees   Flashes during direction reading
South   East

The direction indicated by the watch is accurate up to ±11 degrees.
Example: When 12 o'clock is pointing northwest
Northwest (315°) = 304° to 326°

Interpreting the Degree Value

About two seconds after you press the Ⓐ button , the watch enters the Compass Mode and displays the direction angle and graphic pointers.
Taking a direction reading with the digital compass causes readings to be taken each second for 20 seconds.

After the direction reading operation is complete, you can press the Ⓐ button again to restart it.
• An alarm or other beeper operation or turning on illumination by pressing the Ⓛ button while a direction reading operation is in progress will stop it momentarily. The direction reading operation will resume when the beeper or light operation is complete.
• Taking a direction reading in a location where terrestrial magnetism is weak can affect direction readings.
• The full auto light switch is disabled during the 20 seconds required to take a direction reading with the digital compass.
• After the direction reading operation is complete, press the Ⓓ button to return to the Timekeeping Mode.

If you do not perform any button operation for two or three minutes while in the Compass Mode, the watch will return to the Timekeeping Mode automatically.
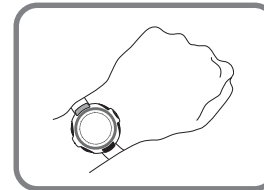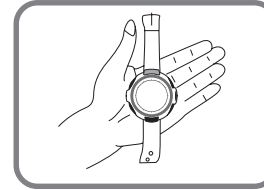
Digital Compass Precautions

Note the following points whenever taking a direction reading with the digital compass.

■ When taking a reading

Orient the watch so it is level, either on your wrist of off your wrist.
• Orienting the watch at an angle can cause large measurement error.
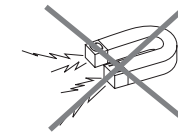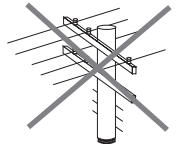
■ Location

The wrong type of location can cause large measurement error. Avoid the following types of locations when taking a direction reading with the digital compass.
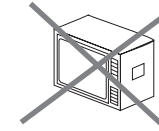
Near objects that generate strong magnetic force
• Move as far away from magnetic items as possible.

Permanent magnets (magnetic necklaces, etc.)
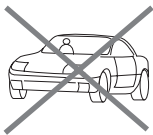Metal (steel columns, lockers, etc.)

High-voltage power lines

Electric household appliances (TV, computer, speakers, etc.)

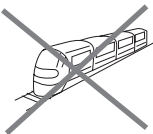**Inside a motor vehicle or indoors (ferro-concrete structures, in particular)**
• Accurate direction readings are not possible under these conditions.
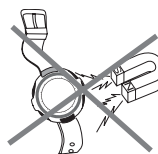
Automobiles   Boats, aircraft

Trains   Indoors (steel is magnetic)

• Performing 2-point calibration makes it possible to obtain relatively accurate direction readings while in a motor vehicle or any other vehicle that can freely change direction. See "To perform 2-point calibration" and "Using the Compass in an Automobile" for more information.

■ Storage location

Keep the watch away from magnets and any other sources of strong magnetism.

Permanent magnets (magnetic necklaces, bag clasps, etc.)

Electric household appliances (TV, speakers, etc.)

If the watch is exposed to magnetism

Exposing the watch to magnetism can affect the accuracy of its digital compass readings. If this happens, perform 2-point calibration ("To perform 2-point calibration") to correct the readings.

• If you are unsure if you watch has been exposed to magnetism, perform 2-point calibration before taking a direction reading.
• Exposing the watch to extremely strong magnetism can make correct direction readings impossible even after 2-point calibration, or can cause display of abnormal values during direction readings.

Calibrating the Direction Sensor

Perform one of the calibration operations described below whenever you think that the watch's direction readings are not correct for some reason.

2-Point Calibration

Use 2-point calibration to calibrate the direction sensor to suit a particular magnetic environment.

Before using the watch inside of an automobile, for example, perform 2-point calibration to correct for the effects of magnetism that may be present in the vehicle.

Northerly Calibration

With northerly calibration, you "teach" the direction sensor the northerly direction (determined using another compass, etc.) Northerly calibration also can be used to calibrate the direction sensor to correct the declination angle and indicate true north, rather than magnetic north.
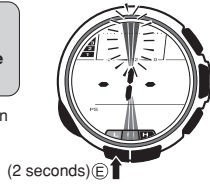• If you want to perform both 2-point calibration and northerly calibration, perform 2-point calibration first and then northerly calibration. Performing 2-point calibration automatically cancels the last northerly calibration setting.

• The watch will exit the flashing digital compass screen automatically if you do not perform any operation for two or three minutes.

Tips for 2-Point Calibration

The more carefully you perform 2-point calibration, the more accurate subsequent direction readings will be. If the environment where you are using the watch changes, after you have not used the watch for some time, or any other time you feel that direction readings are not correct, perform 2-point calibration again.
• Perform 2-point calibration in the location and under the conditions where you will be using the watch to take direction readings. If you plan to take readings on an open field, perform calibration there, if you plan to take readings in a motor vehicle, perform calibration in the vehicle.
• You can use any two directions when performing 2-point calibration. Just make sure that the second point is exactly 180 degrees opposite from the first point.
• When performing 2-point calibration inside an automobile or boat, turn the automobile or boat around 180 degrees when changing direction.

■ To perform 2-point calibration

1. In the Timekeeping Mode, press the Ⓐ button to enter the Compass Mode.

Compass Mode

Direction in Degrees

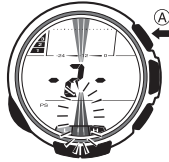**2.** Hold down the Ⓔ button for about two seconds until "–1–" appears on the display

• This is the 2-point calibration screen.

(2 seconds)Ⓔ

3. While "–1–" is on the display, hold the watch so it is horizontal and press the Ⓐ button to calibrate the first direction.

• When calibration is successful, "OK" will appear on the display followed by "–2–" to indicate calibration of the second direction.

• Do not move the watch while calibration of either direction is being performed.

• "– – –" is on the display while calibration of a direction is being performed. If "– – –" does not appear when you press the Ⓐ button, wait for about three seconds and then press the Ⓐ button again.

4. While "–2–" is on the display, rotate the watch so it is pointing 180 degrees opposite of the first direction, and then press the Ⓐ button to calibrate the second direction.

Rotate 180 degrees
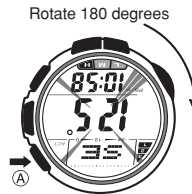
• When calibration is successful, the watch will exit the calibration screen and return to the compass screen.

■ To perform northerly calibration

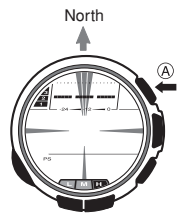**1.** In the Timekeeping Mode, press the Ⓐ button to enter the Compass Mode.

Compass Mode

Direction in Degrees

2. Hold down the Ⓔ button for about two seconds until "–1–" appears on the display. Next, press the Ⓓ button so "–N–" is displayed.
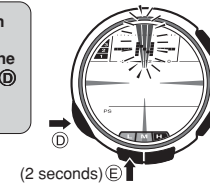
• This is the northerly calibration screen.

(2 seconds)Ⓔ

3. Holding the watch so it is horizontal, point 12 o'clock north and then press the Ⓐ button.

North

• When calibration is successful, "OK" will appear on the display and the watch will return to the compass screen.

If "ERR" appears

"ERR" indicates that an abnormal value was detected because the watch was moved during calibration or due to some other reason. If this happens, perform the calibration procedure again from the beginning.

• Take care that you do not move the watch while calibration is being performed.

• If "ERR" or "– – –" (abnormal value detected) keeps appearing when you try to perform calibration, it could mean that there is a strong source of magnetism close by. If this happens, move to another location and try performing calibration again.

# How to use the digital compass

■ Determining Your Current Location

You can find out your current location by using the compass to read the directions to two known landmarks, and then determining where two lines, drawn in accordance with the directions, intersect on a map.

1. Find the two landmarks, read the directions to them, and record the readings in memory.
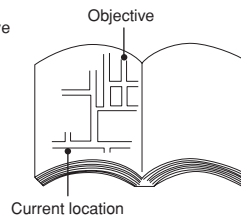
A   B
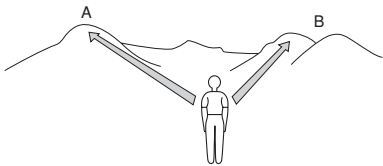
2. Recall the readings and draw lines on a map from the two landmarks. Your current location will be where the two lines intersect.
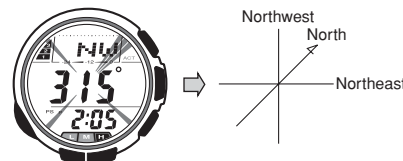
A   B   N
W   E
S
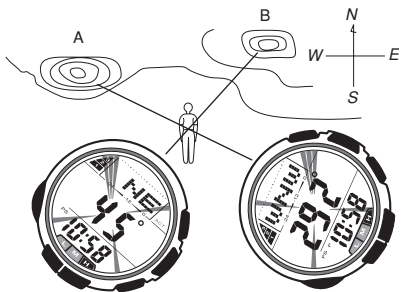
■ Making Your Way to an Objective

When you cannot see the objective

1. Find the objective on a map.
Example: When the objective is northeast (NE) from your current location

Objective

Current location

2. Use the watch to perform occasional direction readings as you make your way towards your objective.

Northwest
North
Northeast

This screen indicates that the direction to your objective is at 3 o'clock.

When you can see the objective

Point 12 o'clock at the objective and then perform a direction reading operation. This will tell you the direction to the objective.

Now you can perform occasional readings to make sure you are headed in the right direction, even if you can no longer see your objective.
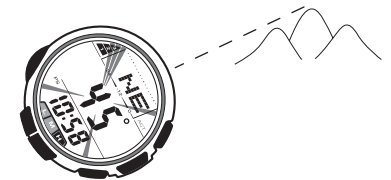
■ Memorizing a Location

To memorize a specific location on the ocean, take readings on the directions to two fixed distant landmarks. After that, you will be able return to that location by taking readings of the directions to the same two landmarks.

Favorite fishing point
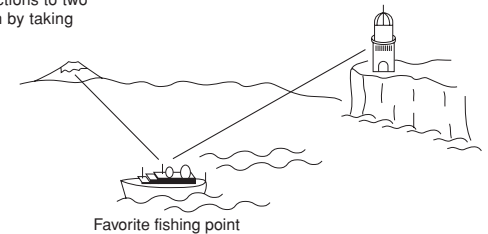
Digital Compass Reference

■ What is a digital compass?

The Earth is like a giant magnet with a north pole and a south pole. The magnetism of the Earth is called "terrestrial magnetism". The magnetic sensor of your watch is a magnetic compass that detects terrestrial magnetism to determine direction.

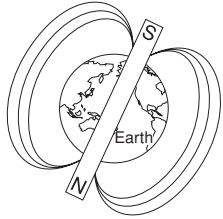### ■ Magnetic compass north reading

The northerly direction detected by a magnetic compass is "magnetic north," which is different from "true north". Depending on your location on the globe, the magnetic north indicated on a compass is actually east or west of true north. The angle that is formed by the difference between magnetic north and true north is called the "declination".

The magnetic north pole is located north of Canada, while the magnetic south pole is located south of Australia. In Japan, the declination angle is 5 degrees (around Kagoshima) to about 9 degrees (around Hokkaido) west.

Magnetic north pole

Magnetic south pole
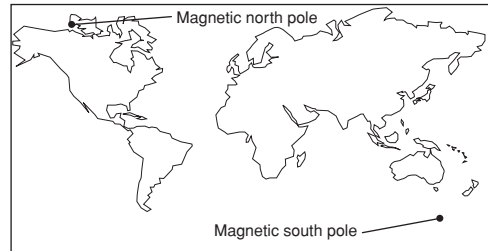
■ Using the Compass in an Automobile

The entire body of a vehicle may be magnetized, which will make proper direction readings impossible. By performing 2-point calibration, however, you can use the compass to take approximate readings while riding in an automobile.

• See "To perform 2-point calibration" for information about how to perform 2-point calibration.

| Important! |
| --- |
| **Never try to perform 2-point calibration while driving. Doing so is very dangerous and creates the risk of serious accident.** |

1. First, park the vehicle in a safe area where you can turn it around 180 degrees.

2. At a location inside the vehicle that is away from its equipment and body, use the 2-point calibration screen to calibrate the first point.
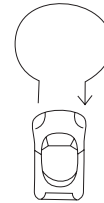
3. Turn the vehicle around 180 degrees, and then calibrate the second point.

Precautions During Calibration

• When performing 2-point calibration, perform calibration of the first point and the second point in the same location.
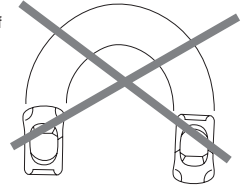
• Keep as far away from possible from the vehicle's equipment, body, and other possible sources of magnetism.
• Depending on the condition of the magnetism of the vehicle, proper direction readings may not be possible.
• Magnetism differs from vehicle to vehicle. Be sure to perform 2-point calibration whenever you change from one vehicle to another.
• You should also perform 2-point calibration again if you change position (from the driver's seat to the back seat, etc.) within the same vehicle.

Digital Compass Troubleshooting

Proper direction readings will not be possible in areas exposed to unstable magnetism or areas where something is interfering with terrestrial magnetism.
Also note that accurate direction readings are not possible if you do not perform the required operations correctly. Check the following points if you suspect that direction readings are wrong for some reason.

■ The displayed direction is wrong.

Cause 1: You did not perform 2-point calibration.
Remedy: Correctly perform 2-point calibration.

Cause 2: There is source of strong magnetism nearby.
Remedy: If any of the following objects are nearby, move away and try taking a direction reading again.

> Electrical equipment, large bridge, structure made with steel columns, electrical train wires, automotive vehicle, boat, etc.

Cause 3: You are in an area where magnetism is fluctuating.
Remedy: Move away from the objects described above.

■ The watch shows different direction readings at the same location.

Cause: Unstable magnetism caused by high-voltage lines nearby.
Remedy: Change to a different location and try again.

■ Correct direction readings are not possible indoors.

**Cause:** A nearby TV, computer, or other device is disturbing the directionality of the magnetism.
Remedy: Change to another location or move outside and try again. Note that correct direction readings are not possible inside of a ferro-concrete structure.

Taking Pressure and Temperature Readings

■ To take pressure and temperature readings

In the Timekeeping Mode, Compass Mode, or Altitude Mode, press the Ⓑ button to enter the Pressure/Temperature Mode. The display will show the barometric pressure and pressure tendency graph, and temperature.

Pressure/Temperature Mode Display

Pressure Tendency Graph

Pressure

Ⓑ

Pressure Differential Graph
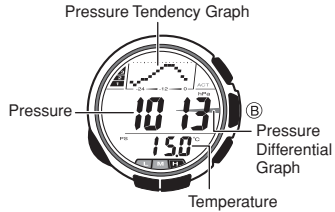
Temperature

• The barometric pressure can take up to four or five seconds to appear after you enter the Pressure/Temperature Mode.

Barometric Pressure and Temperature Readings

After you enter the Pressure/Temperature Mode, the watch takes readings every five seconds for three minutes. After that, the watch will take a reading whenever you press the Ⓑ button.

• When measuring outdoor temperatures, remove the watch from your wrist and place it in a location where its readings will not affected by body temperature, sweat (water droplets), direct sunlight, etc.

Barometric Pressure

Measurement Range: 260hPa to 1,100hPa
Measurement Unit: 1hPa
• The display will show "– – – –" whenever a measured value is outside the measurement range.

Temperature

Measurement Range: –10.0°C to 60.0°C
Measurement Unit: 0.1°C
• For a temperature of –10°C, the displayed temperature shows –10°C (not –10.0°C).
• The display will show "– – –" whenever a measured value is outside the measurement range.
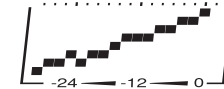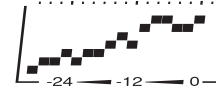
Pressure Tendency Graph

The pressure tendency graph shows the results of barometric pressure readings that are taken automatically every two hours.

> If you do not perform any button operation for two or three minutes while in the Pressure/Temperature Mode, the watch will return to the Timekeeping Mode automatically.

Interpreting the Pressure Tendency Graph

The pressure tendency graph shows 30 hours (16 readings) of barometric pressure readings that are taken automatically by the watch.
• A plot on the graph indicates the relative change from one reading to the next. Each level represents a relative change of 1hPa.
The pressure tendency graph is mainly for tracing changes in barometric pressure, which can be used to predict upcoming weather.

> A plot may be skipped because it is outside the range of the currently displayed graph when the change between readings is extremely large due to movement between different altitudes, an extreme change in weather, an extreme change in temperature, etc. If the next plot is near the reading that is outside the range of the current graph, the graph will shift to show both of the plots.
>
> ← Not visible

Example Pressure Tendency Graphs

The following examples show how you can predict upcoming weather conditions based on the pressure tendency graph. When using the pressure tendency graph, remember that changes in your altitude and environmental conditions can affect air pressure and show up as changes on the pressure tendency graph.
• **Continual rise in barometric pressure**

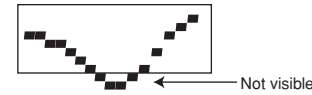Rising barometric pressure indicates that upcoming weather will be fair.

• **Continual drop in barometric pressure**
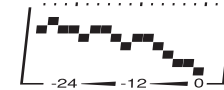
Falling barometric pressure indicates that upcoming weather will deteriorate.

• Temperature and humidity can affect pressure graph contents. Because of this, pressure tendency graph contents are intended for reference only.
• The watch will not take a barometric pressure reading if a measurement time arrives while the barometric pressure sensor is malfunctioning, while rechargeable battery power is low, or while the watch is in the function sleep state.
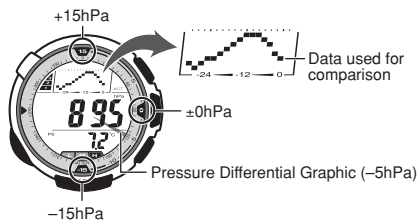
Interpreting the Pressure Differential Graphic

The pressure differential graphic shows the relative difference between the barometric pressure reading taken when you enter the Pressure/Temperature Mode and the last of the readings the watch takes every two hours.
• The graphic shows changes up to ±15hPa, in 1hPa units.
• You can turn display of the pressure differential graphic off, if you want.

Example 1: Temperature differential = –5hPa

+15hPa

Data used for comparison

±0hPa

Pressure Differential Graphic (–5hPa)

–15hPa

Example 2: Temperature differential = +15hPa

Pressure Differential Graphic (+15hPa)
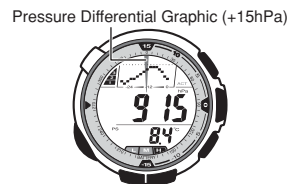
In excess of ±15hPa
Graphic displayed at 9 o'clock

Indicator appears at 9 o'clock

• The graphic does not appear when the barometric pressure reading is outside the measurement range (260 to 1100hPa).

■ To turn the pressure differential graphic on and off

1. In the Pressure/Temperature Mode, hold down the Ⓔ button for about two seconds until "SET" appears at the top of the display.

• After about four or five seconds, the barometric pressure value will appear in the middle of the display.

Pressure

(2 seconds) Ⓔ

Temperature
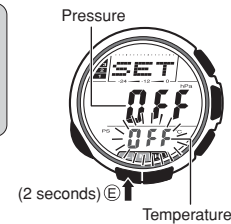
2. Press the Ⓓ button twice to move the flashing to the pressure differential graphic On/OFF setting.
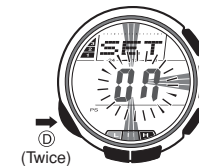
Ⓓ
(Twice)

3. Press the Ⓒ button to toggle the setting on (display graphic) and off (do not display graphic).

Ⓒ

4. Press the Ⓔ button to exit the setting screen and return to the Pressure/Temperature Mode screen.

Ⓔ

• The watch automatically exits the pressure differential graphic on/off setting screen if you do not perform any operation for about two or three minutes.

Calibrating the Pressure Sensor

The barometric pressure sensor of the watch is calibrated at the factory, and further calibration normally is not required. Perform the following operation only when you find that a pressure reading taken with another accurate instrument is very different from the reading produced by your watch. Take care that you perform the calibration operation correctly. Using the wrong value can make it impossible to measure barometric pressure correctly.

1. In the Pressure/Temperature Mode, hold down the Ⓔ button for about two seconds until "OFF" or the current temperature appears at the bottom of the display.

- It will take four to five seconds for the barometric pressure value to appear.

Pressure
(2 seconds) Ⓔ
Temperature

2. Press the Ⓓ button so "OFF" or the barometric pressure value is flashing.

Ⓓ

3. Use the Ⓒ (+) and Ⓐ (–) buttons to adjust the barometric pressure value.

- Each press of the Ⓒ button or Ⓐ button changes the displayed value by 1hPa.
- Holding down either button scrolls the setting at high speed.
- Pressing the Ⓒ and Ⓐ buttons at the same time returns to the factory default setting, which is indicated by "OFF".

(–)
Ⓐ
Ⓒ
(+)

4. After the setting is the way you want, press the Ⓔ button to return to the Pressure/Temperature Mode screen.

- The watch automatically exits the pressure sensor calibration screen if you do not perform any operation for about two or three minutes.

Ⓔ

Calibrating the Temperature Sensor

The temperature sensor is calibrated at the factory, and further calibration normally is not required. Perform the following operation only when you find that a temperature reading taken with another accurate instrument is very different from the reading produced by your watch. Take care that you perform the calibration operation correctly. Using the wrong value can make it impossible to measure temperatures correctly.

1. In the Pressure/Temperature Mode, hold down the Ⓔ button for about two seconds until "OFF" or the current temperature appears at the bottom of the display.

- It will take four to five seconds for the barometric pressure value to appear.

Pressure
(2 seconds) Ⓔ
Temperature

2. Use the Ⓒ (+) and Ⓐ (–) buttons to adjust the temperature value.

- Each press of the Ⓒ button or Ⓐ button changes the displayed value by 0.1°C.
- Holding down either button scrolls the setting at high speed.
- Pressing the Ⓒ and Ⓐ buttons at the same time returns to the factory default setting, which is indicated by "OFF".

(–)
Ⓐ
Ⓒ
(+)

3. After the setting is the way you want, press the Ⓔ button to return to the Pressure/Temperature Mode screen.

Ⓔ

- The watch automatically exits the temperature sensor calibration screen if you do not perform any operation for about two or three minutes.

Barometric Pressure Primer

■ Ways you can use the pressure tendency graph

Example 1: Hiking
You can take barometric pressure readings from morning to night the day before you plan to go hiking or mountain climbing, and get an idea of what the weather will be like.

Example 2: Golf
Changes in barometric pressure can alert you to an approaching thunderstorm and keep you safe.

■ Predict weather based on changes in barometric pressure.

Barometric pressure changes along with atmospheric movements. Because of this, you can predict upcoming weather by monitoring changes in barometric pressure.
If barometric pressure is rising ➔ Weather conditions should improve
If barometric pressure is falling ➔ Weather conditions should deteriorate

Why this is true
A rise or fall in barometric pressure produces changes in the weather as shown to the right.

High Pressure
Downward flowing air dissipates clouds and clears the skies.

Sky
Downward Air Flow
Ground
High Pressure
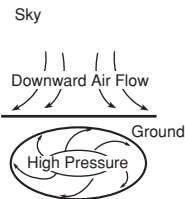
Low Pressure
Upward flowing air produces clouds, which cause rain.

Sky
Clouds
Upward Air Flow
Ground
Low Pressure
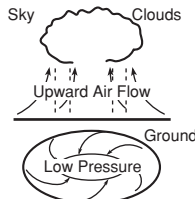
■ Atmospheric Pressure

The barometric pressure values reported on TV, in newspapers, and in other media are actual readings taken on mountains, plains, and the sea, which are converted to a mean sea level pressure value. They are not the barometric pressure values for mountain areas. This makes it possible to compare barometric pressure values regardless of location. The process of correcting barometric pressure to a fixed altitude (sea level) is called "reduction to sea level".

Taking Altitude Readings

The watch uses International Standard Atmosphere (ISA) values that are defined by the International Civil Aviation Organization (ICAO) to convert readings taken by its built-in pressure sensor to relative altitude values.

Important!

When taking altitude readings, make sure that the temperature of the watch is kept as stable as possible, and is not affected by changes in temperature. You can do this by keeping the watch in direct contact with your skin.
• Variation in the watch's temperature due to changes in air temperature or altitude can cause altitude reading error.

What can I do with altitude readings?

Example 1: Find out how high you have hiked or climbed.
Start an altitude reading operation at the foot of the mountain as you start off, and find out how many meters you climbed when you get to the top.

Example 2: Determine how high above sea level your house is.
When you travel from your home to the beach, you can measure the relative change in altitude and determine how high your home is above sea level.
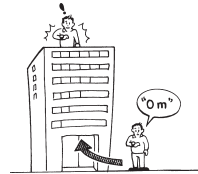
Example 3: Measure how tall a building is.
Set the altitude to zero on the first floor of a building, and then go up to the top floor to measure how tall it is.
• Note that pressurizing and ventilation equipment inside of some buildings can cause errors in altitude readings.

■ To take an altitude reading

In the Timekeeping Mode, Compass Mode, or Pressure/Temperature Mode, press the Ⓒ button to enter the Altitude Mode. The watch will measure your current altitude and display it.

Altitude Mode Display

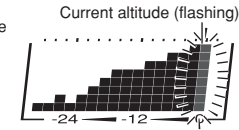Altitude Graph   ACT Indicator

Altitude

Current Time
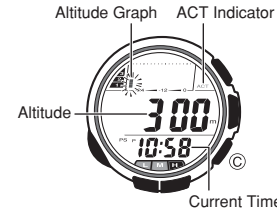
• The altitude can take up to four or five seconds to appear after you enter the Altitude Mode.

Altitude Tendency Graph
The altitude tendency graph shows past altitude values measured in the Altitude Mode.
• Each plot on the graph represents 10 meters.

Current altitude (flashing)

−24   −12

Altitude Readings
After you enter the Altitude Mode, the watch takes readings every five seconds for three minutes (ACT indicator flashing). After that, readings are taken every two minutes (ACT indicator displayed, without flashing).

Altitude
Display Range: −10,000 to 10,000 meters
Display Unit: 5 meters
Measurement Range: −700 to 10,000 meters
Measurement Unit: 5 meters
• Though the display range covers 20,000 meters (from −10,000 to 10,000), the measurement range covers only 10,700 meters (−700 to 10,000).
• The altitude values produced by the watch are relative altitude values. This means they are relative to a reference altitude value that you preset. Even when you are at a location that is above sea level, the watch may display a negative value (indicating you are currently lower than your reference value).
• The display shows "– – –" when the measured value is outside the measurement range or display range.

If you do not perform any button operation for nine or ten minutes while in the Altitude Mode, the watch will return to the Timekeeping Mode automatically.

Interpreting the Altitude Differential Graphic

The altitude differential graphic shows the relative difference between consecutive values measured in the Altitude Mode, so you can monitor changes as you ascend or descend.
• The graphic shows changes up to ±15 meters in 5-meter units.
• You can turn display of the altitude differential graphic off, if you want.

Example 1: Altitude Differential: –10 meters

+15m
±0m
Altitude Differential Graphic (–10 meters)
−15m

Example 2: Altitude Differential: +15 meters

Altitude Differential Graphic (+15 meters)
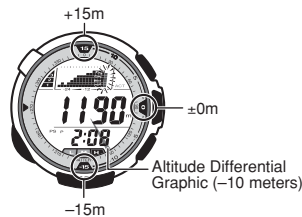
In excess of ±15 meters
Graphic displayed at 9 o'clock

Indicator appears at 9 o'clock

■ To turn the altitude differential graphic on and off

1. In the Altitude Mode, hold down the Ⓔ button for about two seconds until "SET" appears at the top of the display.
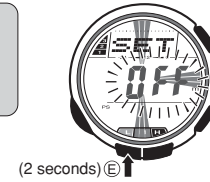
• After about four or five seconds, the altitude value will appear in the middle of the display.

(2 seconds) Ⓔ

2. Press the Ⓓ button twice to move the flashing to the altitude differential graphic On/OFF setting.
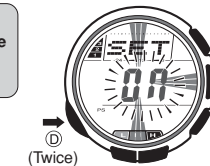
Ⓓ (Twice)

3. Press the Ⓒ button to toggle the setting on (display graphic) and off (do not display graphic).

Reference altitude

Ⓒ

4. Press the Ⓔ button to exit the setting screen and return to the Altitude Mode screen.

Ⓔ

• The watch automatically exits the altitude differential graphic on/off setting screen if you do not perform any operation for about two or three minutes.

Using the Altitude Alarm

The altitude alarm sounds for five seconds when the measured altitude value is in excess of a preset target altitude. Note that the altitude alarm is enabled in the Altitude Mode only.

Example: If the target altitude value is 130 meters, the alarm will sound when either of the following conditions is met.
- When you reach 130 meters when ascending from 0 meters.
- When you reach 130 meters when descending from 300 meters.

■ To set the target altitude

1. In the Altitude Mode, hold down the Ⓔ button for about two seconds until "SET" appears at the top of the display.

- After about four or five seconds, the altitude value will appear in the middle of the display.

(2 seconds) Ⓔ
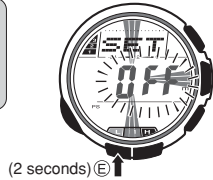
2. Press the Ⓓ button to move the flashing to the target altitude. At this time OFF or On will appear on the display.

Target Altitude

Ⓓ

3. Use the Ⓒ (+) and Ⓐ (−) buttons to adjust the target altitude value.

- Each press of the Ⓒ button or Ⓐ button changes the displayed value by 5 meters.
- Holding down either button scrolls the setting at high speed.
- Press the Ⓒ and Ⓐ buttons at the same time resets the target altitude to "0 m".
- You can set a target altitude in the range of −10,000 to 10,000m.

(−) Ⓐ
Ⓒ (+)

■ To toggle the altitude alarm on and off

1. While the target altitude value is flashing, press the Ⓑ button to toggle the altitude alarm on (🔔 displayed) and off (🔕 not displayed).

Altitude Alarm On Indicator

Ⓑ

- Note that the altitude alarm can be turned on or off only while the target altitude is flashing.

2. After the setting is the way you want, press the Ⓔ button to return to the Altitude Mode screen.

- The watch automatically exits the target altitude setting screen if you do not perform any operation for about two or three minutes.

Ⓔ

■ To stop the alarm beeper

Press any button.

Altitude Memory

Altitude memory stores up to 40 altitude records when you perform altitude recording. Each record includes the date, time, and altitude. Other items stored in memory are high altitude, low altitude, total ascent, total descent, and relative altitude.
- Altitude recording takes readings every 15 minutes (00, 15, 30, 45 minutes of each hour) and stores them in memory.
- Starting a new altitude recording operation automatically clears any existing altitude records in memory to make room for the new readings.
- The watch stops altitude recording automatically after the 40th record is stored.
- Altitude recording continues to be performed even if you change to another mode. The "REC" indicator flashes on the display while altitude recording is in progress.

High altitude, low altitude, total ascent, and total descent values over time can also be accumulated in a separate memory area.
- The total ascent and total descent values are continually accumulated in the range of 0 to 99,995 meters.

High Altitude
Start Point
Stop point
Low Altitude
Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
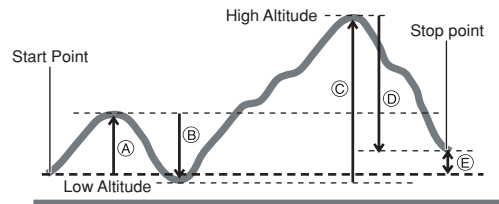
High Altitude: Highest altitude attained during altitude readings stored in memory
Low Altitude: Lowest altitude attained during altitude readings stored in memory
Total Ascent: Total of ascents (Ⓐ + Ⓒ)
Total Descent: Total of ascents (Ⓑ + Ⓓ)
Relative Altitude: Difference between start point and current altitude (Point Ⓔ in the case of the stop point)

- High altitude, low altitude, total ascent, total descent, and relative altitude values are updated when altitude readings are taken every five seconds during the first three minutes after entering the Altitude Mode, and the subsequent readings taken every two minutes.

■ To perform altitude recording

1. Hold down the Ⓒ button for two seconds until the watch beeps.

- This will store the current altitude, along with the current time and date in memory.
- "REC" will also start flashing on the display.

Ⓒ
(2 seconds)

2. To stop altitude recording, hold down the Ⓒ button for two seconds until the watch beeps.

- This will store the current altitude and time, and then terminate altitude recording.

Ⓒ
(2 seconds)

■ To display the relative altitude screen

While altitude recording is in progress, press the Ⓔ button to toggle between the altitude screen and the relative altitude screen.

Altitude Screen
Altitude

Relative Altitude Screen
Relative Altitude

Ⓔ

Ⓔ
Current Time

Ⓔ
REL Indicator
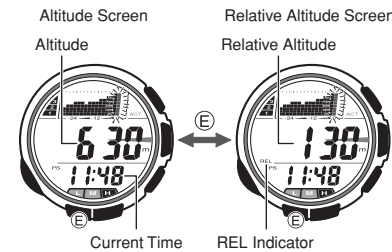
- The relative altitude is the differential between your current altitude and the altitude when you started altitude recording.
- The altitude screen appears first whenever you enter the Altitude Mode from another mode.

Viewing Altitude Memory Records

You can use the Recall Mode to view the records that are stored in memory in the Altitude Mode.
• In the Timekeeping Mode, press the Ⓓ button once to enter to the Recall Mode.

■ To view altitude memory records

In the Recall Mode, use the Ⓒ (forward) and Ⓐ (back) buttons to scroll through records in altitude memory.
• Holding down either button scrolls at high speed.

Newest Data
Altitude
1-second interval
Time
Month/Day

High Altitude

Relative Altitude — Total Descent — Total Ascent — Low Altitude

Cumulative Data

In the Recall Mode, each press of the Ⓑ button toggles the display between the altitude record screen and the cumulative data screen.

Altitude Record Screen   Cumulative Data Screen
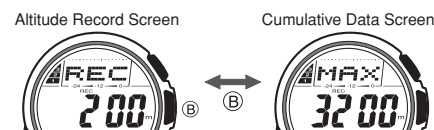
When the cumulative data screen is displayed, use the Ⓒ (forward) and Ⓐ (back) buttons to scroll through the cumulative data.
• High altitude and low altitude are not cumulative values.

High Altitude   Low Altitude

Total Ascent   Total Descent
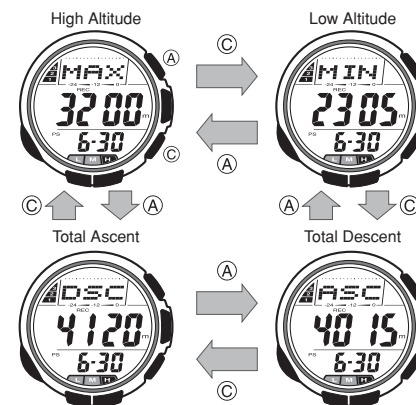
Clearing Cumulative Data Memory

Use the procedure below to clear the contents of cumulative data memory.
• Clearing cumulative data memory deletes high altitude, low altitude, total ascent, and total descent data.

1. In the Recall Mode, press the Ⓑ button to switch to the cumulative data screen, and then hold down the Ⓔ button.

2. After "CLR" appears on the display, keep the Ⓔ button depressed for two more seconds until the watch beeps, indicating that cumulative data has been cleared.

Setting a Reference Altitude

Use the following procedure to set a reference altitude in accordance with a reading produced by another device or an altitude value obtained from a marker or other source.

> Altitudes displayed by your watch can be affected by changes in atmospheric pressure and temperature, and by changes in temperature at diff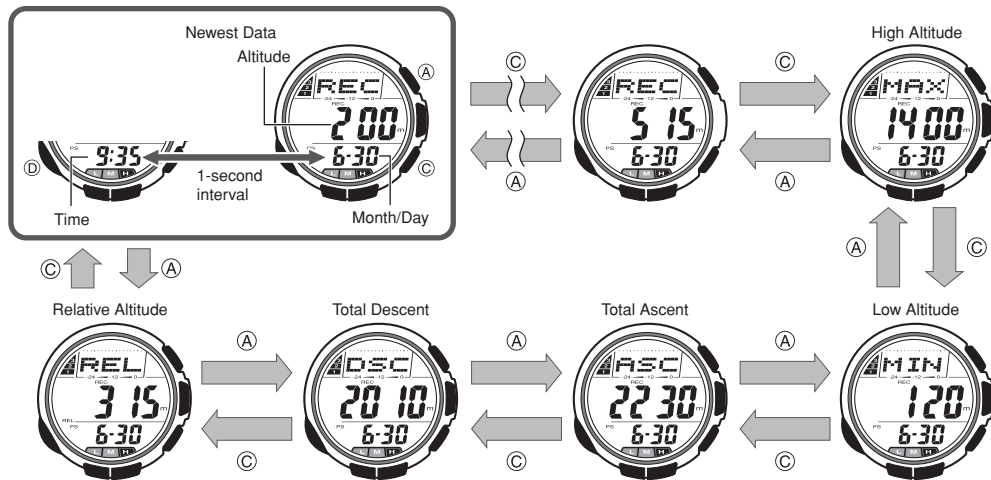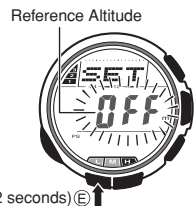erent altitudes. Because of this, it is always a good idea to use the procedure below to update the reference altitude value in accordance with altitude values indicated on markers along your route.

1. In the Altitude Mode, hold down the Ⓔ button for about two seconds until "SET" appears at the top of the display.

• After about four or five seconds, the altitude value will appear at the bottom of the display.

Reference Altitude

(2 seconds) Ⓔ

2. Use the Ⓒ (+) and Ⓐ (−) buttons to adjust the reference altitude value.

• Each press of the Ⓒ button or Ⓐ button changes the displayed value by 5 meters.

(−) Ⓐ
(+) Ⓒ

• Holding down either button scrolls the setting at high speed.
• Pressing the Ⓒ and Ⓐ buttons at the same time returns to the factory default setting, which is indicated by "OFF" for the reference altitude.
• The reference altitude can be set in a range of −10,000 meters to 10,000 meters.

3. After the setting is the way you want, press the Ⓔ button to return to the Altitude Mode screen.

• The watch automatically exits the reference altitude setting screen if you do not perform any operation for about two or three minutes.

If temperature reading accuracy is a priority...

If temperature accuracy is a priority, remove the watch from your wrist so it is not affected by your body temperature.
• Note, however, that removing the watch from your wrist will make altitude readings more prone to being affected by changes in air temperature. Because of this, the chance of altitude measurement error increases slightly when the watch is removed from the wrist.
• After removing the watch from your wrist, it takes about 20 to 30 minutes before the temperature of the watch becomes the same as the air temperature.

■ When you want to measure with either one a priority

If accurate altitude readings are a priority, try to keep the temperature of the watch as stable as possible.
Example: Keep the watch on your wrist, etc.

If accurate temperature readings are a priority, keep the watch from being affected by your body temperature.
Example: Keep the watch inside your bag, where it is not exposed to direct sunlight.

Altitude Primer

■ Relationship between Altitude, Barometric Pressure, and Temperature

Generally, both barometric pressure and temperature are lower, the greater the altitude from sea level. This means you can determine your altitude if you know the current air temperature.

Your watch uses International Standard Atmosphere (ISA) data on the relationship between altitude and barometric pressure that is defined by the International Civil Aviation Organization (ICAO) to estimate your current altitude and displays a relative altitude value.

Altitude	Pressure		Temperature	
4,000m	616hPa	8hPa per 100 meters*	−11ºC	
3,500m		9hPa per 100 meters*		
3,000m	701hPa		−4.5ºC	6.5ºC per 1,000 meters*
2,500m		10hPa per 100 meters*		
2,000m	795hPa		2ºC	
1,500m		11hPa per 100 meters*		
1,000m	899hPa		8.5ºC	
500m		12hPa per 100 meters*		
0m	1,013hPa		15ºC	

* Approximate   (International Standard Atmosphere data)

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■ Application: Obtaining an altitude reading with the watch that is close to the absolute altitude above sea level

The best way to obtain an altitude reading with the watch (relative altitude) that is close to the absolute altitude above sea level is to set altitude values obtained from markers provided at the seashore or along a mountain path as your reference altitude value. This should be done immediately <u>before using the watch to take altitude readings</u>.

• Note that daily fluctuations in atmospheric pressure affect altitude readings, so you should set the reference altitude just before you are ready to take readings.

Example: To set an indicated altitude of 400 meters above sea level as the reference altitude

1. At Point A in the illustration, set the reference altitude to 400 meters, which is the absolute altitude above sea level indicated on a marker provided along the trail.

2. Take altitude readings from Point A to Point B.

3. If there is another absolute altitude marker at Point B, update the reference altitude.

• Be sure to update the reference altitude at Point B if the value displayed by the watch is different from the absolute altitude indicated by the marker along the trail at Point B.

Point B

Point A
400
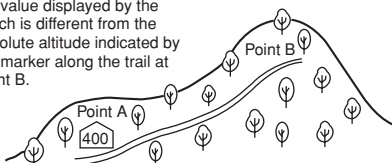
Altitude Reading Precautions

Readings that are close to the absolute altitude above sea level are not possible under the following conditions.
• During volatile weather conditions
• During sudden temperature changes
• When the watch is being subjected to strong impact

■ Altitude Terminology

There are two different methods that can be used to express altitude.

Altitude above Sea Level
This is an absolute measurement of altitude above sea level.

Relative Altitude
This expresses the difference in altitude between two locations (altitude differential).
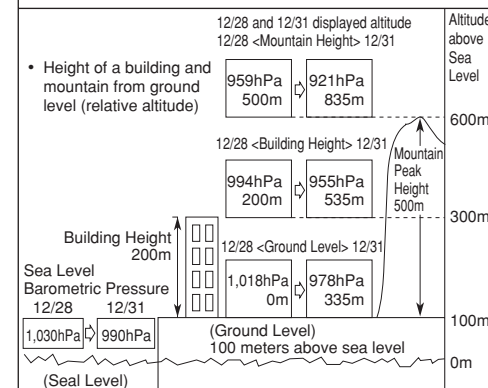
• Your watch measures relative altitude.

Absolute Altitude and Relative Altitude

Building Height: 130 meters Relative Altitude (Altitude Differential)

Roof is 230 meters above sea level. Altitude above Sea Level

Sea
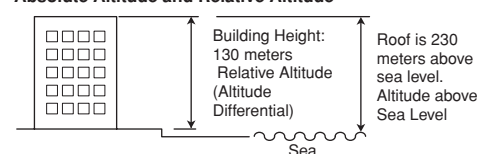
■ Altitude Reading Precautions

• Your watch converts barometric pressure readings into altitude values. Because of this, changes in local barometric pressure can cause different results for altitude readings taken in the same location.

Example: Even if you set zero for the reference altitude at ground level, a difference in atmospheric pressure can produce different altitude readings.
If you set a reference altitude of zero at ground level on December 28 (fair, high barometric pressure of 1,030 hPa), the same location will show an altitude of 335 meters on December 31 (rain, low barometric pressure of 990 hPa).

• Height of a building and mountain from ground level (relative altitude)

12/28 and 12/31 displayed altitude
12/28 <Mountain Height> 12/31

| 959hPa 500m | ⇨ | 921hPa 835m |

Altitude above Sea Level

600m

12/28 <Building Height> 12/31

| 994hPa 200m | ⇨ | 955hPa 535m |

Mountain Peak Height 500m

300m

Building Height 200m
Sea Level Barometric Pressure
12/28   12/31

12/28 <Ground Level> 12/31

| 1,018hPa 0m | ⇨ | 978hPa 335m |

| 1,030hPa | ⇨ | 990hPa |

(Ground Level)
100 meters above sea level

100m

0m

(Seal Level)

• Accurate readings are not possible when barometric pressure and temperature are fluctuating widely due to sudden and severe changes in the weather.
Example: When you approach a low pressure area while mountain climbing, the drop in pressure produces altitude readings that are higher than the actual altitude.

• To avoid the effect of sudden temperature changes on readings, wear the watch so it is in direct contact with your wrist while taking readings.

• Remember that the air inside of a commercial aircraft is pressurized. Because of this, the readings produced by this watch will not match the altitude readings announced by the flight crew.

• This watch is designed to take altitude readings at preset intervals. Never try to use it for altitude readings while engaged in the following types of sports, during which altitude can change very rapidly over a short time span.
Example: Skydiving, hang gliding, paragliding, gyrocopter flying, glider flying, etc.

Sensor Error Detection

The watch disables the sensor operation and displays the indicator described below whenever a sensor malfunctions or when faulty contact makes correct readings impossible.

When sensor malfunction occurs

• When a pressure sensor or direction sensor occurs, "ERR" flashes on the display for about two seconds and then readings stop.

• When sensor malfunction occurs, take your watch to your nearest CASIO Service Center to have it checked.

Barometric Pressure   Altitude   Direction

If "ERR" appears

1. If "ERR" appears while you are taking a pressure, altitude, temperature, or direction reading, try taking the reading again. If "ERR" appears again, it probably means that the sensor is malfunctioning. Take your watch to the nearest CASIO Service Center to have it checked.
   • If "ERR" disappears from the display right away, check, it could indicate the following.

2. Regardless of whether the current battery level is Level 2 or higher, the watch may determine that the current power level is not enough to driver the sensor in the Compass, Pressure, or Altitude Mode. If this happens, "ERR" will appear on the display and the sensor will not take the reading.
   • This does not indicate malfunction. In this case, normal operation should return after battery power recovers.

Using the Stopwatch

Use the Ⓓ button to enter the Stopwatch Mode as shown under "Modes and Display Screens".

The stopwatch measures elapsed time in units of 1/100 second up to 9 hours, 59 minutes, 59.99 seconds (10 hours). When the maximum limit is reached, the elapsed time returns to zero automatically and timing continues from there.

■ To use the stopwatch

In the Stopwatch Mode, press the Ⓒ button to start and stop the stopwatch.

(Split/Reset) Ⓐ
1/100 second
Hour, Minute, Second
(Start/Stop) Ⓒ
Current Time

• Pressing the Ⓐ button while an elapsed time operation is being performed freezes the current time on the display and continues timing of the next split time internally. This condition is indicated by the "SP" (split) indicator on the display.
   • Changing to another mode while a split time is displayed cancels the split time operation.
• Pressing the Ⓐ button while timing is stopped resets the stopwatch.

■ To perform elapsed time measurement

Ⓒ → Ⓒ → Ⓐ
Start   Stop   Reset

Cumulative Time Measurement
Pressing the Ⓒ button to restart the stopwatch without resetting it to all zeros causes the elapsed time measurement to resume from where it was last stopped.

■ To perform split time measurement

Ⓒ → Ⓐ → Ⓐ → Ⓒ → Ⓐ
Start   Record Split   Release Split   Stop   Reset

Split Time Screen
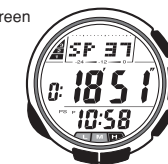
■ To time 1st and 2nd place finishers

Ⓒ → Ⓐ → Ⓒ → Ⓐ → Ⓐ
Start   1st Finisher   2nd Finisher   Displays time   Reset
         (Displays time   of 2nd finisher.
         of 1st finisher.)

15
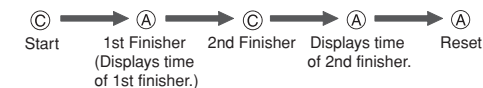
Using the Timer

Use the Ⓓ button to enter the Timer Mode as shown under "Modes and Display Screens".

You can set the start time of the timer in units of one minute in the range of 1 to 60 minutes. The watch beeps for 5 seconds when the end of the countdown is reached. Turning on the watch's auto repeat timer feature causes the countdown to restart from the start time whenever the end of the countdown is reached.

Timer Types

There are two different settings that you can use to configure the timer as describe below.

- **Repeat Timer**
  With the Repeat Timer, the countdown stops, the original start time appears, and the watch beeps for 5 seconds when the end of the countdown is reached.
  - The "⸺" indicator appears on the display while the Repeat Timer is selected.

- **Auto Repeat Timer**
  The Auto Repeat Time causes timing to restart from the start time when the end of the countdown is reached.
  - The "⟳" indicator appears on the display while the Auto Repeat Timer is selected.
  - The countdown repeats up to 10 times, or until you stop it manually.

Timer Alarms

■ Progress Beeper

When the progress beeper is turned on, the watch beeps at the top of minute 10, 5, 4, 3, 2, and 1 before the end of countdown is reached, and at second 50, 40, 30, 20, 10, 5, 4, 3, 2, and 1 of the final minute.

- If the timer start time is less than 10 minutes, the progress beeper beeps only for the minutes and seconds that are actually counted down.
- See "To turn the progress beeper on or off" for information about how to turn the progress beeper on and off. The "♪" indicator is on the display while the progress beeper is turned on.
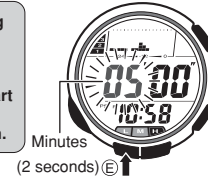
■ Time Up Alarm

The watch beeps for five seconds when the end of the countdown is reached.

- Pressing any button while the beeper is sounding stops it.

■ To configure timer settings

1. While the current starting time is displayed in the Timer Mode, hold down the Ⓔ button for about two seconds until the start to flash on the display. This is the setting screen.

Minutes
(2 seconds) Ⓔ

2. Press the Ⓒ (+) and Ⓐ (−) buttons to change the minutes setting.

- Holding down either button scrolls the setting at high speed.

(−) Ⓐ
Ⓒ (+)

3. Press the Ⓓ button to change to the timer type setting.

Ⓓ

4. Press the Ⓒ button to toggle the timer type between repeat timer and auto repeat timer.

- The "⟳" indicator appears on the display while the Auto Repeat Timer is selected.

Indicates auto repeat timer

Ⓒ

5. When the setting is the way you want, press the Ⓔ button to exit the setting screen and return to the timer mode screen.

- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

■ To turn the progress beeper on or off

In the Timer Mode (countdown can be running or stopped), press the Ⓐ button to toggle the progress beeper on and off.

- The "♪" indicator is on the display while the progress beeper is turned on.

Indicates progress beeper on

Ⓐ

■ To use the countdown timer

In the Timer Mode, press the Ⓒ button to start and stop the countdown.

- The time counts down in 1-second steps.

(Reset)
Ⓐ
Minutes   Seconds
Ⓒ
(Start/Stop)
Current Time
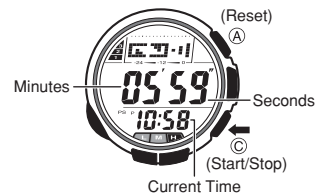
- Pressing the Ⓐ button while the countdown is stopped resets to the countdown start time.
- Pressing the Ⓒ button while the timer countdown is stopped restarts the countdown.

Using the Alarms and Hourly Time Signal

Use the Ⓓ button to enter the Alarm Mode as shown under "Modes and Display Screens".

You can set up to five independent daily alarms. An alarm sounds for 10 seconds when an alarm time is reached. The Hourly Time signal causes the watch to beep every hour on the hour.

■ To set an alarm time

1. In the Alarm Mode, use the Ⓒ (forward) and Ⓐ (back) buttons to scroll through the alarm screens in the sequence shown below until the one you want is displayed.

• When you enter the Alarm Mode, the alarm screen that was displayed the last time you exited the mode appears first.

Mode Indicator
Alarm Number

Ⓐ
Ⓒ

Alarm Time   Current Time

Alarm 1 ⇄ Alarm 2 ⇄ Alarm 3
Hourly Time Signal ⇄ Alarm 5 ⇄ Alarm 4

2. Hold down the Ⓔ button for about two seconds until the hour setting starts to flash on the display. This is the setting screen.

• This also causes the alarm indicator to appear, and turns on the alarm automatically.

Alarm Indicator

Hour

(2 seconds) Ⓔ
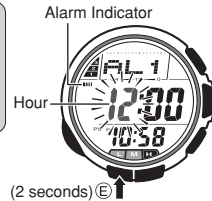
3. Use the Ⓒ (+) and Ⓐ (–) buttons to change the hour setting.

• Holding down either button scrolls the setting at high speed.

(–) Ⓐ
Ⓒ (+)

• When setting the hour, make sure you specify AM (no indicator) 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.
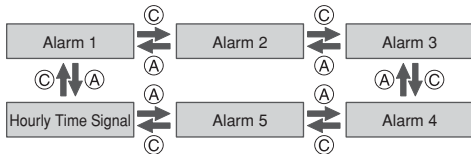
4. Press the Ⓓ button to move the flashing to the minute digits.

• As with the hour setting, use the Ⓒ (+) and Ⓐ (–) buttons to change the minute setting.

(–) Ⓐ
Ⓓ   Ⓒ (+)

Minutes

5. When the setting is the way you want, press the Ⓔ button to exit the setting screen and return to the timer mode screen.

• This exits the setting screen.
• The display 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

1. In the Alarm Mode, use the Ⓒ and Ⓐ buttons to select the setting you want to turn on or off.

2. Press the Ⓑ button to toggle the displayed setting on and off.

• Turning on an alarm or the Hourly Time Signal causes its indicator to appear on the display.

Alarm Indicator
Hourly Time Signal Indicator

Ⓐ
Ⓑ
Ⓒ

Alarm 2 Screen
Hourly Time Signal Screen
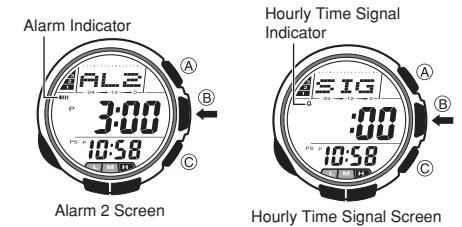
■ To stop the alarm beeper
Pressing any button while the beeper is sounding stops it.

■ To test the alert operation
In the Alarm Mode, hold down the Ⓒ button to sound the alarm.

Using World Time

Use the Ⓓ button to enter the World Time Mode as shown under "Modes and Display Screens".

World time lets you display the current time in any one of 30 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.
• **See "To configure Home City settings" for more information.**

■ To search for a city code

In the World Time Mode, use the Ⓒ (Eastward) and Ⓐ (Westward) buttons to scroll through city codes.

• Holding down either button scrolls at high speed.

City Code
(Westward) Ⓐ
World Time
Ⓒ (Eastward)

Ⓒ ↓ ↑ Ⓐ

(Westward) Ⓐ
Ⓒ (Eastward)

Using Summer Time (DST)
Summer time, or Daylight Saving Time (DST) as is 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.

■ To turn summer time on or off

1. In the World Time Mode, use the Ⓒ (Eastward) and Ⓐ (Westward) buttons to select the city whose summer time setting you want to change.

2. Hold down the Ⓔ button for about two seconds to toggle summer time 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.

DST DST indicator
Ⓐ
Ⓒ
(2 seconds) Ⓔ
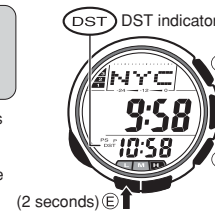
World Time City Code List

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

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

Setting the Home City Time and Date

You can use the following procedure to set the current time and date of the Home City that you have selected in the Timekeeping Mode.
- Always use the Timekeeping Mode to set and adjust the current time and date settings.
- You can also turn Power Saving on and off while setting the time and date.

■ To configure Home City settings

1. In the Timekeeping Mode hold down the Ⓔ button for about two seconds until the current city code flashes on the display.

City Code

(2 seconds) Ⓔ

2. Use the Ⓒ (Eastward) and Ⓐ (Westward) buttons to scroll through the city codes until the one you want to use as your Home City is displayed.
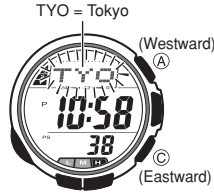
- **See "World Time City Code List" for a complete list of city codes.**
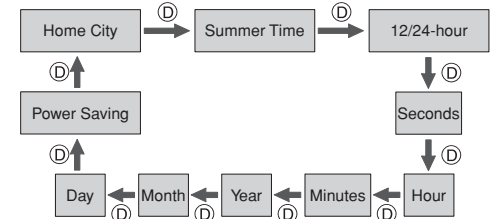- Holding down either button scrolls at high speed.

TYO = Tokyo

(Westward) Ⓐ

(Eastward) Ⓒ

3. Press the Ⓓ button to change to the summer time setting.

Ⓓ

4. Press the Ⓒ button to cycle through the summer time settings until the one you want is displayed.

Ⓒ

- **AT (Auto)**

This setting enables the auto summer time setting, which turns summer time on or off in accordance with the received time calibration signal.
- When **TYO** (Tokyo) is selected at the Home City, this setting changes the time in accordance with Japanese summer time.

- **OFF**

This setting turns off summer time, and displays the current time normally.

- **On**

This setting turns on summer time.
- Selecting this setting displays the DST indicator, and advances the current time setting by one hour.

- Note that the above setting toggles between "OFF" and "On" when any city code other than **HKG**, **TYO**, or **SEL** is selected as the Home City.

5. From here you can use the Ⓓ button to select the settings shown below. Each press of the Ⓓ button causes the applicable setting to flash.

Ⓓ

Home City →(Ⓓ)→ Summer Time →(Ⓓ)→ 12/24-hour →(Ⓓ)→ Seconds
↑(Ⓓ)
Power Saving
↑(Ⓓ)
Day ←(Ⓓ)← Month ←(Ⓓ)← Year ←(Ⓓ)← Minutes ←(Ⓓ)← Hour

- You can change the illumination duration setting while the seconds are flashing.

6. While the 12/24-hour setting is selected, press the Ⓒ button to toggle the timekeeping format between 12-hour ("12H" indicator) and 24-hour (24H indicator).

12/24-hour Timekeeping

Ⓒ

7. While the seconds are selected, press the Ⓒ button to reset them to 00 in accordance with the time signal on the radio, TV, etc.

Ⓐ

Ⓒ

Resets to 00.

- Pressing the Ⓒ button while the seconds count is in the range of 30 to 59 resets it to 00 and also adds 1 to the minutes. Pressing the Ⓒ button in the range of 00 to 29 resets the seconds count without changing the minutes. In Japan, you can obtain the current time by dialing 117 on the telephone.
- While the seconds are flashing, you can also press the Ⓐ button to change the illumination duration. See "To specify the illumination duration" for more information.

8. While the Hour, Minutes, Year, Month, or Day setting is flashing, use the Ⓒ (+) and Ⓐ (–) buttons to change it.

- Holding down either button scrolls at high speed.

Minutes
Month, Day
(–) Ⓐ
Ⓒ (+)
Hour   Seconds

9. While the Power Saving setting is selected, press the Ⓒ button to toggle it On and OFF.

Ⓒ

- Turning on Power Saving causes the Power Saving indicator to appear on the setting screen.

Repeat the above steps as many times as necessary to select each setting and change it as required.

- When setting the hour, make sure you specify AM (no indicator) or PM (P) correctly when using 12-hour timekeeping, or that you specify the correct 24-hour time.
- You can set the year within the range of 2000 to 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.

10. When all of the settings are the way you want, press the Ⓔ button to exit the setting screen and return to the Timekeeping Mode screen.

- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.