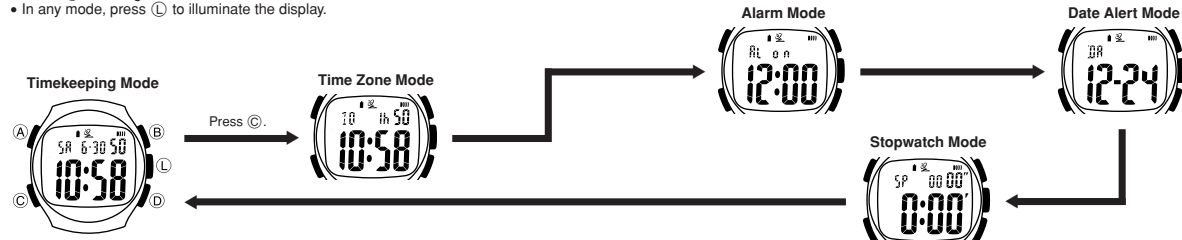# Operation Guide 2407

CASIO®

About This Manual

- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

General Guide

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

Timekeeping Mode → Press Ⓒ. → **Time Zone Mode** → **Alarm Mode** → **Date Alert Mode** → **Stopwatch Mode** →

Timekeeping

This watch automatically adjusts its time setting in accordance with the time calibration signal (Call Sign: DCF77) transmitted from Mainflingen, Germany. You can also perform a manual procedure to set the time and date, when necessary.

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".
- Time calibration reception is limited to specific geographic areas in West Europe.

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 (see below).

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 the West Europe, 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 differential value

1. Use Ⓒ to enter the Time Zone Mode.
2. Hold down Ⓐ 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 (Universal Time Coordinated) in Greenwich, England.
3. Use Ⓑ (+) and Ⓓ (−) to change the time zone differential value.
4. Press Ⓐ to exit the setting screen.
- If you are in an area that corresponds to the German time zone (**1h**) but does not follow summer time (Daylight Saving Time or DST), select the time zone to the west of the German zone. This means you would select the time zone with a time differential of **0h** instead of **1h** in order to cancel the effect of summer time (DST).

Time Calibration Signal Reception
Removing the watch from your wrist and positioning it as shown in the illustrations below helps to optimize signal reception.
- If your watch has a resin band, pass the end of the band through the band loop and place the watch on a stable surface.

Resin band   **Metal band**
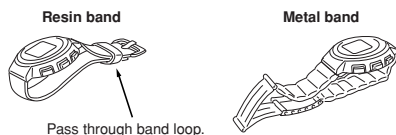
Pass through band loop.

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

1. Use Ⓒ to enter the Timekeeping Mode.
2. Place the watch on a stable surface to its top (12 o'clock side) is facing in the general direction of Mainflingen, Germany.
   - This puts the watch in the optimum position for time calibration signal reception.
3. Hold down Ⓓ for about three seconds, until the receive indicator (☇) starts to flash, which indicates that signal reception has started.
- Signal reception takes from two to five minutes. Take care that you do not move the watch during this time.
- The receive indicator (☇) stops flashing and remains on the display when signal reception is complete. The receive indicator remains on the display for three days after a successful signal reception. The receive indicator does not appear if signal reception is unsuccessful for some reason.

- If the receive indicator does not appear when you hold down Ⓓ, it means that signal receive is turned off. Use the procedure under "To turn signal receive on and off" to turn it on.
- To interrupt a receive operation, hold down Ⓓ for about three seconds.

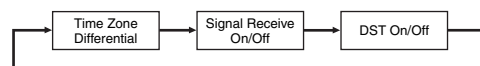**Switching between Standard Time and Summer Time**
The time calibration signal sent from Mainflingen includes standard time and summer time information. This means that if you are in an area that switches between summer time and standard time on the same days as Germany, you do not need to make any manual adjustments.
When you are in an area that does not correspond to German summer time and standard time, you can use the following procedure to turn on summer time (Daylight Saving Time or DST) and advance the current time by one hour, when necessary.
- Note that not all countries or local areas use summer time.
- If the watch receives a time calibration signal in an area that corresponds to the German time zone, the time is adjusted in accordance with the time calibration signal data. If you are in an area outside of Germany that corresponds to the German time zone but does not follow summer 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 located.

To switch between standard time and summer time

1. Use Ⓒ to enter the Time Zone Mode.
   - Note that you cannot switch manually between standard time and summer time while the time zone differential setting is **0h**, **1h**, or **2h**, and signal receive is turned on. In this case, the DST On/Off setting does not appear in step 3 below. Be sure to turn signal receive off before switching between standard time and summer time while the time zone differential setting is **0h**, **1h**, or **2h**.
2. Hold down Ⓐ until the current time zone differential value starts to flash, which indicates the setting screen.
3. Press Ⓒ twice to display the DST On/Off setting screen.
   - Each press of Ⓒ moves the flashing in the sequence shown below to select other settings.

Time Zone Differential → Signal Receive On/Off → DST On/Off

4. Press Ⓑ or Ⓓ to toggle between standard time (**oFF**) and summer time (**on**).
   - The **DST** indicator is on the display while summer time is turned on.
5. Press Ⓐ to exit the setting screen.
- The summer time setting affects all time zones.
- The summer time setting does not affect UTC.

Calibration Signal Auto Receive
This watch is designed so that timekeeping accuracy is directly proportional to the number of successful signal receptions the watch is able to receive (automatic gain control). Because of this, we recommend that you always keep auto receive turned on when you are within range of the Mainflingen transmitter.
- Auto receive is performed at 2:00AM German time each day, regardless of the Timekeeping Mode time shown on the watch's display. It is best to remove the watch from your wrist and put it in a location where it can easily receive the signal prior to 2:00AM German time.
- The auto receive operation is performed everyday no matter what mode the watch is in.
- This watch is shipped from the factory with auto receive turned on. You can change the auto receive setting using the procedure under "To turn signal receive on and off".

To turn signal receive on and off

1. Use Ⓒ to enter the Time Zone Mode.
2. Hold down Ⓐ until the current time zone differential value starts to flash, which indicates the setting screen.
3. Press Ⓒ once to display the Signal Receive On/Off setting screen.
4. Press Ⓑ or Ⓓ to toggle between Signal Receive (auto and manual) on (**on**) and off (**oFF**).
5. Press Ⓐ to exit the setting screen.

- If you use the above procedure to turn on signal receive, the watch performs a signal receive operation (indicated by the flashing ☇ icon) when you exit the setting screen in step 5.
- To stop an ongoing signal receive operation, enter the Timekeeping Mode and then hold down Ⓓ for about three seconds.
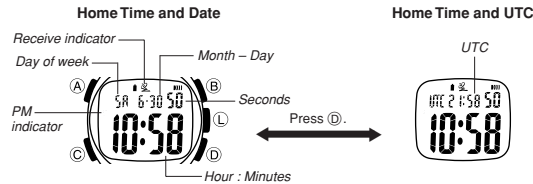
1

To set the time and date manually

1. Make sure that the current time zone setting is the time zone for which you want to set the time and date.
2. Use Ⓒ to enter the Timekeeping Mode.
3. Hold down Ⓐ until the 12/24-hour setting starts to flash, which indicates the setting screen.
4. Press Ⓒ to move the flashing in the sequence shown below to select other settings.

12/24-Hour Format → Seconds → Hour → Minutes → Year → Month → Day → 12/24-Hour Format
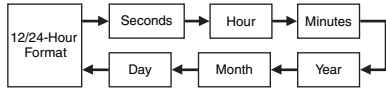
5. While a setting is flashing, use Ⓑ (+) and Ⓓ (–) to change it.
   • When the 12/24-hour setting is selected, press Ⓑ or Ⓓ to toggle between 12-hour (**12h**) and 24-hour (**24h**) timekeeping.
   • While the second's setting is selected, press Ⓑ or Ⓓ to reset the seconds to **00**. Pressing Ⓑ or Ⓓ while the second's count is in the range of 30 to 59 resets the seconds to **00** and adds 1 to the minutes. In the range of 00 to 29, the minute's count is unchanged.
6. Press Ⓐ to exit the setting screen.
   • The day of the week is automatically displayed in accordance with the date (year, month, and day) settings.

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 Ⓓ to toggle between the two screen formats.

Home Time and Date   **Home Time and UTC**

Receive indicator
Day of week
Month – Day
PM indicator
Seconds
Press Ⓓ.
UTC
Hour : Minutes

   • Changing the Home Time setting also causes UTC to change accordingly.

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 Ⓒ.

To set the alarm time

Alarm on indicator
On/Off status
Alarm time (Hour : Minutes)
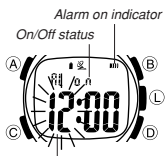
1. In the Alarm Mode, hold down Ⓐ until the hour digits of the alarm time start to flash, which indicates the setting screen.
   • This operation automatically turns on the alarm.
2. Press Ⓒ to move the flashing between the hour and minutes.
3. While a setting is flashing, use Ⓑ (+) and Ⓓ (–) to change it.
   • When setting the alarm, take care to set the time correctly as a.m. (no indicator) or p.m. (**P** indicator).
4. Press Ⓐ 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.

To turn the alarm on and off

In the Alarm Mode, press Ⓓ to turn the alarm on (**on** displayed) and off (**oFF** displayed).
• The alarm on indicator (ꔊ) 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 (**TODAY!**) 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

Today indicator
Alert date (Month – Day)
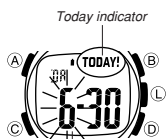
1. Use Ⓒ to enter the Date Alert Mode.
2. Hold down Ⓐ until the month digits of the alert date start to flash, which indicates the setting screen.
3. Press Ⓒ to move the flashing between the month and day.
4. While a setting is flashing, use Ⓑ (+) and Ⓓ (–) to change it.
5. Press Ⓐ to exit the setting screen.

Stopwatch

SP indicator
1/100 second
Seconds
Hours
Minutes
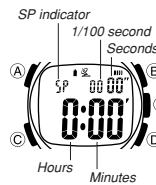
The stopwatch lets you measure elapsed time, lap times, split times, and two finishes.
• The display range of the stopwatch is 99 hours, 59 minutes, 59.99 seconds.
• The stopwatch measurement operation continues until you stop it or until it reaches 99:59' 59.99" (at which time the display resets to 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 Ⓒ.

To measure elapsed time

1. Press Ⓑ to start the stopwatch.
2. Press Ⓑ again to stop the stopwatch.
   • You can resume the measurement operation by pressing Ⓑ.
3. Press Ⓓ to clear the stopwatch to all zeros.

To measure lap times

1. When the stopwatch display shows all zeros, use Ⓓ to display the lap time screen (indicated by **LA**).
2. Press Ⓑ to start a time measurement.
3. Press Ⓓ 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 Ⓓ 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 Ⓑ when you want to stop the lap time measurement.
6. Press Ⓓ to clear the stopwatch to all zeros.

To measure split times

1. When the stopwatch display shows all zeros, use Ⓓ to display the split time screen (indicated by **SP**).
2. Press Ⓑ to start a time measurement.
3. Press Ⓓ 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 Ⓓ again to switch back to the split time measurement.
   • You can repeat steps 3 and 4 as many times as you want.
5. Press Ⓑ to stop the split time measurement.
6. Press Ⓓ 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, use Ⓓ to display the split time screen (indicated by **SP**).
2. Press Ⓑ to start a time measurement.
3. Press Ⓓ 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 Ⓑ when the second finisher crosses the finish line.
5. Press Ⓓ to display the time of the second finisher.
6. Press Ⓓ 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 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.

Data and Setting Scrolling

The Ⓑ and Ⓓ buttons are used in various setting screens to scroll through the available settings on the display. In most cases, holding down these buttons during a scroll operation scrolls through the settings at high speed.

Timekeeping

• Home Time is displayed in 12-hour or 24-hour format, while UTC is always displayed in 24-hour format.
• With the 12-hour format, the **P** (PM) 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.
• With the 24-hour format, times are displayed in the range of 0:00 to 23:59, with **24** indicator.
• The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is also applied in all modes.
• The year can be set in the range of 2001 to 2098.
• 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 watch's battery replaced.

UTC

The letters "UTC" stands for "Universal Time Coordinated," which is the world-wide 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
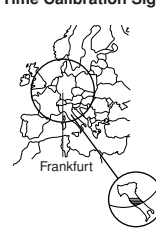
Frankfurt

   • This watch receives the time calibration signal (Call Sign: DCF77) transmitted from Mainflingen, Germany (located 25 kilometers southeast of Frankfurt). Signal reception is possible within a radius of about 1,000 kilometers from the Mainflingen transmitter.
   • Signal reception may be poor in the shaded area on the map, even though it is within 1,000 kilometers of the signal transmitter.
   • The current time setting in accordance with the time calibration signal takes priority over any time settings you make.
   • The Mainflingen time calibration signal includes summer time (DST) data.
   • The watch is designed to automatically update the date and day of the week for the period January 1, 2001 to December 31, 2098. Setting of the date by the time calibration signal cannot be performed starting from January 1, 2099.

- 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, and restarts after the alarm operation is complete.
- 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.
- This watch receives the time calibration signal transmitted from Mainflingen, Germany. This means that reception is best when the antenna built into the 12 o'clock edge of the watch is facing towards Mainflingen. Note, however, that moving the watch while the time calibration signal receive operation is taking place will make stable reception impossible.
- 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 Ⓛ 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 (🔋) 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 (🔋) 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	
–11h	PAGO PAGO
–10h	HONOLULU, PAPEETE
–9h	ANCHORAGE, NOME
–8h	LOS ANGELES, SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, DAWSON CITY
–7h	DENVER, EL PASO, EDMONTON
–6h	CHICAGO, HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG
–5h	NEW YORK, MONTREAL, DETROIT, MIAMI, BOSTON, PANAMA CITY, HAVANA, LIMA, BOGOTA
–4h	CARACAS, LA PAZ, SANTIAGO, PORT OF SPAIN
–3h	RIO DE JANEIRO, SAO PAULO, BUENOS AIRES, BRASILIA, MONTEVIDEO
–2h	
–1h	PRAIA
0h	LONDON, DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN
1h	BERLIN, PARIS, MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM
2h	CAIRO, JERUSALEM, ATHENS, HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN
3h	JEDDAH, KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI, MOSCOW
4h	DUBAI, ABU DHABI, MUSCAT
5h	KARACHI, MALE
6h	DHAKA, COLOMBO
7h	BANGKOK, JAKARTA, PHNOM PENH, HANOI, VIENTIANE
8h	HONG KONG, SINGAPORE, KUALA LUMPUR, BEIJING, TAIPEI, MANILA, PERTH, ULAANBAATAR
9h	TOKYO, SEOUL, PYONGYANG
10h	SYDNEY, MELBOURNE, GUAM, RABAUL
11h	NOUMEA, PORT VILA
12h	WELLINGTON, CHRISTCHURCH, NADI, NAURU ISLAND

- Based on data as of December 2000.