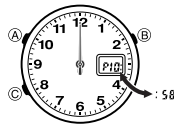


Operation Guide 4757

CASIO®

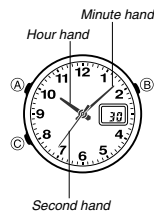
Getting Acquainted

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



If all the analog hands are stopped at 12 o'clock...
To conserve battery power, the watch is shipped from the factory with its functions disabled. All the watch's analog hands are stopped at 12 o'clock, and the digital display alternates between the hour and minute. To activate the watch's functions, press any one of the three buttons. This will cause the analog hands to move to the current time setting.

About This Manual

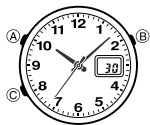


- Most of the display examples in this manual show only the digital display, without the analog hands.
- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

General Guide

- Press (C) to change from mode to mode.
- In any mode (except when a setting screen is on the display), press (A) to illuminate the face of the watch.

Timekeeping Mode

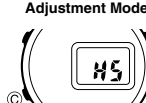


Press (C).

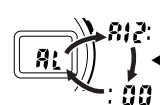
Receive Result Mode



Home Position Adjustment Mode



Alarm Mode



Radio-controlled Atomic Timekeeping

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

- This watch is designed to pick up the time calibration signal transmitted from Mainflingen, Germany and the signal from Rugby, England.

Current Time Setting

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

- The first thing you should do after purchasing this watch is to specify your Home Time Zone, which is the time zone where you will normally use the watch. For more information, see "To specify your Home Time Zone" below.
- When using the watch outside the range of the time signal transmitter, you will have to adjust the current time setting manually as required. See "Timekeeping" for more information about manual time settings.

To specify your Home Time Zone

- In the Timekeeping Mode, hold down (B) for about five seconds until the currently selected time zone appears on the display. This is the setting screen.
 - The GMT differential value indicates the time difference in hours between Greenwich Mean Time and the currently selected time zone.
- Press (A) to select the time zone you want to use as your Home Time Zone.
 - The following are the GMT differential values for major cities in the Western Europe time zones.

Time zone

Time Zone	Major cities in time zone
+0	London, Dublin, Lisbon
+1	Paris, Milan, Rome, Madrid, Amsterdam, Hamburg, Berlin, Frankfurt, Vienna, Stockholm
+2	Athens, Helsinki

- Press (B) to exit the setting screen.
 - The watch will also return to the Timekeeping Mode if you do not perform any operation for two or three minutes.
 - Your watch should show the correct time when you exit the Home Time Zone setting screen. While the hands are moving to the new time setting, the current time will be shown on the digital display. If it does not, it should adjust automatically after the next auto receive operation (in the middle of the night). You can also perform manual receive or you can set the time manually.
 - Even if the time calibration signal is received correctly, there are some times when the analog hands may not indicate the correct time. If this happens, use the procedures under "Adjusting the Home Positions" to check the home positions of the hands, and make adjustments as required.
 - See the map under "Reception Ranges" for information about the reception ranges of the watch.
 - You can disable time signal reception, if you want. See "To set the time and date manually" for more information.

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

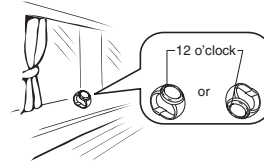
With auto receive, the watch receives the time calibration signal automatically up to six times a day. When any auto receive is successful, the remaining auto receive operations are not performed. For more information, see "About Auto Receive".

Manual Receive

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

Important!

- When getting ready to receive the time calibration signal, position the watch as shown in the nearby illustration, with its 12 o'clock side facing towards a window. Make sure there are no metal objects nearby.

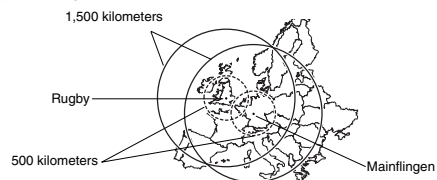


- Make sure the watch is facing the right way.
- Proper signal reception can be difficult or even impossible under the conditions listed below.



- Signal reception is normally 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.
- When within range of the applicable transmitter, this watch can receive either the Germany (Mainflingen) or England (Rugby) time calibration signals. See "Transmitters" for more information.

Reception Ranges



- At distances further than about 500 kilometers from a transmitter, signal reception may not be possible during certain times of year or times of day. Radio interference may also cause problems with reception.
- Even when the watch is within the reception range of the transmitter, 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.
- See the information under "Signal Reception Troubleshooting" if you experience problems with time calibration signal reception.

About Auto Receive

The watch receives the time calibration signal automatically up to six times a day. 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 Time Zone, and whether Standard Time or Daylight Saving Time is selected for your Time Zone.

Note

- Auto receive is turned on whenever +0, +1, or +2 is selected as the Home Time Zone.

Your Time Zone		Auto Receive Start Times					
		1	2	3	4	5	6
+ 0	Standard Time	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am	Midnight
	Daylight Saving Time	2:00 am	3:00 am	4:00 am	5:00 am	Midnight	1:00 am next day
+ 1	Standard Time	2:00 am	3:00 am	4:00 am	5:00 am	Midnight	1:00 am next day
	Daylight Saving Time	3:00 am	4:00 am	5:00 am	Midnight	1:00 am next day	2:00 am next day
+ 2	Standard Time	3:00 am	4:00 am	5:00 am	Midnight	1:00 am next day	2:00 am next day
	Daylight Saving Time	4:00 am	5:00 am	Midnight	1:00 am next day	2:00 am next day	3:00 am next day

Note

- Auto receive works only while the watch is in the Timekeeping Mode. Auto receive is not performed if an auto receive time is reached while an alarm is sounding, or if a setting screen (a screen with a flashing setting) is on the display.
- 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.
- When auto receive is turned on, the watch receives the calibration signal for two to 14 minutes everyday when the time in the Timekeeping Mode reaches each of the calibration times. Avoid performing any button operation within 14 minutes before or after any one of 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 reception.

To perform manual receive

Receiving

- Enter the Receive Result Mode.
- Place the watch on a stable surface so its top (12 o'clock side) is facing towards a window.
- Hold down (B) for about two seconds until **RL** starts to flash on the display.

The second hand will move to 12 o'clock and stay there while actual reception is in progress.

Receive successful

Time calibration signal reception takes from two to 14 minutes. Take care that you do not perform any button operations or move the watch during this time.

After successful calibration signal reception is complete, the hands will start moving to the correct setting. While they are moving, the current time will be shown on the digital display. After the hands reach the correct setting, the digital display will switch to the time that signal reception was successful.

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

Receive failed

When receive is unsuccessful, the display shows "--". The watch will enter the Timekeeping Mode without changing the time setting if you press (C) or if you do not perform any button operation for about one or two minutes.

Note

- To interrupt a receive operation and return to the Receive Result Mode, press any button.

Viewing the Latest Signal Reception Results

You can use the Receive Result Mode to check if signal reception was performed correctly.

To check the latest signal reception results

Enter the Receive Result Mode.

- When receive is successful, the display shows the time that receive was successful. When receive is not successful, the display shows "--".
- To return to the Timekeeping Mode, press (C).
- If you adjust the time or date setting manually, the display shows "--".

Signal Reception Troubleshooting

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

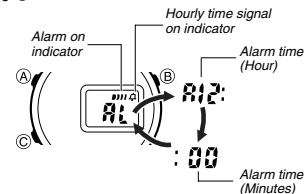
Problem	Probable Cause	What you should do
Cannot perform manual receive.	<ul style="list-style-type: none"> The watch is not in the Receive Result Mode. Your current Home Time Zone setting is not one of the following: +0, +1 or +2. 	<ul style="list-style-type: none"> Enter the Receive Result Mode and try again. Select +0, +1 or +2 as your Home Time Zone.
Auto receive is not being performed successfully ("--" displayed).	<ul style="list-style-type: none"> You changed the time setting manually. You were adjusting the watch settings when the auto receive start times were reached. You pressed any button while signal receive was in progress. 	<ul style="list-style-type: none"> Perform manual signal receive or wait until the next auto signal receive operation is performed. Check to make sure the watch is in a location where it can receive the signal.
Time setting is incorrect following signal reception.	<ul style="list-style-type: none"> The Home Time Zone setting is not correct for the area where you are using the watch. The home position of the hands is off. 	<ul style="list-style-type: none"> Select the correct Home Time Zone. Enter the Home Position Adjustment Mode and adjust the home position.

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

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.

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



To set the alarm time

- In the Alarm Mode, hold down (B) until the hour setting of the alarm time starts to flash, which indicates the setting screen.
 - This operation automatically turns on the alarm.
- Press (C) to move the flashing between the hour and minute settings.
- While a setting is flashing, use (A) (+) to change it.
 - Take care to set the time correctly as a.m. (R indicator) or p.m. (P indicator).
- Press (B) 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.

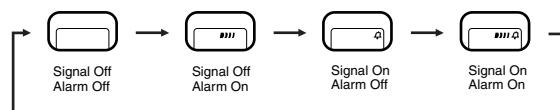
To test the alarm

- In the Alarm Mode, hold down (B) until the hour setting of the alarm time starts to flash, which indicates the setting screen.
 - This operation automatically turns on the alarm.
- Hold down (C) to sound the alarm.
- Press (B) to exit the setting screen.

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

In the Alarm Mode, press (B) to cycle through the settings shown below.

Alarm On Indicator / Hourly Time Signal On Indicator

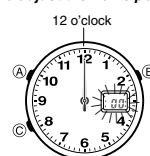


- The alarm on indicator and the Hourly Time Signal on indicator are shown on the display in all modes while these functions are turned on.

Adjusting the Home Positions

If the time and date settings are wrong even after the time calibration signal is received normally, use the following procedure to adjust their home positions.

To adjust the home positions



- In the Timekeeping Mode, press (C) three times to enter the Home Position Adjustment Mode.
- Hold down (B) for about five seconds.
 - The analog hands do not keep time during home position adjustment.
- Use (A) to align all of the analog hands with 12 o'clock (home position).
 - Each press of (A) advances the second hand by one second.

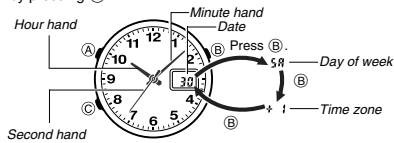
Correct analog hand home position

- Holding down (A) for more than two seconds causes the second hand to move continually at high speed. Press (A) again to stop high-speed hand movement at a point that is just before 12 o'clock. Next, complete home position adjustment by pressing (A) as many times as necessary to align the hands with 12 o'clock.
- High-speed hand movement will stop automatically if the hands complete a 12-hour cycle.
- Pressing (B) exits the home position adjustment.

Timekeeping

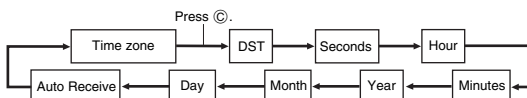
Use the Timekeeping Mode to set and view the current time and date. This section also explains how to set the current date and time manually.

- If you become confused and lose your way during the following procedures, simply put the watch down and do not perform any button operation for two or three minutes. This will cause the watch to enter the Timekeeping Mode (indicated by normal one-second movement of the second hand) automatically. After that, you can try performing the manual setting procedure again from the beginning.
- All of the operations in this section are performed in the Timekeeping Mode, which you enter by pressing **C**.



To set the time and date manually

- In the Timekeeping Mode, hold down **B** until the Time Zone starts to flash, which indicates the setting screen.
 - The analog hands do not move in the setting screen.
- Press **C** to cycle through settings in the sequence shown below.



3. Select the setting you want to change, and then use **A** to change it as shown below.

Screen	To do this:	Do this:
\pm /	Cycle through time zones	Press A .
DST / ST / DST	Toggle between Auto DST (DST), Standard Time (ST), or Daylight Saving Time (DST)	Press A .
00	Reset the seconds to 00	Press A .
P:00	Change the hour	Press A .
:00	Change the minutes	Press A .
y / 00	Change the year	Press A .
m / 0	Change the month	Press A .
d / 00	Change the day	Press A .
RC / 00	Toggle signal auto receive on (00) and off (0F) (This setting is possible only for time zones that support time calibration signal reception.)	Press A .

- For full information on time zones, see the "Time Zone Table".
 - When setting the day, the watch automatically will skip days (**30** and **31**) that are not included in the currently selected month. If you can't select **30** or **31** when you want to, check to make sure that the proper month is selected.
- Press **B** to exit the setting screen.
 - This will cause the hands to move to the current time, and resume normal movement.
 - The current time will be shown on the digital display while the hands are moving.
 - It can take as long as about 11 minutes for the hands to reach the proper time setting.

Note

- The auto receive setting is used for time calibration signal reception only. See "About Auto Receive" for details.

Daylight Saving Time (DST)

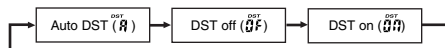
Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

The time calibration signals 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.

- The default DST setting is Auto DST (DST) whenever you select **+0**, **+1** or **+2** as your Home Time Zone.
- Auto DST (DST) can be selected only while **+0**, **+1** or **+2** is selected as the Home Time Zone.
- If you experience problems receiving the time calibration signal in your area, it is probably best to switch between Standard Time and Daylight Saving Time (summer time) manually.

To change the Daylight Saving Time (summer time) setting

- In the Timekeeping Mode, hold down **B** until the currently selected time zone appears on the display. This is the setting screen.
- Press **C** and the DST setting screen appears.
- Use **A** to cycle through the DST settings in the sequence shown below.



4. When the setting you want is selected, press **B** to exit the setting screen.

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

- The watch automatically returns to the Timekeeping Mode if you do not perform any button operation for one or two minutes while in the Receive Result Mode.
- The watch automatically returns to the Timekeeping Mode if you do not perform any button operation for two or three minutes while in the Alarm or Home Position Adjustment Mode.
- If you do not perform any operation for two or three minutes while a setting screen is selected, the watch will exit the setting screen automatically.

Scrolling

A is used in various modes and setting screens to scroll through data. In most cases, holding down **A** during a scroll operation scrolls through the data at high speed.

Radio-controlled Atomic Timekeeping Precautions

- Strong electrostatic charge can result in the wrong time being set.
- The time calibration signal is bounced off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the ionosphere to higher altitudes due to seasonal atmospheric changes or the time of day may change the reception range of the signal and make reception temporarily impossible.
- Even if the time calibration signal is received properly, certain conditions can cause the time setting to be off by up to one second.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make.
- The watch is designed to update the date and day of the week automatically for the period January 1, 2000 to December 31, 2099. Setting of the date by a time calibration signal cannot be performed starting from January 1, 2100.
- This watch can receive signals that differentiate between leap years and non-leap years.
- Though this watch is designed to receive both time data (hour, minutes, seconds) and date data (year, month, day), certain signal conditions can limit reception to time data only.
- 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.
- If you have problems with proper time calibration signal reception or if the time setting is wrong after signal reception, check your current time zone, DST (summer time), and auto receive settings. The following are the initial factory defaults for these settings.

Setting	Initial Factory Default
Time zone	\pm / (GMT+1)
DST (summer time)	DST (Auto switching)
Auto receive	00 (Auto receive)

Transmitters

This watch is designed to receive the time calibration signal transmitted from Mainflingen, Germany and the signal from Rugby, England. You can configure the watch to automatically select the transmitter that has the strongest signal.

In this case:	The watch does this:
The first signal auto search operation after factory default settings are in effect, or after the time zone has been changed	1. Checks the Mainflingen signal first. 2. If the Mainflingen signal cannot be received, checks the Rugby signal.
Any case other than the above	1. Checks the last successfully received signal first. 2. If the last successfully received signal cannot be received, checks the other signal.

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 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.
- The current time for all time zones in the Timekeeping Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential of each zone, based on your Home Time Zone time setting.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC*) data.
 - *UTC is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation. The reference point for UTC is Greenwich, England.

Illumination Precautions

- An LED (light-emitting diode) illuminates the face of the watch for easy reading in the dark. In any mode (except when a setting screen is on the display), press **A** to illuminate the face of the watch for about one second.
- The illumination provided by the light may be hard to see when viewed under direct sunlight.
- Illumination automatically turns off whenever an alarm sounds.
- Frequent use of illumination can shorten the battery operating time.

Time Zone Table

Display Indicator	GMT Differential	Major cities in time zone
⌚	-11.0	Pago Pago
⌚	-10.0	Honolulu, Papeete
⌚	-09.0	Anchorage, Nome
⌚	-08.0	Los Angeles, San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City
⌚	-07.0	Denver, El Paso, Edmonton
⌚	-06.0	Chicago, Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg
⌚	-05.0	New York, Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota
⌚	-04.0	Caracas, La Paz, Santiago, Port Of Spain
⌚	-03.0	Rio De Janeiro, Sao Paulo, Buenos Aires, Brasilia, Montevideo
⌚	-02.0	
⌚	-01.0	Praia
⌚	+00.0	London, Dublin, Lisbon, Casablanca, Dakar, Abidjan
⌚	+01.0	Paris, Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Berlin, Frankfurt, Vienna, Stockholm
⌚	+02.0	Cairo, Jerusalem, Helsinki, Istanbul, Beirut, Damascus, Cape Town, Athens
⌚	+03.0	Jeddah, Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow
⌚	+04.0	Dubai, Abu Dhabi, Muscat
⌚	+05.0	Karachi, Male
⌚	+06.0	Dhaka
⌚	+07.0	Bangkok, Jakarta, Phnom Penh, Hanoi, Vientiane
⌚	+08.0	Hong Kong, Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Perth, Ulaanbaatar
⌚	+09.0	Tokyo, Seoul, Pyongyang
⌚	+10.0	Sydney, Melbourne, Guam, Rabaul
⌚	+11.0	Noumea, Port Vila
⌚	+12.0	Wellington, Christchurch, Nadi, Nauru Island

• Based on data as of June 2006.