

# Operation Guide 3347

CASIO®

## Getting Acquainted

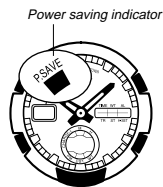
Congratulations upon your selection of this CASIO watch. To get the most out of your purchase, be sure to carefully read this manual and keep it on hand for later reference when necessary.

- This watch does not have a time zone that corresponds to the Greenwich Mean Time differential of -3.5 hours. Because of this, the radio-controlled timekeeping and World Time functions will not display the correct time for Newfoundland, Canada.

Expose the watch to bright light to charge its batteries before using it. You can use this watch even as its batteries are being charged by exposure to bright light.

- Be sure to read "Batteries" of this manual for important information you need to know when exposing the watch to bright light.

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

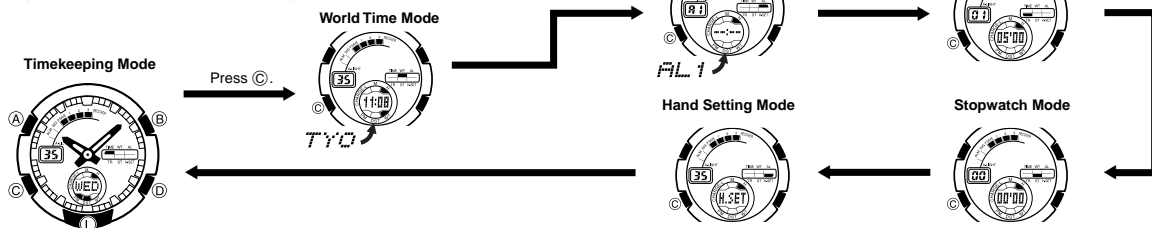


If the Power Saving indicator (PSAVE) is flashing on the display, it means that the display is blank because the watch's Power Saving function has turned it off to conserve power. Power Saving automatically turns off the display and enters a sleep state whenever your watch is left for a certain period in an area where it is dark. If the watch is kept in the dark for a longer period, the analog hands will also stop moving after a few days.

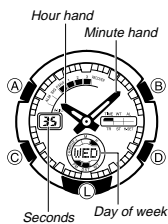
- The initial factory default setting is Power Saving on.
- The watch will recover from the sleep state if you move it to a well-lit area, if you press any button, or if you angle the watch towards your face for reading.
- See "Power Saving Function" for more information.

## General Guide

- Press (C) to change from mode to mode.
- In any mode, press (L) to illuminate the display.



## Radio-controlled Atomic Timekeeping



This watch receives a time calibration signal and updates its time setting accordingly. The time calibration signal includes both Standard Time and Daylight Saving Time (summer time) data.

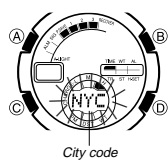
- This watch is designed to pick up the time calibration signal transmitted in the United States (Fort Collins, Colorado).
- The U.S. time calibration signal can be picked up by the watch while in North America\*.
- \* The term "North America" in this manual refers to the area that consists of Canada, the continental United States, and Mexico.

### Current Time Setting

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

- The first thing you should do after purchasing this watch is to set your Home City, which is the city where you will normally use the watch. For more information, see "To set your Home City" below.
- When using the watch outside the ranges of the U.S. time signal transmitter, you have to adjust the current time setting manually as required. See "Timekeeping" for more information about manual time setting.
- The analog time of this watch is synchronized with the digital time. Because of this, the analog time setting is automatically adjusted whenever you change the digital setting. See "Analog Timekeeping" for more information.

### To set your Home City



1. In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
2. Use (D) (east) and (B) (west) to scroll through the city codes until the one you want to use as your Home City is displayed.
  - The following are the city codes for major cities in North America.
  - LAX: Los Angeles, San Francisco, Las Vegas, Seattle, Vancouver, Tijuana
  - DEN: Denver, El Paso, Edmonton, Culiacan
  - CHI: Chicago, Houston, Dallas/Fort Worth, New Orleans, Winnipeg, Mexico City
  - NYC: New York, Detroit, Miami, Boston, Montreal
  - Note that this watch does not have a city code that corresponds to Newfoundland.

3. Press (A) to exit the setting screen.

- Normally, your watch should show the correct time as soon as you select your Home City Code. If it does not, it should adjust automatically after the next auto receive (in the middle of the night). You can also perform manual receive or you can set the time manually.
- If you are in an area that does not use Daylight Saving Time (summer time), turn off the DST setting.

## About This Manual



(Light)

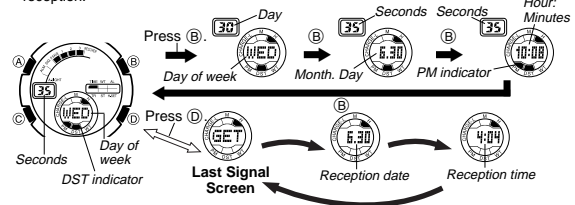


(Light)

- 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.

### To display the digital time and last signal screen

- In the Timekeeping Mode, press (B) to cycle through the digital time screens as shown below.
- In the Timekeeping Mode, press (D) to display the last signal screen. The last signal screen shows the date and time of the last successful time calibration signal reception.



### 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

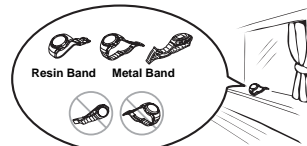
With auto receive, the watch automatically picks up the time calibration signal five times a day at 0:00 a.m., 1:00 a.m., 2:00 a.m., 3:00 a.m., and 4:00 a.m. For more information, see "About Auto Receive".

#### Manual Receive

Manual receive lets you start a time calibration signal reception 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. Make sure there are no metal objects nearby.



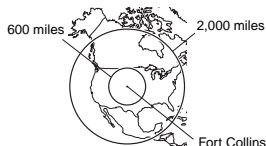
- The watch should not be on its side or facing the wrong way.

- 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 is normally better at night than during the day.
- Time calibration signal reception takes from two to six minutes, but in some cases it can take as long as 12 minutes. Take care that you do not perform any button operations or move the watch during this time.



- Under good reception conditions, signal reception is possible within a radius of about 2,000 miles (3,000 kilometers) from the Fort Collins transmitter.
- At distances further than about 600 miles (1,000 kilometers) from the Fort Collins transmitter, signal reception may not be possible during certain times of year or times of day. Radio interference may also cause problems with reception.
- See the information under "Signal Reception Troubleshooting" if you experience problems with time calibration signal reception.

### About Auto Receive

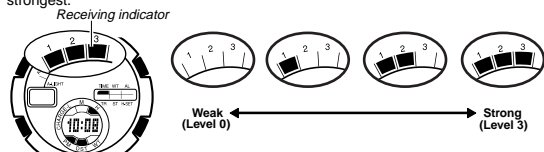
When auto receive is turned on, the watch automatically starts to receive the time calibration signal when the time in the Timekeeping Mode reaches 0:00 a.m., 1:00 a.m., 2:00 a.m., 3:00 a.m., and 4:00 a.m. each day (calibration times). The watch will also perform an additional auto receive at 5:00 a.m. if none of the regularly scheduled auto receive operations are successful.

### Note

- Auto receive is performed only if the watch is in the Timekeeping Mode or World Time Mode when one of the calibration times is reached. It is not performed if a calibration time is reached while an alarm is sounding, or while you are configuring settings (while settings are flashing on the display).
- Auto receipt 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 easily receive the signal.
- When auto receive is turned on, the watch receives the calibration signal for two to six minutes everyday when the time in the Timekeeping Mode reaches each of the five calibration times. Do not perform any button operation within six minutes before or after any of the five calibration times. Doing so can interfere with correct calibration.
- Remember that reception of the calibration signal depends on the time kept in the digital display. Reception will be performed whenever the display shows one of the five calibration times, regardless of whether or not the displayed time is actually the correct time.
- When two, three, four, or five receptions are successful, the watch uses the data of the last reception for calibration. When only one reception is successful, the watch uses the data of the successful reception.

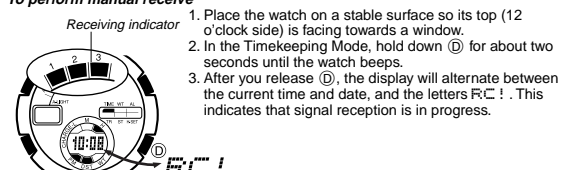
### About the Receiving Indicator

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.



- 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.
- Use the receiving indicator as a guide for checking signal strength and for finding the best location for the watch during signal reception.
- The Level 3 receiving indicator remains on the display in all modes following reception of the time calibration signal and calibration of the watch's time setting. The Level 3 receiving indicator is not displayed if signal reception was unsuccessful or after manual adjustment of the current time setting.
- The Level 3 receiving indicator indicates that at least one of the five calibration signal receive operations was successful. Note, however, that the Level 3 receiving indicator is cleared from the display at 3:00 a.m. each day.

### To perform manual receive



1. Place the watch on a stable surface so its top (12 o'clock side) is facing towards a window.
2. In the Timekeeping Mode, hold down (D) for about two seconds until the watch beeps.
3. After you release (D), the display will alternate between the current time and date, and the letters FR! . This indicates that signal reception is in progress.

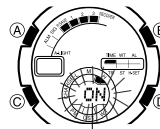
- Time calibration signal reception normally takes from two to six minutes. Take care that you do not perform any button operations or move the watch during this time.
- After signal reception is complete, the display of the watch changes to the last signal screen.

### Note

- To interrupt a reception and return to the Timekeeping Mode, press (D).
- If reception is unsuccessful, the message ERF appears on the display for about one or two minutes. After that, the watch returns to the Timekeeping Mode.
- You can also change from the last signal or ERF screen to the normal timekeeping screen by pressing (D).

### To turn auto receive on and off

1. In the Timekeeping Mode, press (D) to display the last signal screen.
  - The watch will automatically return to the Timekeeping Mode if you do not perform any button operation for two or three minutes after displaying the last signal screen.
2. Hold down (A) until the current auto receive setting flashes on the display. This is the setting screen.
  - If the auto receive setting does not appear when you hold down (A), it means that the city code currently selected for the Home City is for an area that does not support calibration signal reception. You cannot turn auto receive on or off in this case.
3. Use (B) and (D) to turn auto receive on (ON) or off (OFF).
4. Press (A) to exit the setting screen.
  - To return to the Timekeeping Mode from the last signal screen, press (D).
  - For information about city codes that support signal reception, see "To set your Home City".



On/Off status

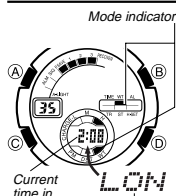
### Signal Reception Troubleshooting

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 city codes: LAX, DEN, CHI, or NYC.</li> </ul>	<ul style="list-style-type: none"> <li>• Enter the Timekeeping Mode and try again.</li> <li>• Select LAX, DEN, CHI, or NYC as your Home City.</li> </ul>
Auto receive is turned on, but the Level 3 receiving indicator does not appear on the display.	<ul style="list-style-type: none"> <li>• You changed the time setting manually.</li> <li>• The watch was not in the Timekeeping or World Time Mode, or you were performing some button operation during the auto receive.</li> <li>• Even if reception is successful, the Level 3 receiving indicator disappears every day at 3 a.m.</li> <li>• Time data (hour, minutes, seconds) only was received during the last reception. The Level 3 receiving indicator appears only when time data and date data (year, month, day) are both received.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform manual receive or wait until the next auto signal receive is performed.</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>• If the time is one hour off, the DST setting may be incorrect.</li> <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>• Change the DST setting to Auto DST.</li> <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



The World Time Mode digitally displays the current time in 30 cities (29 time zones) around the world.

- Pressing (A) in the World Time Mode causes the applicable city code to appear on the digital display for about one second.
- If the current time shown for a city is wrong, check your Home City time settings and make the necessary changes.
- The watch will perform a signal reception even if it is in the World Time Mode when a calibration time is reached. If this happens, the World Time Mode time settings will be adjusted in accordance with the Timekeeping Mode's Home City time.
- 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

While in the World Time Mode, press (D) to scroll through the city codes (time zones) to the east or (B) to scroll to the west.

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

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

1. In the World Time Mode, use (B) and (D) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
  - Pressing (A) in the World Time Mode causes the applicable city code to appear on the digital display for about one second.
2. Hold down (A) to toggle Daylight Saving Time (DST indicator displayed) and Standard Time (DST indicator not displayed).

- Note that you cannot use the World Time Mode to change the DST setting of the Home City code you currently have selected in the Timekeeping Mode. See "To change the Daylight Saving Time (summer time) setting" for information about turning the Home City code DST setting on and off.
- Note that you cannot switch between Standard Time and Daylight Saving Time while GMT is selected as the city code.
- The DST indicator will appear on the display 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.

## Alarms

**Mode indicator**  
**Alarm number**

You can set five independent daily alarms. When an alarm is turned on, the alarm tone sounds when the alarm time is reached.  
You can also turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

- The alarm number (R1 through R5) indicates an alarm screen. 00 is shown for the alarm number when the Hourly Time Signal screen is on the display.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing (C).

**Alarm time (Hour : Minutes)**

### To set an alarm time

**Alarm on indicator**

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

- Hold down (A) until the hour digits of the alarm time start to flash, which indicates the setting screen.
  - This automatically turns on the alarm.
- Press (C) to move the flashing between the hour and minute settings.
- While a setting is flashing, use (D) (+) and (E) (-) 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. (PM indicator).
- Press (A) to exit the setting screen.

### Alarm Operation

The alarm sounds in all modes at the preset time for about 10 seconds, or until you stop it by pressing any button.

### To test the alarm

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

### To turn an alarm and the Hourly Time Signal on and off

- In the Alarm Mode, use (D) to select an alarm or the Hourly Time Signal.
  - When the alarm or the Hourly Time Signal you want to set is selected, press (B) to turn it on and off.
    - ALM Indicates alarm is ON.
    - 00 Indicates Hourly Time Signal is ON.
- The alarm on indicator (ALM) and the Hourly Time Signal on indicator (00) are shown on the display in all modes while these functions are turned on.
  - If any alarm is on, the alarm on indicator is shown on the display in all modes.

## Countdown Timer

**1/10 second**  
**Mode indicator**

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

- You can also select auto-repeat, which automatically restarts the countdown from the original value you set whenever zero is reached.
- The left display window normally shows the 1/10 second count. When auto-repeat is turned on, however, it shows the current repeat count.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (C).

**Minutes**      **Seconds**

### 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.
- Press (C) to move the flashing in the sequence shown below to select other settings.



- While a setting is flashing, use (D) (+) and (E) (-) to change it.
  - See "To turn auto-repeat on and off" below for details on the auto-repeat setting.
- 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 and auto-repeat is turned off, the alarm sounds for 10 seconds or until you stop it by pressing any button. The countdown time is automatically reset 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 completely stop a countdown operation, first pause it (by pressing (D)), and then press (B). This returns the countdown time to its starting value.

### To turn auto-repeat on and off

**Number of repeats**

- 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.
- Press (C) to move the flashing to the auto-repeat setting.
- Press (D) to turn auto-repeat on (ON displayed) and off (OFF displayed).
- Press (A) to exit the setting screen.
  - When auto-repeat is turned on, the alarm sounds and countdown starts again whenever the countdown reaches zero. You can stop the countdown by pressing (D), and manually reset to the countdown start time by pressing (B).
  - Auto-repeat timing repeats up to nine times.

## Stopwatch

**Mode indicator**  
**1/100 second**

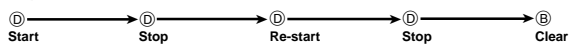
The stopwatch lets you measure elapsed time, split times, and two finishes.

- The display range of the stopwatch is 99 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing (C).

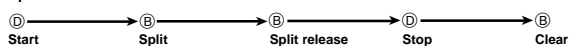
**Minutes**      **Seconds**

### To measure times with the stopwatch

#### Elapsed Time



#### Split Time

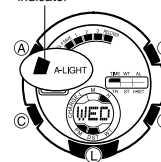


#### Two Finishes



## Illumination

### Auto light switch indicator



An LED (light-emitting diode) and light guide panel illuminate the digital display for easy reading in the dark. The watch's auto light switch automatically illuminates the display when you angle the watch towards your face.

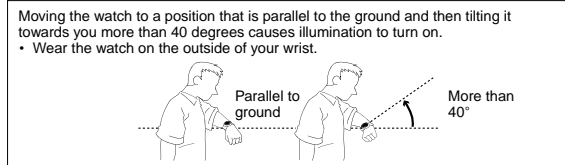
- The auto light switch must be turned on (indicated by the auto light switch indicator) for it to operate.
- See "Illumination Precautions" for other important information.

### To turn on illumination manually

- In any mode, press (L) to illuminate the display.
- You can specify 1.5 seconds or 2.5 seconds as the illumination duration. See "To set the current digital time and date manually" for more information.
  - 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 the display illumination to turn on whenever you position your wrist as described below in any mode. Note that this watch features a "Full Auto 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.



### Warning!

- Always make sure you are in a safe place whenever you are reading the display of the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in an accident or injury. Also take care that sudden illumination by the auto light switch does not surprise 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

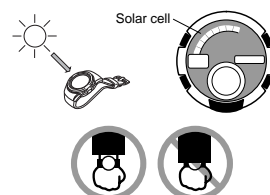
- In any mode, hold down (L) for about two seconds to toggle the auto light switch on (the auto light switch indicator displayed) and off (the auto light switch indicator not displayed).
- The auto light switch is automatically turned off whenever battery power is at Level 4. After battery power recovers to Level 2, you will have to perform the above procedure to turn the auto light switch back on again.
  - The auto light switch indicator is on the display in all modes while the auto light switch is turned on.

## Batteries

This watch is equipped with a solar cell and rechargeable batteries (secondary batteries) that are 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.
  - Normally, you should try to keep the watch outside of your sleeve as much as possible. Charging is significantly reduced if the face is only partially covered.



**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 normally exposed to bright light whenever possible.
- Normally, the rechargeable batteries should not need replacement, but after very long use over a number of years, they may lose the ability to achieve a full charge. Should you notice problems with getting the rechargeable batteries to a full charge, contact your dealer or CASIO distributor about having them replaced.
- The rechargeable batteries should be replaced with CASIO-specified CTL1025 batteries only. Other rechargeable batteries can cause damage to the watch.
- All data stored in memory is deleted, and the current time and all other settings return to their initial factory defaults whenever battery power drops to Level 4 and if you should ever need to have the rechargeable batteries 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 batteries from going dead.

**Battery Power Indicator and Recover Indicator**

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

Level	Battery Power Indicator	Function Status
1		All functions enabled.
2		All functions enabled.
3		Auto and manual receive, alarm, hourly time signal, illumination, auto light switch, and display are disabled. Though the hands of the watch do not move, time continues to be kept internally.
4		All functions, including timekeeping, disabled and initialized.

- The flashing charge indicator (CHARGE) at Level 3 tells you that battery power is very low, and that exposure to bright light for charging is required as soon as possible.
- At Level 4, all functions are disabled and settings return to their initial factory defaults. Functions are enabled once again after the rechargeable batteries are charged, but you need to set the time and date, after the batteries reach Level 3 (indicated by the flashing charge indicator) from Level 4. You will not be able to configure any of the other settings until the batteries reach Level 2 (no charge indicator) after dropping to Level 4.
- Leaving the watch in direct sunlight or some other very strong light source can cause the battery power indicator to momentarily show a reading that is higher than the actual battery level. The correct battery power indicator should appear after a few minutes.
- If you use the light or alarms a number of times during a short period, the recover indicator appears on the display and the following operations become disabled until battery power recovers.
  - Illumination
  - Beeper tone
  - Coordination between digital and analog timekeeping
  - Time calibration signal reception
 After some time, battery power will recover and the recover indicator 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 batteries. 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 batteries 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 7 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)	6 minutes
Sunlight Through a Window (10,000 lux)	30 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
  - 5 times calibration reception per day
- Stable operation is promoted by frequent charging.

**Recovery Times**

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

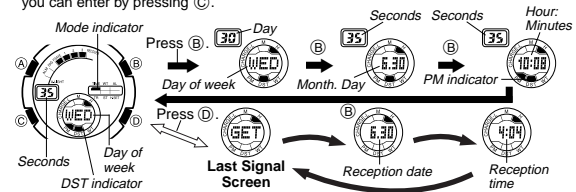
Exposure Level (Brightness)	Approximate Exposure Time		
	Level 4	Level 3	Level 2
Outdoor Sunlight (50,000 lux)	2 hours	19 hours	5 hours
Sunlight Through a Window (10,000 lux)	7 hours	97 hours	22 hours
Daylight Through a Window on a Cloudy Day (5,000 lux)	11 hours	157 hours	36 hours
Indoor Fluorescent Lighting (500 lux)	113 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. This section also explains how to manually set the current date and time.

- When setting the time, you can also configure settings for the illumination duration, the 12/24-hour format, and power saving on/off.
- All of the operations in this section are performed in the Timekeeping Mode, which you can enter by pressing (C).

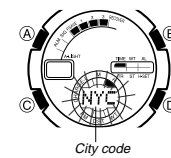


**Setting the Digital Time and Date Manually**

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 current digital 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 move the flashing in the sequence shown below to select other settings.



3. 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:
NYC	Change the city code	Use (D) (east) and (B) (west).
AUTO	Cycle between Daylight Saving Time (ON), Standard Time (OFF), and Auto DST (AUT)	Press (D).
12H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press (D).
35	Reset the seconds to 00	Press (D).
10:00	Toggle the illumination duration setting between 1.5 seconds (*) and 2.5 seconds (#)	Press (B).
10:00	Change the hour or minutes	Use (D) (+) and (B) (-).
04	Change the year	
6:30	Change the month or day	
ON	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 settings other than the time and date, see the following.
  - Illumination duration: Illumination
  - Power Saving: Power Saving Function

4. Press (A) to exit the setting screen. When you exit the setting screen, the analog hands are adjusted automatically to match the digital time. See "Analog Timekeeping" for more information.

**Note**

- Auto DST (AUT) can be selected only while HNL, NYC, LAX, DEN, CHI, or NYC is selected as the Home City code. For more information, see "Daylight Saving Time (DST)" below.

## Daylight Saving Time (DST)

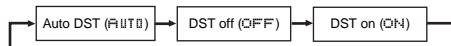
Daylight Saving Time (summer time) advances the digital time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

The time calibration signal transmitted from Fort Collins includes both Standard Time and DST data. When the Auto DST setting is turned on, the watch switches between Standard Time and DST (summer time) automatically in accordance with the Fort Collins signal.

- The default DST setting is Auto DST (AUT) whenever you select HLL, FHC, LFX, DEN, CHI, or NY as your Home City code.
- If you experience problems receiving the time calibration signal in your area, it is probably 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) once and the DST setting screen appears.
- Use (D) to cycle through the DST settings in the sequence shown below.



- When the setting you want is selected, press (A) to exit the setting screen.
- The DST indicator (ON) appears on the display to indicate that Daylight Saving Time is turned on.

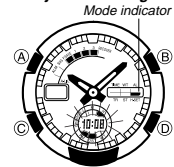
## Analog Timekeeping

The analog time of this watch is synchronized with the digital time. The analog time setting is adjusted automatically whenever you change the digital time.

### Note

- The hands for the analog timepiece move to adjust to a new setting whenever any of the following occurs.
  - When you change the digital time setting manually
  - When the digital time setting is changed by time calibration signal reception
  - When you change the Home City code and/or DST setting
- If the analog time does not match the digital time for any reason, use the procedure described under "To adjust the analog time" to match the analog setting to the digital setting.
- Whenever you need to adjust both the digital and the analog time settings manually, make sure you adjust the digital setting first.
- Depending on how much the hands have to move in order to adjust to the digital time, it may take some time before they stop moving.

### To adjust the analog time



- In the Timekeeping Mode, press (C) five times to enter the Hand Setting Mode.
- Hold down (A) until the current digital time starts to flash, which indicates the setting screen.
- Use (D) and (B) to adjust the analog setting as described below.

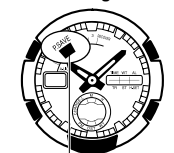
When you want to do this:	Perform this button operation:
Move the hand setting forward 20 seconds	• Press (D).
Move the hand setting a short way forward at high speed	• Hold down (D). • Release (D) when the hands reach the setting you want.
Move the hand setting a long way forward at high speed	• While holding down (D) to move the hands at high speed, press (B) to lock the high-speed hand movement. • To stop the hand movement, press any button. • Hand movement stops automatically if the hour hand makes one full (12-hour) revolution.

- Press (A) to exit the setting screen.
- The minute hand will be adjusted slightly to match the seconds when you exit the setting screen.
- To return to the Timekeeping Mode, press (C).

## 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.

### Power Saving Function



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

Elapsed Time in Dark	Functions
60 to 70 minutes	• LCD off • Alarm, hourly time signal, analog timekeeping and auto receive enabled
6 or 7 days	• LCD off, alarm and hourly time signal disabled • Analog timekeeping stopped at 12 o'clock • Auto receive disabled

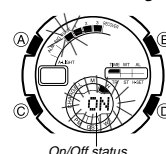
- Wearing the watch inside the sleeve of clothing can cause it to enter the sleep state.
- The watch will not enter the sleep state between 6:00 AM and 10:59 PM. If the watch is already in the sleep state when 6:00 AM arrives, however, it will remain in the sleep state.

### 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 (ON) is on the display in all modes while Power Saving is turned on.

### Auto Return Features

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

### Scrolling

The (B) and (D) buttons are used in various modes and setting screens to scroll through data on the display. 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.
- 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.
- The time calibration signal bounces 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 automatically update the date and day of the week for the period January 1, 2000 to December 31, 2099. Setting of the date by the 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 ±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. The following are the initial factory defaults for these settings.

Setting	Initial Factory Default
City code	NYC (New York)
DST (summer time)	ON (Auto switching)
Auto receive	ON (Auto receive)

### 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 automatically displayed 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 batteries replaced or when battery power drops to Level 4.
- The current time for all city codes in the Timekeeping Mode and World Time Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on your Home City time setting.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC) data.
- UTC 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. The reference point for UTC is Greenwich, England.

### 12-hour/24-hour Timekeeping Formats

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

- With the 12-hour format, the PM indicator (PM) 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

- Illumination may be hard to see when viewed under direct sunlight.
- Illumination automatically turns off whenever an alarm sounds.
- Frequent use of illumination runs down the batteries.

### Auto light switch precautions

- The auto light switch is turned off automatically whenever battery power is at Level 3.
- 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 batteries, turn off the auto light switch whenever engaging in activities that might cause frequent illumination of the display.
- 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 batteries.

More than 15 degrees too high



- 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 after the preset illumination duration (see "To set the current digital time and date manually"), 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 you 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
--		-11.0	Pago Pago
HNL	Honolulu	-10.0	Papeete
ANC	Anchorage	-09.0	Nome
LAX	Los Angeles	-08.0	San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City, Tijuana
DEN	Denver	-07.0	El Paso, Edmonton, Culiacan
CHI	Chicago	-06.0	Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg
NYC	New York	-05.0	Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota
CCS	Caracas	-04.0	La Paz, Santiago, Port of Spain
RIO	Rio De Janeiro	-03.0	Sao Paulo, Buenos Aires, Brasilia, Montevideo
--		-02.0	
--		-01.0	Praia
GMT			Dublin, Lisbon, Casablanca, Dakar, Abidjan
LON	London	+00.0	
PAR	Paris		Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Frankfurt, Vienna, Stockholm
BER	Berlin	+01.0	
ATH	Athens		Helsinki, Istanbul, Beirut, Damascus, Cape Town
CAI	Cairo	+02.0	
JRS	Jerusalem		
JED	Jeddah	+03.0	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow
THR	Tehran	+03.5	Shiraz
DXB	Dubai	+04.0	Abu Dhabi, Muscat
KBL	Kabul	+04.5	
KHI	Karachi	+05.0	Mate
DEL	Delhi	+05.5	Mumbai, Kolkata
DAC	Dhaka	+06.0	Colombo
RGN	Yangon	+06.5	
BKK	Bangkok	+07.0	Jakarta, Phnom Penh, Hanoi, Vientiane
HKG	Hong Kong	+08.0	Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Perth, Ulaanbaatar
SEL	Seoul	+09.0	Pyongyang
TYO	Tokyo		
ADL	Adelaide	+09.5	Darwin
SYD	Sydney	+10.0	Melbourne, Guam, Rabaul
NOU	Noumea	+11.0	Port Vila
WLG	Wellington	+12.0	Christchurch, Nadi, Nauru Island

• Based on data as of December 2003.