

Operation Guide 2727

CASIO®

Getting Acquainted

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

Expose the watch to bright light to charge its battery before using it.

You can use this watch even as its battery is being charged by exposure to bright light.

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

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

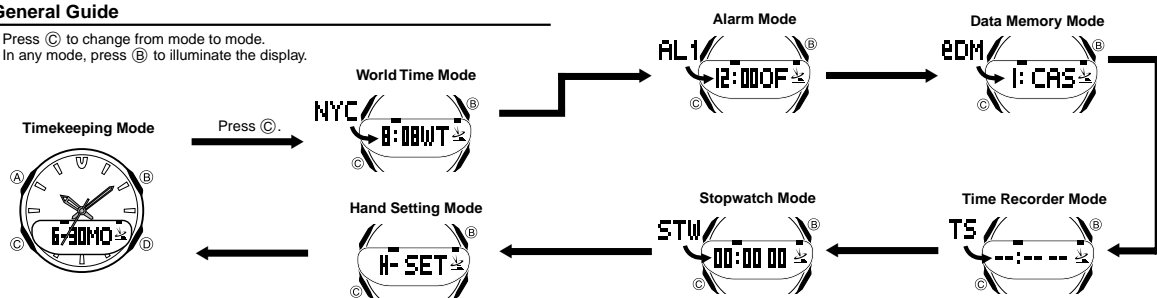


If the Power Saving indicator (PS) is flashing on the display, it means that the display is blank because the watch's Power Saving function has turned off the display to conserve power. Power Saving automatically turns off the display and enters a sleep state whenever your watch is left for a certain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

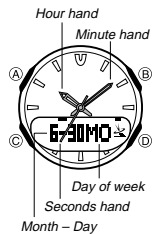
- The initial factory default setting is Power Saving on.
- The watch recovers from the sleep state if you move it to a well-lit area, if you press any button, or if you angle the watch towards your face for reading.
- See "Power Saving Function" for more information.

General Guide

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



Radio-controlled Timekeeping



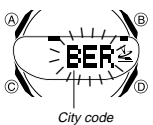
This watch is designed to pick up a time calibration signal transmitted from Mainflingen, Germany (located 25 kilometers southeast of Frankfurt), and update its time setting accordingly. The time calibration signal includes both Standard Time and Daylight Saving Time (summer time) data.

Current Time Setting

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

- The first thing you should do after purchasing this watch is to set your Home City, which is the city where you will normally use the watch. For more information, see "To set your Home City" below.
- See "Setting the Digital Time and Date Manually" for information about manual settings.
- The analog time of this watch is synchronized with the digital time. Because of this, the analog time setting is automatically adjusted whenever you change the digital setting. See "Analog Timekeeping" for more information.

To set your Home City



- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
 - The second hand will move at high speed to the 12 o'clock position, where it will stop.
- Use (D) (+) and (B) (-) to select the city code you want to use as your Home City.
 - The following are the city codes for major cities in the Western Europe time zones.
BER and PAR: Berlin, Paris, Milan, Rome, Amsterdam, Hamburg, Frankfurt, Vienna
LON: London
- Press (A) twice to exit the setting screen.
 - The second hand will advance at high speed to the correct position in accordance with seconds count of the digital time, and resume normal movement from there.
 - 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 can also perform manual receive or you can set the time manually.
 - If you are in an area that does not use Daylight Saving Time (summer time), turn off the DST setting.

Time Calibration Signal Reception

There are two different methods you can use to receive the time calibration signal: auto receive and manual receive.

Auto Receive

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

Manual Receive

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

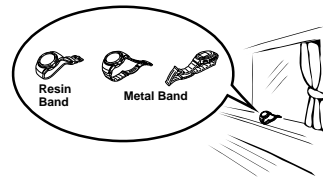
About This Manual



- 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.

Important!

- 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.



- Proper signal reception can be difficult or even impossible under the conditions listed below.



Inside or among buildings

Inside a vehicle

Near household appliances or office equipment

Near a construction site, airport, or other sources of electrical noise

Near high-tension power lines

Among or behind mountains

- Signal reception is normally better at night than during the day.
- Time calibration signal reception takes from two to six minutes. Take care that you do not perform any button operations or move the watch during this time.
- This watch is able to receive the time calibration signal transmitted from Mainflingen, Germany (located 25 kilometers southeast of Frankfurt). Signal reception is possible within the area represented by a circle with a radius of about 1,000 kilometers.
- At distances further than about 500 kilometers, the signal may become weak and reception may be impossible under certain conditions.
- Signal reception may be poor in the shaded area on the map, even though it is within 1,000 kilometers of the signal transmitter.
- See the information under "Signal Receive Troubleshooting" if you experience problems with time calibration signal reception.



About Auto Receive

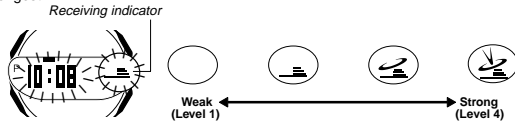
When auto receive is turned on, the watch automatically starts to receive the time calibration signal when the time in the Timekeeping Mode reaches 0:00 a.m., 1:00 a.m., 2:00 a.m., 3:00 a.m., and 4:00 a.m. each day (calibration times). The watch will also perform an additional auto receive operation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

Note

- The auto receive operation is performed only if the watch is in the Timekeeping Mode or World Time Mode when one of the calibration times is reached. It is not performed if a calibration time is reached while an alarm is sounding, or while you are configuring settings (while settings are flashing on the display).
- When a receive operation starts, the second hand will move at high speed to the 12 o'clock position where it will stop until the receive operation is complete.
- Auto receipt of the calibration signal is designed to be performed early in the morning, while you sleep (provided that the Timekeeping Mode time is set correctly). Before going to bed for the night, remove the watch from your wrist, and put it in a location where it can easily receive the signal.
- When auto receive is turned on, the watch receives the calibration signal for two to six minutes everyday when the time in the Timekeeping Mode reaches each of the five calibration times. Do not perform any button operation within six minutes before or after any of the five calibration times. Doing so can interfere with correct calibration.
- Remember that reception of the calibration signal depends on the time kept in the digital display. The receive operation will be performed whenever the display shows one of the five calibration times, regardless of whether or not the displayed time is actually the correct time.
- When two, three, four, or five receptions are successful, the watch uses the data of the last reception for calibration. When only one reception is successful, the watch uses the data of the successful reception.

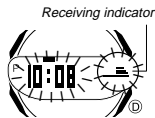
About the Receiving Indicator

The receiving indicator shows the strength of the calibration signal being received. For best reception, be sure to keep the watch in a location where signal strength is strongest.



- Even in an area where signal strength is strong, it takes about 10 seconds for signal reception to stabilize enough for the receiving indicator to indicate signal strength.
- Use the receiving indicator as a guide for checking signal strength and for finding the best location for the watch during signal receive operations.
- The Level 4 receiving indicator remains on the display in all modes following reception of the time calibration signal and calibration of the watch's time setting. The Level 4 receiving indicator is not displayed if signal reception was unsuccessful or after manual adjustment of the current time setting.
- The Level 4 receiving indicator indicates that at least one of the five calibration signal receive operations was successful. Note, however, that the Level 4 receiving indicator is cleared from the display at 3:00 a.m. each day.

To perform manual receive

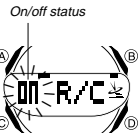


- Place the watch on a stable surface so its top (12 o'clock side) is facing towards a window.
 - Note that signal reception will be poor if the watch is on its back or side.
- In the Timekeeping Mode, hold down (D) for about two seconds until the watch beeps.
- Release (D) and the current time or date flashes to indicate that signal reception has started.
 - When a receive operation starts, the second hand will move at high speed to the 12 o'clock position where it will stop until the receive operation is complete.
 - Time calibration signal reception takes from two to six minutes. Take care that you do not perform any button operations or move the watch during this time.
 - After signal reception is complete, the display of the watch changes to the Last Signal screen.

Note

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

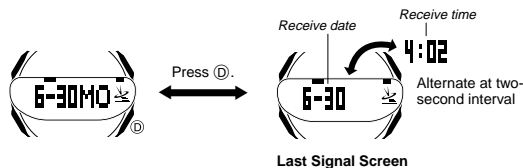
To turn auto receive on and off



- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
 - The second hand will move at high speed to the 12 o'clock position, where it will stop.
- Press (C) twice to move the flashing to the auto receive on/off setting.
- Press (D) to toggle auto receive on (ON) and off (OFF).
 - If the current Home City setting is a city code that does not support auto receive, "--" appears in place of the on/off indicator. This means you cannot turn auto receive on or off.
- Press (A) twice to exit the setting screen.
 - The second hand will advance at high speed to the correct position in accordance with the digital time seconds count, and resume normal movement from there.

To display the Last Signal screen

In the Timekeeping Mode, press (D) to display the Last Signal screen. The Last Signal screen shows the date and time that the time calibration signal was last received.



Signal Receive Troubleshooting

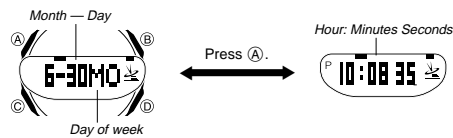
Check the following points whenever you experience problems with calibration signal reception.

Problem	Probable Cause	What you should do
Cannot perform manual receive.	<ul style="list-style-type: none"> The watch is not in the Timekeeping Mode. Your current Home City is not one of the following city codes: BER, PAR, LON, or ATH. 	<ul style="list-style-type: none"> Enter the Timekeeping Mode and try again. Select BER, PAR, LON, or ATH as your Home City.
Auto receive is turned on, but the Level 4 receiving indicator does not appear on the display.	<ul style="list-style-type: none"> You changed the time setting manually. The watch was not in the Timekeeping or World Time Mode, or you were performing some button operation during the auto receive operation. Even if receive is successful, the Level 4 receiving indicator disappears every day at 3 a.m. 	<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"> 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. 	<ul style="list-style-type: none"> Change the DST setting to Auto DST. Select the correct Home City code.

- For further information, see "Time Calibration Signal Reception" and "Time Calibration Signal Reception Precautions".

Timekeeping

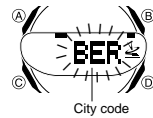
Use the Timekeeping Mode to set and view the current time and date.



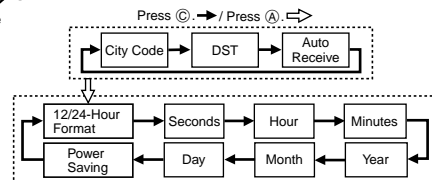
Setting the Digital Time and Date Manually

Make sure you select your Home City code before you change the current time and date settings. World Time Mode times are all displayed in accordance with the Timekeeping Mode settings. Because of this, World Time Mode times will not be correct if you do not select the proper Home City code before setting the time and date in the Timekeeping Mode.

To set the current digital time and date manually



- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
 - The second hand will move at high speed to the 12 o'clock position, where it will stop.
- Press (A) or (C) to move the flashing in the sequence shown below to select other settings.



- When the setting you want to change is flashing, use (B) and/or (D) to change it as described below.

Screen:	To do this:	Do this:
BER	Change the city code	Use (D) (+) and (B) (-).
DST	Toggle between Daylight Saving Time (DST) and Standard Time (ST)	Press (D). Pressing (D) performs a different operation when BER, PAR, LON, or ATH is selected as Home City code. See "To change the Daylight Saving Time (summer time) setting".
R/C	Toggle between auto receive on (ON) and off (OFF)	Press (D).
12/24	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press (D).

Screen (flashing):	To do this:	Do this:
35	Reset the seconds to 00	Press (D).
P 10	Change the hour	Use (D) (+) and (B) (-).
08	Change the minutes	
202	Change the year	
6	Change the month	
30	Change the day	
12H	Toggle Power Saving on (ON) and off (OFF)	Press (D).

- After configuring the Power Saving on/off setting, press (A) to exit the setting screen.
 - The second hand will advance at high speed to the correct position in accordance with the digital time seconds count, and resume normal movement from there.
 - See "City Code Table" for a complete list of available city codes.
 - See "Power Saving Function" for details about the Power Saving.
 - The auto receive setting is used for time calibration signal reception only. See "About Auto Receive" for details.

Daylight Saving Time (DST)

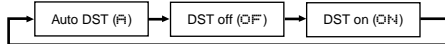
Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

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

- The default DST setting is Auto DST (A) whenever you select BER, PAR, LON, or FTH 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 (A) until the city code starts to flash, which indicates the setting screen.
2. Press (C) and the DST setting screen appears.
3. Use (D) to cycle through the DST settings in the sequence shown below.



4. When the setting you want is selected, press (A) twice to exit the setting screen.

Analog Timekeeping

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

Note

- The hands for the analog timepiece move to adjust to a new setting whenever any of the following occurs.

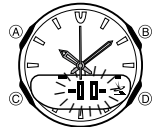
When you change the digital time setting manually

When the digital time setting is changed by time calibration signal reception

When you change the Home City code and/or DST setting

- If the analog time does not match the digital time for any reason, use the procedure described under "To adjust the analog time" to match the analog setting to the digital setting.
- Whenever you need to adjust both the digital and the analog time settings manually, make sure you adjust the digital setting first.
- Depending on how much the hands have to move in order to adjust to the digital time, it may take some time before the analog hands stop moving.

To adjust the analog time



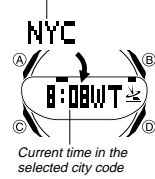
1. In the Timekeeping Mode, press (C) six times to enter the Hand Setting Mode.
2. Hold down (A) until "-11-" starts to flash, which indicates the setting screen.
 - The second hand will move at high speed to the 12 o'clock position, where it will stop.
3. If the second hand is not pointing precisely at 12 o'clock at this time, use (D) to adjust its position.
 - Each press of (D) causes the second hand to advance by one second.
4. Press (C). This will cause the time on the digital display to flash, which indicates that adjustment of hour and minute hands is selected.
5. Use (D) and (B) to adjust the analog setting as described below.

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

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

World Time

City Code



Current time in the selected city code

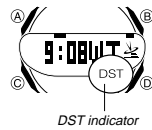
The World Time Mode digitally displays the current time in 30 cities (29 time zones) around the world.

- Pressing (A) in the World Time Mode causes the applicable city code to appear on the digital display for about two seconds.
- If the current time shown for a city is wrong, check your Home City time settings and make the necessary changes.
- The watch will perform a signal receive operation even if it is in the World Time Mode when a calibration time is reached. If this happens, the World Time Mode time settings will be adjusted in accordance with the Timekeeping Mode's Home City time.
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing (C).

To view the time in another city

While in the World Time Mode, press (D) to scroll through the city codes (time zones).
• For full information on city codes, see the "City Code Table".

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



DST indicator

1. In the World Time Mode, use (D) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
 - Pressing (A) in the World Time Mode causes the applicable city code to appear on the digital display for about two seconds.
2. Hold down (A) to toggle Daylight Saving Time (DST displayed) and Standard Time (DST not displayed).
 - Note that you cannot use the World Time Mode to change the DST setting of the Home City code you currently have selected in the Timekeeping Mode. See "Daylight Saving Time (DST)" for information about turning the Home City code DST setting on and off.
 - The DST indicator will appear on the display whenever you display a city code for which Daylight Saving Time is turned on.
 - Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

Alarms

Alarm name



Alarm time (Hour : Minutes)

The Alarm Mode gives you a choice of four one-time alarms and one snooze alarm. One of the one-time alarms functions as a "target alarm," which counts the time remaining from the current Home City time to the target alarm time.

You should also use the Alarm Mode to turn the Hourly Time Signal on and off.

- There are five alarms named AL1, AL2, AL3, TAL (target alarm), and SNZ. You can configure SNZ as a snooze alarm only. Alarms AL1, AL2, AL3, and TAL can be used as one-time alarms only.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing (C).

To set an alarm time



Target Alarm Screen

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



2. After you select an alarm, hold down (A) 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 (C) to move the flashing between the hour and minute settings.
4. While a setting is flashing, use (D) (+) and (B) (-) 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 (A) to exit the setting screen.
 - With the target alarm (TAL), the time starts to countdown as soon as you set the alarm time.

Alarm Operation

The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, or until you turn the alarm off.

The target alarm counts the time remaining from the current Home City time to the target alarm time.

- Pressing any button stops the alarm tone operation.
- Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.

Displaying the Timekeeping Mode setting screen

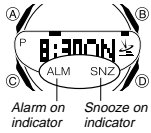
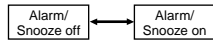
Displaying the alarm setting screen

To test the alarm

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

To select the alarm operation type

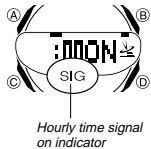
- In the Alarm Mode, use **(D)** to select the screen for the alarm (AL1, AL2, AL3, T-AL, or S-AL) whose alarm type you want to select.
- Press **(A)** to cycle through the available settings in the sequence shown below.



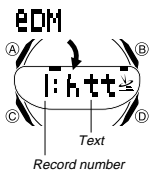
- The alarm on indicator (ALM) or snooze on indicator (SNZ) is displayed for each alarm (AL1, AL2, AL3, T-AL, S-AL) for which alarm on is selected.
- The snooze on indicator (SNZ) flashes during the 5-minute interval between snooze alarms.
- The alarm on indicator (ALM) and snooze on indicator (SNZ) are displayed in all modes.
- In all modes, the alarm on indicator (ALM) is shown for any alarm (AL1, AL2, AL3, T-AL) that is currently turned on.

To turn the Hourly Time Signal on and off

- In the Alarm Mode, use **(D)** to select the Hourly Time Signal (SIG).
- Press **(A)** to toggle it on (SIG displayed) and off (SIG not displayed).
- The Hourly Time Signal on indicator (SIG) is displayed in all modes when the Hourly Time Signal is turned on.



Data Memory



You can use the watch's data memory to store e-mail addresses, Web page URLs, and other text data.

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

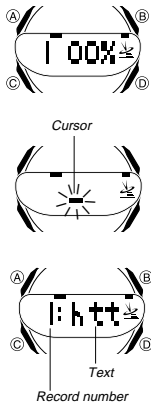
Data Memory Records

Each data memory record can contain up to 63 characters. Records are stored in memory in the sequence they are created.

- The number of records you can store in data memory depends on the number of characters that make up each record. See "Data Memory Management" for more information.

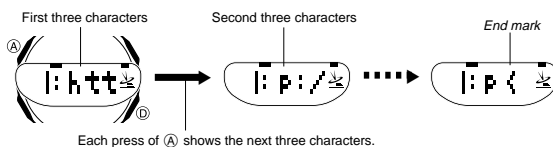
To create a new data memory record

- In the Data Memory Mode, press **(A)** and **(D)** at the same time to display the remaining memory screen.
 - You do not have to perform the above step if the remaining memory screen is already on the display.
 - If 0% is shown for remaining memory, it means that memory is full. To store another record, you will first have to delete some of the records stored in memory.
- Hold down **(A)** until the flashing cursor appears on the display, which indicates the setting screen.
- Use **(C)** and **(D)** to cycle through characters at the current cursor location, and **(B)** to move the cursor to the right. See "Inputting Text" for more information.
 - If memory becomes full while you are inputting text, the cursor will jump to the first (leftmost) character of the text when you press **(C)**, instead of advancing to the right.
- Press **(A)** to store your data and return to the data memory record screen (without the cursor).
 - The message SET appears for about two seconds, followed by a data memory record screen, which shows the text you just input, along with a record number automatically assigned by the watch.



To recall data memory records

- In the Data Memory Mode, press **(D)** to scroll forward through data memory records.
 - Each press of **(D)** advances to the next record and shows its record number and first three characters of its text.
 - Pressing **(D)** while the last record in memory is on the display changes to the remaining memory screen. Pressing **(D)** again displays the first record.
- Use **(A)** to scroll through the text, three characters at a time.



- An end mark indicates the end of the text.

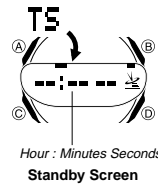
To edit a data memory record

- In the Data Memory Mode, display the record you want to edit.
- Hold down **(A)** until the flashing cursor appears on the display.
- Press **(C)** to move the flashing to the character you want to change.
- Use **(D)** and **(B)** to change the character.
- After making the changes you want, press **(A)** to store them and return to the data memory record screen.

To delete a data memory record

- In the Data Memory Mode, display the record you want to delete.
- Hold down **(A)** until the flashing cursor appears on the display.
- Press **(B)** and **(D)** at the same time to delete the record.
 - The message CLR appears to indicate that the record is being deleted. After the record is deleted, the cursor appears on the display, ready for input.
- Input data or press **(A)** to return to the remaining memory screen.

Time Recorder



The Time Recorder Mode lets you store up to 10 time entries (month, day, hour, minutes, seconds) with the touch of a button. One way you can use the Time Recorder Mode is to record the start time and the end time of a particular event.

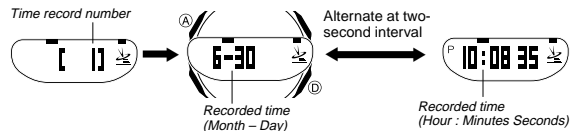
- All of the operations in this section are performed in the Time Recorder Mode, which you enter by pressing **(C)**.

To record a Time Recorder time

- Use **(C)** to enter the Time Recorder Mode.
 - This displays the Time Recorder standby screen.
- Press **(D)** to record the current date and time (month, day, hour, minutes, seconds).
 - The recorded time flashes for about two seconds and then assigned the next available record number, in the range of 1 through 10. Next the time recorder standby screen appears.
 - A new time is recorded each time you press **(D)** while the standby screen is on the display.
 - Records are assigned numbers sequentially from 1 through 10.
 - Storing a new time record when there are already 10 records stored in memory automatically deletes record 1, shifts the remaining records upwards by 1, and stores the new record as 10.

To recall Time Recorder times

- In the Time Recorder Mode, press **(A)** to recall Time Recorder times.
- Use **(D)** to scroll through times stored in memory.

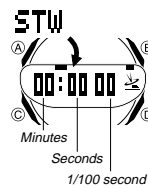


- Each press of **(D)** scrolls through time records from higher numbered (newer) records to lower numbered records.
- If you recorded a new Time Recorder time since you last entered the Time Recorder Mode, the newest record appears first. If you have not recorded a new time, the record you were viewing when you last viewed the Time Recorder times appears first.

To delete all Time Recorder times

In the Time Recorder Mode, press **(A)** and **(D)** at the same time to delete all Time Recorder times.

Stopwatch

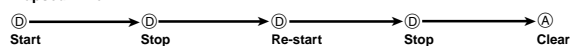


The stopwatch lets you measure elapsed time, split times, and two finishes.

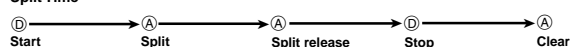
- The display range of the stopwatch is 99 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.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

To measure times with the stopwatch

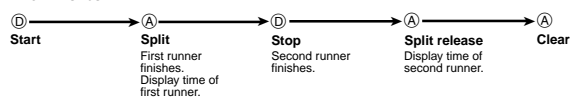
Elapsed Time



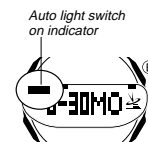
Split Time



Two Finishes



Backlight



The backlight uses an LED (light-emitting diode) and a light guide panel that cause the entire display to glow for easy reading in the dark. The watch's auto light switch automatically turns on the backlight when you angle the watch towards your face in the dark.

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

To turn on the backlight manually

- In any mode, press **(B)** to illuminate the display for about one second.
- The above operation turns on the backlight regardless of the current auto light switch setting.

About the Auto Light Switch

Turning on the auto light switch causes the backlight to turn on for about one second, whenever you position your wrist as described below in any mode. Note that this watch features a "Full Auto LED Light," so the auto light switch operates only when available light is below a certain level. It does not turn on the backlight under bright light.

Moving the watch to a position that is parallel to the ground and then tilting it towards you more than 40 degrees causes the backlight to turn on.



Warning!

- Always make sure you are in a safe place whenever you are reading the display of the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not surprise or distract others around you.
- When you are wearing the watch, make sure that its auto light switch is turned off before riding on a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.

To turn the auto light switch on and off

In the Timekeeping Mode, hold down Ⓢ for about two seconds to toggle the auto light switch on (the auto light switch on indicator displayed) and off (the auto light switch on indicator not displayed).

- The auto light switch on indicator is on the display in all modes while the auto light switch is turned on.

Battery

This watch is equipped with a solar cell and a rechargeable battery (secondary battery) that is charged by the electrical power produced by the solar cell. The illustration shown below shows how you should position the watch for charging.

Example: Orient the watch so its face is pointing at a light source.

- Note that charging efficiency drops when any part of the solar cell is blocked by clothing, etc.
- The illustration shows how to position a watch with a resin band.

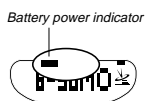


Important!

- 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 normally exposed to bright light whenever possible.
- Normally, the rechargeable battery should not need replacement, but after very long use over a number of years, the rechargeable battery may lose its ability to achieve a full charge. Should you notice problems with getting the rechargeable battery to a full charge, contact your dealer or CASIO distributor about having the rechargeable battery replaced.
- The rechargeable battery should be replaced with a CASIO-specified CTL1616 battery only. Other rechargeable batteries can cause damage to the watch.
- All data stored in memory is deleted, and the current time and all other settings return to their initial factory defaults whenever battery power drops to Level 4 and when you have the battery replaced.
- Turn on the watch's Power Saving function and keep it in an area normally exposed to bright light when storing it for long periods. This helps to keep the rechargeable battery from going dead.

Battery Power Indicator

The battery power indicator on the display shows you the current status of the rechargeable battery's power.



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

- The flashing CHARGE indicator (Ⓢ) at Level 3 tells you that battery power is very low, and that exposure to bright light for charging is required as soon as possible.
- At Level 4, all functions are disabled and settings return to their initial factory defaults. Functions are enabled once again after the rechargeable battery is charged, but you need to set the time and date, after the battery reaches Level 3 (indicated by flashing CHARGE indicator (Ⓢ) from Level 4. You will not be able to configure any of the other settings until the battery reaches Level 2 (no CHARGE indicator) after dropping to Level 4.
- Leaving the watch in direct sunlight or some other very strong light source can cause the battery power indicator to temporarily show a reading that is higher than the actual battery level. The correct battery power indicator should appear after a few minutes.
- If you use the light or alarms a number of times during a short period, a RECOVER indicator (Ⓢ) appears on the display and the following operations become disabled until battery power recovers.

Backlight

Beeper tone

Coordination between digital and analog timekeeping

Time calibration signal reception

After some time, battery power will recover and the RECOVER indicator will disappear, indicating that the above functions are enabled again.

Charging Precautions

Certain charging conditions can cause the watch to become very hot. Avoid leaving the watch in the areas described below whenever charging its rechargeable 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

After a full charge, timekeeping remains enabled for up to about 5 months, while the watch is used under the conditions described below.

Operating Conditions

- Watch is not exposed to light
- 1 backlight operation (1.5 seconds) per day
- 10 seconds of alarm operation per day
- 5 time calibration signal receptions per day

Charge Times

Exposing the watch to light for the periods shown below each day restores the power used by the above operating conditions.

Exposure Level (Brightness)	Approximate Exposure Time
Outdoor Sunlight (50,000 lux)	5 minutes
Sunlight Through a Window (10,000 lux)	24 minutes
Daylight Through a Window on a Cloudy Day (5,000 lux)	48 minutes
Indoor Fluorescent Lighting (500 lux)	8 hours

- Stable operation is promoted by frequent charging.

Recovery Times

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

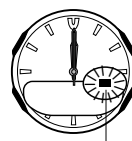
Exposure Level (Brightness)	Approximate Exposure Time			
	Level 4	Level 3	Level 2	Level 1
Outdoor Sunlight (50,000 lux)	1 hour	13 hours	4 hours	
Sunlight Through a Window (10,000 lux)	3 hours	66 hours	18 hours	
Daylight Through a Window on a Cloudy Day (5,000 lux)	5 hours	---	---	
Indoor Fluorescent Lighting (500 lux)	45 hours	---	---	

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

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



Power Saving indicator

When turned on, the Power Saving function automatically enters a sleep state whenever the watch is left in an area where lighting is dim (less than about 30 lux). The following shows how watch functions are affected when left in a dark place while in the sleep state.

Approximate Period in sleep state	Functions
3 to 4 days	<ul style="list-style-type: none"> LCD off Alarm, hourly time signal, analog timekeeping and auto signal receive enabled
8 days or more	<ul style="list-style-type: none"> LCD off, alarm and hourly time signal disabled Analog timekeeping stopped at 12 o'clock Auto signal receive disabled

The sleep state is indicated by a blank screen with the Power Saving indicator (Ⓢ) flashing on it.

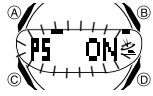
- Wearing the watch inside the sleeve of clothing can cause it to enter the sleep state.
- Even when the watch is in the sleep state, digital-analog time coordination and auto signal receive are both performed.

To recover from the sleep state

Perform any one of the following operations.

- Move the watch to a well-lit area.
- Press any button.
- Angle the watch towards your face for reading.

To turn Power Saving on and off



- In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
 - The second hand will move at high speed to the 12 o'clock position, where it will stop.
- Press (A) again.
- Press (C) seven times until the Power Saving on/off screen appears.
- Press (D) to toggle Power Saving on (ON) and off (OFF).
- Press (A) to exit the setting screen.
 - The second hand will advance at high speed to the correct position in accordance with the digital time seconds count, and resume normal movement from there.
 - The Power Saving indicator (PS) is on the display in all modes while the Power Saving is turned on.

Auto Return Features

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

Scrolling

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

Initial Screens

When you enter the World Time, Alarm, or Data Memory Mode, the data you were viewing when you last exited the mode appears first.

Time Calibration Signal Reception Precautions

- Strong electrostatic charge can result in the wrong time being set.
- Even when the watch is within the reception range of the transmitter, signal reception 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.
- 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, 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.
- When all five auto receptions are successful (0:00 a.m., 1:00 a.m., 2:00 a.m., 3:00 a.m., and 4:00 a.m.), the watch uses the data of the last reception for calibration. When only one reception is successful, the watch uses the data of the successful reception.
- Normally, the signal reception date shown by the Last Signal screen is the date data included in the received time calibration signal. When only time data is received, however, the Last Signal screen shows the date as kept in the Timekeeping Mode at the time of signal reception.
- If you are in an area where proper time calibration signal reception is impossible, the watch keeps time within ± 15 seconds a month at normal temperature.
- If you have problems with proper time calibration signal reception or if the time setting is wrong after signal reception, check your current city code, DST (summer time), and auto receive settings. The following are the initial factory defaults for these settings.

Setting	Initial Factory Default
City code	BER (Berlin)
DST (summer time)	OFF (Auto switching)
Auto receive	ON (Auto receive)

Timekeeping

- Resetting the seconds to 00 while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to 00 without changing the minutes.
- The day of the week is automatically displayed in accordance with the date (year, month, and day) settings.
- The year can be set in the range of 2000 to 2099.
- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced or when battery power drops to Level 4.
- The current time for all city codes in the Timekeeping Mode and World Time Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on your Home City time setting.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC*) data.
- * 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 time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation. The reference point for UTC is Greenwich, England.

12-hour/24-hour Timekeeping Formats

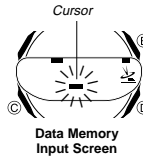
The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is also applied in all other modes.

- With the 12-hour format, the P (PM) indicator 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. The indicator 24 indicates the 24-hour format.

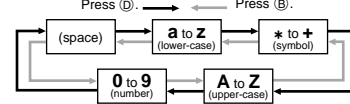
Inputting Text

The following describes how to input text in the Data Memory Mode.

To input characters



- When the cursor is on the display, use (B) and (D) to cycle through the available letters, numbers and symbols, in the sequence shown below.



- When the character you want is at the cursor position, press (C) to move the cursor to the right.
- Repeat steps 1 and 2 to input the rest of the characters you want.
- See the "Character List" for information about the characters you can input.

Data Memory Management

Data memory can hold up to 315 characters total, while each record can contain up to 63 characters. This means that 40 records can be stored in data memory when each record contains seven characters of text or less.

Backlight Precautions

- The illumination provided by the backlight may be hard to see when viewed under direct sunlight.
- The backlight automatically stops illuminating whenever an alarm sounds.
- Frequent use of the backlight shortens the battery life.

Auto light switch precautions

- Wearing the watch on the inside of your wrist, as well as movement or vibration of your arm can cause the auto light switch to activate and illuminate the display. To avoid running down the battery, turn off the auto light switch whenever engaging in activities that might cause frequent illumination of the display.

More than 15 degrees too high



- The backlight may not light if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- The backlight turns off in about one second, even if you keep the watch pointed towards your face.
- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If the backlight does not light, try moving the watch back to the starting position (parallel with the ground) and then tilt it back toward you again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again.
- Under certain conditions, the backlight may not light until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the backlight.
- You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does not indicate a problem with the watch.

City Code Table

City Code	City	GMT Differential	Other major cities in same time zone
---		-11	PAGO PAGO
HNL	HONOLULU	-10	PAPEETE
ANC	ANCHORAGE	-9	NOME
LAX	LOS ANGELES	-8	SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, DAWSON CITY
DEN	DENVER	-7	EL PASO, EDMONTON
CHI	CHICAGO	-6	HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG, MONTREAL, DETROIT, MIAMI, BOSTON, PANAMA CITY, HAVANA, LIMA, BOGOTA
NYC	NEW YORK	-5	LA PAZ, SANTIAGO, PORT OF SPAIN
CCS	CARACAS	-4	
RIO	RIO DE JANEIRO	-3	SAO PAULO, BUENOS AIRES, BRASILIA, MONTEVIDEO
---		-2	
---		-1	PRAIA
GMT		+0	DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN
LON	LONDON	+0	
PAR	PARIS	+1	MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM
BER	BERLIN	+1	
ATH	ATHENS	+2	HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN
CAI	CAIRO	+2	
JRS	JERUSALEM		
JED	JEDDAH	+3	KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI, MOSCOW
THR	TEHRAN	+3.5	SHIRAZ
DXB	DUBAI	+4	ABU DHABI, MUSCAT
KBL	KABUL	+4.5	
KHI	KARACHI	+5	MALE
DEL	DELHI	+5.5	MUMBAI, KOLKATA
DAC	DHAKA	+6	COLOMBO
RGN	YANGON	+6.5	
BKK	BANGKOK	+7	JAKARTA, PHNOM PENH, HANOI, VIENTIANE
HKG	HONG KONG	+8	SINGAPORE, KUALA LUMPUR, BEIJING, TAIPEI, MANILA, PERTH, ULAANBAATAR
TYO	TOKYO	+9	PYONGYANG
SEL	SEOUL	+9	
ADL	ADELAIDE	+9.5	DARWIN
SYD	SYDNEY	+10	MELBOURNE, GUAM, RABAU
NOU	NOUMEA	+11	PORT VILA
WLG	WELLINGTON	+12	CHRISTCHURCH, NADI, NAURU ISLAND

* Based on data as of June 2002.

Character List

(space)		i	l	r	r	*	*	%	%
a	Q	j	J	s	S	-	-	.	.
b	B	k	K	t	T	_	_	:	:
c	C	l	L	u	U	@	@	'	'
d	D	m	M	v	V	~	~	,	,
e	E	n	N	w	W	/	/	&	&
f	F	o	O	x	X	?	?	=	=
g	G	p	P	y	Y	#	#	÷	÷
h	H	q	Q	z	Z	!	!	x	x

-	-	H	H	Q	Q	Z	Z	8	8
+	+	I	I	R	R	0	0	9	9
A	A	J	J	S	S	1	1		
B	B	K	K	T	T	2	2		
C	C	L	L	U	U	3	3		
D	D	M	M	V	V	4	4		
E	E	N	N	W	W	5	5		
F	F	O	O	X	X	6	6		
G	G	P	P	Y	Y	7	7		