## Operation Guide 2762

## 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 and keep it on hand for later reference when necessary.

- This watch does not have a time zone that corresponds to the Greenwich Mean Time differential of -3.5 hours. Because of this, the radio-controlled timekeeping and Dual Time functions will not display the correct time for Newfoundland, Canada.

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. light.

- Be sure to read "Power Supply" 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 digital display of the watch is blank, it means that the watch's Power Saving function has turned it off to conserve power.
Power Saving automatically turns off the display and certain period where it is dark.

- The initial factory default setting is Power Saving on. - The watch will recover 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. * It can take up to two seconds for the display to turn on - See "Power Saving" for more information.


Digital display
(

General Guide

- Press © to change from mode to mode

$\qquad$

About This Manual
Stopwatch 1/20 second dial Hour hand Minute hand


Second
hand
24-hour dial
Battery level dial

- Entering the Stopwatch Mode c
move to the 12 o'clock position.

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

Recall 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 in the United States (Fort Collins, Colorado) and the time calibration signals transmitted in Japan
- The U.S. time calibration signal can be picked up by the watch while in North
* The term "North America" in this manual refers to the area that consists of Canada, the continental United States, and Mexico.


## Current Time Setting

This watch automatically adjusts its digital 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 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 U.S. and Japanese time signal transmitters, you have to adjust the current time setting manually as required. Se - "Time analoging" fime of this watch is synchronized with the digital time. Because of this, the analog time setting is adjusted automatically whenever you change the digital setting. See "Analog Timekeeping" for more information.
To specify your Home Time Zone


## DST indicator

1. In the Timekeeping Mode, hold down (A) until the GMT differential value 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.
- The GMT differential value indicates the time difference in hours between Greenwich Mean Time and the curren - The DST indicator indicates that Daylight Saving Time (summer time) is turned on for the currently selected
time zone. time zone.

2. Use (D) (+) and (B) (-) 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 North America and for Japan. Note that if the time zone you selected is in Daylight Saving Time and the signal receiving indicator (른) is on the display (indicating that the watch has
received a signal and has adjusted its GMT differentials for Daylight Saving Time), you must select the GMT differential values shown in the parentheses. -8.0 (DST - 7.0): Los Angeles, San Francisco, Las Vegas, Seattle/Tacoma, Vancouver, Tijuana
- 7.0 (DST - 6.0): Denver, El Paso, Edmonton, Culiacan
- 6.0 (DST - 5.0): Chicago, Houston, Dallas/Fort Worth, New Orleans, Winnipeg, Mexico City
- 5.0 (DST - 4.0): New York, Detroit, Miami, Boston, Montreal
+ 9.0: All cities in Japan
- Note that this watch does not have a time zone that corresponds to Newfoundland.

3. Press (A) to exit the setting screen

- The second hand will advance at high speed to the correct position in accordance with the seconds count of the digital time, and resume normal movement from there.
- Normally, your watch should show the correct time as soon as you specify your Home Time Zone. If it does not, it should adjust automatically after the next auto Home ime Zone. 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.
- Selecting $-5.0,-6.0,-7.0,-8.0$, or +9.0 as your Home Time Zone automatically turns on auto receive. When auto receive is turned on and you are within the reception range, the watch will automatically receive the time calibration signal from the applicable transmitter (in the middle of the night) and update its settings accordingly. For information about the relationship between time zones (GMT differential values) and transmitters, see "Transmitters".
- See the maps under "Reception Ranges" for information about the reception ranges of the watch
If you are in an area that does not use Daylight Saving Time (summer time), turn off the DST setting.
If W60, A, J40, J60, or OFF starts to flash in place of the GMT differential value when you hold down (A) in step 1 of the above procedure, press (A) again to exit the setting screen. After that, press (B) and then perform step 1 again.
To display the digital time and last signal screen
- In the Timekeeping Mode, press (A) to cycle through the digital time screens as
- In the Timekeeping Mode, press (B) to display the last signal screen. The last sig screen shows the date and time of the last successful time calibration signal reception.

- The last signal screen remains on the display for about one or two minutes. After that, the Timekeeping Mode screen reappears.


## Time Calibration Signal Reception

There are two different methods you can use to receive the time calibration signal: auto receive and manual receive. The second hand stops at the 12 o'clock position second hand moves automatically until it matches the digital time.

- 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"

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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.

- The watch should not be on its side or facing the wrong way
- Proper signal reception can be difficult or even impossible under the conditions listed
below.


Inside or buildings


Inside a
vehicle


Near household
appliances, office equipment, or a mob
phone


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

Among or behind mountains

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. U. (Fort Collins Colorado) calibration signals. See "Transmitters" for more information.



## Reception Ranges



- Under good reception conditions, signal reception is possible within a radius of about 2,000 miles ( 3,000 kilometers) from the Fort Collins transmitter.
- At distances further than about 600 miles ( 1,000 kilometers) from the Fort Collins transmitter, signal reception may not be possible during certain times of year or times of day. Radio interferance may also cause problems with reception.
- At distances further than about 500 kilometers from the Fukushima and Fukuoka/ Saga transmitter, signal reception may not be possible during certain times of year or times of day. Radio interferance may also cause problems with reception. - See the information under "Signal Reception 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 digital 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 the regularly scheduled auto receive operations are successful. Note

- Auto receive turns on automatically whenever you select $-5.0,-6.0,-7.0,-8.0$, or +9.0 as your Home Time Zone. For information about turning off auto receive, see "To select the transmitter mode".
- The auto receive operation is performed only if the watch is in the Timekeeping Mode or Dual 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).
arly in the 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 seven minutes everyday when the time in the Timekeeping Mode reaches each of the calibration times. Do not perform any button operation within seven 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 on the digital display. The receive operation will be performed whenever the display time is actually the correct time.
When two three four or five rece.
the last reception for calibration. When only one reception is successful, the watch uses the data of the successful reception.


## About the Receiving Indicato

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.


Receiving indicator

- 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 unsuccessfu or after manual adjustment of the current time setting.
The Level 4 receiving indicator indicates that at least one of the calibration signa號 4 receiving indicator is ceard


## To perform manual receive


. Place the watch on a stable surface so its top (12 o'clock side) is facing towards a window. While any screen other than the last signal screen is on he display in the Timekeeping Mode, hold down (B) for and the current watch beeps 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 seven minutes. In Japan, however, reception can take up to 14 minutes. Take care that you do not perform any button operations or move the watch during this time.
- After signal reception is complete, the watch beeps and the display of the watch changes to the last signal screen.

Note

- To interrupt a receive operation and return to the Timekeeping Mode, press (B) - If the receive operation is unsuccessful, -- - - - appears on the display for about one or two minutes. After that, the watch returns to the Timekeeping Mode. rim can also change from the last signal or -------screen to the norma timekeeping screen by pressing (B).

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

| Problem | Probable Cause | What you should do |
| :---: | :---: | :---: |
| Cannot perform manual receive. | - The watch is not in the Timekeeping Mode. <br> - Your current Home Time Zone setting is not one of the following: $-5.0,-6.0,-7.0$, -8.0 , or +9.0 . | - Enter the Timekeeping Mode and try again. <br> - Select -5.0, -6.0, -7.0, -8.0, or +9.0 as your Home Time Zone. |
| Auto receive is turned on, but the Level 4 receiving indicator does not appear on the display. | - You changed the time setting manually. <br> - The watch was not in the Timekeeping or Dual Time Mode, or you performed some button operation during the auto receive operation. <br> - Even if receive is successful, the Level 4 receiving indicator disappears every day at 3 a.m. | - Perform manual signal receive or wait until the next auto signal receive operation is performed. <br> - Check to make sure the watch is in a location where it can receive the signal. |
| Time setting is incorrect following signal reception. | - If the time is one hour off, the DST setting may be incorrect. <br> - The Home Time Zone setting is not correct for the area where you are using the watch. | - Change the DST setting to Auto DST. <br> - Select the correct Home Time Zone. |

and "Radio-controlled Atomic Timekeeping Precautions".
Stopwatch

Second hand | Battery | Stopwatch $1 / 20$ |
| :--- | :--- |
| level dial |  |



Note

- "Lap time" is the time spent to cover a specific segment of a race, such as one lap around a track. "Split time" is the time spent from the beginning of a race up to a certain point.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch

Mode.

- The hand of the stopwatch $1 / 20$ second dial revolves for the first minute of each elapsed time operation. After that, it stops automatically at the 12 o'clock position. If you exit the Stopwatch Mode while an elapsed time operation is in progress, the $1 / 20$ second hand will revolve for the first minute after you re-enter the Stopwatch Mode. When you sop an elapsed meaition to the current $1 / 20$, hend will For information about how stopwatch times are stored in memory, see "Memory For information
Management".
- You can adjust the positions of the stopwatch $1 / 20$ second dial and battery level dial hands if they do not align exactly with the 12 o'clock position. See "Adjusting Dial Hand Positions" for more information.


## To measure elapsed time

1. Press (B) to start the stopwatch.
2. Press (B) again to stop the stopwatch.

- You can resume the measurement operation by pressing (B)

3. Press (A) to clear the stopwatch to all zeros.

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To measure lap times


1. When the stopwatch display shows all zeros, press (A) to display the lap time screen (indicated by LAP).
2. Press (B) to start a time measurement.
3. Press (A) to record the time of the first lap

This freezes the current lap time on the digital display or about five seconds, while measurement of the nex continues to be indicated by the analog hands.

- After five seconds, the lap number of the displayed time appears for one second, and then the elapsed time display for the next lap appears.

4. Repeat step 3 to record more lap times.
5. Press (B) to stop the stopwatch
6. Press (A) to clear the stopwatch to all zeros

Lap nund (A) in step 3 of the above procedure. The maximum lap number is 99 . Recording a lap after that causes the lap number count to restart from 00

To measure split times


1. When the stopwatch display shows all zeros, press (A) to display the split time screen (indicated by SPL). 2. Press (B) to start a time measurement.
2. Press (A) to record the time of the first split.

- This freezes the current split time on the digital
display for about five seconds, while measurement of the next split time continues internally and elapsed time continues to be indicated by the analog hands. - After five seconds, the elapsed time display for the next split appears.

4. Repeat step 3 to record more split times.
5. Press (B) to stop the stopwatch.
6. Press (A) to clear the stopwatch to all zeros.

To time first and second place finishes

1. When the stopwatch display shows all zeros, press (A) to display the split time screen (indicated by SPL).
2. Press (B) to start a time measurement.
3. Press (A) when the first finisher crosses the finish line.

This freezes the time of the first finisher on the digital display for about five seconds. After that, the display returns to elapsed time measurement.
4. Press (B) when the second finisher crosses the finish line, and display the time.
5. Press (A) to clear the stopwatch to all zeros.

Memory Management
Any time you start a new elapsed time measurement (from all zeros) in the Stopwatch Mode, the watch automatically deletes all of the stopwatch time records currently in
memory.

- The follow
storage.

| To do this: | Press this button: |
| :--- | :--- |
| Clear all stopwatch times from memory and <br> start elapsed time measurement | (B) (when all zeroes are displayed) |
| Pause an elapsed time measurement without <br> storing data in memory | (B) |
| Restart a paused elapsed time measurement <br> without storing data in memory | (B) |
| Record a lap or split time in memory during <br> ongoing elapsed time measurement | (A) |
| Record the currently paused elapsed, lap, or <br> split time in memory | (A) (clears display to all zeros) |

- The watch has enough memory to hold up to $50 \mathrm{lap} /$ split time records. Recording a lap or split time while there are already 50 records in memory deletes the oldest
record to make room for the new one.
- See "Recall Mode" for details on how to recall time records from memory.


## Recall Mode



Use the Recall Mode to recall and delete time records Mode to view both lap and split time records.

- All of the operations in this section are performed in the Recall Mode, which you enter by pressing (C). - Entering the Recall Mode displays the number of the last lap recorded in the Stopwatch Mode. After that, the time records in memory, LAP - - appears on the dime reco

Minutes 1/100 second
To recall stopwatch time records

1. In the Recall Mode, press (A) to select the either lap time or split time format.

2. Press (B) to scroll through the stopwatch time records from the newest to the oldest.

- Each press of (B) displays the next lap or split number for about one second, and then displays the applicable lap or split time.
time format, the lap/split number is indicated ecords using lap time format or split

To delete all stopwatch time records
In the Recall Mode, hold down (A) and (B) for about two seconds. During that time
--:--. -- will flash on the digital display. Keep (A) and (B) depressed until
--:--- -- stops flashing.

- If you release (A) and (B) before --:--- - stops flashing, the watch will return to
the stopwatch time record screen without deleting time records.
- The lap number will show LAP - - after all of the stopwatch time records are
deleted
- Note that lap and split times cannot be deleted individually.
dispwatch time records can be deleted only when the Stopwatch Mode elapsed time display is cleared to all zeros.


## Dual Time

GMT differential value


Current time in the
To view the time in another time zone
While in the Dual Time Mode, press (B) to scroll westward through time zones.

- When you release (B) the displayed GMT differential value is replaced by the
- When you release (B), the displayed GMT differential value is replaced by the
- Pressing (A) causes the applicable GMT differential value of the currently selected time zone to appear on the digital display for about one second.
- If the current time shown for a time zone is wrong, check the Timekeeping Mode time setting and your Home Time Zone setting, and make the necessary changes.
To toggle a time zone between Standard Time and Daylight Saving Time DST indicator 1. In the Dual Time Mode, use B to display the time zon
 whose Standard Time/Daylight Saving Time setting you want to change.
(DST indicator displayed) and Standard Time (DST indicator not displayed).
- The DST indicator appears on the display whenever you display a time zone for which Daylight Saving Time is turned on.
- The DST/Standard Time setting you configure affects only the currently displayed

Note that you cannot use the Dual Time Mod

- Note that you cannot use the Dual Time Mode to change the DST setting of the Home Time Zone you currently have selected in the Timekeeping Mode. See "To
change the Daylight Saving Time (summer time) setting" for information about turning the Home Time Zone DST setting on and off.
- The G0.0 (Greenwich Mean Time) time zone cannot be switched between Standard Time and Daylight Saving Time.


## Alarms



Alarm time On/Off status (Hour : Minutes)


Signal Screen To set an alarm time

$\stackrel{\otimes}{*}$
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 ime remaining from the current time in your Home Time Zone until the target alarm time.
Also use the Alarm Mode to turn the Hourly Time Signal Th and off.
There are five alarms numbered AL1, AL2, AL3, AL4 (target alarm), and AL5 (snooze alarm). You can AL2, AL3 and as a snooze alarm only. Alarms AL1, only.
All of the operations in this section are performed in the Alarm Mode, which you enter by pressing (C).

1. In the Alarm Mode, use (B) 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 © to move the flashing between the hour and minute settings. 4. While a setting is flashing, use (D) $(+)$ and (B) $(-)$ to change it. me using the format, take care to set the time Press (A) to exit the setting screen.

- With the target alarm (AL4), the time starts to countdown as soon as you set the alarm time.



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## 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 time in your Home Time Zone until the target alarm time. Note that the target alarm repeats automatically each day, as long as it is turned on. You need to turn off the target alarm to disable it. - Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode digital time.

- Pressing any butcon stops operation.

Performing any one of the following operations during a 5 -minute interval between sisplaying the Timekeeping Mode setting screen operation.
Displaying the snooze alarm (AL5) setting screen
To test the alarm
In the Alarm Mode, hold down (B) to sound the alarm.
To turn an alarm and the Hourly Time Signal on and off
Snooze alarm indicator 1. In the Alarm Mode, use (B) to select an alarm or the
Hourly Time Signal. Hourly Time Signal

displayed) to toggle it on (on displayed) and off (oF displayed).
AL5) or the Hourly Time Signal in order to check its to current on/off status.

- Turning on the snooze alarm displays the snooze alarm indicator on its Alarm Mode screen and in all modes. inf The snooze alarm indicator flashes during the 5 -minute Hourly Time Signal Screen


## Timekeeping

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

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


Setting the Digital Time and Date Manually
Make sure you select your Home Time Zone before you change the current time and date settings. Dual Time Mode times are all displayed in accordance with the Timekeeping Mode settings. Because of this, Dual Time Mode times will not be correct if you do not select the proper Home Time Zone before setting the time and date in the Timekeeping Mode.
When setting the time and date, you can also configure settings for your Home Time Zone (the time zone where you normally use the watch), summer time (Daylight
To set the digital time and date manually
While any screen other than the last signal screen is on

- The GMT differential value indicates the time difference in hours between

Greenwich Mean Time and the currently selected time zone.
The DST indicator indicates that Daylight Saving Time (summer time) is turned on for the currently selected time zone.
2. Use (D) $(+)$ and (B) ( - ) to select the time zone you want to use as your Home Time Zone.
-For full details about GMT differential values, see the "Time Zone Table".
3. Press (C) to move the flashing in the sequence shown below to select other setting
4. When the setting you want to change is flashing, use (B) and (D) to change it as described below.

| Screen | To do this: | Do this: |
| :---: | :---: | :---: |
| $\begin{array}{ll} \hline 05 T \\ -\quad 4.0 \\ \hline \end{array}$ | Change the time zone | Use ( ${ }^{\text {( }}(+)$ and (B) ( - ). |
| $\begin{array}{ll} \hline 55 \\ 715 & 8 \\ \hline 101 \end{array}$ | Toggle between Daylight Saving Time (on), Standard Time (OFF), or Auto DST (A) | Press (D). |
| $13 \%$ | Toggle between 12-hour ( $\mathbf{1 2 H}$ ) and 24 -hour (24H) timekeeping | Press (D). |
| Ost | Reset the seconds to 00 | Press (D). |
| 140.00 d2 | Change the hour or minutes |  |
|  | Change the year, month, or day | Use ( D ( + ) and (B) ( - ). |
| i5 76 | Toggle power saving on (on) and off (OFF) | Press (D). |

5. Press (A) to exit the setting screen

- When you exit the setting screen, the analog hands are adjusted automatically to match the digital time. See "Analog Timekeeping" for more information.
- Auto DST (A) can be selected only while -5.0, -6.0, -7.0, -8.0, -9.0, -10.0, +8.0, or +9.0 is selected as the Home Time Zone. For more information, see "Daylight Saving time (DST)" below.
 the display in the Timekeeping Mode, hold down (A)
until the GMT differential value starts to flash, which indicates the setting screen. o'clock position, where it will stop.



## 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 Dayligh 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 signal it receives.

- The auto DST setting can be turned on only while -5.0, -6.0, -7.0, -8.0, -9.0 -10.0, +8.0, or +9.0 is selected as the Home Time Zone㲘 probably best to switch between Standard Time and Daylight Saving Time (summer time) manually.
To change the Daylight Saving Time (summer time) setting

1. While any screen other than the last signal screen is on the display in the

Timekeeping Mode, hold down (A) until the GMT differential value starts to flash, which indicates the setting screen.
2. Press (C) to display the DST setting screen.
3. Press (D) to cycle through the DST settings in the sequence shown below.

4. Press (A) to exit the setting screen.

- The DST indicator appears on the display to indicate that Daylight Saving Time is turned on

Analog Timekeeping
The analog time of this watch is synchronized with the digital time. The analog time setting is adjusted automatically whenever you change the digital time.
Note
the follonds for the an 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 Time Zone and/or DST setting

- Whenever you need to adjust both the digital and the analog time settings manually, make sure you adjust the digital setting first.
- Depending on how much the hands have to move in order to adjust to the digital time, it may take some time before they stop moving.


## To adjust the analog time

$\qquad$ the Hand
 He Hand Setting Mo indicates the analog setting screen indicates the analog setting screen.
The second hand will move at high speed to the 12
If the second hand is not pointing p.
3. If the second hand is not pointing precisely at 12 o'clock - Each press of (D) causes the second hand to advance by one second.
4. Press ©. This will cause the Timekeeping Mode time on the digital display to flash, which indicates that adjustment of hour and minute hands is selected. 5. Use (D) $(+)$ and (B) $(-)$ to move the hands in 20 -second units.
Holding down either button moves the hands at high
speed. speed.

## 

Adjust the analog time so it matches the digital time. Note that the 24 -hour dia hand moves in coordination with the hour and minute hands. When adjusting the analog time, keep an eye on the 24-hour dial hand to make sure that it is in the correct am/pm position.

- To move the hands forward a long way, hold down (D), press (B), and then release To move the
- To move the hands back a long way, hold down (B), press (D), and then release
- The buttons.
button or until thations cause the hands to move at high speed until you press any movement alil the hands complete one 24 -hour cycle (two revolutions). Hand .Press (A) twice to toxit th an alarm starts to sound.
- The first press of (A) causes 00:00.00 to appear on the display (indicating the
stopwatch $1 / 20$ second dial hand adjustment screen). Pressing (A) the second time exits the setting screen.
- To return to the Timekeeping Mode, press (C).


## Illumination

Auto light switch

on indicator | Two LEDs (light-emitting diodes) illuminate the face of the |
| :--- |
| watch for easy reading in the dark. |
| The watch's auto light switch automatically illuminates the |
| face when you angle the watch towards your face. |
| - The auto light switch must be turned on (indicated by |
| the auto light switch on indicator) for it to operate. |
| - You can specify 1.5 seconds or 2 seconds as the |
| illumination duration. |
| - See "Illumination Precautions" for other important |
| information. |

To illuminate the face of the watch
In any mode (except when a setting screen is on the display), press (D) to illuminate the face of the watch.
eration turns on illumination regardless of the current auto light switch setting

To specify the illumination duration

. 35

While any screen other than the last signal screen is on the display in the Timekeeping Mode, hold down (A) until the GMT differential val

## Press (hre time screen

號 the flashing to the second setting
between 2 seconds ("." displayed in front of seconds) and 1.5 seconds ("." not displayed).
4. Press (A) to exit the setting screen.

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About the Auto Light Switch
Turning on the auto light switch causes the face to illuminate, 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 illuminate the face 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 illumination to turn on.

- Wear the watch on the outside of your wrist.


Warning!
Always make sure you are in a safe place whenever you are reading the face 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 distraction, which can result in a traffic accident and serious personal injury

To turn the auto light switch on and off
In any mode (except when a setting screen is on the display), hold down (D) for about two seconds to toggle the auto light switch on (
displayed).

- The auto light switch on indicator ( ${ }^{( } \mathbf{\xi}$ light switch is turned on.


## Power Supply

This watch is equipped with a solar cell and a special 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.
The illustration shows how to position
a watch with a resin band.

- Note that charging efficiency drops
when any part of the solar cell is when any part of the sola
blocked by clothing, etc.
watch outside of your sleeve as much as possible. Charging is significantly reduced if the face is only partially covered.


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. Make sure that the watch is normally exposed to bright light whenever possible.
This watch uses a special rechargeable battery to store power produced by the solar cell, so regular battery replacement is not required. However, after very long use, the echargeable battery may lose its ability to achieve a full charge. If you experience problems getting the special rechargeable battery to fully charge, contact your dealer or CASIO distributor about having it replaced.
- Never try to remove or replace the watch's special battery yourself. Use of the wrong type of battery can damage 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 Uurn on the watch's Power Saving fund
bright light when storing it for long perion and keep it in an area normally exposed battery from going dead


## Battery Power Levels

The battery level dial and digital display show you the current level of the rechargeable battery's power. The digital display also shows a recover indicator, which lets you know when there is a large load being placed on the battery.

| Level | Dial and <br> Digital Display | Function Status |
| :--- | :--- | :--- | :--- | :--- |

- The battery level dial shows the battery power level in all modes except for the Stopwatch Mode. In the Stopwatch Mode, the battery level dial indicates elapsed minutes.
- The flashing $\mathbf{C}$ 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.
- When battery power is at Level 3 , analog hand movement and time calibration signa reception are disabled.
- 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 digital time and date, after the battery reaches Level 3 from Level 4 . You will not be able to set any of the other settings until the battery reaches Level 2 after dropping to Level 4 .
- Display indicators reappear as soon as the battery is charged from Level 4 to Level

3. 

- Leaving the watch exposed to direct sunlight or some other very strong light source can cause the battery level dial to temporarily show a reading that is higher than the actual battery level. The correct battery level should be indicated after a few minutes - If you use the illumination or alarms a number of times during a short period, the ecover indicator ( $\mathbf{R}$ ) appears on the display and the following operations become disabled until battery power recovers.
tween digital and analog timekeeping; Time calibration signal reception
Andicating that the above functions recover and the recover indicator will disappear, If the recover indicator appears frequently, it progain.
power is low. Leave the watch in bright light to allow it to


## 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 batter display to black out The appearance of the LCD should become normal again when display to black out. n appearancerature 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

Charging Guide
After a full charge, timekeeping remains enabled for up to about five months.
amount of time the watch needs to be exposed to light each day in order to generate enough power for normal daily operations.

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

- Since these are the specs, we can include all the technical details. Watch is not exposed to ligh
Internal timekeeping
Display on 18 hours per day, sleep state 6 hours per day
10 seconds of alarm seconds) per day
- 5 times calibration reception per day
- 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 | 14 hours | 4 hours |
| Sunlight Through a Window (10,000 lux) | 3 hours | 71 hours | 20 hours |
| Daylight Through a Window on a Cloudy Day (5,000 lux) | 5 hours | --- |  |
| Indoor Fluorescent Lighting (500 lux) | 49 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.

## Auto Return Features

- If you leave the watch in the Recall, Alarm (except for the target alarm countdow screen), or Hand Setting Mode for two or three minutes without performing any operation, it automatically returns to the Timekeeping Mode.
or three minutes


## 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 scrol operation scrolls through the data at high speed.

## Initial Screens

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

## Radio-controlled Atomic Timekeeping Precautions

- Strong electrostatic charge can result in the wrong time being set.
- Even when the watch is within the reception range of the transmitter, signal reception will be impossible if the signal is blocked by mountains or other geologica formations between the watch and signal source.
- Signal reception is affected by weather, atmospheric conditions, and seasonal changes.
- The time calibration signal bounces off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the as changes in thi reflectivity of the ionosphere, as well as movement of the 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.


## Operation Guide 2762

- The current time setting in accordance with the time calibration signal takes priority over any time settings you make manually.
The watch is designed to 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.
- 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 $\pm 15$ 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, creck yourting. The Zone value and DST mode setting. Tollowing are the initial

| Setting | Initial Factory Default |
| :--- | :--- |
| GMT Differential Value | $\mathbf{- 5 . 0}$ (or DST -4.0) |
| DST (summer time) | DS A (Auto switching) |
| Transmitter mode | W 60 (U.S. signal) |

Transmitter mode

## Transmitters

This watch is able to receive time calibration signals transmitted in the United States (Fort Collins, Colorado) and Japan (Fukushima or Fukuoka/Saga). Selecting one of the time zones as your Home Time Zone automatically configures the watch to receive the applicable time calibration signal.

| GMT Differential value | Transmitter | Frequency |
| :---: | :---: | :---: |
| $\mathbf{- 5 . 0}, \mathbf{- 6 . 0 , - 7 . 0 , - 8 . 0}$ | Fort Collins, Colorado | 60 kHz |
| +9.0 | Fukushima | 40 kHz |
|  | Fukuoka/Saga | 60 kHz |

- When you have +9.0 (Japan) selected as your Home Time Zone, you can specify either the Fukushima or Fukuoka/Saga transmitter, or you can configure the watch - Selecting OFF for the transmitter mode setting disables auto receive

To select the transmitter mode


1. In the Timekeeping Mode, press (B) to display the last signal screen.
2. Hold down (A) until the transmitter mode setting starts to flash, which indicates the setting screen. - If holding down (A) does not display the setting Screen, check the current Home Time Zone setting. See "To specify your Home Time Zone" for more information.
3. Use (B) or (D) to select the transmitter mode setting you want to use.

- When $-5.0,-6.0,-7.0$, or -8.0 is selected as the Home Time Zone, available transmitter mode settings are W 60 (reception of the Fort Collins signal) and OFF (auto receive off).
- The following are the available transmitter mode settings when +9.0 (Japan) is selected as the Home Time Zone.
A. Automatic selection of the Fukushima or Fukuoka/Saga signal

J 40: Reception of the Fukushima signal
J60: Reception of the Fukuoka/Saga signa OFF: Auto receive off
4. Press (A) to exit the setting screen and return to the last signal screen

- If you want to the return to the Timekeeping Mode screen, press (B).
- Signal reception can take up to 14 minutes when the $\mathbf{A}$ option is selected


## 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 day of the week is calculated automatically in accordance with the date.
- 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 time zones in the Timekeeping Mode and Dual Time Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential of each
zone, based on your Home Time Zone time setting.


## (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.

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 $\mathbf{P}$ (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, without any indicator.


## Power Saving

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

- There are actually two sleep state levels: "display sleep" and "function sleep".

| Elapsed Time in Dark | Operation |
| :---: | :--- |
| 3 to 4 days <br> (Display Sleep) | Digital display off, but all functions enabled |
| 8 days or more <br> (Function Sleep) | - Digital display off <br> - All functions, including analog timekeeping, disabled <br> - Internal timekeeping maintained |

To recover from the sleep state
Perform any one of the following operations.

- Move the watch to a well-lit area. It can take up to two seconds for the display to turn
- Press any button.
- Angle the watch towards your face for reading.

To turn Power Saving on and off


Adjusting Dial Hand Positions
You can use the procedure in this section to adjust the position of the stopwatch $1 / 20$ second dial hand and the battery level dial hand whenever they do not align with the 12 o'clock position when you enter the Stopwatch Mode.


Battery level dial

## Important!

Never move the battery level dial hand to any position other than 12 o'clock. If you do, it will not correctly indicate the battery power level.

## To adjust dial hand positions

1. In the Timekeeping Mode, press (C) five times to enter the Hand Setting Mode.
2. Hold down (A) until - 00 - starts to flash, which indicates the analog setting screen.
3. Press (A) to display the dial hand setting screen. - The dial hand setting screen shows $00: 00.00$, with the two zeros on the far right flashing. This indicates that the stopwatch
adjustment.
4. Press (D) to advance the hand of the stopwatch $1 / 20$ second dial one step, until it is aligned with the 12 o'clock position.
5. After the $1 / 20$ second dial hand is aligned properly, press (C).

This causes the two far left zeros of the 00:00.00 figures to flash, which indicates ustment.
6. Press (D) to advance the hand of the battery level dial one step, until it is aligned with the 12 o'clock position.

- To return to the Timekeeping Mode, press ©

Illumination Precautions

- 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 shortens the battery operating time.


## Auto light switch precautions

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

- Note that wearing the watch under your sleeve while the auto light switch is turned Note that wearing the watch under your sleeve while the auto light switch is ture
on can cause frequent illumination of the face and can run down the battery.

More than 15 degrees too high


- lllumination may not turn on 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.
Illumination turns off after about two seconds, even if Illumination turns off after about two seconds, 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 ilumination starting position (parallel with the ground) and then back towards your face 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, illumination may not turn on until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the auto light switch.
- 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.


## Tachymeter

## Tachymeter bezel



If your watch has a tachymeter bezel, you can perform the steps below to calculate average speed after using the ore the amount of time that Never try to one kilometer (or one mile). are driving an autm stopwatch operations while you operating any type of vehicle. Doing so is very dangerous and can result in accident.
(1) In the Stopwatch Mode, start an elapsed time operation at any point you like.
2) Stop the elapsed time operation after you travel one Your average speed hand is pointing to on the tachymeter bezel

- The illustration shows an example where it took 50 seconds to travel one kilometer by car. The second hand is pointing at 70 , which indicates that the average speed is 70 kilometers per hour.
See "Stopwatch" for details about using the stopwatch
- The tachymeter can be used only when you are traveling by car or some other means that can cover one kilometer or one mile within 60 seconds.

Time Zone Table

| GMT Differential Value |  | Major Cities in Time Zone |
| :---: | :---: | :---: |
| Standard Time | DST/Summer Time |  |
| -11.0 | DST -10.0 | Pago Pago |
| -10.0 | DST -9.0 | Honolulu, Papeete |
| -9.0 | DST -8.0 | Anchorage, Nome |
| -8.0 | DST -7.0 | Los Angeles, San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City, Tijuana |
| -7.0 | DST -6.0 | Denver, El Paso, Edmonton, Culiacan |
| -6.0 | DST -5.0 | Chicago, Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg |
| -5.0 | DST -4.0 | New York, Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota |
| -4.0 | DST -3.0 | Caracas, La Paz, Santiago, Port of Spain |
| -3.0 | DST -2.0 | Rio De Janeiro, Sao Paulo, Buenos Aires, Brasilia, Montevideo |
| -2.0 | DST -1.0 |  |
| -1.0 | DST +0.0 | Praia |
| G 0.0 | G 0.0 | (GMT) |
| +0.0 | DST +1.0 | London, Dublin, Lisbon, Casablanca, Dakar, Abidjan |
| +1.0 | DST +2.0 | Paris, Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Frankfurt, Vienna, Stockholm, Berlin |
| +2.0 | DST +3.0 | Cairo, Jerusalem, Athens, Helsinki, Istanbul, Beirut, Damascus, Cape Town |
| +3.0 | DST +4.0 | Jeddah, Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow |
| +3.5 | DST +4.5 | Tehran, Shiraz |
| +4.0 | DST +5.0 | Dubai, Abu Dhabi, Muscat |
| +4.5 | DST +5.5 | Kabul |
| +5.0 | DST +6.0 | Karachi, Male |
| +5.5 | DST +6.5 | Delhi, Mumbai, Kolkata |
| +6.0 | DST +7.0 | Dhaka, Colombo |
| +6.5 | DST +7.5 | Yangon |
| +7.0 | DST +8.0 | Bangkok, Jakarta, Phnom Penh, Hanoi, Vientiane |
| +8.0 | DST +9.0 | Hong Kong, Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Perth, Ulaanbaatar |
| +9.0 | DST +10.0 | Tokyo, Seoul, Pyongyang |
| +9.5 | DST +10.5 | Adelaide, Darwin |
| +10.0 | DST +11.0 | Sydney, Melbourne, Guam, Rabaul |
| +11.0 | DST +12.0 | Noumea, Port Vila |
| +12.0 | DST +13.0 | Wellington, Christchurch, Nadi, Nauru Island |

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