

# User's Guide 5411 (MRG)

CASIO®

ENGLISH

Congratulations upon your selection of this CASIO watch.

- Keep the watch's face exposed to light as much as possible (page E-4).
- For details about how to use this watch and for troubleshooting information, go to the website below. <http://world.casio.com/support/>
- Do not try to remove the rechargeable battery from this watch. Always be sure to request rechargeable battery replacement from your retailer. Use of a non-specified battery type and/or incorrect replacement creates the risk of burn injury and fire due to explosion, overheating, ignition, etc.

**Important!**

- For details about how to adjust the current time zone, time, and day settings, see "Timekeeping (Current Time and Day Adjustment)" (Page E-6).

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 your watch or its malfunction.

E-1

## Features

Your watch provides you with the features and functions described below.

- ◆ **Solar powered operation** ..... Page E-4  
The watch generates electrical power from sunlight and other types of light, and uses it to charge a battery that powers operation.
- ◆ **Accurate timekeeping** ..... Page E-6  
Timekeeping is kept accurate using GPS signals and time calibration signals.
- ◆ **Current time in cities around the globe** ..... Page E-14  
View the current time in 40 time zones around the globe.
- ◆ **Stopwatch** ..... Page E-15  
The stopwatch measures elapsed time up to 24 minutes in 0.05-second increments.
- ◆ **Timer** ..... Page E-15  
The timer counts down from a preset start time, and the watch sounds a tone when the countdown reaches zero.
- ◆ **Alarms** ..... Page E-15  
The watch can be configured to sound a tone when the preset alarm time is reached.

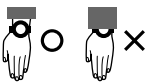
E-2

## Contents

Features .....	E-2
Charging the Watch .....	E-4
Timekeeping (Current Time and Day Adjustment) .....	E-6
Timekeeping (Based on GPS Signals) .....	E-8
Appropriate Signal Reception Location (GPS Signal) .....	E-8
Performing a GPS Signal Receive Operation Manually .....	E-9
GPS Signal Auto Receive .....	E-11
Timekeeping (Based on a Time Calibration Signal) .....	E-12
Appropriate Signal Reception Location (Time Calibration Signal) .....	E-12
Time Calibration Signal Auto Receive .....	E-13
Mode Reference Guide .....	E-14
Using the Watch in an Aircraft (Airplane Mode) .....	E-16
Using the Crown .....	E-17
Specifications .....	E-18

E-3

## Charging the Watch



- While wearing the watch, take care so your sleeve does not block its face (solar panel) from light. Charging efficiency may be reduced if the face (solar panel) is blocked from light, even partially.



- When you are not wearing the watch, leave it where its face (solar panel) is exposed to bright light for charging.
- To help ensure stable operation, expose the face of the watch to about a half day of direct sunlight each week to charge it.

**Caution**

- The case of the watch may become extremely hot when charging. Guard against burn injury.

**Important!**

- If the watch is not exposed to light for long periods, it will disable some functions and eventually stop timekeeping.
- The second hand will jump at two-second or five-second intervals to indicate that battery power is low, and stop completely when the battery is dead. Note that the watch also has a power saving function. For details, see the Operation Guide available at the CASIO website.

E-4

- If timekeeping stops, you will need to expose the watch to light for a number of hours before it will restart.
- The watch will not charge if its temperature is  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ) or lower, or around  $60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ ) or higher.
- If the watch is not charged for more than about three months after it stops running due to low power, over-discharge will occur, which may make recharging impossible.

E-5

## Timekeeping (Current Time and Day Adjustment)

- **After purchasing the watch, perform the procedure under "Acquiring GPS Position Information" (page E-9).**
- **To set the current time and day, normally use the procedure under "Time Calibration Signal Auto Receive" (page E-13). In areas where a time calibration signal cannot be received for some reason, set the current time and day using the procedure under "GPS Signal Auto Receive" (page E-11).**
  - Late night (between midnight and 5:00 a.m.): The receive operation starts at regular intervals until receive is successful (Time Calibration signal).
  - Daytime (between 6:00 a.m. and 10:00 p.m.): The receive operation will start automatically when the watch is continually expose to light (GPS).
  - Once a time calibration or GPS signal receive operation is successful, no more Auto Receive operations are performed that day.
- **If the current time setting is not correct, perform the procedure under "Receiving GPS Time Information" (page E-10).**
- **If you move into another time zone, perform the procedure under "Acquiring GPS Position Information". Next, perform one of the procedures under "Time Calibration Signal Auto Receive", "GPS Signal Auto Receive", or "Receiving GPS Time Information" to set the current time and day.**
  - GPS and time calibration signal reception is not possible when the watch's temperature is less than approximately  $-10^{\circ}\text{C}$  ( $14^{\circ}\text{F}$ ) or greater than approximately  $60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ ).

E-6

- Even if you are unable to perform a GPS signal and/or time calibration signal receive operation for some reason, the watch will keep time with average monthly accuracy of  $\pm 15$  seconds.

**Important!**

- If the current time and day setting is wrong after you perform one of the procedures under "Time Calibration Signal Auto Receive", "GPS Signal Auto Receive", or "Receiving GPS Time Information", try acquiring position information (GPS) and then perform the time/day setting procedure again.
- If you feel that the current time and/or day indicator are not in the correct positions, you can adjust their alignment. For details, see the Operation Guide available at the CASIO website.
- Time calibration signal reception is normally possible in the areas below. Japan, China, North America, Europe. For details, see the Operation Guide available at the CASIO website.
- For details about the following operations, see the Operation Guide available at the CASIO website: Configuring Home City (time zone), summer time, current time, and current day settings manually. <http://world.casio.com/support/>

B

E-7

## Timekeeping (Based on GPS Signals)

### Appropriate Signal Reception Location (GPS Signal)

When performing GPS signal reception, move the watch outside where there is a clear view of the sky above, with no obstructing buildings, trees, or other objects.



#### Note

- If you experience signal reception problems, keep the watch still and point its display straight up at the sky.
- While a receive operation is being performed, take care to avoid covering the watch face with your sleeve.
- You may experience GPS signal reception problems in the areas described below.
  - Where the view of the sky above is narrow
  - Near trees or buildings
  - Near a train station, airport, or other congested areas

• GPS signal reception is not possible in the areas described below.

- Where the sky is not visible
- Underground or in a tunnel
- Indoors (Reception may be possible near a window.)
- Near wireless communication equipment or other devices that generate magnetism

E-8

## Performing a GPS Signal Receive Operation Manually

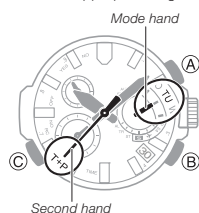
### ◆ Acquiring GPS Position Information

When position information is acquired successfully, the watch is able to determine its current location and adjust its time and day setting accordingly.

#### Important!

- Perform this operation in the Timekeeping Mode (not in the Airplane Mode). See "Mode Reference Guide" (page E-14).

1. Move to a location appropriate for signal reception and orient the watch so its face is pointing straight upwards.



2. Hold down (B) for at least three seconds until the second hand moves to **T+P**. If the second hand moves to any other position besides **T+P**, keep (B) depressed until it moves to **T+P**.
  - Position information reception takes anywhere from about 30 seconds to two minutes. It can take as long as 13 minutes.
  - Successful acquisition of position information will automatically display the time and day for the resulting location.
  - In the normal (not Airplane Mode) Timekeeping Mode, the mode hand indicates the current day of the week.
  - Position information acquisition requires large amounts of power. Perform the acquisition operation only when it is required.

E-9

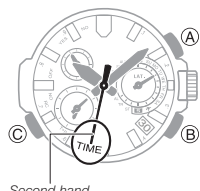
### ◆ Receiving GPS Time Information

Perform this operation when you suspect that the time normally indicated by the watch is not correct.

- If the GPS signal time information receive operation is successful the watch will automatically adjust the current time and day settings of the Home City (time zone).

#### Important!

- Perform this operation in the Timekeeping Mode (not in the Airplane Mode). See "Mode Reference Guide" (page E-14).



1. Move to a location appropriate for signal reception and orient the watch so its display is pointed straight up at the sky. See "Appropriate Signal Reception Location (GPS Signal)" (page E-8).

2. Hold down (B) for at least one second. Release the button as soon as the second hand points to **TIME**.
  - Reception normally takes anywhere from seven seconds to one minute. It can take as long as 13 minutes.
  - When the receive operation is successful, the watch will adjust its current time and day settings automatically.
  - This operation requires large amounts of power. Perform it only when necessary.

Second hand

E-10

## GPS Signal Auto Receive

#### Important!

- Perform the signal receive operation in the Timekeeping Mode (not in the Airplane Mode). See "Mode Reference Guide" (page E-14).

- **GPS signal time information is received automatically whenever all of the conditions described below are satisfied.**

- The current time is between 6:00 a.m. and 10:00 p.m.
- The face of the watch has been exposed continuously for about one or two minutes to light equivalent to the brightness near a window on a clear day.
- All time calibration signal receive operations performed during the previous night were unsuccessful.

C

E-11

## Timekeeping (Based on a Time Calibration Signal)

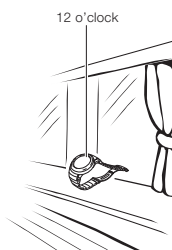
### Appropriate Signal Reception Location (Time Calibration Signal)

- Keep the watch away from metal and position it so its 12 o'clock side is facing a window. Avoid moving the watch as much as possible and do not perform any watch operations while a signal receive operation is in progress.

- **You may experience time calibration signal reception problems in the areas described below.**

- Among or near buildings
- While riding in a vehicle
- Near household appliances, office machines, mobile phones, etc.
- On a construction site, in an airport, or any other location where radio wave interference occurs
- Near high-voltage lines
- In mountainous areas or behind a mountain

- Always check the time setting on the day there should be switch between standard time and summer time (DST). If the setting is not correct (due to signal reception failure), turn DST on or off manually as required.



E-12

## Time Calibration Signal Auto Receive

#### Important!

- To perform time calibration signal auto receive, the watch must be in the Timekeeping Mode (not in the Airplane Mode). See "Mode Reference Guide" (page E-14).

- **Leave the watch in a location that is appropriate for time calibration signal reception between the hours of midnight and 5:00 a.m. See "Appropriate Signal Reception Location (Time Calibration Signal)" (page E-12).**

- The second hand will point to **RC** while time calibration signal reception is in progress.
- Reception normally takes anywhere from about two to ten minutes, but it can take as long as 20 minutes.
- When the receive operation is successful, the time and day settings will be adjusted automatically.

## Mode Reference Guide

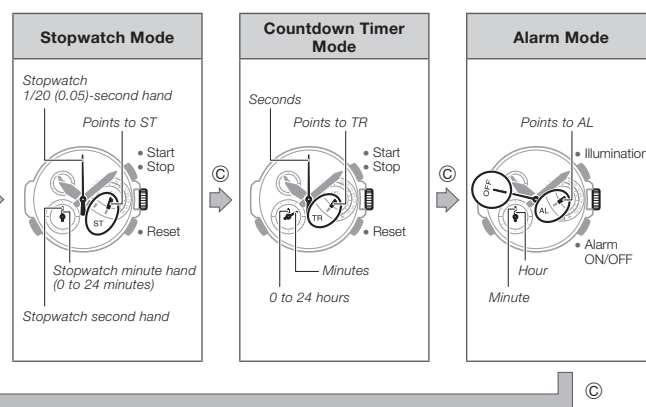
- Use (C) to navigate between modes.

### Timekeeping Mode

- In the Timekeeping Mode (not in the Airplane Mode), the mode hand will point to the current day of the week.
- In the Airplane Mode, the day of the week hand points to the airplane (✈) mark instead of the day of the week.

- Pressing (A) turns on the illumination.
- To check the last receive result, press (B) once.
- Holding down (B) for about one second will start a GPS time information receive operation.
- Holding down (B) for about three seconds will start a GPS position information acquisition operation.
- Press (C) once to enter the Stopwatch Mode.

- Holding down (C) for two seconds in any mode returns to the Timekeeping Mode.

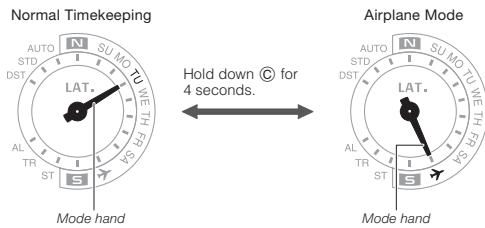


E-14

E-15

## Using the Watch in an Aircraft (Airplane Mode)

- Switch to the Airplane Mode whenever you are inside an aircraft or in any other area where radio wave reception is prohibited or restricted.
- Entering the Airplane Mode disables GPS signal and time calibration signal reception.
- While in the Timekeeping Mode, you can enter or exit the Airplane Mode by holding down **C** for at least four seconds. If you are in another mode, the watch will enter the Timekeeping Mode about two seconds after you hold down **C**. Keep the button depressed and the watch will enter or exit the Airplane Mode.



E-16

## Using the Crown

- Before performing a crown operation, rotate it towards you to unlock (unscrew) it.
- You can change the following settings by operating the watch's crown: World Time City (time zone), Home City (time zone), summer time (DST), Timer, Alarms, and current time.
- For details about crown operations, see the Operation Guide available at the CASIO website. <http://world.casio.com/support/>

### Important!

- When not using the crown, be sure to rotate it away from you to relock it (screw it back in). This protects against damage due to impact and loss of water resistance.

B

E-17

## Specifications

- Accuracy at normal temperature:** ±15 seconds a month (no adjustment by signal information)
- Timekeeping :** Hour, minutes, seconds, 24-hour, day, day of the week  
 Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099  
 Other: Home City (Time Zone) and World Time City (Time Zone) can be assigned one of 40 time zones and Coordinated Universal Time; Daylight Saving Time (summer time)/Standard Time auto switching
- Signal receive function:** GPS signal auto receive, manual receive  
 Time calibration signal auto receive  
 Auto transmitter selection (for JJY, MSF/DCF77)  
 Receivable call signs: JJY (40 kHz/60 kHz), BPC (68.5 kHz), WWVB (60 kHz), MSF (60 kHz), DCF77 (77.5 kHz)  
 Last reception result display  
 Manual and auto standard time/summer time switching
- Stopwatch:** Measuring capacity: 23'59.95"  
 Measuring unit: 1/20 (0.05) seconds  
 Measuring modes: Elapsed time
- Countdown Timer:**  
 Measuring unit: 1 second  
 Input range: 24 hours (1-minute increments)
- Alarm:** Daily alarm
- Other:** LED light; Power Saving; Low battery alert; Auto Correction of Hand Home Positions

E-18

C

### Power Supply: Solar panel and one rechargeable battery

- Approximately 7 months
- Not exposed to light under the conditions below.
- GPS time information receive: 1 operation (approximately 10 seconds) every 2 days
- GPS time position information receive: 1 operation (approximately 36 seconds)/month
- Light: 1 operation/day
- Alarm: 1 operation/day

E-19