# Operation Guide 5654 

## ENGLISH

Congratulations upon your selection of this CASIO watch．
To ensure that this watch provides you with the years of service for which it is designed，carefully read and follow the instructions in this manual，especially the information under＂Operating Precautions＂and ＂User Maintenance
－Note that the product illustrations in this manual are intended for reference only，and so the actual product may appear somewhat different than depicted by an illustration．
This watch does not have a city code that corresponds to the UTC offset of -3.5 hours．Because of this，the radio－controlled atomic timekeeping function will not display the correct time for Newfoundland，Canada．

Note that CASIO COMPUTER CO．，LTD．assumes no responsibility for any damage or loss suffered by you or any third party arising through the use of this product or its malfunction

## About This Manual

Operations are performed using the watch＇s crown，and the two buttons indicated by the letters（A）and （B）in this manual．

wer dial
This User＇s Guide uses numbers shown above to identify watch hands and Hand and Date Indicator Movemen

9 Day Indicator movement is coordinated with 8 Mode Hand movement．When changing the 9 Day Indicator setting，the 8 Mode Hand will also rotate
The 9 Day Indicator changes gradually at midnight．It takes anywhere from about 90 seconds to three minutes for the day to change．The 8 Mode Hand will rotate when the 9 Day Indicator changes．
－The day may not be displayed correctly while the crown is pulled out．
The Home City date is displayed in the Timekeeping Mode and the Stopwatch Mode．The World Time
City date is displayed in the World Time Mode（page E－23）．

To start HS1 high－speed movement
目 $\Rightarrow$ While the crown is pulled out，rotate it rapidly away from you（forward）or towards you（reverse）until the desired HS1 high－speed movement starts

To start HS2 high－speed movement
目 $\rightarrow$ While HS1 high－speed movement is in progress，again rotate the crown rapidly HS1 movement until HS2 high－speed movement starts

To stop high－speed movement
目 $\rightarrow \begin{aligned} & \text { Rotate the crown in the direction that is opposite that of the current high－speed } \\ & \text { movement or press any button．}\end{aligned}$

## mportant！

Leaving the crown pulled out for more than two minutes（approximately 30 minutes in the case of hand and day home position adjustment）without performing any operation will automatically cause crown operations to become disabled．If this happens，press the crown back in，pull it out，and then start the operation over again．

Things to check before using the watch
1．Pull the crown out to the first click．
2．Hold down（B）for at least two seconds to enter the Timekeeping Mode．
3．Push the crown back in．
4．Observe the movement of the 2 Second Hand．


## 5．Check the Home City．

Use the procedure under＂Selecting a City＂（page E－28）to configure your Home City．

## mportant

Proper time calibration signal reception depends on correct Home City，time，and date settings in the Timekeeping Mode．Make sure you configure these settings correctly．

## 6．Set the current time

－To set the time using a time calibration signal
See＂To get ready for a receive operation＂（page E－15）．
To set the time manually
See＂Configuring Current Time and Date Settings Manually＂（page E－32）．
The watch is now ready for use
For details about the watch＇s radio controlled timekeeping feature，see＂Radio Controlled Atomic Timekeeping＂（page E－12）．

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Charging the Watch
The face of the watch is a solar panel that generates power from light. The generated power charges a built-in rechargeable battery, which powers watch operations. The watch charges whenever it is exposed to light.
Charging Guide
Whenever you are not
wearing the watch, be sure
to leave it in a location
where it is exposed to light.
Best charging
performance is achieved
by exposing the watch to
light that is as strong as
possible.

## Warning

Leaving the watch in bright light for charging 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
mportant!
- Keep the watch in an area normally exposed to bright light when storing it for long periods. This helps to ensure that power does not run down
- 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 power to run down. Make sure that the watch is exposed to bright light whenever possible.


## Power Levels



You can get an idea of the watch's power level by observing the movement of the 2 Second Hand

- If the 2 Second Hand is moving normally at one-second intervals, power is at Level 1.
- If the 2 Second Hand is moving at two-second intervals, power is at Level 2, which is quite low (Low battery alert). Expose the watch to lig as soon as possible so it can charge.

| Level | Hand Movement | Function Status |
| :---: | :--- | :--- |
| 1 | Normal. | All functions enabled |
| 2 | 2 <br> two Sond Hand moves at <br> two second intervals. | Time calibration signal reception and <br> home position adjustment disabled |
| 3 | All hands stopped at 12 o'clock. | All functions disabled |

- When power drops to Level 3, all settings (including timekeeping) will be cleared. Recharging the battery will reset all settings to their initial factory defaults, so you will need to configure settings again.
- When the watch is at Level 3, exposing it to light for a while will cause the 2 Second Hand to move to the position of second 57. This indicates that charging has started.


## Power Recovery Mode

The watch is designed to go into a power recovery mode that stops hand operation temporarily whenever power suddenly drops below a certain level due to continuous signal reception or other operations over a short period. Note that all operations are disabled while the watch is in the power recovery mode. The hands will move to the correct positions and the watch will resume normal operation after powe recovers (in about 15 minutes). Putting the watch in a location where it is exposed to light will help power to recover sooner.
Charging Times

| Exposure Level (Brightness) | Daily Operation *1 | Level Change *2 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Level 3 | Level 2 | Level 1 |
|  |  |  | $\rightarrow$ | $\rightarrow$ |
| Outdoor sunlight (50,000 lux) | 8 minutes | 2 hours |  | 23 hours |
| Window sunlight ( $10,000 \mathrm{lux}$ ) | 30 minutes | 6 hours |  | 84 hours |
| Window sunlight on cloudy day (5,000 lux) | 48 minutes | 8 hours |  | 136 hours |
| Indoor fluorescent lighting (500 lux) | 8 hours | 94 hours |  | -- |

* 1 Approximate exposure each day to generate power for normal daily operation.
* 2 Approximate exposure to take power up one level
- The above times are for reference only. Actual times depend on lighting conditions.
- For details about the operating time and daily operating conditions, see the "Power Supply" section of the Specifications (page E-49).

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## Power Saving

Power Saving enters a sleep state automatically 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 actually are two sleep state levels: "second hand sleep" and "function sleep"

| Elapsed Time in Dark | Operation |
| :--- | :--- |
| 60 to 70 minutes (second hand sleep) | Only the 2 Second Hand will stop at its current position. |
| 6 or 7 days (function sleep) | - All hands stopped at 12 o'clock. <br> - Only day indication operates normally. | or 7 days (function sleep) Only day indication operates normally.

- The watch will not enter a sleep state between 6:00 AM and 9:59 PM. If the watch is already in a sleep state when 6:00 AM arrives, however, it will remain in the sleep state.
- The watch will not enter a sleep state while it is in the Stopwatch Mode, or while an elapsed time operation is in progress in the Timekeeping Mode or the World Time Mode.


## To recover from the sleep state

Move the watch to a well-lit area, perform a crown operation, or press any button.

## Radio Controlled Atomic Timekeeping

This watch receives a time calibration signal and updates its time setting accordingly. However, when using the watch outside of areas covered by time calibration signals, you will have to adjust the settings manually as required. See "Configuring Current Time and Date Settings Manually" (page E-32) for more information.

- Time calibration signal reception is enabled while the watch is in the Timekeeping Mode or World Time Mode. In this manual, all examples show time calibration signal reception in the Timekeeping Mode. The same procedures apply while the watch is in the World Time Mode.
- Time calibration reception is based on the applicable mode's city setting. In the Timekeeping Mode the city setting is the Home City. In the World Time Mode, it is the World Time City (page E-28). This section explains how the watch updates its time settings when the city setting is a city in Japan, North America, Europe, or China, and is one that supports time calibration signal reception.

| If the city setting is this: | The watch can receive the signal from the transmitter <br> located here: |
| :--- | :--- |
| LONDON (LON), PARIS (PAR), ATHENS (ATH) | Anthorn (England), Mainflingen (Germany) |
| HONG KONG (HKG) | Shangqiu City (China) |
| TOKYO (TYO) | Fukushima (Japan), Fukuoka/Saga (Japan) |
| NEW YORK (NYC), CHICAGO (CHI), <br> DENVER (DEN), LOS ANGELES (LAX), <br> ANCHORAGE (ANC), HONOLULU (HNL) | Fort Collins, Colorado (United States) |

## Important!

- Though the Honolulu and Anchorage areas (time zones) are outside of the time signal reception range of the watch, reception may be possible when reception conditions are good.


North American Signal



Approximate Reception Ranges


1,00 kilometers

- Signal reception may not be possible at the distances noted below during certain times of the year or day. Radio interference may also cause problems with reception.
- Mainflingen (Germany) or Anthorn (England) transmitters: 500 kilometers (310 miles)
- Fort Collins (United States) transmitter: 600 miles (1,000 kilometers)

Fukushima or Fukuoka/Saga (Japan) transmitters: 500 kilometers (310 miles)

- Shangqiu (China) transmitter: 500 kilometers ( 310 miles)
- As of January 2020, China does not use Daylight Saving Time (DST). If China does go to the Daylight Saving Time system in the future, some functions of this watch may no longer operate correctly for the China time zones.
Using this watch in a country covered by a time calibration signal that is different from the countries it supports may result in incorrect time indication due to local application of summer time, etc.


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3. What you should do next depends on whether you are using Auto Receive or Manual Receive. - Auto Receive: Leave the watch over night in the location you selected in step 2.

- Manual Receive: Perform the operation under "To perform manual receive" on page E-18.

Auto Receive

- With Auto Receive, the watch performs the receive operation each day automatically up to six times up to five times for the Chinese calibration signal) between the hours of midnight and $5 \mathrm{a} . \mathrm{m}$. When any receive operation is successful, none of the other receive operations for that day are performed.
Calibration signal reception is disabled in the following cases.
In the Stopwatch Mode
While an elapsed time operation is in progress in the Timekeeping Mode or World Time Mode
While Auto Receive is turned off
While the crown is pulled out
While the battery charge is low
While the watch is in function sleep


## To perform manual receive

1. Enter the Timekeeping Mode (page E-24),

- You could also enter the World Time Mode to perform this procedure

Time calibration reception is based on the applicable mode's city setting (page E-12). In the Timekeeping Mode, the city setting is the Home City. In the World Time Mode, it is the World Time City (page E-28).
2. Hold down (B) for at least two seconds.


W (WORK)

- The 2 Second Hand will first indicate $\mathbf{A}$ (a.m.) or $\mathbf{P}$ (p.m.), then move to $\mathbf{R}$ (READY) to indicate that signal reception has started.

3. The 2 Second Hand indicates the operations the watch is currently performing.

| When the 2 2 Second Hand is <br> pointed here: | It means this: |
| :--- | :--- |
| $R$ (READY) | Watch is setting up for reception. |
| $W$ |  |

R (READY)
W (WORK)

- If signal reception is unstable

W (WORK) and R (READY).

- The watch's time setting is adjusted automatically whenever a receive operation is successful.

To turn auto receive on and off


- You could also enter the World Time Mode to perform this procedure. (page calibration reception is based on the applicable mode's city setting In the World Time Mode, it is the World Time City (page E-28).

2. Press (B).

- The 2 Second Hand will first indicate $\mathbf{A}$ (a.m.) or $\mathbf{P}$ (p.m.). Then it will indicate the last reception result ( $\mathbf{Y}$ or $\mathbf{N}$ ) for about 10 seconds.

3. During the 10 seconds that the 2 Second Hand is pointing to the latest receive operation result (see above), pull out the crown to the first click. This will cause the 2 Second Hand to point to either $\mathbf{Y}$ (YES) or $\mathbf{N}$ (NO) which indicates the current on/off setting
Leaving the crown pulled out for more than two minutes without performing any operation will automatically cause crown operations to
become disabled. If this happens, press the crown back in, pull it out, and then start the operation over again.
4. Rotate the crown to move the 2 Second Hand to the setting you want.

- To turn on auto receive, select $\mathbf{Y}$ (YES).
- To turn off auto receive, select $\mathbf{N}(\mathbf{N O})$.

5. Push the crown back in to return to the mode you started from (Timekeeping or World Time) in step 1.

## Note

- Correct indication will resume after the receive operation is complete. If you need to produce a correct time reading immediately, press any button to stop the receive operation
- If reception fails for some reason, check the surrounding area and eliminate possible causes for failure
and then try again. See "To get ready for a receive operation" (page E-15).


## To check the result of the latest receive operation

Important!
Perform the operation below in the same mode (Timekeeping Mode or
World Time Mode) where the latest receive operation was performed.
Changing to another mode will cause the latest receive information to be
cleared.

Radio-controlled Atomic Timekeeping Precautions
Strong electrostatic charge can result in the wrong time setting
Even if a receive operation is successful, certain conditions can cause the time setting to be off by up to one second.

- The watch is designed to update the date and day of the week automatically for the period from January 1, 2000 to December 31, 2099. Updating of the date by signal reception will no longer be performed starting from January 1, 2100.
- If you are in an area where signal reception is not possible, the watch keeps time with the precision noted in "Specifications" (page E-49).
- The receive operation is disabled under any of the following conditions
- While power is at Level 2 or Level 3 (page E-9)

While the watch is in the power recovery mode (page E-10)

- While the watch is in the sleep state (power saving, page E-11)


## Mode Reference Guide

Your watch has three "modes". The mode you should select depends on what you want to do.
Pull out the crown to the first click and then rotate it to navigate between modes.

| In this mode: | You can do this: | More info: |
| :---: | :---: | :---: |
| Timekeeping | - View the current time in the Home City. <br> - Use the upper dial and the 2 Second Hand to measure elapsed time ( $1 / 20(0.05)$-second timing for up to 60 minutes (five 12 -minute revolutions)). <br> - View the current time in the World Time City in the lower dial. <br> - Configure Home City and summer time settings. <br> - Perform calibration signal Auto Receive and Manual Receive. <br> - Enable/disable Auto Receive. <br> - Manually configure time and date settings | $\begin{aligned} & \mathrm{E}-24 \\ & \mathrm{E}-37 \end{aligned}$ |
| World Time | - View the current time in the World Time City. <br> - View the current time in the Home City in the upper dial. <br> - Use the lower dial and the 2 Second Hand to measure elapsed time (1/20 (0.05)-second timing for up to 60 minutes (five 12 -minute revolutions)). <br> - Configure World Time City and summer time settings. <br> - Perform calibration signal Auto Receive and Manual Receive. <br> - Enable/disable Auto Receive. <br> - Manually configure time and date settings. | $\begin{aligned} & \mathrm{E}-25 \\ & \mathrm{E}-37 \end{aligned}$ |
| Stopwatch | - Measure elapsed time (1/20 (0.05)-second timing for 60 minutes). <br> - View the current time in the World Time City in the upper dial. <br> - View the current time in the Home City in the lower dial. | E-36 |

Relationship between the Timekeeping Mode and World Time Mode
This section explains about the watch's Timekeeping Mode and World Time Mode, and the Home City This section explains
and World Time City.

| Timekeeping Mode | The Timekeeping Mode is mainly used for viewing the current time in the Home <br> City. |
| :--- | :--- |
| World Time Mode | The World Time Mode is mainly used for viewing the current time in the World <br> Time City. |
| Home City | Specify the city where you normally will be using your watch. In Japan, the <br> Home City is Tokyo. |
| World Time City | Specify another city anywhere around the globe. |

- While the watch is in the Timekeeping Mode, time calibration signal reception is performed in accordance with the Home City setting. When a time calibration signal is received and the time setting is adjusted automatically while the watch is in the Timekeeping Mode. World Time Mode times are also adjusted accordingly
adjusted accordingly.
the World Time City time. When a time calibration saignal is received and the is performed based on automatically while the watch is in the World Time Mode, other World Time Mode times are also adjusted accordingly.
- Adjusting the time setting manually while the watch is in the Timekeeping Mode will cause World Time Mode times to be adjusted accordingly.
- Adjusting the time setting manually while the watch is in the World Time Mode will cause Timekeeping Mode time to be adjusted accordingly.


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## General Guide

Pull out the crown to the first click and then rotate it to navigate between modes. Push the crown back in after entering the mode you want
directly the the click and then hor for teast two seconds will return directly to the Timekeeping Mode.


## Using the Stopwatch

- Perform this operation in any mode.


Note

- As the 9 Day Indicator changes after you switch between the Timekeeping Mode and World Time Mode, the 8 Mode Hand also rotates (page E-1).
- The 9 Day Indicator changes gradually at midnight each day. It take anywhere from about 90 seconds to three minutes for the day to change.


## Watch Modes



- The day of the week is indicated in the Timekeeping Mode. Pulling out the crown to the first click will ause the Mators to the left and right of the Mode Hand indicate the upper and lower dial hand functions: ST (Stopwatch) for the upper dial and WT (World Time) for the lower dial.
In the wo mode Hand points to WT. The mode indicators to the left and right indicate the upper and lower dial hand functions: TM (Timekeeping) for the upper dial and ST (Stopwatch) for the lower dial.
- In the Stopwatch Mode, the Mode Hand points to ST. The mode indicators to the left and right indicate the upper and lower dial
(Timekeeping) for the lower dial.

Selecting a City
Your watch lets you select from among city codes for 29 cities around the globe, plus one code for UTC (Universal Coordinated Time). Selecting a city code causes the watch's time setting to change automatically to indicate the current time in that zone.

## Important!

- You can use the same steps to select a city code in the Timekeeping mode and the World Time Mode. - In the Timekeeping Mode, the city setting is the Home City, and in the World Time Mode, it is the World Time City.


Illustration shows Timekeeping Mode

## To select a city

Note
This watch does not have a city code that corresponds to Newfoundland.

1. Pull out the crown to the second click.

- This will cause the 2 Second Hand to move to the city code of the currently selected city.
- This indicates the city code setting mode.
- Leaving the crown pulled out for more than two minutes without performing any operation will automatically cause crown operations to become disabled. If this happens, press the crown back in, pull its and then start the operation ove agar.
babout city codes, see the "City Code Table" at the back of this manual


2. Rotate the crown to move the 2 Second Hand to the city code you want to select.

- Each time you select a city code, the 1 Hour Hand, 3 Minute Hand, 8 Mode Hand, and 9 Day Indicator move to the current time for that city code

3. After the setting is way you want, push the crown back in.

- The day of the week and day will also be displayed in accordance with the selected city code.


## STD/DST Switching

You can select summer time or standard time independently for each city. The initial default setting for
all cities is AT (AUTO)
Norm (AUTO) setting because it automatically switches between summer the following cases.

- When using the watch in a city not included in the City Code Table
- When the switching dates in your location are different from those shown in the City Code Table


## 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.

- Note that you cannot switch between STD (standard time) and DST (daylight saving time) while UTC
is selected as the city code.
Coordinated Universal Time, the world-wide scientific standard of timekeeping. The reference point for UTC is Greenwich, England.


## To switch between standard time and summer time manually

1. Pull the crown out to the second click

- The 2 Second Hand will move to the currently selected city code.
- Leaving the crown pulled out for more than two minutes without performing any operation will automatically cause crown operations to become disabled. If this happens, press the crown back in, pull it out, and then start the operation over again.

2. Press (A).

- The 2 Second Hand will move to the currently selected summer time setting (see table below).
- After about two seconds, the 2 Second Hand will return to the city code setting.

Be sure to perform step 3 within two seconds after you press (A) (while the 2 Second Hand is indicating the summer time setting).

AT (AUTO) The watch automatically switches between standard time and daylight saving time in

| STD | The watch always shows standard time. |
| :--- | :--- |

DST $\quad$ The watch always shows daylight saving time.
3. Hold down (A) for about one second to cycle through the summer time settings as shown below.

(A)

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## Configuring Current Time and Date Settings Manually

You can configure current time and date settings manually when the watch is unable to receive a time calibration signal.


To change the current time and date setting manually 1. In the mode whose time and date setting you want to change (Timekeeping Mode or World Time Mode), pull out the crown to the second click.

- This will cause the 2 Second Hand to move to the city code of the currently selected city
- Leaving the crown pulled out for more than approximately 30 minutes without performing any operation will automatically cause crown operations to become disabled. If this happens, press the crown back in, pull it out, and then start the operation over again.


2. Change the city setting and summer time setting, if you want. To change the city setting, perform step 2 under "To select a city" (page E-28).
3. Hold down (B) for about one second. This will enter the time and date setting mode.

- The 2 Second Hand will move to $\mathbf{A}$ (a.m.) or $\mathbf{P}$ (p.m.).
- In the following steps, each press of (B) cycles between settings as shown below.


4. Rotate the crown to adjust the minute setting

- A high-speed movement feature (one full cycle maximum) is available when adjusting the hands. See "Crown Operations" (page E-2).

5. Press (B)

- The 1 Hour Hand will move slightly left and right to indicate the hour and day setting mode.

6. Rotate the crown to adjust the hour setting.

- The 2 Second Hand will move to $\mathbf{A}$ (a.m.) or $\mathbf{P}$ (p.m.)
- A high-speed movement feature (one full cycle maximum) is available when adjusting the hands. See "Crown Operations" (page E-2).

7. Press (B). This will enter the year setting mode

- After the 2 Second Hand moves to the month, the 3 Minute Hand and 1 Hour Hand will move and point to the year
- 2 Second Hand: The month setting is configured in step 10, below.

8. Rotate the crown to adjust the year setting.


Setting the year (ones digit)


Setting the year (tens digit)


Setting the month
9. Press (B) to enter the month setting mode The 2 Second Hand will perform one rotation and stop at the current month setting.
10. Rotate the crown to adjust the month setting.
11. Press (B).

The 8 Mode Hand will move slightly, indicating the day setting mode.
12. Rotate the crown to adjust the day setting. - The 8 Mode Hand will rotate along with the crown rotation.
13. After the settings are the way you want, push the crown back in to return to the mode you started from in step 1.
This causes timekeeping to resume with the 2 Second Hand starting from 12 o'clock.

- The day of the week indicated by the 8 Mode Hand changes automatically in accordance with the date (year, month, and day).


## ot

-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 rechargeable battery replaced or after power drops to Level 3 .

Timekeeping Mode
Example: When elapsed time is 3 minutes, 45.10 seconds


## Hand Functions

2 Second Hand: Indicates the 1/20 (0.05)-second count.
5 Upper Dial Small Hand: Indicates the 1-minute count (up to 60 minutes: five 12-minute revolutions).
8] Mode Hand: Points to the day of the week while elapsed time is in progress.

World Time Mode
Example: When elapsed time is 3 minutes, 45.10 seconds


Hand Functions
2 Second Hand: Indicates the $1 / 20(0.05)$-second count during stopwatch operation.
3 Minute Hand: Indicates the stopwatch seconds count.
8 Mode Hand: Points to ST

- The watch face is marked with 0.05 -second markers

- Pressing (A) without resetting the stopwatch will resume the elapsed time operation from where it was last stopped.

Note

- The Stopwatch Mode can indicate elapsed time up to 59 minutes, 59.95 seconds. Elapsed time measurement will stop automatically when the maximum time is reached.
- Pressing (B) will not perform a reset operation while the hands are moving to elapsed timekeeping
- In the Stopwatch Mode, the 2 Second Hand indicates the $1 / 20(0.05)$-second count for the first 30 seconds of a stopwatch elapsed time operation. The 2 Second Hand will jump to the current value whenever (A) (Stop) is pressed.
- In the Timekeeping Mode and World Time Mode, the 2 Second Hand (1/20 (0.05) second) hand returns to normal 1 -second movement approximately 20 seconds after an elapsed time measurement operation is started.


## Adjusting the Hand and Day Home Positions

If the watch is exposed to strong magnetism or impact, it can cause its hands and/or the date to go out f alignment. This can result in incorrect date and/or time indication even though a time calibration signal s being received.
The watch automatically adjusts the 2 Second Hand, 3 Minute Hand, and 1 Hour Hand positions periodically.

If you notice that the 4 Upper Dial Big Hand, 5 Upper Dial Small Hand, 6 Lower Dial Big Hand 7 Lower Dial Small Hand, 8 Mode Hand, or 9 Day Indicator are not in the correct position, perform manual adjustment.

## mportant!

- Performing hand position correction in either the Timekeeping Mode or World Time Mode will correct the hand positions in all modes.
- You cannot correct the hand and day home positions while in the Stopwatch Mode,


# Operation Guide 5654 

## Hand/Day Adjustment Steps

For full details, see the procedure from page E-41 to E-43
Pull crown out to second click.
(B) (Wait for at least six seconds until the 2 Second Hand moves to $120^{\prime}$ clock.)


Auto Adjustment


Perform this operation only if you are unable to align the 8 Mode Hand and 9 Day Indicator using the operation to the right

- After completing adjustment, push the crown back in. Pushing the crown back in part way through adjustment will return to the mode you started from, with any adjustments you made in effect.


## To adjust the hand and day home positions

correctly.

1. Pull the crown out to the second click.
2. Keep (B) depressed for more than six seconds. This will cause the 2 Second Hand moves to 12 o clock.
After about one second, the 2 Second Hand moves to $\mathbf{A}$ (a.m.) or $\mathbf{P}$ (p.m.). After about six seconds, the Second Hand moves to 12 O' clock
Release (B) At this time watch will start Adjustment is complete when the 2 Second Hand, 3 Minute Hard and 1 Hour Hand move Adjustment is complete when the 2 Second Hand, 3 Minute Hand and 1 Hour Hand move to
3. Press (B).

- The 2 Second Hand, 3 Minute Hand, and 1 Hour Hand will move to 2 o'clock.
- The 4 Upper Dial Big Hand and 5 Upper Dial Small Hand will move to 12 o'clock and stop there.
If the 4 Upper Dial Big Hand and 5 Upper Dial Small Hand
do not align with 12 o'clock, rotate the crown to adjust them so they do.
- You can use high-speed hand movement to perform this step.


6. Press (B).

Wait until the 8 Mode Hand stops at 12 o'clock and the 9 Day Indicator stops at 1

- The 8 Mode Hand may continue to rotate for as long as

30 minutes until the 9 Day Indicator stops at 1 (page $\mathrm{E}-1$ )

- If the 8 Mode Hand and/or 9 Day Indicator is not aligned properly when they stop moving, rotate the crown to adjust them the 9 Day Indicator window the 9 Day Indicator window.
You can use high-speed hand and day movement to perform this step.

7. Push the crown back in

This exits the adjustment mode and returns to normal timekeeping.
mportant!
Leaving the crown pulled out for more than approximately 30 minutes without performing any operation will automatically cause the adjustment operation to become disabled. If this happens, push Pushing the crown in will return to the mode you started from in step 1 with the hands ands and/or day in their newly adjusted positions.

## Troubleshooting

## Hand Movement and Position

- I lost track of what mode the watch is in.

Refer to "Mode Reference Guide" (page E-22). To return directly to the Timekeeping Mode, pull out the crown to the first click and hold down (B) for at least two seconds. To return to the Timekeeping Mode, push the crown back in.

- The 2 Second Hand is moving at two-second intervals.

Power may be low. Expose the watch to light until the 2 Second Hand starts moving normally, at onesecond intervals (page E-9),

- The hands of the watch suddenly start moving at high speed, even when I do not perform any operation.
This could be due to any one of the following causes. In all cases, the hand movement does not indicate malfunction, and should stop shortly
- The watch is recovering from a sleep state (page E-11).
- The time setting is being adjusted following a successful auto time calibration signal receive operation (page E-12).
- Hands suddenly stop moving. Button operation also is disabled.

The watch may be in the power recovery mode (page E-10). Do not perform any operation until the hands return to their normal positions (in about 15 minutes). The hands should return to their correct positions when normal operation returns. To help power recover, leave the watch in a location where it is exposed to light.

## Time Calibration Signal

The information in this section applies only when LONDON (LON), PARIS (PAR), ATHENS (ATH) HONOLULU (HNL), ANCHORAGE (ANC), LOS ANGELES (LAX), DENVER (DEN), CHICAGO (CHI), NEW YORK (NYC), HONG KONG (HKG), or TOKYO (TYO) is selected as the city. You need to adjust the current time manually when any other city is selected

■ The 2 Second Hand indicates $\mathrm{N}(\mathrm{NO})$ when I check the result of the latest receive operation.

| Possible Cause | Remedy | Page |
| :--- | :--- | :--- |
| - You are wearing or moving the watch, or <br> performing a button operation during the signal <br> receive operation. <br> - The watch is in an area with poor reception <br> conditions. | Keep the watch in an area where reception <br> conditions are good while ethe signal receive <br> operation is being performed. | E-15 |
| You are in an area where signal reception is not <br> possible for some reason. | See "Approximate Reception Ranges". | E-13 |
| The calibration signal is not being transmitted for <br> some reason. | - Check the website of the organization that <br> maintains the time calibration signal in your area <br> for information about its down times. <br> -Try again later. | - |

$\square$ The current time setting changes after I set it manually.
You may have the watch configured for Auto Receive of the time calibration signal (page E-17), which will cause the time to be adjusted automatically according to your currently selected city. If this results in the wrong time setting, check your city setting and correct it, if necessary (page E-28).

All hands are at 12 o'clock and nothing happens when I press any button.
The rechargeable battery is dead. Expose the watch to light to charge the battery and restore normal operation.
■ The current time setting is off by hours.

- Your city setting may be wrong. Check your city setting and correct it, if necessary (page E-28).
- The current time setting is off by one hour.
- If you are using the watch in an area where time calibration signal reception is possible, see "To select a city" (page E-28).
- The period when summer time is applied in the location where you are using the watch may be different from the period set for your currently selected city. Use the procedure under "To switch between standard time and summer time manually" (page E-31) to switch from AT (AUTO) to STD (for standard time) or DST (for summer time).


## $\square$ The hands and/or day indications are off

his could indicate that the watch has been exposed to magnetism or strong impact, which has caused problems with proper hand and day alignment. Adjust the watch's hand and day home position alignment (page E-39).

- Data indication is correct, but it is not in the middle of the day indicator.

The date is in the process of changing. For information about how the date changes, see page $\mathrm{E}-1$.

## Charging

The watch does not resume operation after I expose it to light.
It can take quite a long time to charge the battery after the power level drops to Level 3 (page E-9). Continue exposing the watch to light until the 2 Second Hand starts moving normally (at one-second intervals).

| Possible Cause | Remedy | Page |
| :---: | :---: | :---: |
| Your city setting is wrong. | Check your city setting and correct it, if necessary. | $\begin{aligned} & \mathrm{E}-12 \\ & \mathrm{E}-28 \end{aligned}$ |
| Auto Receive is disabled because there is an ongoing elapsed time operation. | Stop the ongoing stopwatch operation. | E-36 |
| The watch is in the Stopwatch Mode. | Change to the Timekeeping Mode. If you want to perform signal reception in the World Time Mode, enter the World Time Mode. | E-24 |
| The Auto Receive function is turned off. | Turn on Auto Receive. | E-20 |
| The crown is pulled out. | Push the crown back in. | E-2 |
| There is not enough power for signal reception. | Expose the watch to light to charge it. | E-8 |
| ■ Signal reception is being performed successfully, but the time and/or day is wrong. |  |  |
| Possible Cause | Remedy | Page |
| Your city setting is wrong. | Check your city setting and correct it, if necessary. | $\begin{aligned} & \mathrm{E}-12 \\ & \mathrm{E}-28 \end{aligned}$ |
| The watch may have been exposed to magnetism or strong impact, which has caused problems with proper hand and day alignment. | Adjust the watch's hand and day home positions. | E-39 |

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## Crown Operation

Nothing happens when I rotate the crown.
Possible Cause
The crown has been left pulled out for more than
two minutes ( 30 minutes in the case of hand home position adjustment) without any operation being performed

| Remedy | Page |
| :--- | :--- |
| Push the crown back in and then pull it out again to <br> restore normal operation. | E-2 |

## Specifications

Accuracy at normal temperature: $\pm 15$ seconds a month (with no signal calibration)
Timekeeping: Hour, minutes, seconds, a.m./p.m. indication, day, day of the week
Other: Home City and World Time City can be assigned one of 29 city codes ( 29 time zones) and
Coordinated Universal Time; Daylight Saving Time (summer time)/Standard Time auto switching
Time Calibration Signal Reception: Auto receive up to six times a day ( 5 times a day for the Chinese calibration sign
Manual receive
Receivable Time Calibration Signa
Mainflingen, Germany (Call Sign: DCF77, Frequency: 77.5 kHz ); Anthorn, England (Call Sign: MSF, Frequency: 60.0 kHz ); Fukushima, Japan (Call Sign: JJY, Frequency: 40.0 kHz); Fukuoka/Saga, Japan (Call Sign. JJY, Frequency. 60.0 kHz ), rort Colinins, Colorado Province China (Call Sign: BPC Frequency: 68.5 kHz ) Province, China (Call Sign: BPC, Frequency: 68.5 kHz )
Stopwatch: Measuring capacity: 59'59.95"
Measuring unit: $1 / 20(0.05)$ seconds
Measuring modes: Elapsed time
Other: Power Saving; Low battery alert; Auto Correction of Hand Home Positions
Power Supply: Solar panel and one rechargeable battery
pproxinate battery operating time: 5 months (no exposure to light after a full charge; one signal reception of approximately 4 minutes per day)

Specifications are subject to change without notice.

## Operating Precautions

## Water Resistance

- The information below applies to watches with WATER RESIST or WATER RESISTANT marked on the back cover.

|  |  | Water Resistance Under Daily Use | Enhanced Water Resistance Under Daily Use |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \hline 5 \\ \text { Atmospheres } \\ \hline \end{gathered}$ | $\begin{gathered} \hline 10 \\ \text { Atmospheres } \\ \hline \end{gathered}$ | $20$ <br> Atmospheres |
| Marking | On watch front or on back cover |  | $\begin{gathered} \mathrm{No} \\ \text { BAR mark } \end{gathered}$ | 5BAR | 10BAR | 20BAR |
| Example of Daily Use | Hand washing, rain | Yes | Yes | Yes | Yes |
|  | Water-related work, swimming | No | Yes | Yes | Yes |
|  | Windsurfing | No | No | Yes | Yes |
|  | Skin diving | No | No | Yes | Yes |

- Do not use your watch for scuba diving or other types of diving that requires air tanks.
- Watches that do not have WATER RESIST or WATER RESISTANT marked on the back cover are not protected against the effects of sweat. Avoid using such a watch under conditions where it will be exposed to large amounts of sweat or moisture, or to direct splashing with water.
 Do not operate the crown or buttons while your watch is subme.
Do not operate the crown or buttons while your watch is submersed in water or wet
- Do not wear your watch while in a heated swimming pool, sauna, or any other high temperature/high humidity environment.


## Band

- Tightening the band too tightly can cause you to sweat and make it difficult for air to pass under the band which can lead to skin irritation. Do not fasten the band too tightly. There should be enough room between the band and your wrist so you can insert your finger.
Deterioration, rust, and other conditions can cause the band to break or come off of your watch, which in turn can cause band pins to fly out of position or to fall out. This creates the risk of your watch falling from your wrist and becoming lost, and also creates the risk of personal injury. Always take good care of your band and keep it clean
- Immediately stop using a band if you even notice any of the following: loss of band flexibility, band cracks, band discoloration, band looseness, band connecting pin flying or falling out, or any other abnormality. you will be charged) or to have the band replaced (for which you will be charged)


## Temperature

- Never leave your watch on the dashboard of a car, near a heater, or in any other location that is subject Temperature extremes


## Impact

- Your watch is designed to withstand impact incurred during normal daily use and during light activity such as playing catch, tennis, etc. Dropping your watch or otherwise subjecting it to strong impact, however, can lead to malfunction. Note that watches with shock-resistant designs (G-SHOCK, BABY-G, G-MS) can be worn while operating a chain saw or engaging in other activities that generate strong vibration, or while engaging in strenuous sports activities (motocross, etc.)

Do not wear your watch while washing your hands or face, while doing housework, or while performing any other task that involves soaps or detergents.

- After submersion in seawater, use plain water to rinse all salt and dirt from your watch.

To maintain water resistance, have the gaskets of your watch replaced periodically (about once every two or three years)
A rained technician will inspect your watch for proper water resistance whenever you have its battery replaced. Battery replacement requires the use of special tools. Always request battery replacement from your original retailer or from an authorized CASIO service center.

- Some water-resistant watches come with fashionable leather bands. Avoid swimming, washing, or any other activity that causes direct exposure of a leather band to water.
- The inside surface of the watch glass may fog when the watch is exposed to a sudden drop in temperature. No problem is indicated if the fogging clears up relatively quickly. Sudden and extreme temperature changes (such as coming into an air conditioned room in the summer and standing close to an air conditioner outlet, or leaving a heated room in the winter and allowing your watch to come into contact with snow) can cause it to take longer for glass fogging to clear up. If glass fogging does not clear up or if you notice moisture inside of the glass, immediately stop using your watch and take it to your original retailer or to an authorized CASIO service center
been tested in accordance with International Organization for
Standardization regulations.


## Resin Components

- Allowing your watch to remain in contact with other items or storing it together with other items for long periods while it is wet can cause color on resin components to transfer to the other items, or the color of before storing it and make sure it is not in contact with other items. before storing it and make sure it is not in contact with other items,
Leaving your watch where it is exposed to direct sunlight (ultraviolet
dirt from your watch for
- Friction caused by certain conditions (strong external force, sustained rubbing, impact, etc.) can cause discoloration of painted components.
- If there are printed figures on the band, strong rubbing of the printed area can cause discoloration. - Leaving your watch wet for long periods can cause fluorescent color to fade. Wipe the watch dry as soon - as possible after it becomes wet.
- Semi-transparent resin parts can become discolored due to sweat and dirt, and if exposed to high
temperatures and humidity for long periods.
列


## Leather Band

- Allowing your watch to remain in contact with other items or storing it together with other items for long periods while it is wet can cause the color of the leather band to transfer to the other items or the color of the other items to transfer to the leather band. Be sure to dry off yo
before storing it and make sure it is not in contact with other items.
Leaving a leather band where it is exposed to direct sunlight (ultraviolet rays) for long periods or failure to clean dirt from a leather band for long periods can cause it to become discolored.
CAUTION: Exposing a leather band to rubbing or dirt can cause color transfer and discoloration.


## Magnetism

- The hands of analog and combination (analog-digital) watches are moved by a motor that uses magnetic emits stron such a watch is close to a device (audio speakers, magnetic necklace, cell phone, etc.) that emits strong magnetism, the magnetism can cause timekeeping to slow down, speed up, or stop, resulting Very strong magnetism (from medical equipment, etc.) should be avoided because it can cause malfunction of your watch and damage to electronic components.


## Electrostatic Charge

- Exposure to very strong electrostatic charge can cause your watch to display the wrong time. Very strong electrostatic charge even can damage electronic components.


## Chemicals

- Do not allow your watch to come into contact with thinner, gasoline, solvents, oils, or fats, or with any leaners, adhesives, paints, medicines, or cosmetics that contain such ingredients. Doing so can cause discoloration of or damage to the resin case, resin band, leather, and other parts,


## Storage

If you do not plan to use your watch for a long time, thoroughly wipe it free of all dirt, sweat, and moisture, and store it in a cool, dry place.

## Operation Guide 5654

## User Maintenance

## Caring for Your Watch

Remember that you wear your watch next to your skin, just like a piece of clothing. To ensure your watch performs at the level for which it is designed, keep it clean by frequently wiping with a soft cloth to keep your watch and band free of dirt, sweat, water and other foreign matter

- For a metal band or a resin band with metal parts, use a soft toothbrush or similar tool to scrub the band with a weak solution of water and a mild neutral detergent, or with soapy water. Next, rinse with water to remove all remaining detergent and then wipe dry with a soft absorbent cloth. When washing the band, wrap the watch case with kitchen plastic wrap so it does not come into contact with the detergent or soap. - For a resin band, wash with water and then wipe dry with a soft cloth. Note that sometimes a smudge lik pattern may appear on the surface of a resin band. This will not have any effect on your skin or clothing
Wipe with a cloth to remove the smudge pattern. - Clean water and sweat from a leather band by wip
- Not operating a watch crown, buttons, or rotary bezel could lead to later problems with their operation. Periodically rotate the crown and rotary bezel, and press buttons to maintain proper operation.


## Dangers of Poor Watch Care

Rust

- Though the metal steel used for your watch is highly rust-resistant, rust can form if your watch is not Dirt on your wacomes dirty.
ad tor oxygen to come into contact with the metal, which can lead to breakdown of the oxidization layer on the metal surface and the formation of rust.

Rust can cause sharp areas on metal components and can cause band pins to fly out of position or to fall out. If you ever notice any abnormality immediately stop using your watch and take it to your original retailer or to an authorized CASIO service center.

- Even if the surface of the metal appears cl
sweat and rust in crevasses can soil the sleeves of clothing


## Premature Wear

Leaving sweat or water on a resin band or bezel, or storing your watch an area subject to high moisture can lead to premature wear, cuts, and breaks.

## Skin Irritation

- Individuals with sensitive skin or in poor physical condition may experience skin irritation when wearing a watch. Such individuals should keep their leather band or resin band particularly clean. Should you ever experience a rash or other skin irritation, immediately remove your watch and contact a skin care professional.


## Battery

- The special rechargeable battery used by your watch is not intended to be removed or replaced by you. Use of a rechargeable battery other than the special one specified for your watch can damage your watch. The rechargeable (secondary) battery is charged when the solar panel is exposed to light, so it does not require regular replacement as the primary battery requires. Note, however, that long use or operating conditions can cause the capacity or charging efficiency of the rechargeable battery to deteriorate. If you feel that the amount of operation provided by charging is too short, contact your original retailer or CASIO service center.

City Code Table

| City Code |  | City | UTC Offset//GMT Differential | Summer Time Period |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Summer Time Start |  | Summer Time End |
| PAGO PAGO | (PPG) |  | Pago Pago | -11 | None | None |
| HONOLULU | (HNL) | Honolulu | -10 |  |  |
| ANCHORAGE | (ANC) | Anchorage | -9 | 02:00, second Sunday in March | 02:00, first Sunday inNovember |  |
| LOS ANGELES | (LAX) | Los Angeles | -8 |  |  |  |
| DENVER | (DEN) | Denver | -7 |  |  |  |
| CHICAGO | (CHI) | Chicago | -6 |  |  |  |
| NEW YORK | (NYC) | New York | -5 |  |  |  |
| SANTIAGO *1 | (SCL) | Santiago | -4 | 24:00, second Saturday in October | 24:00, second Saturday in March |  |
| RIO *2 |  | Rio De Janeiro | -3 | $0: 00$, third Sunday in October | $0: 00$, third Sunday in February or 0:00, fourth Sunday in February |  |
| F. DE NORONHA | (FEN) | Fernando de Noronha | -2 | None | None |  |
| PRAIA | (RAI) | Praia | -1 |  |  |  |
| UTC |  |  | 0 |  |  |  |
| LONDON | (LON) | London |  | 01:00, last Sunday in March | 02:00, last Sunday in |  |
| PARIS | (PAR) | Paris | +1 | 02:00, last Sunday in March | 03:00, last Sunday in October |  |
| ATHENS | (ATH) | Athens | +2 | 03:00, last Sunday in March | 04:00, last Sunday in |  |
| JEDDAH | (JED) | Jeddah | +3 | None | None |  |
| TEHRAN | (THR) | Tehran | +3.5 | $\begin{gathered} \text { 0:00, March } 22 \text { or } \\ \text { 0:00, March } 21 \\ \hline \end{gathered}$ | 0:00, September 22 or 0:00, September 21 |  |



City Code Table


L

| City Code |  | City | UTC Offset/GMT Differential | Summer Time Period |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Summer Time Start |  | Summer Time End |
| DUBAI | (DXB) |  | Dubai | +4 | None | None |
| KABUL | (KBL) | Kabul | +4.5 |  |  |
| KARACHI | (KHI) | Karachi | +5 |  |  |
| DELHI | (DEL) | Delhi | +5.5 |  |  |
| DHAKA | (DAC) | Dhaka | +6 |  |  |
| YANGON | (RGN) | Yangon | +6.5 |  |  |
| BANGKOK | (BKK) | Bangkok | +7 |  |  |
| HONG KONG | (HKG) | Hong Kong | +8 |  |  |
| TOKYO | (TYO) | Tokyo | +9 |  |  |
| ADELAIDE | (ADL) | Adelaide | +9.5 | 02:00, first Sunday in October | 03:00, first Sunday in April |  |
| SYDNEY | (SYD) | Sydney | +10 |  |  |  |
| NOUMEA | (NOU) | Noumea | +11 | None | None |  |
| WELLINGTON | (WLG) | Wellington | +12 | 02:00, last Sunday in September | 03:00, first Sunday in April |  |

* 1 As of January 2020, the summertime period for Chile (Santiago) has been changed to start at 0:00 on ber and end at 24:00 on the first Saturday of April. However, the Auto DST As of Jan or 2020 watch do not reflect this change.
* 2 As of January 2020, summer time has been halted in Brazil (Rio de Janeiro). However, the Auto DST operation of this watch does not reflect this change.
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.
select the list city that is in this table are applicable to specific cities. For cities not included in the list, L-2


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