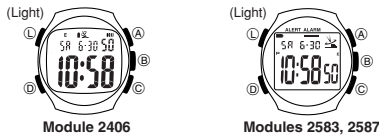


Operation Guide 2406 2583 2587

CASIO®

About This Manual

- The operational procedures for Modules 2406, 2583 and 2587 are identical. All of the illustrations in this manual show Module 2406.

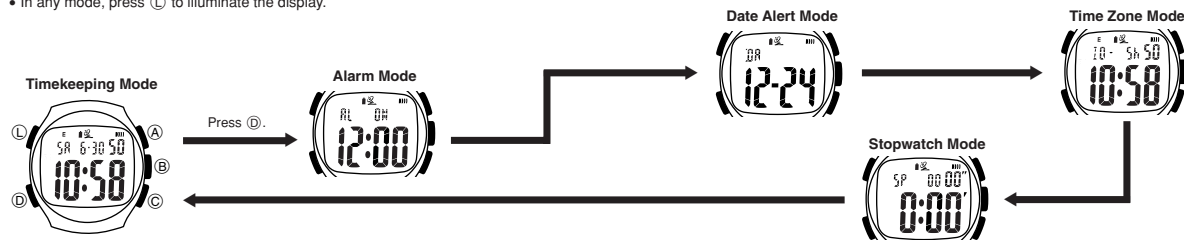


- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.
- This watch does not have a time zone that corresponds to the Greenwich Mean Time differential of -3.5 hours. Because of this, the radio-controlled timekeeping will not display the correct time for Newfoundland, Canada.

General Guide

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

- If you leave the watch in Alarm, Date Alert, or Time Zone Mode for about 10 seconds without performing any operation, it automatically returns to the Timekeeping Mode.



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 from Fort Collins, Colorado (USA). Reception is possible within North America*.
- *The term "North America" in this User's Guide refers to the area that consists of Canada, the continental United States, and Mexico.

Important!

Before using the watch for the first time after purchasing it, use the procedure under "To specify your time zone" to specify your time zone, and then perform the procedure under "To trigger a calibration signal receive operation manually".

Setting the Time and Date

There are three different methods you can use to set the watch's time and date.

- Auto receive of the time calibration signal
 - Manual receive of the time calibration signal
 - Manual setting without using the time calibration signal
- No matter which method you use, you must specify your time zone first.

Specifying Your Time Zone

Use the Time Zone Mode to specify your current time zone. If you move to a different time zone either inside or outside of North America, simply change the time zone setting and the watch adjusts its current time and date settings accordingly.

- See the "Time Zone Table" for information about time zones and applicable cities.

To specify your time zone

Time zone indicator (ECMP)

Time zone differential (Indicates -5h)



- Use (D) to enter the Time Zone Mode.
- Hold down (B) until the current time zone differential value starts to flash, which indicates the setting screen.
 - The time zone differential value indicates the number of hours difference in time between the currently selected time zone and UTC in Greenwich, England. On-screen indicators also indicate North American time zones as shown in the table below.
 - Note that this watch does not have a time zone that corresponds to Newfoundland.

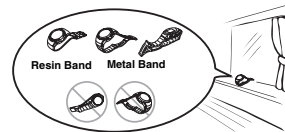
Time Zone Indicator	Time Zone Differential	Major cities in same time zone
E (Eastern)	-5h	NEW YORK, MONTREAL, DETROIT, MIAMI, BOSTON
C (Central)	-6h	CHICAGO, HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG
M (Mountain)	-7h	DENVER, EL PASO, EDMONTON, CULIACAN
P (Pacific)	-8h	LOS ANGELES, SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, TIJUANA

- Use (A) (+) and (C) (-) to change the time zone differential value.
- Press (B) to exit the setting screen.
- In a U.S. area that does not use DST, select the time zone to the west of the time zone where you are. If you are in a Mountain Time Zone area that does not use DST, for example, select the Pacific Time Zone during the Daylight Saving Time period.

Time Calibration Signal Reception

Removing the watch from your wrist and positioning it as shown in the illustrations nearby helps to optimize signal reception.

- 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.

Note

See "Time Calibration Signal Reception Precautions" for important information about time calibration signal reception.

To trigger a calibration signal receive operation manually

Receive indicator



Module 2406

Receive indicator



Modules 2583, 2587

To use calibration signal auto receive

The watch automatically starts to receive the time calibration signal when the Timekeeping Mode time reaches 1:00 AM each day (calibration time). Note that the auto receive operation is performed everyday no matter what mode the watch is in, and reception continues even if you perform some other operation after it starts. The receive indicator is not displayed during auto receive.

- Auto receive is performed at 1:00 AM, 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.
- Remember that reception of the calibration signal depends on the Timekeeping Mode time. The receive operation will be performed whenever the Timekeeping Mode time is 1:00 AM, regardless of whether or not the displayed time is actually the correct time.

Important!

The watch has a digital tuning function called "automatic gain control," which achieves best timekeeping accuracy when there are a large number of successful calibration signal receptions. Because of this, we recommend that you always allow the watch to perform automatic calibration.

To set the time and date manually

Important!

The receive indicator remains on the display for about three days after successful receipt of the time calibration signal. Note that you cannot manually change the time setting while the receive indicator is on the display.

Time setting screen



Date setting screen



1. Make sure that the current time zone setting is the time zone for which you want to set the time and date.
2. In the Timekeeping Mode, hold down (B) until the current time starts to flash on the display, which indicates the time setting screen.
 - If you want to change the date setting only without changing the time setting, skip to step 4.
3. Use (A) (+) and (C) (-) to change the time setting.
 - If you want to register your time setting without changing the date setting, press (B) here to exit the setting screen.
4. Press (D) to advance to the date setting screen, which is indicated by the date flashing on the display.
5. Use (A) (+) and (C) (-) to change the date setting.
 - Pressing (D) changes back to the time setting screen in step 2.
6. Press (B) to exit the setting screen.

Switching between Standard Time and Daylight Saving Time

The time calibration signal sent from Fort Collins includes Standard Time and Daylight Saving Time information. If you are in a time zone within North America where Daylight Saving Time is used, you do not need to make any adjustments to switch between Standard Time and Daylight Saving Time.

When you are in a time zone outside of North America, you can use the following procedure to turn on Daylight Saving and advance the current time by one hour, when necessary.

- Note that not all countries or local areas use Daylight Saving Time.
- If the watch receives a time calibration signal, the time is adjusted in accordance with the time calibration signal data, regardless of the current DST on/off setting. If you are in a U.S. area that does not use Daylight Saving Time, you need to use the procedure under "To specify your time zone" to select the time zone to the west of the time zone where you are. If you are in the Mountain Time Zone in an area that does not use Daylight Saving Time, for example, select the Pacific Time Zone during the Daylight Saving Time period.

To switch between Standard Time and Daylight Saving Time



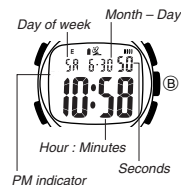
1. Use (D) to enter the Time Zone Mode.
2. Hold down (B) until the current time zone differential value starts to flash, which indicates the setting screen.
3. Press (D) to display the DST setting screen.
4. Press (A) or (C) to toggle between Daylight Saving Time (ON) and Standard Time (OFF).
 - The DST indicator is on the display while Daylight Saving Time is turned on.
5. Press (B) to exit the setting screen.
 - The Daylight Saving Time setting affects the currently selected time zone only.
 - The Daylight Saving Time setting does not affect UTC.

Timekeeping Mode Screens

You can select one of two different screens for viewing the current time in the Timekeeping Mode: Home Time and Date screen, or Home Time and UTC (Universal Time Coordinated) screen. Press (B) to toggle between the two screen formats.

[Module 2406]

Home Time and Date Screen



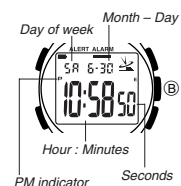
Home Time and UTC Screen



Press (B).

[Modules 2583, 2587]

Home Time and Date Screen



Home Time and UTC Screen



Press (B).

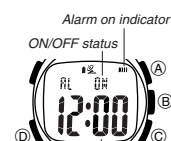
- Changing the Home Time setting also causes UTC to change accordingly. Time zone and DST ON/OFF settings do not have any affect on the UTC.

Alarm

You can set a Daily Alarm that sounds at the same time each day, while it is turned on.

- Alarm settings are available in the Alarm Mode, which you enter by pressing (D).

To set the alarm time



Alarm time (Hour : Minutes)

1. In the Alarm Mode, hold down (B) until the alarm time starts to flash, which indicates the setting screen.
 - The alarm turns on, which is indicated by the appearance of ON, whenever you display the alarm setting screen.
2. While the alarm time is flashing, use (A) (+) and (C) (-) to change it.
 - When setting the alarm, take care to set the time correctly as a.m. (no indicator) or p.m. (Module 2406: PM; Modules 2583, 2587: P).
3. Press (B) to exit the setting screen.

Alarm Operation

The alarm sounds at the preset time for about 30 seconds, or until you stop it by pressing any button.

Important!

An ongoing receive operation (auto or manual) is immediately canceled if an alarm sounds. If you need to set an alarm time in the range of 1:00 AM to 1:15 AM, we recommend that you trigger a receive operation manually after the alarm sounds.

To turn the alarm on and off

In the Alarm Mode, press (C) to turn the alarm on (ON displayed) and off (OFF displayed).

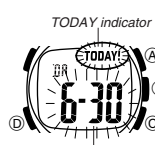
- The alarm on indicator (Module 2406: **!!!**; Modules 2583, 2587: **ALARM**) is shown on the display in all modes while the alarm is turned on.

Date Alert

The Date Alert Mode helps you to remember an important date. After you set an alert date (month and day), the watch displays a flashing indicator (Module 2406: **TODAY!**; Modules 2583, 2587: **ALERT**) for 24 hours after that date arrives.

- Note that Date Alert is always on and cannot be turned off. The initial default alert date is December 24.

To set the alert date

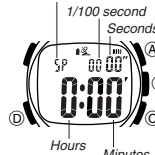


Alert date

1. Use (D) to enter the Date Alert Mode.
2. Hold down (B) until the alert date starts to flash, which indicates the setting screen.
3. Use (A) (+) and (C) (-) to change the setting.
4. Press (B) to exit the setting screen.

Stopwatch

SP indicator



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

- The display range of the stopwatch is 99 hours, 59 minutes, 59.99 seconds.
- The stopwatch measurement operation continues until you stop it or until it reaches 99:59' 59.99" (at which time the display resets to all zeros).
- 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 (D).

To measure elapsed time

1. Press (A) to start the stopwatch.
2. Press (A) again to stop the stopwatch.
 - You can resume the measurement operation by pressing (A).
3. Press (C) to clear the stopwatch to all zeros.

To measure lap times

1. When the stopwatch display shows all zeros, use (C) to display the lap time screen (indicated by LA).
2. Press (A) to start a time measurement.
3. Press (C) when you want to freeze the first lap time on the display.
 - Though the lap time is frozen on the display, timing of the next lap continues internally.
4. Press (C) again to switch back to the ongoing timing of the next lap.
 - You can repeat steps 3 and 4 as many times as you want.
5. Press (A) when you want to stop the lap time measurement.
6. Press (C) to clear the stopwatch to all zeros.

To measure split times

1. When the stopwatch display shows all zeros, use (C) to display the split time screen (indicated by SP).
2. Press (A) to start a time measurement.
3. Press (C) when you want to freeze the first split time on the display.
 - Though the split time is frozen on the display, timing continues internally.
4. Press (C) again to switch back to the split time measurement.
 - You can repeat steps 3 and 4 as many times as you want.
5. Press (A) to stop the split time measurement.
6. Press (C) to clear the stopwatch to all zeros.

To determine the time of 1st and 2nd place finishers

1. When the stopwatch display shows all zeros, press (C) to display the split time screen (indicated by SP).
2. Press (A) to start a time measurement.
3. Press (C) when the first finisher crosses the finish line.
 - This causes the time of the first finisher to be frozen on the display, while elapsed time measurement continues internally.
4. Press (A) when the second finisher crosses the finish line.
5. Press (C) to display the time of the second finisher.
6. Press (C) to clear the stopwatch to all zeros.

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.

Auto Return Features

- If you leave the watch in Alarm, Date Alert, or Time Zone Mode for about 10 seconds without performing any operation, it automatically returns to the Timekeeping Mode.
- If you leave a screen with flashing digits on the display for two or three minutes without performing any operation, the watch automatically saves any settings you have made up to that point and exits the setting screen.

Scrolling

The (A) and (C) 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.

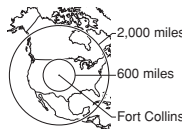
Timekeeping

- Pressing (A) or (C) while setting the time in the Timekeeping Mode resets the second's count to zero.
- The second's count is restarted when you press (D) to advance to the date setting screen or (B) to exit the setting screen.
- 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 1997 to 2096.
- The watch's built-in full automatic calendar automatically 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 battery replaced.
- Home Time is displayed in 12-hour format, while UTC is always displayed in 24-hour format.
- The PM (Module 2406: PM; Modules 2583, 2587: P) indicator appears to the left of the hour digits for times in the range of noon to 11:59 p.m. and no indicator appears to the left of the hour digits for times in the range of midnight to 11:59 a.m.

UTC

The letters "UTC" stands for "Universal Time Coordinated," which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep accurate 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.

Time Calibration Signal Reception Precautions



- This watch receives the time calibration signal (Call Sign: WWVB) transmitted from Fort Collins, Colorado. 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 transmitter, signal reception may not be possible during certain times of year or times of day. Radio interference may also cause problems with reception.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make.
- The watch is designed to automatically update the date and day of the week for the period January 1, 1997 to December 31, 2096. Setting of the date by the time calibration signal cannot be performed starting from January 1, 2097.
- This watch can receive signals that differentiate between leap years and non-leap years.
- Reception stops if an alarm starts to sound while the signal is being received.
- Even when the watch is within the reception range, signal reception is 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 is bounced off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the ionosphere to higher altitudes due to seasonal atmospheric changes or the time of day may change the reception range of the signal and make reception temporarily impossible.
- Even if the time calibration signal is received properly, certain conditions can cause the time setting to be off by up to one second.
- Think of the watch as acting like a TV or radio when it is receiving the calibration signal. When receiving indoors, move to a location as near as possible to a window. Proper signal reception can be difficult or even impossible under the conditions listed below.
 - Near TVs, refrigerators, computers, or other household appliances*
 - Far away from broadcasting stations among ferro-concrete structures or near mountains*
 - Underground, in tunnels or in ferro-concrete buildings*
 - Near high-tension wires, neon signs, or radio stations with interfering frequencies*
 - Near railroads, highways or airports*
 - In trains or cars*
- Radio interference can make signal reception impossible.
- Strong electrostatic charge can result in the wrong time being set.
- If you are in an area where proper time calibration signal reception is impossible, the watch keeps time within ± 20 seconds a month at normal temperature.

Backlight Precautions

The backlight uses an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. In any mode, press (L) to illuminate the display for about three seconds.

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

Low Power Battery Precautions

- The indicator (B) on the display indicates normal battery power. The indicator changes to a flashing when battery power is low.
- Though backlight, alarm, and signal receive operations are possible when the indicator (B) is flashing on the display, you should avoid performing these operations because they require high amounts of power. Have the battery replaced by the store or dealer where you purchased the watch as soon as possible.

Time Zone Table

Time Zone Differential	Major cities in same time zone
-12h	PAGO PAGO
-11h	HONOLULU, PAPEETE
-10h	ANCHORAGE, NOME
-9h	LOS ANGELES, SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, DAWSON CITY, TIJUANA
-8h	DENVER, EL PASO, EDMONTON, CULIACAN
-7h	CHICAGO, HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG
-6h	NEW YORK, MONTREAL, DETROIT, MIAMI, BOSTON, PANAMA CITY, HAVANA, LIMA, BOGOTA
-5h	CARACAS, LA PAZ, SANTIAGO, PORT OF SPAIN
-4h	RIO DE JANEIRO, SAO PAULO, BUENOS AIRES, BRASILIA, MONTEVIDEO
-3h	
-2h	
-1h	PRAIA
0h	LONDON, DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN, BERLIN, PARIS, MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM
1h	CAIRO, JERUSALEM, ATHENS, HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN
2h	JEDDAH, KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI, MOSCOW
3h	DUBAI, ABU DHABI, MUSCAT
4h	KARACHI, MALE
5h	DHAKA, COLOMBO
6h	BANGKOK, JAKARTA, PHNOM PENH, HANOI, VIENTIANE
7h	HONG KONG, SINGAPORE, KUALA LUMPUR, BEIJING, TAIPEI, MANILA, PERTH, ULANAABATAR
8h	TOKYO, SEOUL, PYONGYANG
9h	
10h	SYDNEY, MELBOURNE, GUAM, RABAUL
11h	NOUMEA, PORT VILA
12h	WELLINGTON, CHRISTCHURCH, NADI, NAURU ISLAND

• Based on data as of December 2002.