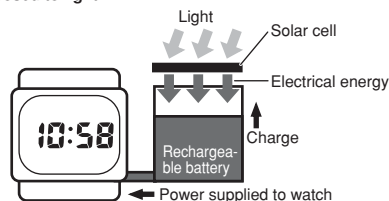# Operation Guide 2931

CASIO®
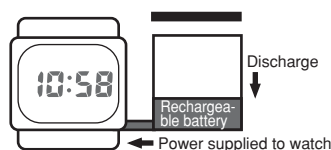
Keep your watch exposed to light!

Your watch runs on electrical power generated from light and stored by a rechargeable 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
Rechargeable battery
Power supplied to watch

When not exposed to light

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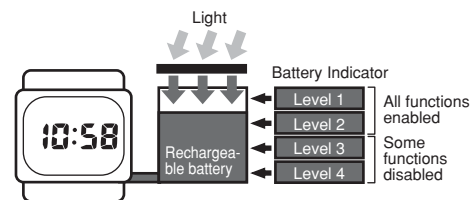Rechargeable battery
Power supplied to watch
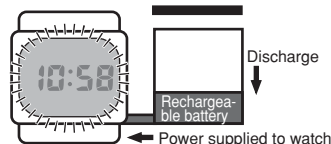
The following shows approximately how much exposure to light is required to recharge the battery by the amount used by one display illumination operation.
• Sunlight through a window: 5 minutes
• Indoor fluorescent lighting: 50 minutes

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
Level 2 — All functions enabled
Level 3
Level 4 — Some functions disabled
Rechargeable 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.
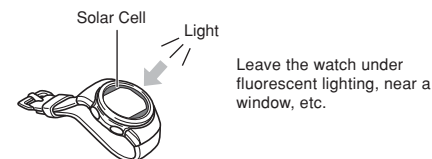
• When wearing the watch, try to keep your sleeve from blocking its face (solar cell).
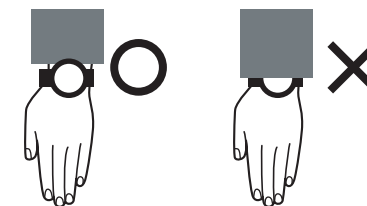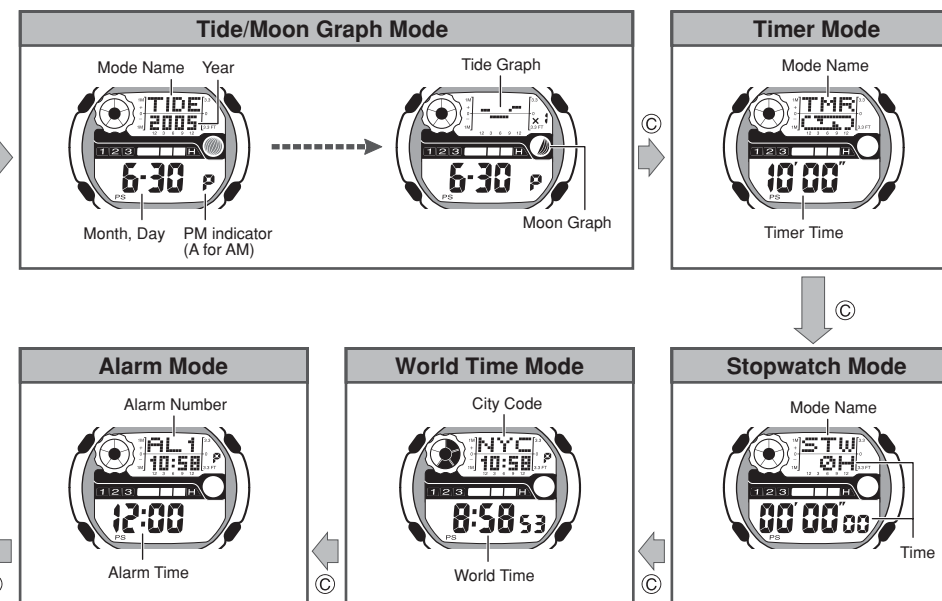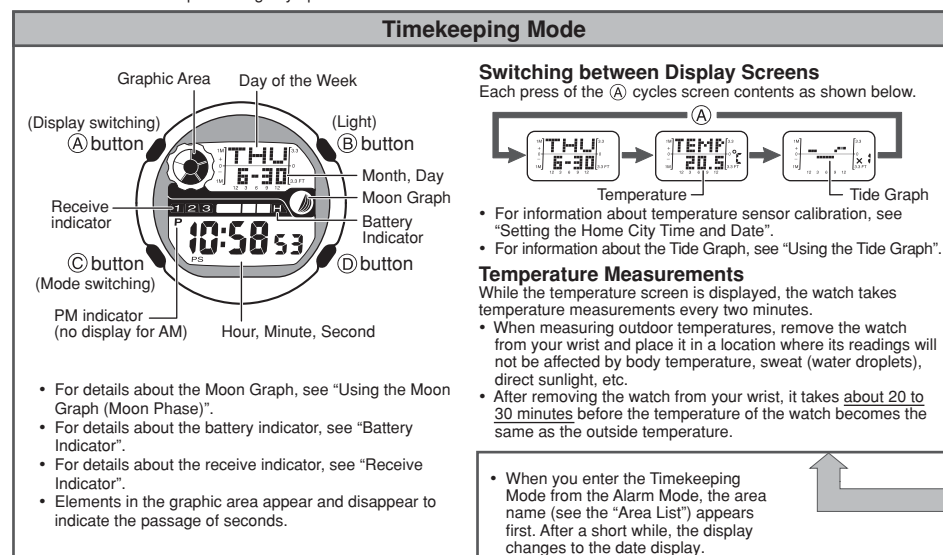
Charging efficiency is significantly reduced even if the face of the watch is only partially covered by your sleeve.

Modes and Display Screens

Each press of the Ⓒ button sounds a confirmation tone and cycles through available modes in the sequence shown below.
• The watch will revert to the Timekeeping Mode automatically if you leave it in the Tide/Moon Graph Mode or Alarm Mode for about two or three minutes without performing any operation.

Timekeeping Mode

Graphic Area
Day of the Week
(Display switching)
Ⓐ button
(Light)
Ⓑ button
Month, Day
Moon Graph
Battery Indicator
Receive indicator
Ⓒ button
(Mode switching)
Ⓓ button
PM indicator (no display for AM)
Hour, Minute, Second

• For details about the Moon Graph, see "Using the Moon Graph (Moon Phase)".
• For details about the battery indicator, see "Battery Indicator".
• For details about the receive indicator, see "Receive Indicator".
• Elements in the graphic area appear and disappear to indicate the passage of seconds.

Switching between Display Screens
Each press of the Ⓐ cycles screen contents as shown below.

Ⓐ
THU 6-30 → TEMP 20.5°C → Tide Graph

Temperature

• For information about temperature sensor calibration, see "Setting the Home City Time and Date".
• For information about the Tide Graph, see "Using the Tide Graph".

Temperature Measurements
While the temperature screen is displayed, the watch takes temperature measurements every two minutes.
• When measuring outdoor temperatures, remove the watch from your wrist and place it in a location where its readings will not be affected by body temperature, sweat (water droplets), direct sunlight, etc.
• 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 outside temperature.

• When you enter the Timekeeping Mode from the Alarm Mode, the area name (see the "Area List") appears first. After a short while, the display changes to the date display.

Tide/Moon Graph Mode

Mode Name   Year   Tide Graph
TIDE 2005
6-30 P
Month, Day   PM indicator (A for AM)
Moon Graph

Timer Mode

Mode Name
TMR
10'00"
Timer Time

Alarm Mode

Alarm Number
AL1 10:58 P
12:00
Alarm Time

World Time Mode

City Code
NYC 10:58 P
8:58 S3
World Time

Stopwatch Mode

Mode Name
STW 0H
00'00"00
Time

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.

Flashing Recover Indicator

If you use the light or alarms a number of times during a short period, a RECOV indicator flashes on the display and the following operations become disabled as battery power recovers.

- Illumination
- Alarm and hourly time signal
- Timer Mode progress alert and time up alarm
- Temperature measurement
- Time calibration signal reception

Normal operation will return after the battery recovers.

RECOV Recover Indicator

Battery Indicator

Level 1	[H]	All functions enabled.
Level 2	[M]	All functions enabled.
Level 3	LOW	Illumination, alarms and other tones, temperature measurement, and time calibration signal reception disabled.
Level 4	CHG	Display, illumination, alarms and other tones, temperature measurement, 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.

Start charging at Level 3 or 4!

Battery Level 3 or 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 3 or 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.

Charging Guide

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

Example Daily Use
- Illumination: 1.5 seconds/day
- Alarm: 10 seconds/day (alternate between beep and vibration alert every day)
- Signal Reception: 10 minutes/day
- Digital Display: 18 hours/day

Making sure the watch is exposed to light regularly ensures 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	18 hours	8 hours
Sunlight Through a Window (10,000 lux)	6 hours	91 hours	41 hours
Overcast Daylight Through a Window (5,000 lux)	10 hours	184 hours	83 hours
Indoor Fluorescent Lighting (500 lux)	126 hours	– – –	– – –

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

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.
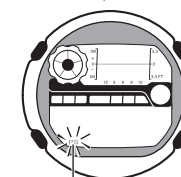
PS Power Saving Indicator

- **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. Alert, hourly time signal, and Timer Mode progress alert and time up alert do not operate in the function sleep state, and auto receive of the time calibration signal is 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

Use the procedure under "Setting the Home City Time and Date" to turn Power Saving on or off.

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

Illumination

An EL (electro luminescent) panel is used to illuminate the display of the watch for easy reading in the dark. The full auto light switch automatically turns on illumination whenever you angle the watch towards your face for viewing, while it is dark.

■ To turn on illumination manually

In any mode, press the Ⓑ button.

• This turns on illumination.
• You can specify 1.5 seconds or 2.5 seconds as the illumination duration ("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.

Using the Full Auto Light Switch

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.

■ To turn the full auto light switch on or off

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

Full Auto Light On Indicator

AUTO EL

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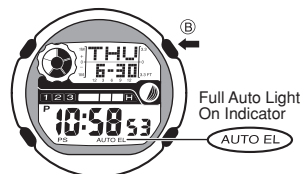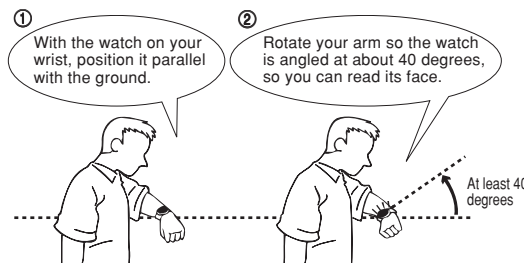
• You should be wearing the watch on the outside of your wrist when using the full auto light switch.
• Make sure that the left (9 o'clock) and right (3 o'clock) sides of the watch are within ±15 degrees of being parallel with the ground. The full auto light switch may not operate properly if the angle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

Important!
• Illumination may be difficult to see under bright sunlight.
• Illumination turns off automatically if you press any button causing a confirmation tone to sound or if an alert operation is performed.
• Illumination will not turn on while manual receive is in progress.
• 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.

Full Auto Light Precautions
• Frequent use of the full auto light switch can run down the battery.
• The full auto light switch is disabled while you are viewing tide data.
• 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.

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. |
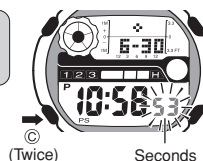
GMT Differential City Code
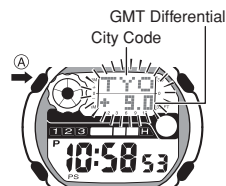
2. | Press the Ⓐ button twice to display the time setting screen. |

• This displays the DST setting.

3. | Press the Ⓒ button twice so the seconds are flashing. |

Ⓒ (Twice)   Seconds

4. | Press the Ⓑ button to select the illumination duration you want. |

• Each press of the Ⓑ button toggles the illumination duration between 1.5 seconds and 2.5 seconds. An indicator on the display shows which setting is currently selected.
• ❖ : 1.5 seconds
  ❈ : 2.5 seconds
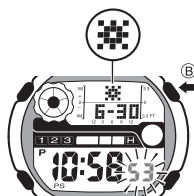
5. | When the setting is the way you want, press the Ⓐ button to exit the setting screen. |

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

Selecting Beeper or Vibration Alert

You can select either a beeper or vibration as the alert that is performed for the alarm, hourly time signal, or Timer Mode progress alert and time up alarm.

Beeper: The watch emits audible beeps.
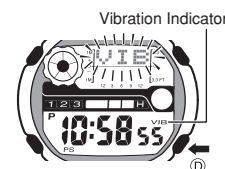**Vibration:** The watch vibrates silently and a VIB indicator appears on the display.

Vibration Indicator

• While vibration alert is selected, the watch does not emit any operation confirmation tones when you change modes, etc.

■ To select beeper or vibration alert

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.**

GMT Differential
City Code
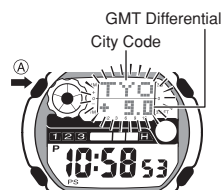
2. **Press the Ⓐ button.**

• This causes VIB (vibration alert) or BEEP (beep alert) to flash on the display.

3. **Press the Ⓓ button to toggle the alert setting between VIB and BEEP.**

• The VIB (vibration) indicator appears when vibration alert it selected. No indicator is displayed while beep alert is selected.
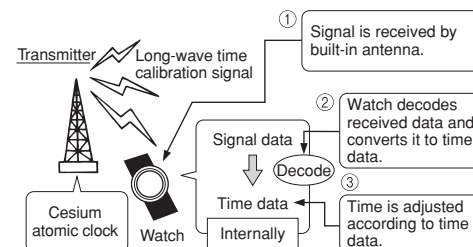
Vibration Indicator

4. **When the alert setting you want is displayed, press the Ⓐ button twice 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.

Transmitter — Long-wave time calibration signal

Cesium atomic clock   Watch

① Signal is received by built-in antenna.

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

Signal data
Decode
③
Time data — Time is adjusted according to time data.
Internally

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.
• The U.S. calibration signal (Call Sign: WWVB) is transmitted by the National Institute of Standards and technology from Fort Collins, Colorado.

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). Note that transmission of the standard wave may be interrupted occasionally due to maintenance, lightning, etc. For more information, visit the website of the Japan Standard Time Group of the National Institute of Information and Communications Technology (NICT) at the following URL.

http://jjy.nict.go.jp

• Note that the above URL is subject to change.

Reception Ranges

This watch is designed to receive the standard time calibration signal of Japan (JJY) or of the United States (WWVB), depending on its current Home City setting.
• **For information about selecting a Home City, see "Setting the Home City Time and Date". For information about city codes, see the "GMT Differentials".**

Home City	Transmitter
TYO, OSA	Either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz)
LAX, DEN, CHI, NYC	Fort Collins, Colorado signal

Transmitter Location

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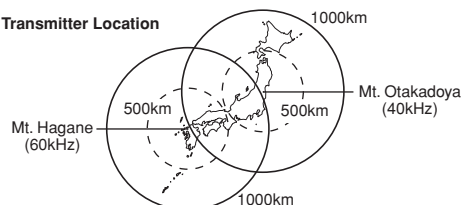
• Under optimum conditions, the calibration signal should be receivable up to 1,000 kilometers from the transmitter. Note that the wave is relatively weak at distances greater than 500km, so reception may be poor at long distances.

Transmitter Location

3000km
1000km
Fort Collins

• Under optimum conditions, the calibration signal should be receivable up to 3,000 kilometers from the transmitter. Note that the wave is relatively weak at distances greater than 1,000km, 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.
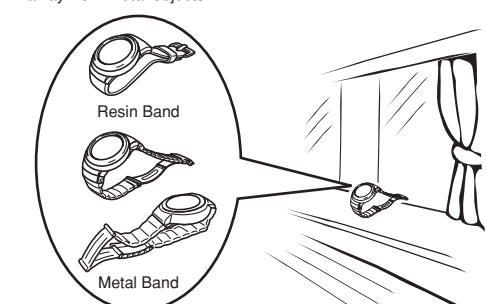
Receiving the Calibration Signal

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 side, 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.

4

CASIO

Time Required for Reception

Signal reception normally takes anywhere from about two to five minutes.

- Under certain conditions, signal reception can take as long as 12 minutes.
- **For information about turning auto receive on and off, see "To turn auto receive on and off".**

■ To perform manual receive

> **In the Timekeeping Mode, hold down the Ⓓ button for about two seconds.**

- The watch will beep and reception will start. The receive indicator flashes on the display while signal reception is in progress.

■ 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.

- Following reception, the receive indicator will show a value from 1 to 3 as described under "Receive Indicator". The receive indicator is cleared each day at midnight.
- After the date and time of the adjustment appears on the display, press the Ⓓ button to return to the Timekeeping Mode. If watch will also return to the Timekeeping Mode automatically if you do not perform any operation for about two or three minutes.

When reception fails

In the case of an error, the watch will not adjust its current time setting, but display "ERR" instead.

- If the "ERR" indicator is displayed, you can clear it manually by pressing the Ⓓ button. The error will also clear automatically if you do not perform any operation for about two or three minutes.

Receive Indicator

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.

Receive Indicator

Unstable ◄────────► Stable

- Even under optimum reception conditions, it can take about 10 seconds for reception to stabilize.

> - Use the receive indicator 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.**

- This displays the date and time when signal reception was last successful, and the current time and date were last adjusted.
- If there have been no successful receptions, the last reception time will show "- -:- -".
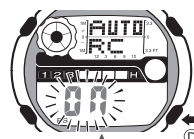- To return to the Timekeeping Mode, press the Ⓓ button again.
- The watch also will return to the Timekeeping Mode automatically if you do not perform any operation for about two or three minutes.

Reception Date
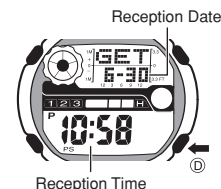
Reception Time

■ To turn auto receive on and off

- Auto receive can be turned on only while **OSA** (Osaka), **TYO** (Tokyo), **LAX** (Log Angeles), **DEN** (Denver), **CHI** (Chicago), or **NYC** (New York) is selected as the Home City.

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

- The watch also will return to the Timekeeping Mode automatically if you do not perform any operation for about two or three minutes.

2.
> **Hold down the Ⓐ button for about two seconds until the current On/OFF setting starts to flash. This is the setting screen.**

3.
> **Press the Ⓓ button to toggle the setting between On and OFF.**

4.
> **When the setting is the way you want, press the Ⓐ button.**

- This will exit the setting screen and return to the last reception time and date 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 Home City is TYO or OSA

• 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.

When the Home City is NYC, CHI, DEN, or LAX

• On
Selecting this setting turns on auto receive. The watch always receives the Fort Collins signal.

• 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
- 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 and the United States only. Note that you will need to make your own adjustments when using this watch outside of Japan or the United States, 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 (see "Location") during signal reception.
• Do you have the correct Home City code selected?
  Remember that auto receive is not performed unless **OSA** (Osaka), **TYO** (Japan), **LAX** (Los Angeles), **DEN** (Denver), **CHI** (Chicago), or **NYC** (New York) is selected as the Home City. For details, see "To configure Home City settings".
• Is auto receive turned off?
  Use the procedure under "To turn auto receive on and off" to turn on auto receive.
• 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 or AUTO.

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

• Is the correct city code selected for your Home City? For details about setting the correct Home City, see "To configure Home City settings".

I can't turn auto receive on and off

• Remember that auto receive cannot be turned on and off unless **OSA** (Osaka), **TYO** (Japan), **LAX** (Los Angeles), **DEN** (Denver), **CHI** (Chicago), or **NYC** (New York) is selected as the Home City. 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 its 12 o'clock position facing in the general direction of the transmitter.

How can I perform manual receive?

• Hold down the lower right Ⓓ button for about two seconds. The watch will beep to indicate that manual receive has started. Place it near a window, with its 12 o'clock position facing in the general direction of the transmitter.

How can I view the last reception date and time?

• In the Timekeeping Mode, press the lower right Ⓓ button. 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.

• 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	**AUTO**	Auto (according to signal data)

Using the Tide/Moon Graph

The information that should appear in the tide graph and the Moon graph depends on your location. Be sure to configure the required settings (Home City and area) about your location before trying to use these graphs.

• Once you specify your current location, you do not need to change it unless you move to another relatively faraway location, or if you allow the watch's rechargeable battery to go dead (which clears the current settings).
• The following are the watch's factory default settings: Home City: Tokyo (GMT Differential: +9.0); Area: SHIBAURA.

■ To configure location settings

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.

GMT Differential
City Code

2. Press the Ⓒ button so the setting you want to change is flashing on the display.

• Each press of the Ⓒ button toggles between the City Code (GMT differential) and area screen.

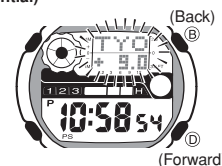City Code (GMT Differential) ⟷ Area

3. Select the city code (GMT differential) and area you want to set.

To select the city code (GMT differential)

Use the Ⓑ and Ⓓ buttons to scroll through the available city codes.

• Holding down either button scrolls the setting at high speed.
• Changing the city code automatically changes the time in accordance with the applicable GMT differential.

(Back)
(Forward)

To select the area

Press the Ⓓ button to scroll thought available areas.

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

(Forward)

• Refer to the "GMT Differentials" when setting the Home City and the "Area List" when setting the area.

4. After the settings are the way you want, press the Ⓐ button three times 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.
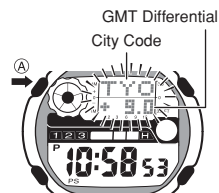
GMT Differentials

City Code	GMT Differential	City Name	City Code	GMT Differential	City Name
PPG	−11	Pago Pago	JED	+3	Jeddah
HNL	−10	Honolulu	THR	+3.5	Teheran
ANC	−9	Anchorage	DXB	+4	Dubai
LAX	−8	Los Angeles	KHI	+5	Karachi
DEN	−7	Denver	DEL	+5.5	Delhi
CHI	−6	Chicago	DAC	+6	Dakar
NYC	−5	New York	RGN	+6.5	Yangon
CCS	−4	Caracas	BKK	+7	Bangkok
RIO	−3	Rio de Janeiro	HKG	+8	Hong Kong
−01	−1		OSA	+9	Osaka
LON	+00	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
JRS	+2	Jerusalem	TBU	+13	Nuku'Alofa

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

Area List

City Code	Area	City Code	Area	City Code	Area	City Code	Area
TYO	SHIBAURA	TYO	MAISAKA	TYO	OARAI	OSA	MUROTOZAKI
	OSHIMA		AKABANE		KASHIMA		MUROTSU
	KOZU SHIMA		NAGOYA		CHOSHIGYOKO		KOCHI
	HACHIJO JIMA		HAMAJIMA		KAZUSAKATSUURA		TOSASHIMIZU
	CHICHI JIMA		ABASHIRI		KAMOGAWA		TSUYAZAKI
	YOKOHAMA		RUMOI		TATEYAMA		HAKATA
	YOKOSUKA		OTARU	OSA	OSAKA		KARATSU
	ZUSHI		HAKODATE		KOBE		SASEBO
	ENOSHIMA		MURORAN		AKASHI		MATSUSHIMA
	MANAZURU		TOMAKOMAI		TSUIYAMA		KUMAMOTO
	NIIGATA		KUSHIRO		URAGAMI		TOMIOKA
	TERADOMARI		AOMORI		TANABE		NISHIOITA
	KASHIWAZAKI		HACHINOHE		WAKAYAMA		HOSOSHIMA
	NAOETSU		KUJI		TAJIRI		MIYAZAKI
	OGI		KAMAISHI		TONOURA		ABURATSU
	TOYAMA		KESENNUMA		KURE		SHIBUSHI
	TAKI		SENDAI		UBE		KAGOSHIMA
	KANAZAWA		NOSHIRO		SHIMONOSEKI		MAKURAZAKI
	HUKUI		OGA		YUYA		AKUNE
	WADA		AKITA		HAGI		NISHINOOMOTE
	ITO		SAKATA		HIWASA		NAZE
	SHIMODA		NEZUGASEKI		TAKAMATSU		NAHA
	SHIMIZU		SOMA		NIIHAMA		HIRARA
	SAGARA		YOTSUKURA		UWAJIMA		ISHIGAKI
	OMAEZAKI		HITACHI		KANNOURA		MAIZURU

| City Code	Area		City Code	Area		City Code	Area	
PPG	PAGO PAGO	AMERICAN SAMOA	RIO	FLORIANOPOLIS	BRAZIL	BKK	PHUKET	THAILAND
	APIA	SAMOA		BUENOS AIRES	ARGENTINA		GUNUNGSITOLI	INDONESIA
HNL	HONOLULU	USA	–01	PRAIA	CAPE VERDE		SIBERUT	INDONESIA
	KAHULUI	USA	LON	NEWQUAY	ENGLAND		TANJUNG PRIOK	INDONESIA
	PAPEETE	TAHITI		PLYMOUTH	ENGLAND		SURABAYA	INDONESIA
	MAKEMO	TAHITI		PENICHE	PORTUGAL	HKG	HONG KONG	CHINA
ANC	JUNEAU	USA		LISBON	PORTUGAL		CEBU	PHILIPPINES
LAX	SAN DIEGO	USA		LAGOS	PORTUGAL		SURIGAO	PHILIPPINES
	SANTA MONICA	USA		FUNCHAL	PORTUGAL		TAWAU	PHILIPPINES
	SANTA BARBARA	USA		CASABLANCA	MOROCCO		EXMOUTH	AUSTRALIA
	VANCOUVER	CANADA		DAKAR	SENEGAL		CARNARVON	AUSTRALIA
DEN	BAHIA MAGDALENA	MEXICO	PAR	BOUCAU	FRANCE		GERALDTON	AUSTRALIA
	CABO SAN LUCAS	MEXICO	BER	CAGLIARI	ITALY		ALBANY	AUSTRALIA
CHI	GALVESTON	USA		LA CORUNA	SPAIN	ADL	ADELAIDE	AUSTRALIA
	COZUMEL	MEXICO		PORTUGALETE	SPAIN		DARWIN	AUSTRALIA
	ACAPULCO	MEXICO	ATH	WALVIS BAY	NAMIBIA	SYD	SYDNEY	AUSTRALIA
	LA UNION	EL SALVADOR	CAI	CAPE TOWN	SOUTH AFRICA		MELBOURNE	AUSTRALIA
	PUNTARENAS	COSTA RICA	JRS	DURBAN	SOUTH AFRICA		BRISBANE	AUSTRALIA
NYC	VIRGINIA BEACH	USA		SUEZ	EGYPT		GOLD COAST	AUSTRALIA
	CHARLESTON	USA	JED	JEDDAH	SAUDI ARABIA		GUAM	USA
	DAYTONA BEACH	USA		ANTSERANANA	MADAGASCAR		SAIPAN	USA
	MIAMI HARBOR	USA	THR	BANDAR-E LENGEH	IRAN		TRUK	MICRONESIA
	ELEUTHERA IS.	BAHAMAS	DXB	DUBAI	ARAB		KAVIENG	PAPUA NEW GUINEA
	GEORGE TOWN	CAYMAN ISLANDS		PTE. DES GALETS	REUNION	NOU	NOUMEA	NEW CALEDONIA
	BUENAVENTURA	PANAMA		PORT LOUIS	MAURITIUS		PORT VILA	PACIFIC OCEAN
	PUERTO CHICAMA	PERU	KHI	KARACHI	PAKISTAN	WLG	WELLINGTON	NEW ZEALAND
CCS	SANTO DOMINGO	DOMINICAN R.		MALE	MALDIVES		GISBORNE	NEW ZEALAND
	SAN JUAN	PUERTO RICO	DEL	MUMBAI	INDIA		AUCKLAND	NEW ZEALAND
	BRIDGETOWN	BARBADOS	DAC	COLOMBO	SRI LANKA		RAGLAN	NEW ZEALAND
	IQUIQUE	CHILE		GALLE	SRI LANKA		SUVA	FIJI ISLANDS
	ANTOFAGASTA	CHILE		TRINCOMALEE	SRI LANKA	TBU	NUKUALOFA	TONGA
	VALPARAISO	CHILE		CHITTAGONG	BANGLADESH		NEIAFU	TONGA
RIO	F.DE NORONHA	BRAZIL	RGN	YANGON	MYANMAR			
	RECIFE	BRAZIL	BKK	BANGKOK BAR	THAILAND			

Using the Moon Graph (Moon Phase)

■ To view the current Moon graph

The Moon graph appears on the Timekeeping Mode and Tide/Moon Graph Mode screens, except when the setting screen (with flashing settings) is displayed.

The dark part of the Moon graph is the part of the Moon that is shaded, while the light part of the Moon graph shows the approximate shape of the current Moon phase.

Example: Timekeeping Mode

Moon Graph (Moon Phase)

Visible part of the Moon (light part)

Shaded part
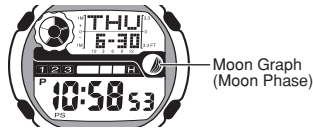
■ Moon Phase and Moon Age

| Moon Phase	New Moon				First Quarter				Full Moon				Last Quarter			
Moon Age	0.0 to 1.8	1.9 to 3.6	3.7 to 5.5	5.6 to 7.3	7.4 to 9.2	9.3 to 11.0	11.1 to 12.9	13.0 to 14.7	14.8 to 16.6	16.7 to 18.4	18.5 to 20.3	20.4 to 22.1	22.2 to 24.0	24.1 to 25.8	25.9 to 27.7	27.8 to 29.4
Graph																

- The Moon phase graph shows the approximate shape of the Moon at noon, when viewed to the south in the northern hemisphere.
  - The Moon phase graph is intended to indicate only when the left side and right side of the Moon is illuminated or shaded. The shape shown by the graph may differ from the actual shape of the Moon. Note that the shapes indicated by the Moon graph will be reversed when the Moon is viewed to the north from the southern hemisphere or in the vicinity of the equator.
- The Moon phase graph will not indicate the proper phase unless the Timekeeping Mode time and date, the Home City, and the area settings are all configured correctly.

Using the Tide Graph

■ To view the current tide graph

The tide graph appears on the Timekeeping Mode and Tide/Moon Graph Mode screens.
- In the Timekeeping Mode, press the Ⓐ button to cycle through the available screens and display the tide graph.
- Because the watch needs to read certain data, it takes about 40 seconds before the tide graph appears.
- The tide graph shows the tide changes over time as shown below.
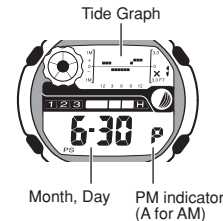
Tide Graph

Month, Day

PM indicator (A for AM)

Important!

The tide information displayed by this watch is not intended for navigation purposes. For navigation purposes, be sure to use official tide charts for the area you are navigating. The tide graph of this watch provides a reasonable representation of tidal movements for reference purposes only.

■ To interpret the tide graph

The tide graph shows the relative rise and fall of the water level from the average level.

1 meter from average water level (when "×1" is displayed)

Average water level and its differential

Time
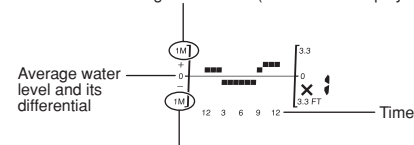
−1 meter from average water level (when "×1" is displayed)

- When "×2" is displayed, multiply graph values by two.
- When "×3" is displayed, multiply graph values by three.
- Periods when the differential from the average water level exceeds three meters are not shown on the graph.

Viewing the Tide Graph/Moon Graph for a Particular Date

In the Timekeeping Mode, press the © button to enter the Tide/Moon Graph Mode.

■ To scroll through dates

1. Use the Ⓓ button to scroll through the date screens until the one you want is displayed.

- The tide graph and moon graph for the date you selected will appear in about 40 seconds.
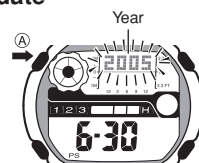- Holding down the Ⓓ button scrolls at high speed.

Selected Date (Forward)
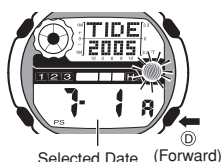
2. Press the Ⓐ button to toggle between a.m. and p.m.

PM indicator (A for AM)
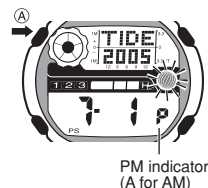
■ To jump to a specific date

1. Hold down the Ⓐ button for about two seconds until the year digits of the date start to flash.

Year

2. Press the © button to select the setting you want to change.

- Each press of © moves the flashing between the year, month, and day as shown below.
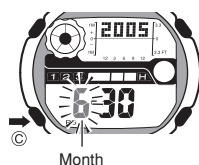
Month

Month → Day → Year

3. Use the Ⓓ (+) and Ⓑ (−) buttons to change each setting.

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

(Decrease) (Increase)
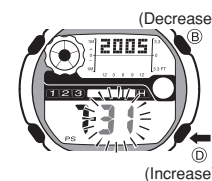
Use the © button to select each of the settings and the Ⓓ and Ⓑ buttons to change them to the year, month, and day you want.

4. When the date is the way you want, press the Ⓐ button.

- The tide graph and moon graph for the date you specified will appear in about 40 seconds.
- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

5. Press the Ⓐ button to toggle between a.m. and p.m.

PM indicator (A for AM)
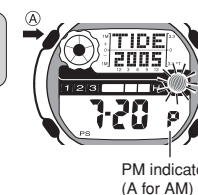
Using World Time

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 32 cities (30 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.
  - **For information about selecting a Time Zone and setting the time, see "Setting the Home City Time and Date".**

■ To search for a city code

In the World Time Mode, press the Ⓓ button to scroll through the city codes.

- Holding down the Ⓓ button scrolls at high speed.

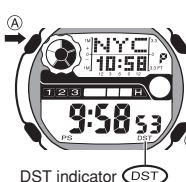City Code

World Time

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 Ⓓ button to display the screen for the city code whose summer time setting you want to change.

2. Hold down the Ⓐ button for two seconds to toggle the summer time setting on (DST indicator displayed) and off.

- Turning on summer time advances the current time by one hour.
- You can turn summer time on or off independently for each World Time Mode city.
- 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 indicator DST

World Time City Code List

City Code	GMT Differential	City Name	City Code	GMT Differential	City Name
PPG	−11	Pago Pago	JED	+3	Jeddah
HNL	−10	Honolulu	THR	+3.5	Teheran
ANC	−9	Anchorage	DXB	+4	Dubai
LAX	−8	Los Angeles	KBL	+4.5	Kabul
DEN	−7	Denver	KHI	+5	Karachi
CHI	−6	Chicago	DEL	+5.5	Delhi
NYC	−5	New York	DAC	+6	Dakar
CCS	−4	Caracas	RGN	+6.5	Yangon
RIO	−3	Rio de Janeiro	BKK	+7	Bangkok
−02	−2		HKG	+8	Hong Kong
−01	−1		OSA	+9	Osaka
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
JRS	+2	Jerusalem	TBU	+13	Nuku'Alofa

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

CASIO®

Using the Timer

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

The timer start time can be set in one-second units, up to 60 minutes. The reset time can be set in the range of one minute to five minutes. When a reset time is specified, the timer operation can be restarted from the reset time quickly and easily.

Timer Types

there are two timer types as described below. The timer can be configured so it becomes a valuable tool for yacht and surfing competitions.

Auto Repeat Timer

With the auto repeat timer, the timer automatically resets the start time and continues timing when the end of the current countdown is reached.

• The countdown repeats up to 8 times and then stops automatically.

Example: Timer start time: 10 minutes, Reset time: 5 minutes

10'00"   5'00"   0'00"   [Repeat]

Start   Reset Time   Time Up
Ⓓ
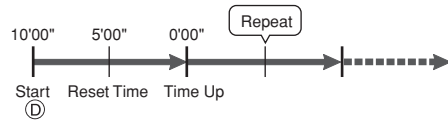
Repeat Timer

The repeat timer automatically switches to elapsed time measurement when the end of the countdown is reached.

Example: Timer start time: 10 minutes, Reset time: 5 minutes

10'00"   5'00"   0'00"   [Elapsed Time Measurement]

Start   Reset Time   Time Up   Stop   Timer Resets to Start Time
Ⓓ   Ⓓ   Ⓐ
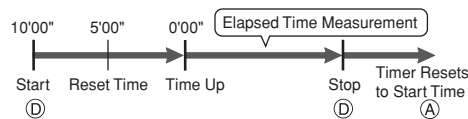
• **Progress Alert**
The watch beeps (or vibrates) every second of the last 10 seconds before reaching the reset time. The watch beeps (or vibrates) at the top of each minute following the reset time. The watch beeps (or vibrates) 30 seconds before the end of the countdown is reached.
• **Time Up Alarm**
The watch beeps (or vibrates) every second of the last 10 seconds of the countdown.
• Whether the watch beeps or vibrates depends on the current alert setting. See "Selecting Beeper or Vibration Alert" for more information.
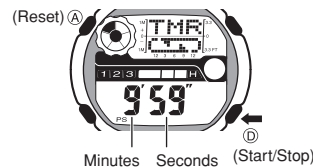

To select the timer type

Press the Ⓓ button to toggle between the auto repeat timer and repeat timer.

Repeat Timer
Ⓓ

Ⓓ

Auto Repeat Timer
Ⓓ

4. When the settings are 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.

■ To configure timer settings

1. In the Timer Mode, hold down the Ⓐ button for about two seconds until the minute digits of the start time start to flash. This is the setting screen.

Ⓐ

Start Time (Minutes)
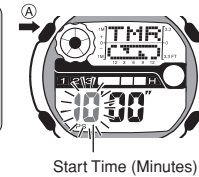
• The timer setting screen can be displayed only when the timer start time is displayed. Press the Ⓐ button to display the timer start time before performing the above step.

2. Press the Ⓒ button to select the setting you want to change.

Ⓒ

Reset Time (Minutes)

• Each press of Ⓒ moves the flashing between the settings as shown below.

Ⓒ → Timer Start Time (Minutes) → Ⓒ → Reset Time (Minutes) → Ⓒ
↑   ↓
Timer Type ← ← ←

■ To use the countdown timer

Press the Ⓓ button to start and stop the countdown timer.

• The time counts down in one-second steps.

(Reset) Ⓐ

Minutes   Seconds   Ⓓ (Start/Stop)

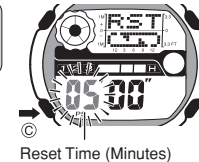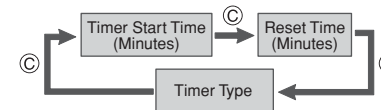
• Pressing the Ⓐ button while the countdown is stopped displays the timer start time.
• Pressing the Ⓓ button again while the countdown is stopped restarts the countdown.
• Pressing the Ⓐ button while a countdown is in progress displays the reset time and stops the countdown. After that you can restart the countdown from the reset time by pressing the Ⓓ button.
• Pressing the Ⓐ button while the reset time is on the display restores the timer start time.
• Button operation is disabled during the alarm (beep or vibration) operation.
• To stop an ongoing repeat timer elapsed time operation stops it. After that, press Ⓐ to restore the timer start time.

---

3. Configure the currently flashing setting.

To set the timer start time or reset time

Use the Ⓓ (+) and Ⓑ (–) buttons to change the currently select (flashing) setting.

Ⓑ (Decrease)

Ⓓ (Increase)
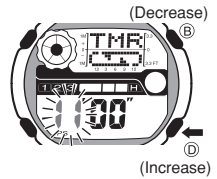
• Holding down either button scrolls the setting at high speed.
• The timer start time can be set in the range of 1 minute (1'00") to 60 minutes (60'00").
• The reset time can be set in the range of 1 minute (1'00") to 5 minutes (5'00"). A reset time that is greater than the timer start time is not allowed.

Using the Stopwatch

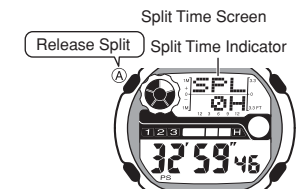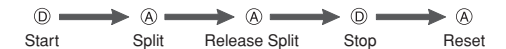Use the Ⓒ button to enter the Stopwatch Mode as shown under "Modes and Display Screens".

The stopwatch measures elapsed time in units of 1/100 second up to 99 hours, 59 minutes, 59.99 seconds (100 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)
Ⓐ

Time

Minutes   1/100 second   Ⓓ (Start/Stop)

Seconds

• Pressing Ⓐ while an elapsed time operation is being performed freezes the current time on the display and continues timing of the next split internally. This condition is indicated by the "SPL" (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 all zeros.

■ To perform elapsed time measurement

Ⓓ → Ⓓ → Ⓐ
Start   Stop   Reset

Cumulative Time Measurement
Pressing the Ⓓ button to restart the stopwatch without resetting it to all zeros resumes elapsed time measurement from where it was last stopped.
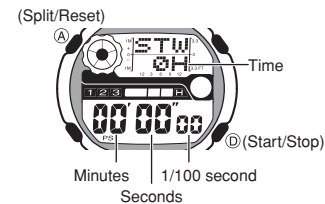
■ To perform split time measurement

Ⓓ → Ⓐ → Ⓐ → Ⓓ → Ⓐ
Start   Split   Release Split   Stop   Reset

Split Time Screen

[Release Split]   Split Time Indicator

■ To time 1st and 2nd place finishers

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

Using the Alarms and Hourly Time Signal

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

■ Daily Alarm (AL1, AL2, AL3)

The watch performs an alert operation (beep or vibration) for about 10 seconds when an alarm time is reached.

■ Snooze Alarm (SNZ)

With the snooze alarm, the watch performs an alert operation (beep or vibration) for 10 seconds when the alarm time is reached, and up to seven times at five-minute intervals thereafter. Pressing any button stops the alert operation, but the alert operation will be performed again after five minutes.

■ Hourly Time Signal

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

Whether the watch beeps or vibrates depends on the current alert setting. See "Selecting Beeper or Vibration Alert" for more information.

■ To set an alarm time

1. In the Alarm Mode, use the Ⓓ button to scroll through the alarm screens in the sequence shown below until the one you want is displayed.

Alarm Number

- Each press of the Ⓓ button cycles through alarm screens in the sequence shown below.

(Forward)

Alarm 1 (AL1) → Alarm 2 (AL2) → Alarm 3 (AL3) → Snooze Alarm (SNZ) → Hourly Time Signal (SIG) →
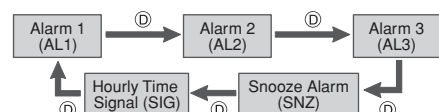
2. When the alarm you want to set is displayed, hold down the Ⓐ button for about two seconds until the hour digits start to flash on the display.

- This also causes the alarm indicator to appear, and turns on the alarm automatically. The snooze alarm screen also has a snooze indicator (SNZ).
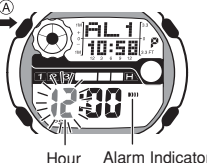
Hour   Alarm Indicator

3. Press the Ⓒ button to select the setting you want to change.

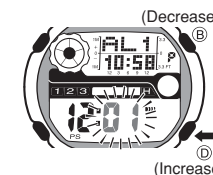- Each press of Ⓒ moves the flashing between the hour and minute as shown below.

Hour   Minutes

4. Use the Ⓓ (+) and Ⓑ (−) buttons to change each setting.

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

(Decrease)

(Increase)

Repeat steps 3 and 4 to set the time you want.

- 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.

5. When the alarm time 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.
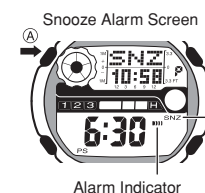
■ To turn an alarm on or off

1. In the Alarm Mode, use the Ⓓ button to display the screen for the alarm you want to turn on or off.

2. Press the Ⓐ button to toggle the displayed alarm on or off.

- Turning on an alarm or the Hourly Time Signal causes its indicator to appear on the display. The snooze alarm screen also has a snooze indicator (SNZ).

Alarm 1 Screen   Snooze Alarm Screen
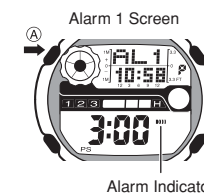
Alarm Indicator   Alarm Indicator
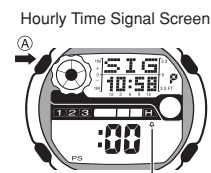
Snooze Indicator

■ To stop an alert operation

Press any button.

- In the case of the snooze alarm the alert operation will be performed again in about five minutes. The snooze indicator flashes while the snooze alarm is active (indicating that the alert operation will be performed again).
- The snooze alarm will be canceled automatically when any one of the following occurs while the SNZ indicator is flashing on the display.
  - Turning off the snooze alarm
  - Displaying the snooze alarm setting screen
  - Displaying the Timekeeping Mode setting screen

■ To test the alert operation

In the Alarm Mode, hold down the Ⓓ button to perform the alert operation.

■ To turning the hourly time signal on and off

1. In the Alarm Mode, use the Ⓓ button to display the screen for the hourly time signal (SIG).

2. Press the Ⓐ button.

- Press the Ⓐ button to toggle the hourly time signal on or off.
- Turning on an alarm or the Hourly Time Signal causes its indicator to appear on the display.

Hourly Time Signal Screen

Hourly Time Signal Indicator

CASIO®

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.
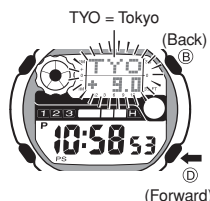- You can also turn Power Saving on and off while setting the time and date.

■ To configure Home City settings

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

GMT Differential
City Code
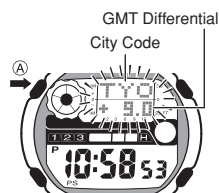
2. Use the Ⓓ (+) and Ⓑ (–) buttons to scroll through the city codes until the one you want to use as your Home City is displayed.

TYO = Tokyo
(Back) Ⓑ
(Forward) Ⓓ

- Ⓓ scrolls eastward, while Ⓑ scrolls westward. See "GMT Differentials" for a list of city codes.
- Holding down either button changes the setting at high speed.
- You can also press the Ⓒ button so "AREA" is flashing, and select a tide/Moon graph area. See "To configure location settings".

3. Press the Ⓐ button.

- This causes VIB (vibration alert) or BEEP (beep alert) to flash on the display.

- From here you can use the Ⓒ button to select the settings shown below. Each press of Ⓒ causes the applicable setting to flash.
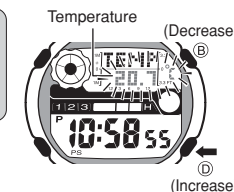
Beep/Vibration → Temperature Calibration
↑Ⓒ   Ⓒ↓
Ⓒ← Power Saving ←Ⓒ
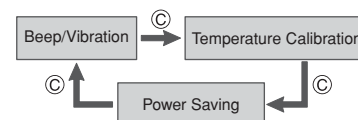
4. While the Beep/Vibration setting is flashing, press the Ⓓ button to toggle between "BEEP" (beeper alert) and "VIB" (vibration alert).

Vibration Indicator
Beep/Vibration

- The VIB (vibration) indicator appears when vibration alert it selected. No indicator is displayed while beep alert is selected.
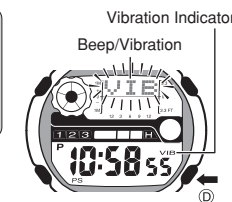
5. While Temperature Calibration is selected, use the Ⓓ (+) and Ⓑ (–) buttons to change the setting in 0.1°C steps.
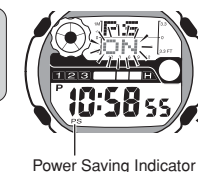
Temperature
(Decrease) Ⓑ
(Increase) Ⓓ

- Holding down either button scrolls the setting at high speed.
- You range of the temperature calibration setting is –9.9°C to +9.9°C.

The temperature sensor is calibrated at the factory, and further calibration normally is not required. Perform the above 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 correctly measure temperatures.

6. 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.

Power Saving Indicator

7. Press the Ⓐ button.

- This displays the DST setting.

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

- Use the Ⓒ button to cycle through the time and date settings shown below. Each press of Ⓒ causes the applicable setting to flash.

Summer Time →Ⓒ→ 12/24-hour →Ⓒ→ Seconds
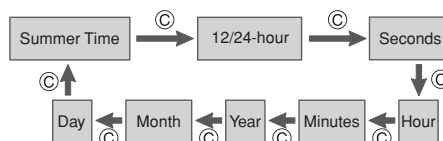↑Ⓒ   Ⓒ↓
Day ←Ⓒ Month ←Ⓒ Year ←Ⓒ Minutes ←Ⓒ Hour

9. While the Summer Time setting is selected, use the Ⓓ button to cycle through the settings described below.

- **AUTO**
  This setting enables the auto summer time setting, which turns summer time on or off in accordance with the received time calibration signal.
  - This setting uses Japan summer time data when **OSA** or **TYO** is selected as the Home City, and U.S. summer time data when **NYC**, **CHI**, **DEN**, or **LAX** is selected as the Home City.
- **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**, **OSA**, **NYC**, **CHI**, **DEN**, **LAX**, **ANC**, or **HNL** is selected as the Home City.

10. 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

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

- Pressing Ⓓ while the seconds are in the range of 30 to 59 resets them to 00 and adds 1 to the minutes. In the range of 00 to 29, the minutes are unchanged.
- 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.

Resets to 00.

12. While the Hour, Minutes, Year, Month, or Day setting is flashing, use Ⓑ (–) and Ⓓ (+) to change it.

Month, Day
Year
(Decrease) Ⓑ
(Increase) Ⓓ
Hour Minutes

- Holding down either button scrolls the setting at high speed.
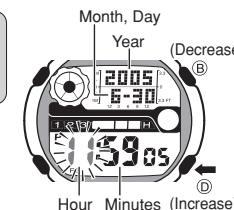
Repeat the above steps as many times as necessary to select each setting and change it as required.

- 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.

13. When all of the settings are 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.