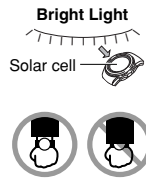


## Getting Acquainted

Congratulations upon your selection of this CASIO watch. To get the most out of your purchase, be sure to read this manual carefully.

### Keep the watch exposed to bright light



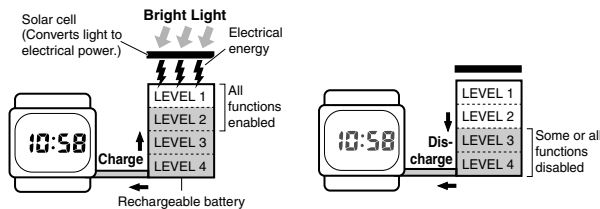
The electricity generated by the solar cell of the watch is stored by a built-in battery. Leaving or using the watch where it is not exposed to light causes the battery to run down. Make sure the watch is exposed to light as much as possible.

- When you are not wearing the watch on your wrist, position the face so it is pointed at a source of bright light.
- You should try to keep the watch outside of your sleeve as much as possible. Charging is reduced significantly if the face is only partially covered.

- The watch continues to operate, even when it is not exposed to light. Leaving the watch in the dark can cause the battery to run down, which will result in some watch functions to be disabled. If the battery goes dead, you will have to re-configure watch settings after recharging. To ensure normal watch operation, be sure to keep it exposed to light as much as possible.

#### Battery charges in the light.

#### Battery discharges in the dark.



- The actual level at which some functions are disabled depends on the watch model.
- Frequent display illumination can run down the battery quickly and require charging. The following guidelines give an idea of the charging time required to recover from a single illumination operation.
  - Approximately 5 minutes exposure to bright sunlight coming in through a window
  - Approximately 50 minutes exposure to indoor fluorescent lighting
- Be sure to read "Power Supply" for important information you need to know when exposing the watch to bright light.

### If the display of the watch is blank...

If the display of the watch is blank, it means that the watch's Power Saving function has turned off the display to conserve power.

- See "Power Saving Function" for more information.

Note that CASIO COMPUTER CO., LTD. assumes no responsibility for any damage or loss suffered by you or any third party arising through the use of this product or its malfunction.

### About This Manual



- Depending on the model of your watch, display text appears either as dark figures on a light background, or light figures on a dark background. All sample displays in this manual are shown using dark figures on a light background.
- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

## General Guide

- Press **C** to change from mode to mode.
- In any mode, press **L** to illuminate the display for about one second.

### Timekeeping Mode



Press **C**.

### World Time Mode



### Stopwatch Mode



STW

### Alarm Mode



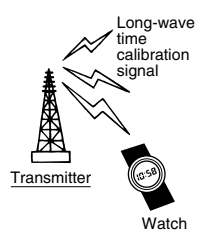
ALM

### Countdown Timer Mode



TMR

## Radio-controlled Atomic Timekeeping



Your watch receives a time calibration signal and updates its time setting accordingly.

- This watch is designed to receive the time calibration signal transmitted from Shangqiu City, Henan Province, China (Call Sign: BPC, Frequency: 68.5 kHz).
- Your watch will be able to receive the signal whenever Beijing (BJS) or Hong Kong (HKG) is selected as its Home City, and the watch is within range of the transmitter. The initial factory Home City setting of the watch is Beijing (BJS), so you will not need to change the setting if you are in the same time zone (GMT+8) as Beijing.

- As of July 2007, China does not use Daylight Saving Time (DST). If China does go to the Daylight Saving Time system in the future, some functions of this watch may no longer operate correctly.
- See the information under "Signal Reception Troubleshooting" if you experience problems with time calibration signal reception.

### Chinese Time Calibration Signal

The Chinese time calibration signal (BPC) is maintained by the National Time Service Center (<http://www.ntsc.ac.cn/>) of the Chinese Academy of Sciences, and is transmitted from a transmitter (68.5 kHz) located in Shangqiu. The time data of the Chinese time calibration signal is maintained by the National Time Service Center.

- Note that transmission of the calibration signal may be interrupted occasionally due to maintenance, lightning, etc.

## Current Time Setting

This watch adjusts its time setting automatically in accordance with a time calibration signal. You also can perform a manual procedure to set the time and date, when necessary.

- Whenever you need to travel outside of the time zone where Beijing is located (GMT+8), use the procedure under "To specify your Home City" to change the watch's Home City setting as required.
- When using the watch outside the range of the time calibration signal transmitter, you have to adjust the current time setting manually as required. See "Timekeeping" for more information about manual time settings.

### To specify your Home City



City code

1. In the Timekeeping Mode, hold down (A) until the city code starts to flash. This is the setting screen.
2. Use (D) (east) and (B) (west) to scroll through the city codes and display the one you want to use as your Home City.
  - If you want the watch to receive the Chinese time calibration signal, you should select **BJS** (Beijing) or **HKG** (Hong Kong) as your Home City.
  - For full information on city codes, see the "City Code Table".

3. Press (A) to exit the setting screen.
  - You can disable time signal reception, if you want. See "To turn auto receive on and off" for more information.
  - If you are in an area that does not use Daylight Saving Time (summer time), turn off the DST setting.

## Time Calibration Signal Reception

There are two different methods you can use to receive the time calibration signal: auto receive and manual receive.

### • Auto Receive

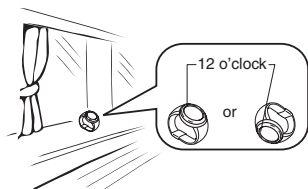
With auto receive, the watch receives the time calibration signal automatically up to five times a day. When any auto receive is successful, the remaining auto receive operations are not performed. For more information, see "About Auto Receive".

### • Manual Receive

Manual receive lets you start a time calibration receive operation with the press of a button. For more information, see "To perform manual receive".

### Important!

- When getting ready to receive the time calibration signal, position the watch as shown in the nearby illustration, with its 12 o'clock side facing towards a window. This watch is designed to receive a time calibration signal late at night. Because of this, you should place the watch near a window as shown in the illustration when you take it off at night. Make sure there are no metal objects nearby.



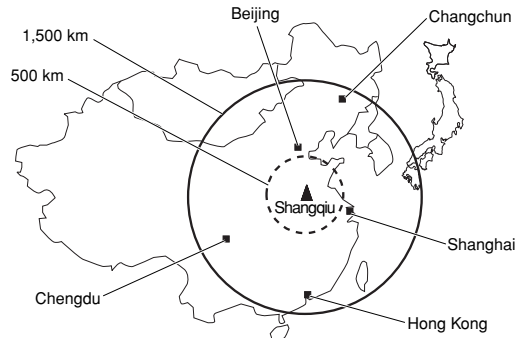
- Make sure the watch is facing the right way.
- Proper signal reception can be difficult or even impossible under the conditions listed below.



- Inside or among buildings
- Inside a vehicle
- Near household appliances, office equipment, or a mobile phone
- Near a construction site, airport, or other sources of electrical noise
- Near high-tension power lines
- Among or behind mountains

- Signal reception normally is better at night than during the day.
- Time calibration signal reception takes from one to seven minutes. Take care that you do not perform any button operations or move the watch during this time.

## Approximate Reception Range



- At distances further than about 500 kilometers from the Shangqiu (China) transmitter, signal reception may not be possible during certain times of year or times of day. Radio interference also may cause problems with reception.
- Even when the watch is within the reception range of the transmitter, signal reception will be impossible if the signal is blocked by mountains or other geological formations between the watch and signal source.
- Signal reception is affected by weather, atmospheric conditions, and seasonal changes.

## About Auto Receive

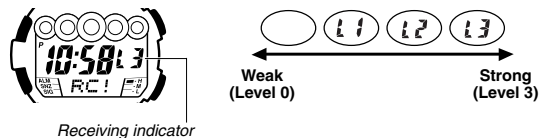
The watch starts to receive the time calibration signal automatically when the time in the Timekeeping Mode reaches 1:00 a.m., 2:00 a.m., 3:00 a.m., 4:00 a.m., and 5:00 a.m. each day (calibration times). When any auto receive is successful, the remaining auto receive operations are not performed.

### Note

- When a calibration time is reached, the watch will receive the calibration signal only if it is in either the Timekeeping Mode or World Time Mode. Reception is not performed if a calibration time is reached while you are configuring settings.
- Auto receive of the calibration signal is designed to be performed early in the morning, while you sleep (provided that the Timekeeping Mode time is set correctly). Before going to bed for the night, remove the watch from your wrist, and put it in a location where it can receive the signal easily.
- The watch receives the calibration signal for one to seven minutes everyday when the time in the Timekeeping Mode reaches each of the calibration times. Avoid performing any button operation within seven minutes before or after any one of the calibration times. Button operation can interfere with correct calibration.
- Remember that reception of the calibration signal depends on the current time in the Timekeeping Mode. The receive operation will be performed whenever the display shows any one of the calibration times, regardless of whether or not the displayed time actually is the correct time.
- Calibration signal reception is disabled while a countdown timer operation is in progress.

## About the Receiving Indicator

The receiving indicator shows the strength of the calibration signal being received. For best reception, be sure to keep the watch in a location where signal strength is strongest.



- Use the receiving indicator as a guide for checking signal strength and for finding the best location for the watch during signal receive operations.
- Even in an area where signal strength is strong, it takes about 10 seconds for signal reception to stabilize enough for the receiving indicator to indicate signal strength.

### To perform manual receive



Receiving

1. Enter the Timekeeping Mode.
2. Place the watch on a stable surface so its 12 o'clock side is facing towards a window.
3. Hold down (D) for about two seconds until **RC!** appears on the display.

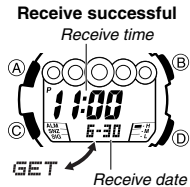
• Time calibration signal reception takes from one to seven minutes. Take care that you do not perform any button operations or move the watch during this time.

• If the receive operation is successful, the reception date and time appear on the display, along with the **GET** indicator.

The watch will enter the Timekeeping Mode if you press (D) or if you do not perform any button operation for about two or three minutes.

• If the current reception fails but a previous reception was successful, the display shows the previous reception's date and time, and the **ERR** indicator.

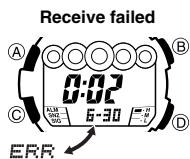
--:-- indicates that none of the reception operations were successful. The watch will enter the Timekeeping Mode without changing the time setting if you press (D) or if you do not perform any button operation for about two or three minutes.



Receive successful

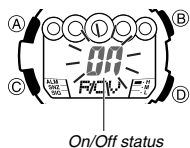
Receive time

Receive date



Receive failed

### To turn auto receive on and off



On/Off status

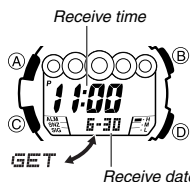
1. In the Timekeeping Mode, press (D) to display the Last Signal screen.
2. Press (A) so the current auto receive setting (**on** or **OFF**) is flashing. This is the setting screen.

• Note that the setting screen will not appear if the currently selected Home City is one that does not support time calibration reception.

3. Press (D) to toggle auto receive (**on**) and off (**OFF**).
4. Press (A) to exit the setting screen.

• For information about city codes that support signal receive, see "To specify your Home City".

### To check the latest signal reception results



Receive time

Receive date

In the Timekeeping Mode, press (D) to display the Last Signal screen.

• When receive is successful, the display shows the time and date that receive was successful.

--:-- indicates that none of the reception operations were successful.

• To return to the Timekeeping Mode, press (D).

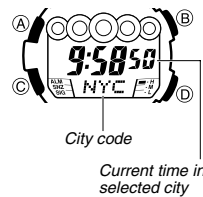
### Signal Reception Troubleshooting

Check the following points whenever you experience problems with signal reception.

Problem	Probable Cause	What you should do
Cannot perform manual receive.	<ul style="list-style-type: none"> <li>• The watch is not in the Timekeeping Mode.</li> <li>• Your current Home City is not one of the following: <b>BJS</b> or <b>HKG</b></li> <li>• Radio interference is often present during the day time, which can interfere with calibration signal reception.</li> </ul>	<ul style="list-style-type: none"> <li>• Enter the Timekeeping Mode and try again.</li> <li>• Select <b>BJS</b> or <b>HKG</b> as your Home City.</li> <li>• Check to make sure the watch is in a location where it can receive the signal.</li> </ul>
Time setting is incorrect following signal reception.	<ul style="list-style-type: none"> <li>• The Home City code setting is not correct for the area where you are using the watch.</li> </ul>	<ul style="list-style-type: none"> <li>• Select the correct Home City code.</li> </ul>

- For further information, see "Important!" under "Time Calibration Signal Reception" and "Radio-controlled Atomic Timekeeping Precautions".

### World Time



City code

Current time in selected city

The World Time Mode shows you the current time in 48 cities (29 time zones) around the world.

• If the current time shown for a city is wrong, check your Home City time settings and make the necessary changes.

• All of the operations in this section are performed in the World Time Mode, which you enter by pressing (C).

#### To view the time in another city

In the World Time Mode, use (D) (east) and (B) (west) to scroll through the city codes (time zones).

• For full information on city codes, see the "City Code Table".

#### To toggle a city code time between Standard Time and Daylight Saving Time



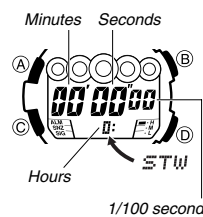
DST indicator

1. In the World Time Mode, use (D) or (B) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
2. Hold down (A) to toggle Daylight Saving Time (**DST** indicator displayed) and Standard Time (**DST** indicator not displayed).

• The **DST** indicator will appear whenever you display a city code for which Daylight Saving Time is turned on.

• Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

### Stopwatch



Minutes Seconds

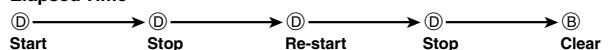
1/100 second

The stopwatch lets you measure elapsed time, split times, and two finishes. It also includes Auto-Start.

- The display range of the stopwatch is 999 hours, 59 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing (C).

#### To measure times with the stopwatch

##### Elapsed Time



##### Split Time



##### Two Finishes



#### About Auto-Start

With Auto-Start, the watch performs a 5-second countdown, and stopwatch operation starts automatically when the countdown reaches zero. During the final three seconds of the countdown, a beeper sounds with each second.

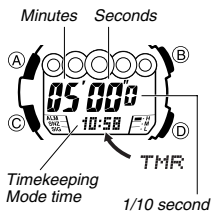
#### To use Auto-Start



1. While the stopwatch screen is showing all zeros in the Stopwatch Mode, press (A).
  - This displays a 5-second countdown screen.
  - To return to the all zeros screen, press (A) again.

2. Press (D) to start the countdown.
  - When the countdown reaches zero, a tone sounds and a stopwatch timing operation starts automatically.
  - Pressing (D) while the Auto-Start countdown is in progress starts the stopwatch immediately.

## Countdown Timer



You can set the countdown timer within a range of one to 60 minutes. An alarm sounds when the countdown reaches zero.

- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing **C**.

### To set the countdown start time

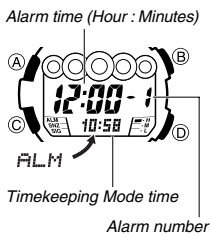
- While the countdown start time is on the display in the Countdown Timer Mode, hold down **A** until the current countdown start time starts to flash, which indicates the setting screen.

- If the countdown start time is not displayed, use the procedure under "To use the countdown timer" to display it.
- While a setting is flashing, use **D** (+) and **B** (-) to change it.
  - Press **A** to exit the setting screen.

### To use the countdown timer

- Press **D** while in the Countdown Timer Mode to start the countdown timer.
- When the end of the countdown is reached, the alarm sounds for 10 seconds or until you stop it by pressing any button. The countdown time is reset automatically to its starting value after the alarm stops.
  - Press **D** while a countdown operation is in progress to pause it. Press **D** again to resume the countdown.
  - To stop a countdown operation completely, first pause it (by pressing **D**), and then press **B**. This returns the countdown time to its starting value.

## Alarms



You can set five independent Daily Alarms. When an alarm is turned on, the alarm tone sounds when the alarm time is reached. One of the alarms can be configured as a snooze alarm or a one-time alarm, while the other four are one-time alarms. You also can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

- There are five alarm screens numbered **1** through **5**. The hourly time signal screen is indicated by **:00**.
- When you enter the Alarm Mode, the screen you were viewing when you last exited the mode appears first.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **C**.

### To set an alarm time



- In the Alarm Mode, use **D** to scroll through the alarm screens until the one whose time you want to set is displayed.



- You can configure Alarm **1** as a snooze alarm or a one-time alarm. Alarms **2** through **5** can be used as one-time alarms only.
  - The snooze alarm repeats every five minutes.
- After you select an alarm, hold down **A** until the hour setting of the alarm time starts to flash. This indicates the setting screen.
  - Press **C** to move the flashing between the hour and minute settings.
  - While a setting is flashing, use **D** (+) and **B** (-) to change it.
    - When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (**P** indicator).
  - Press **A** to exit the setting screen.

### Alarm Operation

The alarm sounds at the preset time for about 10 seconds. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, or until you turn the alarm off or change it to a one-time alarm.

#### Note

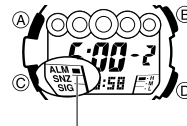
- Pressing any button stops the alarm tone operation.
- Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.

Displaying the Timekeeping Mode setting screen  
Displaying the Alarm **1** setting screen

### To test the alarm

In the Alarm Mode, hold down **D** to sound the alarm.

### To turn Alarms **2** through **5** on and off

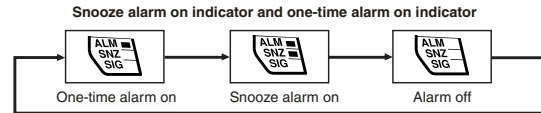


One-time alarm on indicator

- In the Alarm Mode, use **D** to select a one-time alarm (alarm number **2** through **5**).
  - Press **B** to toggle the displayed alarm on and off.
- Turning on a one-time alarm (**2** through **5**) displays the one-time alarm on indicator on the alarm screen. The one-time alarm on indicator also is displayed in all modes when any alarm is on.

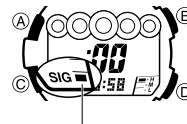
### To select the operation of Alarm **1**

- In the Alarm Mode, use **D** to select Alarm **1**.
- Press **B** to cycle through the available settings in the sequence shown below.



- The applicable alarm on indicator is displayed in all modes when an alarm is turned on.
- The snooze alarm on indicator flashes during the 5-minute intervals between alarms.
- Displaying the Alarm **1** setting screen while the snooze alarm is turned on automatically turns off the snooze alarm (making Alarm **1** a one-time alarm).

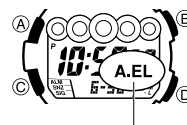
### To turn the hourly time signal on and off



Hourly time signal on indicator

- In the Alarm Mode, use **D** to select the Hourly Time Signal (**:00**).
  - Press **B** to toggle it on and off.
- Turning on the Hourly Time Signal displays the hourly time signal on indicator in all modes.

## Illumination



Auto light switch indicator

The watch has an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. The watch's auto light switch illuminates the display automatically when you angle the watch towards your face.

- The auto light switch must be turned on (indicated by the auto light switch indicator) for it to operate.
- See "Illumination Precautions" for other important information.

### To turn on illumination manually

In any mode, press **L** to illuminate the display for about one second.

- The above operation turns on illumination regardless of the current auto light switch setting.

### About the Auto Light Switch

Turning on the auto light switch causes illumination to turn on whenever you position your wrist as described below in any mode. Note that this watch features a "Full Auto EL Light," so the auto light switch operates only when available light is below a certain level. It does not illuminate the display under bright light.

Moving the watch to a position that is parallel to the ground and then tilting it towards your face at more than 40 degrees causes illumination to turn on.

- Wear the watch on the outside of your wrist.



**Warning!**

- Always make sure you are in a safe place whenever you are reading the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not startle or distract others around you.
- When you are wearing the watch, make sure that its auto light switch is turned off before riding on a bicycle, or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.

**To turn the auto light switch on and off**

In the Timekeeping Mode (except when a setting screen is on the display), hold down **L** for about three seconds to toggle the auto light switch on (auto light switch indicator displayed) and off (auto light switch indicator not displayed).

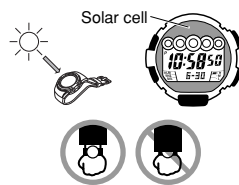
- The auto light switch indicator remains in all modes while the auto light switch is turned on.

**Power Supply**

This watch is equipped with a solar cell and a special rechargeable battery (secondary battery) that is charged by the electrical power produced by the solar cell. The illustration shown below shows how you should position the watch for charging.

**Example:** Orient the watch so its face is pointing at a light source.

- The illustration shows how to position a watch with a resin band.
- Note that charging efficiency drops when any part of the solar cell is blocked by clothing, etc.
- You should try to keep the watch outside of your sleeve as much as possible. Charging is reduced significantly even if the face is covered only partially.



**Important!**

- Storing the watch for long periods in an area where there is no light or wearing it in such a way that it is blocked from exposure to light can cause rechargeable battery power to run down. Make sure that the watch is exposed to bright light whenever possible.
- This watch uses a special rechargeable battery to store power produced by the solar cell, so regular battery replacement is not required. However, after very long use, the rechargeable battery may lose its ability to achieve a full charge. If you experience problems getting the special rechargeable battery to charge fully, contact your dealer or CASIO distributor about having it replaced.
- The special rechargeable (secondary) battery used by your watch is not intended to be removed or replaced by you. Use of a rechargeable battery other than the special one specified for this watch can damage the watch.
- The current time and all other settings return to their initial factory defaults whenever battery power drops to Level 5 and when you have the battery replaced.
- Turn on the watch's Power Saving function and keep it in an area normally exposed to bright light when storing it for long periods. This helps to keep the rechargeable battery from going dead.

**Battery Power Indicator and Recover Indicator**

The battery power indicator shows you the current power level of the rechargeable battery.



Battery power indicator

Level	Battery Power Indicator	Function Status
1		All functions enabled.
2		All functions enabled.
3	 (Charge Soon Alert)	Alarm, hourly time signal, illumination and time calibration signal reception disabled.
4	 (Charge Soon Alert)	All functions, including auto light switch, disabled.
5		All functions, including timekeeping, disabled and initialized.

- **LOW** flashes on the display in the Timekeeping Mode when battery is at Level 3.
- **LOW** at Level 3 and the flashing charge indicator (**CHG**) at Level 4 tell you that battery power is very low, and that exposure to bright light for charging is required as soon as possible.

- At Level 5, all functions are disabled and settings return to their initial factory defaults. Functions are enabled once again after the rechargeable battery is charged, but you need to set the time and date, after the battery reaches Level 4 (indicated by the flashing charge indicator (**CHG**)) from Level 5. You will not be able to configure any of the other settings until the battery reaches Level 3 (no charge indicator) after dropping to Level 5.
- Leaving the watch in direct sunlight or some other very strong light source can cause the battery power indicator to show a reading that is momentarily higher than the actual battery level. The correct battery power indicator should appear after a few minutes.
- If you use the illumination or alarms a number of times during a short period, the charge indicator (**CHG**) flashes and the following operations become disabled until battery power recovers.

- Illumination*
- Beeper tone*
- Time calibration signal reception*

After some time, battery power will recover and the charge indicator (**CHG**) will disappear, indicating that the above functions are enabled again.

**Charging Precautions**

Certain charging conditions can cause the watch to become very hot. Avoid leaving the watch in the areas described below whenever charging its rechargeable battery. Also note that allowing the watch to become very hot can cause its liquid crystal display to black out. The appearance of the LCD should become normal again when the watch returns to a lower temperature.

**Warning!**

Leaving the watch in bright light to charge its rechargeable battery can cause it to become quite hot. Take care when handling the watch to avoid burn injury. The watch can become particularly hot when exposed to the following conditions for long periods.

- On the dashboard of a car parked in direct sunlight
- Too close to an incandescent lamp
- Under direct sunlight

**Charging Guide**

After a full charge, timekeeping remains enabled for up to about nine months.

- The following table shows the amount of time the watch needs to be exposed to light each day in order to generate enough power for normal daily operations.

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

- Since these are the specs, we can include all the technical details.
  - Display on 18 hours per day, sleep state 6 hours per day
  - 1 illumination operation (1.5 seconds) per day
  - 10 seconds of alarm operation per day
  - 10 minutes of signal reception per day
- Stable operation is promoted by frequent exposure to light.

**Recovery Times**

The table below shows the amount exposure that is required to take the battery from one level to the next.

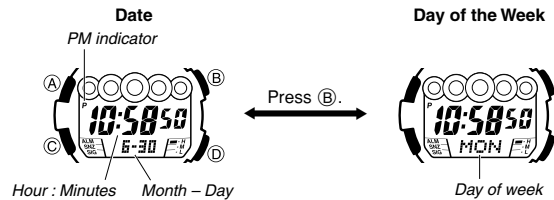
Exposure Level (Brightness)	Approximate Exposure Time				
	Level 5	Level 4	Level 3	Level 2	Level 1
Outdoor Sunlight (50,000 lux)		2 hours	25 hours	7 hours	
Sunlight Through a Window (10,000 lux)		6 hours	126 hours	35 hours	
Daylight Through a Window on a Cloudy Day (5,000 lux)		11 hours	256 hours	71 hours	
Indoor Fluorescent Lighting (500 lux)		120 hours	---		

- The above exposure time values are all for reference only. Actual required exposure times depend on lighting conditions.

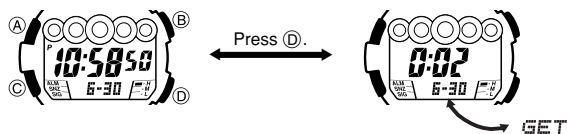
## Timekeeping

Use the Timekeeping Mode to set and view the current time and date.

- When setting the time, you also can configure settings for the 12/24-hour format, and power saving on/off, and you can specify the screens that are displayed in the Timekeeping Mode.
- In the Timekeeping Mode, you can press (B) to toggle the display contents as shown below.



- Pressing (D) in the Timekeeping Mode will display the Last Signal screen.

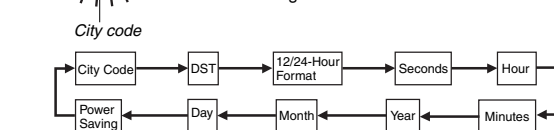


### Setting the Time and Date Manually

Make sure you select your Home City code before you change the current time and date settings. World Time Mode times are all displayed in accordance with the Timekeeping Mode settings. Because of this, World Time Mode times will not be correct if you do not select the proper Home City code before setting the time and date in the Timekeeping Mode.

#### To set the time and date manually

- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
- Press (C) to change the flashing contents in the sequence shown below to select other settings.



- When the setting you want to change is flashing, use (B) and/or (D) to change it as described below.

Screen:	To do this:	Do this:
EJS	Change the city code	Use (D) (east) and (B) (west).
OFF DST	Toggle between Standard Time (OFF) and Daylight Saving Time (ON)	Press (D).
12H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press (D).
50	Reset the seconds to 00	Press (D).
10:58	Change the hour or minutes	Use (D) (+) and (B) (-).
20 00 6-30	Change the year, month, or day	
ON PS	Toggle Power Saving on (ON) and off (OFF)	Press (D).

- See "City Code Table" for a complete list of available city codes.
- For information about Power Saving, see "Power Saving Function".

- Press (A) to exit the setting screen.

### Daylight Saving Time (DST)

Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

- As of July 2007, China does not use Daylight Saving Time (DST). If China does go to the Daylight Saving Time system in the future, some functions of this watch may no longer operate correctly.
- If you experience problems receiving the time calibration signal in your area, it probably is best to switch between Standard Time and Daylight Saving Time (summer time) manually.

### To change the Daylight Saving Time (summer time) setting

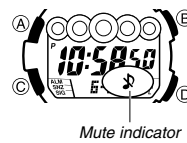
- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
  - Press (C) and the DST setting screen appears.
  - Press (D) to toggle between Daylight Saving Time (ON displayed) and Standard Time (OFF displayed).
  - When the setting you want is selected, press (A) to exit the setting screen.
- The DST indicator appears to indicate that Daylight Saving Time is turned on.

## Reference

This section contains more detailed and technical information about watch operation. It also contains important precautions and notes about the various features and functions of this watch.

### Button Operation Tone

- The button operation tone sounds any time you press one of the watch's buttons. You can turn the button operation tone on or off as desired.
- Even if you turn off the button operation tone, the alarm, Hourly Time Signal, and Countdown Timer Mode alarm all operate normally.



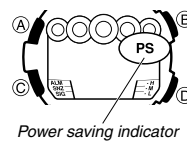
### To turn the button operation tone on and off

In any mode (except when a setting screen is on the display), hold down (C) to toggle the button operation tone on (mute indicator not displayed) and off (mute indicator displayed).

- Since the (C) button is also the mode change button, holding it down to turn the button operation tone on or off also causes the watch's current mode to change.
- The mute indicator is displayed in all modes when the button operation tone is turned off.

### Power Saving Function

When turned on, the Power Saving function enters a sleep state automatically whenever the watch is left in an area for a certain period where it is dark. The table below shows how watch functions are affected by the Power Saving function.



Elapsed Time in Dark	Display	Operation
60 to 70 minutes	Blank, with Power Saving indicator (PS) flashing	All functions enabled, except for the display
6 or 7 days	Blank, with Power Saving indicator (PS) not flashing	Beeper tone, illumination, and display are disabled.

- Wearing the watch inside the sleeve of clothing can cause it to enter the sleep state.
- The watch will not enter the sleep state between 6:00 AM and 9:59 PM. If the watch is already in the sleep state when 6:00 AM arrives, however, it will remain in the sleep state.

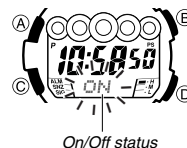
### To recover from the sleep state

Perform any one of the following operations.

- Move the watch to a well-lit area.
- Press any button.
- Angle the watch towards your face for reading.

### To turn Power Saving on and off

- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
  - Press (C) nine times until the Power Saving on/off screen appears.
  - Press (D) to toggle Power Saving on (ON) and off (OFF).
  - Press (A) to exit the setting screen.
- The Power Saving indicator (PS) is on the display in all modes while Power Saving is turned on.



### Auto Return Features

- If you leave the watch in the Alarm Mode for two or three minutes without performing any operation, it returns to the Timekeeping Mode automatically.
- If you leave the watch with a flashing setting on the display for two or three minutes without performing any operation, the watch exits the setting screen automatically.

## Scrolling

The **(E)** and **(D)** buttons are used in various modes and setting screens to scroll through data. In most cases, holding down these buttons during a scroll operation scrolls through the data at high speed.

## Initial Screens

When you enter the World Time or Alarm Mode, the data you were viewing when you last exited the mode appears first.

## Radio-controlled Atomic Timekeeping Precautions

- Strong electrostatic charge can result in the wrong time being set.
- The time calibration signal is bounced off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the ionosphere to higher altitudes due to seasonal atmospheric changes or the time of day may change the reception range of the signal and make reception temporarily impossible.
- Even if the time calibration signal is received properly, certain conditions can cause the time setting to be off by up to one second.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make manually.
- The watch is designed to update the date and day of the week automatically for the period January 1, 2000 to December 31, 2099. Setting of the date by a time calibration signal cannot be performed starting from January 1, 2100.
- This watch can receive signals that differentiate between leap years and non-leap years.
- Though this watch is designed to receive both time data (hour, minutes, seconds) and date data (year, month, day), certain signal conditions can limit reception to time data only.
- Normally, the signal reception date shown by the Last Signal screen is the date data included in the received time calibration signal. When only time data is received, however, the Last Signal screen shows the date as kept in the Timekeeping Mode at the time of signal reception.
- If you are in an area where proper time calibration signal reception is impossible, the watch keeps time within  $\pm 15$  seconds a month at normal temperature.
- If you have problems with proper time calibration signal reception or if the time setting is wrong after signal reception, check your current city code, DST (summer time), and auto receive settings.

## Timekeeping

- Resetting the seconds to **00** while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to **00** without changing the minutes.
- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.
- The year can be set in the range of 2000 to 2099.
- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced or when battery power drops to Level 5.
- The times for the Timekeeping Mode and all the city codes of the World Time Mode are calculated in accordance with each city's UTC differential.
- The UTC differential is a value that indicates the time difference between a reference point in Greenwich, England and the time zone where a city is located.
- The letters "UTC" is the abbreviation for "Coordinated Universal Time", which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation.

## 12-hour/24-hour Timekeeping Formats

The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode also is applied in all other modes.

- With the 12-hour format, the PM indicator (**P**) appears on the display for times in the range of noon to 11:59 p.m. and no indicator appears for times in the range of midnight to 11:59 a.m.
- With the 24-hour format, times are displayed in the range of 0:00 to 23:59, without any indicator.

## Illumination Precautions

- The electro-luminescent panel that provides illumination loses power after very long use.
- Illumination may be hard to see when viewed under direct sunlight.
- The watch may emit an audible sound whenever the display is illuminated. This is due to vibration of the EL panel used for illumination, and does not indicate malfunction.
- Illumination turns off automatically whenever an alarm sounds.
- Frequent use of illumination runs down the battery.

## Auto light switch precautions

- The auto light switch is turned off automatically whenever battery power is at Level 4.
- Wearing the watch on the inside of your wrist, movement of your arm, or vibration of your arm can cause frequent activation of the auto light switch and illumination of the display. To avoid running down the battery, turn off the auto light switch whenever engaging in activities that might cause frequent illumination.
- Note that wearing the watch under your sleeve while the auto light switch is turned on can cause frequent illumination of the display and can run down the battery.



- Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- Illumination turns off in about one second, even if you keep the watch pointed towards your face.
- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back towards your face again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again.
- Under certain conditions, illumination may not turn on until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the auto light switch.
- You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does not indicate a problem with the watch.

## City Code Table

City Code	City	GMT Differential	Other major cities in same time zone
PPG	Pago Pago	-11.0	
HNL	Honolulu	-10.0	Papeete
ANC	Anchorage	-09.0	Nome
YVR	Vancouver	-08.0	San Francisco, Las Vegas, Seattle/Tacoma, Dawson City, Tijuana
LAX	Los Angeles	-08.0	
YEA	Edmonton	-07.0	El Paso, Edmonton, Culiacan
DEN	Denver	-07.0	
MEX	Mexico City	-06.0	Houston, Dallas/Fort Worth, New Orleans, Winnipeg
CHI	Chicago	-06.0	
MIA	Miami	-05.0	Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota
YTO	Toronto	-05.0	
NYC	New York	-05.0	
CCS	Caracas	-04.0	La Paz, Santiago, Port Of Spain
YHZ	Halifax	-04.0	
YYT	St. Johns	-03.5	
RIO	Rio De Janeiro	-03.0	Sao Paulo, Buenos Aires, Brasilia, Montevideo
RAI	Praia	-01.0	
LIS	Lisbon	+00.0	Dublin, Casablanca, Dakar, Abidjan
LON	London	+00.0	
MAD	Madrid	+01.0	Milan, Amsterdam, Algiers, Hamburg, Frankfurt, Vienna
PAR	Paris	+01.0	
ROM	Rome	+01.0	
BER	Berlin	+01.0	
STO	Stockholm	+01.0	
ATH	Athens	+02.0	Helsinki, Istanbul, Beirut, Damascus, Cape Town
CAI	Cairo	+02.0	
JRS	Jerusalem	+02.0	
MOW	Moscow	+03.0	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi
JED	Jeddah	+03.0	
THR	Tehran	+03.5	Shiraz
DXB	Dubai	+04.0	Abu Dhabi, Muscat
KBL	Kabul	+04.5	
KHI	Karachi	+05.0	Male
DEL	Delhi	+05.5	Mumbai, Kolkata, Colombo
DAC	Dhaka	+06.0	
RGN	Yangon	+06.5	
BKK	Bangkok	+07.0	Jakarta, Phnom Penh, Hanoi, Vientiane
SIN	Singapore	+07.0	
HKG	Hong Kong	+08.0	Kuala Lumpur, Manila, Perth, Ulaanbaatar
BJS	Beijing	+08.0	
TPE	Taipei	+08.0	
SEL	Seoul	+09.0	Pyongyang
TYO	Tokyo	+09.0	
ADL	Adelaide	+09.5	Darwin
GUM	Guam	+10.0	Melbourne, Rabaul
SYD	Sydney	+10.0	
NOU	Noumea	+11.0	Port Vila
WLG	Wellington	+12.0	Christchurch, Nadi, Nauru Island

- Based on data as of June 2007.