MO1505-EA

Operation Guide 5145

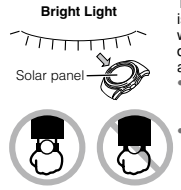
CASIO

ENGLISH

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.

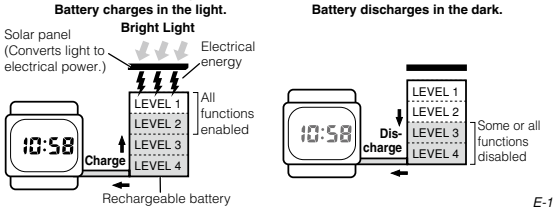
Keep the watch exposed to bright light



The electricity generated by the solar panel 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.



- 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" (page E-51) for important information you need to know when exposing the watch to bright light.**

If the display of the watch is blank...

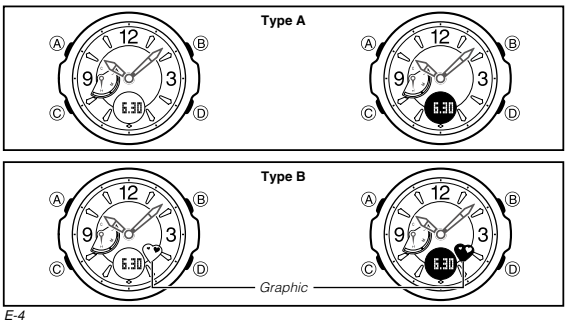
If the display of the watch is blank, it means that the watch's Power Saving function has turned off the display to conserve power.

- **See "Power Saving Function" (page E-60) 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

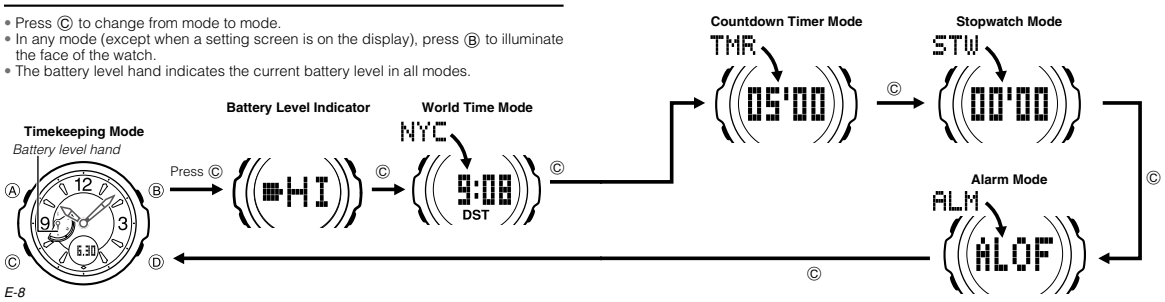
- This watch is available with either of two display types: Type A and Type B. All of the examples in this manual show Type A (no graphics). If your watch has a Type B display (with graphics), graphic figures will appear and disappear timed with the seconds count.
- Depending on the model of your watch, 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.



Contents

General Guide

- Press Ⓒ to change from mode to mode.
- In any mode (except when a setting screen is on the display), press Ⓑ to illuminate the face of the watch.
- The battery level hand indicates the current battery level in all modes.



Radio-controlled Atomic Timekeeping

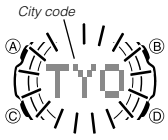
This watch receives a time calibration signal and updates its time setting accordingly.
- This watch is designed to pick up the time calibration signals transmitted in Germany (Mainflingen), England (Anthorn), the United States (Fort Collins), China (Shangqiu), and Japan (Fukushima, Fukuoka/Saga).

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.
- **The first thing you should do after purchasing this watch is to specify your Home City (the city where you normally will use the watch). For more information, see "To specify your Home City" (page E-12).**
- When using the watch outside the areas covered by the time signal transmitters, you will have to adjust the current time setting manually as required. See "Timekeeping" (page E-41) for more information about manual time settings.

- 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.
- 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" (page E-48) for more information.
- As of December 2014, 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.
- Using this watch in a country covered by a time calibration that is different from the countries it supports may result in incorrect time indication due to local application of summer time, etc.

To specify your Home City



1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until the watch beeps and **ADJ** appears on the display.
   - This will cause the currently selected city code to flash.
2. Press Ⓓ (east) and Ⓑ (west) to select the city code you want to use as your Home City.

LIS, LON : Lisbon, London
MAD, PAR, ROM, BER, STO : Madrid, Paris, Rome, Berlin, Stockholm
ATH : Athens
MOW : Moscow
HKG, BJS, TPE : Hong Kong, Beijing, Taipei
SEL, TYO : Seoul, Tokyo
HNL : Honolulu
ANC : Anchorage
YVR, LAX : Vancouver, Los Angeles
YEA, DEN : Edmonton, Denver
MEX, CHI : Mexico City, Chicago

NYC : New York
YHZ : Halifax
YYT : St.Johns

3. Press Ⓐ 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 operation (in the middle of the night). You also can perform manual receive (page E-25) or you can set the time manually (page E-43).
- The watch will receive the time calibration signal automatically from the applicable transmitter (in the middle of the night) and update its settings accordingly. For information about the relationship between city codes and transmitters, see page E-17 and "Transmitters" (page E-65).
- See the maps under "Approximate Reception Ranges" (page E-18) for information about the reception ranges of the watch.
- You can disable time signal reception, if you want. See "To turn auto receive on and off" on page E-26 for more information.
- Under factory default settings, auto receive is turned off for all of the following city codes: **MOW** (Moscow), **HNL** (Honolulu), and **ANC** (Anchorage). For details about turning on auto receive for these city codes, see "To turn auto receive on and off" on page E-26.

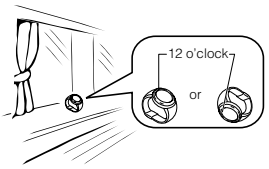
Time Calibration Signal Reception

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 6 times a day (5 times a day for the Chinese calibration signal). When any auto receive is successful, the remaining auto receive operations are not performed. For more information, see "About Auto Receive" (page E-21).

• 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" (page E-25).

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 pointing 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 two to seven minutes, but in some cases it can take as long as 14 minutes. Take care that you do not perform any button operations or move the watch during this time.

- The time calibration signal the watch will attempt to pick up depends on its current Home City code setting as shown below.

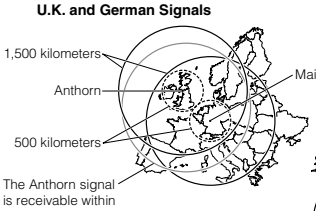
Home City Code	Transmitter	Frequency
LIS, LON, MAD, PAR, ROM, BER, STO, ATH, MOW*	Anthorn (England)	60.0 kHz
	Mainflingen (Germany)	77.5 kHz
HKG, BJS	Shangqiu City (China)	68.5 kHz
TPE, SEL, TYO	Fukushima (Japan)	40.0 kHz
	Fukuoka/Saga (Japan)	60.0 kHz
HNL*, ANC*, YVR, LAX, YEA, DEN, MEX, CHI, NYC, YHZ, YYT	Fort Collins, Colorado (the United States)	60.0 kHz

*The areas covered by the **HNL**, **ANC**, and **MOW** city codes are quite far from the time calibration signal transmitters, and so certain conditions may cause problems with signal reception.

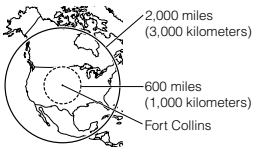
- Calibration signal reception is disabled while a countdown timer operation is in progress.

Approximate Reception Ranges

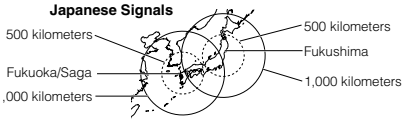
U.K. and German Signals



North American Signal

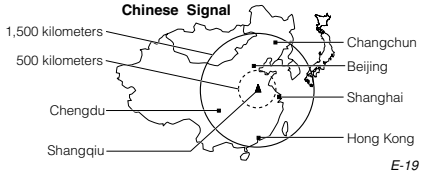


Japanese Signals



Signals are receivable in the Taiwan area when reception conditions are good.

Chinese Signal



- Signal reception may not be possible at the distances noted below during certain times of the year or day. Radio interference also may cause problems with reception.
  Mainflingen (Germany) or Anthorn (England) transmitters: 500 kilometers (310 miles)
  Fort Collins (United States) transmitter: 600 miles (1,000 kilometers)
  Fukushima or Fukuoka/Saga (Japan) transmitters: 500 kilometers (310 miles)
  Shangqiu (China) transmitter: 500 kilometers (310 miles)
- 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.
- See the information under "Signal Reception Troubleshooting" (page E-28) if you experience problems with time calibration signal reception.

About Auto Receive

The watch receives the time calibration signal automatically up to 6 times a day (5 times a day for the Chinese calibration signal). When any auto receive is successful, the remaining auto receive operations are not performed. The reception schedule (calibration times) depends on your currently selected Home City, and whether standard time or Daylight Saving Time is selected for your Home City.

Your Home City		Auto Receive Start Times					
		1	2	3	4	5	6
LIS LON	Standard Time Daylight Saving Time	1:00 am 2:00 am	2:00 am 3:00 am	3:00 am 4:00 am	4:00 am 5:00 am	5:00 am Midnight*	Midnight* 1:00 am*
MAD PAR ROM BER STO	Standard Time Daylight Saving Time	2:00 am 3:00 am	3:00 am 4:00 am	4:00 am 5:00 am	5:00 am Midnight*	Midnight* 1:00 am*	1:00 am* 2:00 am*
ATH	Standard Time Daylight Saving Time	3:00 am 4:00 am	4:00 am 5:00 am	5:00 am Midnight*	Midnight* 1:00 am*	1:00 am* 2:00 am*	2:00 am* 3:00 am*
MOW	Standard Time Daylight Saving Time	4:00 am 5:00 am	5:00 am Midnight*	Midnight* 1:00 am*	1:00 am* 2:00 am*	2:00 am* 3:00 am*	3:00 am* 4:00 am*

Your Home City		Auto Receive Start Times					
		1	2	3	4	5	6
HKG BJS	Standard Time and Daylight Saving Time	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am	
TPE SEL TYO	Standard Time	Midnight	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am
HNL ANC YVR LAX YEA DEN MEX CHI NYC YHZ YYT	Standard Time and Daylight Saving Time	Midnight	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am

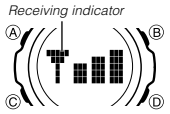
*Next day

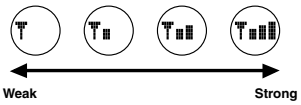
Note

- 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 two to seven minutes everyday when the time in the Timekeeping Mode reaches a calibration time. Do not perform any button operation within seven minutes before or after the calibration times. Doing so 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.

About the Receiving Indicator

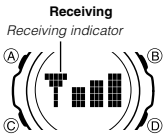
The receiving indicator shows the strength of the calibration signal being received. For best reception, be sure to keep the watch in a location where signal strength is strongest. The receiving indicator is displayed while an auto or manual receive operation is in progress.





- 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

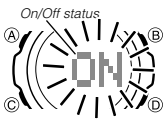


1. In the Timekeeping Mode, hold down Ⓓ for about two seconds.
   - Time calibration signal reception takes from two to seven minutes. Take care that you do not perform any button operations or move the watch during this time.
   - The watch will beep when receive is successful. After the time setting is corrected, it will appear on the display.
   - If receive fails for some reason, **ERR** will appear on the display and the time setting will not be changed.
2. To return to the Timekeeping Mode, press Ⓓ or do not perform any operation for one or two minutes.

Note

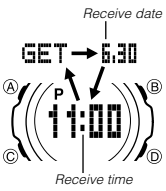
- To interrupt a receive operation and return to normal timekeeping, press any button.

To turn auto receive on and off



1. In the Timekeeping Mode, press Ⓓ to display the Last Signal screen (page E-27).
2. Hold down Ⓐ until the current auto receive setting (**ON** or **OFF**) start to flash. 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 Ⓓ to toggle auto receive on (**ON**) and off (**OFF**).
4. Press Ⓐ to exit the setting screen.
5. Press Ⓓ to return to the Timekeeping Mode.
   - For information about city codes that support signal receive, see "To specify your Home City" (page E-12).

To check the latest signal reception results



1. In the Timekeeping Mode, press Ⓓ 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.
2. To return to the Timekeeping Mode, press Ⓓ or do not perform any operation for one or two minutes.

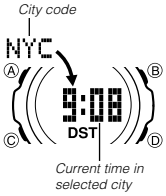
Signal Reception Troubleshooting

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

Problem	Probable Cause	What you should do
Cannot perform manual receive.	• The watch is not in the Timekeeping Mode. • Your current Home City is not one of the following: **LIS**, **LON**, **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, **MOW**, **HKG**, **BJS**, **TPE**, **SEL**, **TYO**, **HNL**, **ANC**, **YVR**, **LAX**, **YEA**, **DEN**, **MEX**, **CHI**, **NYC**, **YHZ**, or **YYT**	• Enter the Timekeeping Mode and try again. • Select **LIS**, **LON**, **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, **MOW**, **HKG**, **BJS**, **TPE**, **SEL**, **TYO**, **HNL**, **ANC**, **YVR**, **LAX**, **YEA**, **DEN**, **MEX**, **CHI**, **NYC**, **YHZ**, or **YYT** as your Home City (page E-12).
Time setting is incorrect following signal reception.	• If the time is one hour off, the DST setting may be incorrect. • The Home City code setting is not correct for the area where you are using the watch.	• Change the DST setting to Auto DST (page E-47). • Select the correct Home City code (page E-12).

- For further information, see "Important!" (page E-15) and "Radio-controlled Atomic Timekeeping Precautions" (page E-64).

World Time



The World Time Mode digitally displays the current time in 48 cities (31 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 (page E-43).
- 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 Ⓒ (page E-8).

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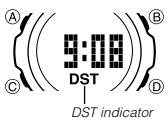
To view the time in another city

1. Press Ⓓ.
   - This will display the currently selected World Time City code. After about two seconds, the display will change to the current time in that city.
2. While the city code is displayed, press Ⓓ to scroll to the next city code.
   - For full information on city codes, see the "City Code Table" at the back of this manual.

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



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

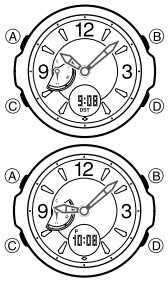
Swapping your Home City and World Time City

You can use the procedure below to swap your Home City and World Time City. This capability can come in handy when you frequently travel between two locations in different time zones.

The following example shows what happens when the Home City and World Time City are swapped while the Home City originally is **TYO** (Tokyo) and the World Time City is **NYC** (New York).

	Home City	World Time City
Before swapping	Tokyo 10:08 p.m. (Standard time)	New York 9:08 a.m. (Daylight saving time)
After swapping	New York 9:08 a.m. (Daylight saving time)	Tokyo 10:08 p.m. (Standard time)

To swap your Home City and World Time City

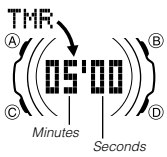


1. In the World Time Mode, use Ⓓ to select the World Time City you want.
2. Hold down Ⓐ and Ⓑ at the same time until the watch beeps.
   - This will make the World Time City (**NYC** in this example) your new Home City. At the same time, it will change the Home City you had selected prior to step 2 (**TYO** in this example) to your World Time City.
   - After swapping the Home City and World Time City, the watch will stay in the World Time Mode.

Note

- If your current World Time City supports time calibration signal reception, your Home City enables calibration signal reception for that city.

Countdown Timer



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

- Calibration signal reception (both auto and manual) is disabled while a countdown timer operation is in progress.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing Ⓒ (page E-9).

To set the countdown start time

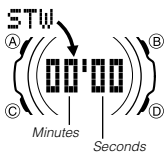
1. While the countdown start time is on the display in the Countdown Timer Mode, hold down Ⓐ until the current countdown start time starts to flash, which indicates the setting screen.
   - If the countdown start time is not displayed, use the procedure under "To use the countdown timer" to display it.
2. While a setting is flashing, use Ⓓ (+) and Ⓑ (–) to change it.
3. Press Ⓐ to exit the setting screen.

To use the countdown timer

Press Ⓓ 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 automatically reset to its starting value after the alarm stops.
- Press Ⓓ while a countdown operation is in progress to pause it. Press Ⓓ again to resume the countdown.
- To completely stop a countdown operation, first pause it (by pressing Ⓓ), and then press Ⓐ. This returns the countdown time to its starting value.

Stopwatch



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

- The display range of the stopwatch is 59 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 Ⓒ (page E-9).

To measure times with the stopwatch

Elapsed Time

Ⓓ **Start** → Ⓓ **Stop** → Ⓓ **Re-start** → Ⓓ **Stop** → Ⓐ **Clear**

- When elapsed time measurement is paused, the display alternates between a minute/second screen and a 1/100 second screen at two-second intervals.

Split Time

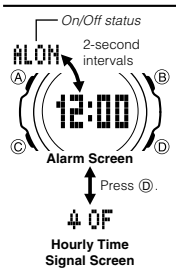
Ⓓ **Start** → Ⓐ **Split** → Ⓐ **Split release** → Ⓓ **Stop** → Ⓐ **Clear**

- The split time screen cycles alternately through the split (**SPL**) indicator , a minute/second screen, and a 1/100 second screen.

Two Finishes

Ⓓ	Ⓐ	Ⓓ	Ⓐ	Ⓐ
Start	**Split** First runner finishes. Display time of first runner.	**Stop** Second runner finishes.	**Split release** Display time of second runner.	**Clear**

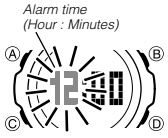
Alarm



When the alarm is turned on, the alarm sounds when the alarm time is reached. You can also turn on an Hourly Time Signal, which will cause the watch to beep twice every hour on the hour.

- When the alarm is turned on, the alarm screen alternates between **ALON** (alarm on) and the current alarm time (hour and minutes). When the alarm is off, **ALOF** (alarm off) remains on the alarm screen.
- Pressing Ⓓ in the Alarm Mode toggles between the alarm screen and Hourly Time Signal screen.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing Ⓒ (page E-9).

To set the alarm time



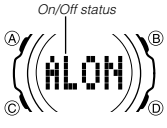
1. In the Alarm Mode, press Ⓓ to display the alarm screen.
2. Hold down Ⓐ until the hour setting of the alarm time starts to flash, which indicates the setting screen.
   - This operation automatically turns on the alarm.
3. Press Ⓒ to move the flashing between the hour and minute settings.
4. While a setting is flashing, use Ⓓ (+) and Ⓑ (–) 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).
5. Press Ⓐ to exit the setting screen.

Alarm Operation

The alarm sounds at the preset time for about 10 seconds, regardless of the mode the watch is in.

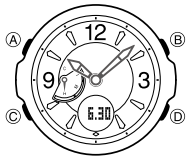
- To stop the alarm tone after it starts to sound, press any button.
- Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode digital time.

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



1. In the Alarm Mode, press Ⓓ to select the alarm or the Hourly Time Signal screen.
2. Press Ⓐ to toggle the currently selected function on (**ON** displayed) and off (**OF** displayed).

Illumination



An LED (light-emitting diode) and light guide panel illuminate the face of the watch for easy reading in the dark.

- See "Illumination Precautions" on page E-68 for other important information.

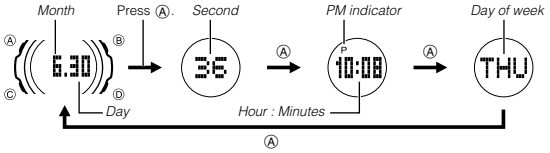
To turn on illumination

In any mode (except when a setting is on the display), press Ⓑ to illuminate the face of the watch for about one second.

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 12/24-hour format.
- Each press of Ⓐ cycles the digital display in the sequence shown below.



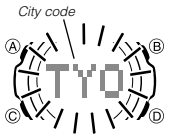
- All of the operations in this section are performed in the Timekeeping Mode, which you can enter by pressing Ⓒ (page E-8).

Read This Before You Set the Time and Date!

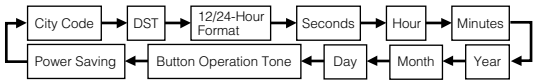
This watch is preset with a number of city codes, each of which represents the time zone where that city is located. When setting the time, it is important that you first select the correct city code for your Home City (the city where you normally use the watch). If your location is not included in the preset city codes, select the preset city code that is in the same time zone as your location.

- Note that all of the times for the World Time Mode city codes (page E-30) are displayed in accordance with the time and date settings you configure in the Timekeeping Mode.
- The watch automatically adjusts its analog setting to match the current digital setup of your Home City. If the analog time is not correct even though you are sure the digital setup of your Home City is correct and the watch is performing signal reception properly, check the home positions of the hands and make adjustments if necessary (page E-49).

To set the current digital time and date manually



1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until the watch beeps and **ADJ** appears on the display.
   - This will cause the currently selected city code to flash.
2. Press Ⓒ to move the flashing in the sequence shown below to select other settings.



3. When the timekeeping setting you want to change is flashing, use Ⓓ or Ⓑ to change it as described below.

Screen:	To do this:	Do this:
TYO	Change the city code	Use Ⓓ (East) and Ⓑ (West).
AUTO	Cycle between Daylight Saving Time (**ON**), Standard Time (**OFF**), and Auto DST (**AUTO**)	Press Ⓓ.
12H	Toggle between 12-hour (**12H**) and 24-hour (**24H**) timekeeping	Press Ⓓ.
36	Reset the seconds to **00**	Press Ⓓ.

Screen:	To do this:	Do this:
P 10:08	Change the hour or minutes	Use Ⓓ (+) and Ⓑ (–).
20 16	Change the year	
6.30	Change the month or day	
KEY♪/MUTE	Toggle the button operation tone between KEY♪ (on) and MUTE (off)	Press Ⓓ.
PSON	Toggle Power Saving on (**PSON**) and off (**PSOF**)	Press Ⓓ.

- See "City Code Table" at the back of this manual for a complete list of available city codes.
- Auto DST (**AUTO**) can be selected only while **LIS**, **LON**, **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, **MOW**, **TPE**, **SEL**, **TYO**, **HNL**, **ANC**, **YVR**, **LAX**, **YEA**, **DEN**, **MEX**, **CHI**, **NYC**, **YHZ**, or **YYT** is selected as the Home City code. For more information, see "Daylight Saving Time (DST)" (page E-46).
- For information about settings other than the time and date, see the following.
  Power Saving: Power Saving Function (page E-60)

4. Press Ⓐ 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.

The time calibration signals transmitted from Mainflingen (Germany), Anthorn (England), or Fort Collins (the United States) include 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 signals.

- Though the time calibration signals transmitted by the Fukushima and Fukuoka/Saga, Japan transmitters include summer time data, summer time currently is not implemented in Japan (as of 2014).
- The default DST setting is Auto DST (**AUTO**) whenever you select **LIS**, **LON**, **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, **MOW**, **TYO**, **ANC**, **YVR**, **LAX**, **YEA**, **DEN**, **MEX**, **CHI**, **NYC**, **YHZ**, or **YYT** 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

1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until the watch beeps and **ADJ** appears on the display.
   - This will cause the currently selected city code to flash.
2. Press Ⓒ once and the DST setting screen appears.
3. Use Ⓓ to cycle through the DST settings in the sequence shown below.

4. When the setting you want is selected, press Ⓐ to exit the setting screen.
   - The **DST** indicator 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 home positions" (page E-49) 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.

Adjusting Home Positions

Strong magnetism or impact can cause the hands of the watch to be off, even if the watch is able to perform the signal receive operation. If this happens, perform the applicable home position adjustment procedures in this section.

- Hand home position adjustment is not required if the analog time and digital time are the same in the Timekeeping Mode.

To adjust home positions

1. In the Timekeeping Mode, hold down Ⓐ for about five seconds. You can release the button after "**H-SET**" appears on the display.
   - Though "**ADJ**" will appear on the display after about two seconds, do not release the button yet. Keep it depressed until "**H-SET**" appears.
   - The hour, minute and battery level hands should all move to 12 o'clock, which is their home position. Also, "**0:00**" will appear on the display.

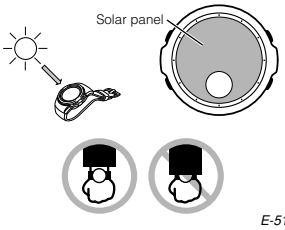
- If the hour and minute hands are out of position, use the Ⓓ (+) and Ⓑ (–) to adjust them. Holding down either the Ⓓ (+) or Ⓑ (–) will cause the minute hand to move at high speed, even if you release the button. High-speed hand movement will continue until you press either button. High-speed hand movement started with the Ⓓ will also stop automatically after 12 revolutions, while one started with the Ⓑ will stop automatically after one revolution.
- If the battery level hand is not at its proper home position, use Ⓒ to adjust the hand position. Each press of Ⓒ moves the battery level hand clockwise. Move the hand to its 12 o'clock position. Holding down Ⓒ will cause the hand to move at high speed. To stop high-speed hand movement, press any button. High-speed hand movement also will stop automatically if the battery level hand completes one revolution.

2. After everything is the way you want, press Ⓐ to return to the Timekeeping Mode.
   - After performing home position adjustment, enter the Timekeeping Mode and check to make sure that the analog hands and the digital display indicate the same time. If they do not, perform home position adjustment again.

Power Supply

This watch is equipped with a solar panel and a rechargeable battery that is charged by the electrical power produced by the solar panel. 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 panel is blocked by clothing, etc.
- You should try to keep the watch outside of your sleeve as much as possible. Charging is reduced significantly if the face is covered only partially.

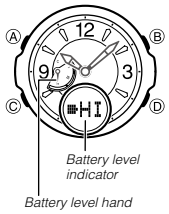
Important!

- 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. Be sure that the watch is exposed to bright light whenever possible.
- This watch uses a rechargeable battery to store power produced by the solar panel, 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 rechargeable battery to charge fully, contact your dealer or CASIO distributor about having it replaced.
- Never try to remove or replace the watch's rechargeable battery yourself. Use of the wrong type of battery can damage the watch.
- The current time and all other settings return to their initial factory defaults whenever battery power drops to Level 5 (pages E-54 and E-55) and when you have the battery replaced.
- Turn on the watch's Power Saving function (page E-60) 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.

To check the current battery level

In the Timekeeping Mode, press Ⓒ to display the battery level indicator (page E-8).

- The battery level hand indicates the current battery level in all modes.



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

Level	Battery Level Indication	Function Status
1	HI	All functions enabled.
2	MID	All functions enabled.
3	LO (Charge Soon Alert)	Button operations, alarm, hourly time signal, time up beeper, illumination, and time calibration signal reception disabled.
4	(Charge Soon Alert)	All functions disabled.
5		All functions, including timekeeping, disabled and initialized.

- The flashing LO indicator at Level 3 and the flashing charge indicator (**C**) 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. Once the battery reaches Level 2 after falling to Level 5, reconfigure the current time, date, and other settings.
- The watch's Home City code setting will change automatically to **TYO** (Tokyo) whenever the battery drops to Level 5. With this Home City code setting, the watch is configured to receive the time calibration signals of Japan. If you are using the watch in North America or Europe, or China you will need to change the Home City code setting to match your location whenever the battery drops to Level 5.
- Display indicators reappear as soon as the battery is charged from Level 5 to Level 2.
- Leaving the watch exposed to direct sunlight or some other very strong light source can cause the battery power indicator to show a reading temporarily that is higher than the actual battery level. The correct battery level should be indicated after a few minutes.

- Performing illumination, or beeper operations during a short period may cause R (recover) to appear on the display.
  After some time, battery power will recover and R (recover) will disappear, indicating that the above functions are enabled again.
- If R (recover) appears frequently, it probably means that remaining battery power is low. Leave the watch in bright light to allow it to charge.

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

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)	8 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

- For details about the battery operating time and daily operating conditions, see the "Power Supply" section of the Specifications (page E-71).
- 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)	3 hours			28 hours	8 hours
Sunlight Through a Window (10,000 lux)	8 hours			105 hours	28 hours
Daylight Through a Window on a Cloudy Day (5,000 lux)	13 hours			169 hours	46 hours
Indoor Fluorescent Lighting (500 lux)	144 hours			– – –	– – –

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

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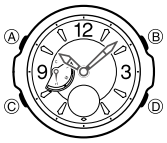
Reference

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

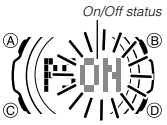
Elapsed Time in Dark	Display	Operation
60 to 70 minutes	Blank	All functions enabled, except for the display
6 or 7 days	Blank	• Beeper tone, illumination, and display disabled • Analog timekeeping stopped at 12 o'clock • Auto receive disabled

- 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 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.

To turn Power Saving on and off



1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until the watch beeps and **ADJ** appears on the display.
   - This will cause the currently selected city code to flash.
2. Press Ⓒ 10 times until the Power Saving on/off screen appears.
3. Press Ⓓ to toggle Power Saving on (**PSON**) and off (**PSOF**).
4. Press Ⓐ to exit the setting screen.

Auto Return Features

- If you leave the watch in the Alarm Mode, or with the battery level indicator displayed 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 Ⓑ and Ⓓ 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 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 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 update the date and day of the week automatically 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.

- If you are in an area where proper time calibration signal reception is impossible, the watch keeps the time with the precision noted in "Specifications".
- 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, and DST (summer time) settings (page E-47), and auto receive settings (page E-26).
- The Home City setting reverts to the initial default of **TYO** (Tokyo) whenever the battery power level drops to Level 5 or when you have the rechargeable battery replaced. If this happens, change the Home City to the setting you want (page E-12).

Transmitters

The time calibration signal received by this watch depends on the currently selected Home City code (page E-12).
- When a U.S. time zone is selected, the watch receives the time calibration signal transmitted from the United States (Fort Collins).
- When a Japanese time zone is selected, the watch receives the time calibration signal transmitted from Japan (Fukushima and Fukuoka/Saga).
- When a European time zone is selected, the watch receives the time calibration signals transmitted from Germany (Mainflingen) and England (Anthorn).

- When a China time zone is selected, the watch receives the time calibration signals transmitted from China (Shangqiu City).
- When your Home City is **LIS**, **LON**, **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, **MOW** (which can receive both the Anthorn and Mainflingen signals), the watch first tries to pick up the signal it last successfully received. If that fails, it tries the other signal. For the first receive after you select your Home City, the watch tries the nearest signal first (Anthorn for **LIS**, **LON**, Mainflingen for **MAD**, **PAR**, **ROM**, **BER**, **STO**, **ATH**, and **MOW**).

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 battery replaced or when battery power drops to Level 5.
- The current time for all city codes in the Timekeeping Mode and World Time Mode is calculated in accordance with the Coordinated Universal Time (UTC) for each city, based on your Home City time setting.

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 (**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

- 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 battery.

Specifications

Accuracy at normal temperature: ± 30 seconds a month (with no signal calibration)

Digital Timekeeping: Hour, minutes, seconds, p.m. (P), month, day, day of the week
Time system: Switchable between 12-hour and 24-hour formats
Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099
Other: Home city code (can be assigned one of 48 city codes); Daylight Saving Time (summer time)/Standard Time

Time Calibration Signal Reception: Auto receive 6 times a day (5 times a day for the Chinese calibration signal) (Remaining auto receives cancelled as soon as one is successful); Manual receive
Receivable Time Calibration Signals: Mainflingen, Germany (Call Sign: DCF77, Frequency: 77.5 kHz); Anthorn, England (Call Sign: MSF, Frequency: 60.0 kHz); Fort Collins, Colorado, the United States (Call Sign: WWVB, Frequency: 60.0 kHz); Fukushima, Japan (Call Sign: JJY, Frequency: 40.0 kHz); Fukuoka/ Saga, Japan (Call Sign: JJY, Frequency: 60.0 kHz); Shangqiu City, Henan Province, China (Call Sign: BPC, Frequency: 68.5 kHz)

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Analog Timekeeping: Hour, minutes (hand moves every 20 seconds)
World Time: 48 cities (31 time zones)
Other: Standard Time/Daylight Saving Time (summer time)
Alarms: Daily alarm; Hourly Time Signal
Countdown Timer:
Measuring unit: 1 second
Input range: 1 to 60 minutes (1-minute increments)
Stopwatch:
Measuring unit: 1/100 second
Measuring capacity: 59' 59.99"
Measuring modes: Elapsed time, split time, two finishes
Illumination: LED (light-emitting diode)
Other: Battery level indicator, battery level hand ; Power Saving, Button operation tone on/off

Power Supply: Solar panel and a rechargeable battery
Approximate Battery Operating Time
8 months (from full charge to Level 4 when the watch is not exposed to light) under the following conditions:
- 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
- 4 minutes of signal reception per day

Frequent use of illumination can shorten battery operating time.

City Code Table

City Code	City	UTC Offset/ GMT Differential
PPG	Pago Pago	–11
HNL	Honolulu	–10
ANC	Anchorage	–9
YVR	Vancouver	–8
LAX	Los Angeles	
YEA	Edmonton	–7
DEN	Denver	
MEX	Mexico City	–6
CHI	Chicago	
NYC	New York	–5
SCL	Santiago	–4
YHZ	Halifax	
YYT	St. Johns	–3.5

City Code	City	UTC Offset/ GMT Differential
RIO	Rio De Janeiro	–3
FEN	Fernando de Noronha	–2
RAI	Praia	–1
UTC		0
LIS	Lisbon	
LON	London	
MAD	Madrid	+1
PAR	Paris	
ROM	Rome	
BER	Berlin	
STO	Stockholm	

City Code	City	UTC Offset/ GMT Differential
ATH	Athens	+2
CAI	Cairo	
JRS	Jerusalem	
MOW	Moscow	+3
JED	Jeddah	
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5
KTM	Kathmandu	+5.75
DAC	Dhaka	+6
RGN	Yangon	+6.5

City Code	City	UTC Offset/ GMT Differential
BKK	Bangkok	+7
SIN	Singapore	+8
HKG	Hong Kong	
BJS	Beijing	
TPE	Taipei	
SEL	Seoul	+9
TYO	Tokyo	
ADL	Adelaide	+9.5
GUM	Guam	+10
SYD	Sydney	
NOU	Noumea	+11
WLG	Wellington	+12

- Based on data as of December 2014 .
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.