

Operation Guide 5366

CASIO

Congratulations upon your selection of this CASIO watch.

ENGLISH

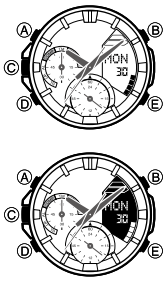
Applications

This watch has built-in sensors that measure direction and temperature.
Measurement results are indicated by the watch's hands and digital displays. These features make this watch useful when hiking, mountain climbing, or when engaging in other such outdoor activities.

Warning!

- The measurement functions built into this watch are not intended for taking measurements that require professional or industrial precision. Values produced by this watch should be considered as reasonable representations only.
- When engaging in mountain climbing or other activities in which losing your way can create a dangerous or life-threatening situation, always use a second compass to confirm direction readings.
- 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



- Depending on the model of your watch, digital display text appears either as dark figures on a light background, or light figures on a dark background. All examples in this manual are shown using dark figures on a light background.
- Button operations are indicated using the letters shown in the illustration.
- 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.

Things to check before using the watch

1. Check the Home City and the daylight saving time (DST) setting.

Use the procedure under "To configure Home City settings" (page E-13) to configure your Home City and daylight saving time settings.

Important!

- Proper World Time Mode data depends on correct Home City, time, and date settings in the Timekeeping Mode. Make sure you configure these settings correctly.

2. Set the current time.

See "Configuring Current Time and Date Settings" (page E-15).

The watch is now ready for use.

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Mode Reference Guide

Your watch has 8 "modes". The mode you should select depends on what you want to do.

To do this:	Enter this mode:	See:
• View the current date in the Home City • Configure Home City and daylight saving time (DST) settings • Configure time and date settings	Timekeeping Mode	E-12
• Determine your current bearing or the direction from your current location to a destination as a direction indicator and angle value • Determine your current location using the watch and a map	Digital Compass Mode	E-20
Determine the temperature at your current location	Thermometer Mode	E-30
Use the stopwatch to measure elapsed time	Stopwatch Mode	E-34
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Use the countdown timer	Countdown Timer Mode	E-38
View the current time in one of 29 cities (29 time zones) around the globe	World Time Mode	E-40
Set an alarm time	Alarm Mode	E-43

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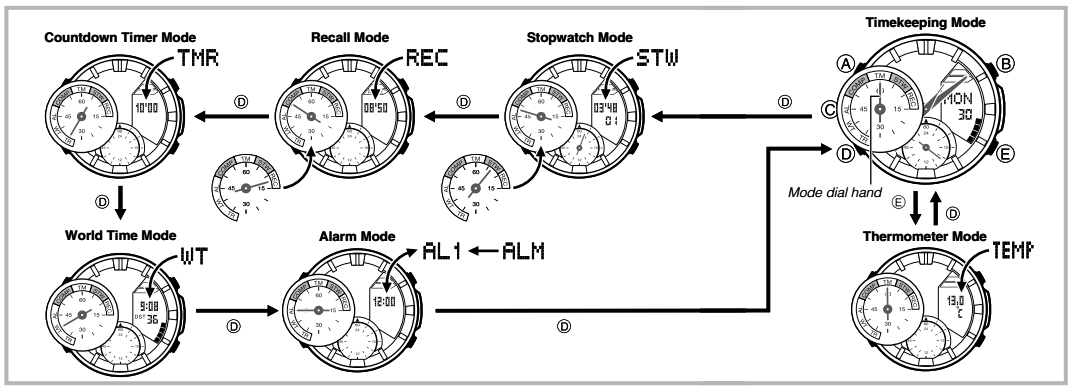
Selecting a Mode

- The illustration below shows which buttons you need to press to navigate between modes.
- To return to the Timekeeping Mode from any other mode, hold down Ⓓ for about two seconds.



- The mode dial hand indicates the watch's current mode.

General Functions (All Modes)

- The functions and operations described in this section can be used in all of the modes.

Direct Timekeeping Mode Access

- To enter the Timekeeping Mode from any other mode, hold down Ⓓ for about two seconds.

Auto Return Features

- The watch will automatically return to the Timekeeping Mode if you do not perform any button operation for a particular amount of time in each mode.

Mode Name	Approximate Elapsed Time
Alarm	3 minutes
Digital Compass	1 minute
Thermometer	1 to 2 minutes
Setting screen (digital setting flashing)	2 to 3 minutes

Initial Screens

- When you enter the Timekeeping, Alarm, World Time, or Digital Compass Mode, the data you were viewing when you last exited the mode appears first.

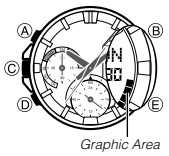
Scrolling

- The Ⓔ and Ⓑ buttons are used on the setting screen to scroll through data on the digital display. In most cases, holding down these buttons during a scroll operation scrolls through the data at high speed.

Graphic Area

- The graphic area along the edge of the digital display indicates the seconds count in the Timekeeping Mode (page E-12), Stopwatch Mode (page E-34), Timer Mode (page E-38), and World Time Mode (page E-40).

Example:

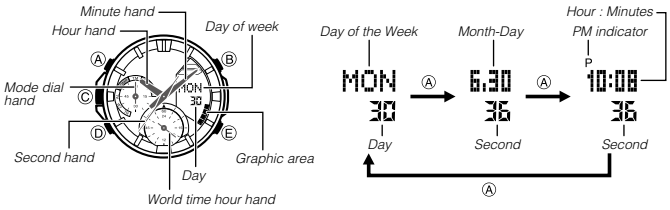


Timekeeping

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

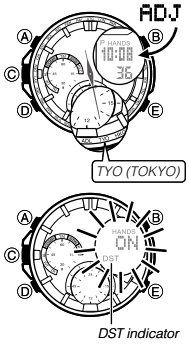
- Each press of Ⓐ in the Timekeeping Mode will change digital display contents as shown below.
- The graphic area (page E-11) shows the seconds count.

Date Screen



Configuring Home City Settings

There are two Home City settings: actually selecting the Home City and selecting either standard time or daylight saving time (DST).



To configure Home City settings

1. In the Timekeeping Mode, hold down Ⓐ until **ADJ** appears in the digital display.
   - When you release Ⓐ (after **ADJ** appears), the second hand will move to the city code of the currently selected Home City. This is the setting mode.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.
   - The watch will exit the setting mode automatically if you do not perform any operation for about two or three minutes.
2. Use Ⓔ (clockwise) and Ⓑ (counterclockwise) to move the second hand between the city codes.
   - Keep moving the second hand until it is pointed at the city code you want to select as your Home City.
   - For details about city codes, see the "City Code Table" at the back of this manual.
3. Press Ⓓ.
   - This will cause the **DST** indicator and the DST setting of the currently selected Home City to appear on the digital display.

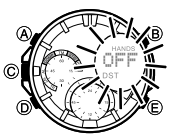
4. Press Ⓔ to toggle the DST setting between daylight saving time (**ON**) and standard time (**OFF**).
   - Note that you cannot switch between standard time and daylight saving time (DST) while UTC is selected as your Home City.
5. After all of the settings are the way you want, press Ⓐ to exit the setting screen.
   - The **DST** indicator appears to indicate that daylight saving time is turned on.

Note

- After you specify a city code, the watch will use UTC* offsets in the World Time Mode to calculate the current time for other time zones based on the current time in your Home City.

** Coordinated Universal Time, the world-wide scientific standard of timekeeping. The reference point for UTC is Greenwich, England.*

To change the daylight saving time (summer time) setting

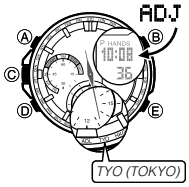


1. In the Timekeeping Mode, hold down Ⓐ until **ADJ** appears in the digital display.
   - When you release Ⓐ (after **ADJ** appears), the second hand will move to the city code of the currently selected Home City. This is the setting mode.
2. Press Ⓓ.
   - This will cause the **DST** indicator and the DST setting of the currently selected Home City to appear on the digital display.
3. Press Ⓔ to toggle the DST setting between daylight saving time (**ON**) and standard time (**OFF**).
4. After all of the settings are the way you want, press Ⓐ to exit the setting screen.
   - The **DST** indicator appears to indicate that daylight saving time is turned on.

Configuring Current Time and Date Settings

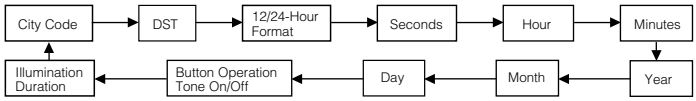
You can use the procedure below to adjust the Timekeeping Mode time and date settings if they are off. Changing the digital Home City data should cause the analog time setting to change accordingly. If the analog time does not indicate the digital time, check the home positions of the hands and make adjustments if necessary (page E-18).

To change the current time and date settings



1. In the Timekeeping Mode, hold down Ⓐ until **ADJ** appears in the digital display.
   - When you release Ⓐ (after **ADJ** appears), the second hand will move to the city code of the currently selected Home City. This is the setting mode.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.

2. Press Ⓓ to move the flashing in the sequence shown below to select the other settings.



- The following steps explain how to configure timekeeping settings only.

3. When the timekeeping setting you want to change is flashing, use Ⓔ and/or Ⓑ to change it as described below.

Screen	To do this:	Do this:
P 10:08	Change the city code indicated by the second hand	Use Ⓔ (clockwise) and Ⓑ (counterclockwise).
OFF DST	Toggle between daylight saving time (**ON**) and standard time (**OFF**).	Press Ⓔ.
12H	Toggle between 12-hour (**12H**) and 24-hour (**24H**) timekeeping.	Press Ⓔ.
36	Reset the seconds to **00** (If the current seconds count is between 30 and 59, one is added to the minute count).	Press Ⓔ.
P 10:08	Change the hour or minutes	Use Ⓔ (+) and Ⓑ (–).
2014 6.30	Change the year, month, or day	

4. After all of the settings are the way you want, press Ⓐ to exit the setting screen.

Note

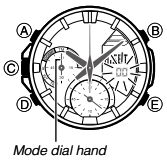
- For information about selecting a Home City and configuring the DST setting, see “Configuring Home City Settings” (page E-13).
- While the 12-hour format is selected for timekeeping, a **P** (PM) indicator will appear for times from noon to 11:59 p.m. No indicator appears for times from midnight to 11:59 a.m. With 24-hour format, time is displayed from 0:00 to 23:59, without any **P** (PM) indicator.
- 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 batteries replaced.
- The day of the week changes automatically when the date changes.
- Refer to the pages shown below for more information on Timekeeping Mode settings.
  - Button operation tone on/off: “To enable or disable the button operation tone” (page E-50)
  - Illumination duration setting: “To change the illumination duration” (page E-46)

Hand Home Position Adjustment

Strong magnetism or impact can cause the hands of the watch to be off.

- Home position adjustment is not necessary when the analog time and digital time are the same time in the Timekeeping Mode.

To adjust home positions



1. In the Timekeeping Mode, hold down Ⓐ and keep it depressed for about five seconds until **H.SET** appears on the digital display.
   - When you release Ⓐ after **H.SET** appears, the second hand will move to 12 o’clock. This indicates the second hand home position adjustment mode.
   - Though **ADJ** will appear on the digital display about two seconds after you hold down Ⓐ, do not release the button yet. Keep it depressed until **H.SET** appears.
   - Use the Ⓓ button to select a hand for adjustment. Each press of Ⓓ cycles in sequence from the second hand, to the hour and minute hands, to the mode dial hand, and then to the lower dial hand. Selecting a hand causes it to move to 12 o’clock, and causes the content of the digital display to change as shown in the table below.

Display	Selected hand
Flashing **00**	Second hand
Flashing **0:00**	Hour and minute hands
Flashing **SUB 1**	Mode dial hand
Flashing **SUB 2**	Lower dial hand

   - If the selected hand does not move exactly to 12 o’clock, perform step 2 below to adjust it.
   - The watch will return to regular timekeeping automatically if you do not perform any operation for about two or three minutes. Any changes you have made to settings up to that point will be saved.
2. Use Ⓔ (+) and Ⓑ (–) to adjust the position of the currently selected hand.
   - Holding down either button will cause the hand to move at high speed. Once started, high-speed hand movement will continue even if you release the button. To stop high-speed hand movement, press any button.
   - The second hand, mode dial hand and lower dial hand will automatically stop high-speed movement after they complete one revolution. The minute hand will stop automatically after 12 revolutions.
3. Press Ⓐ to exit home position correction and return to regular timekeeping.

Note

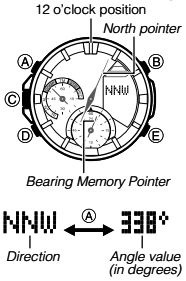
- After performing home position adjustment, enter the Timekeeping Mode and check to make sure that the analog hands and the digital display indicate the same time. If they do not, perform home position adjustment again.

Taking Direction Readings

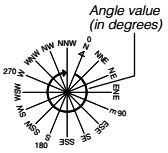
The watch has a magnetic sensor that makes it possible to take digital compass readings. You can use the digital compass to find the direction to a specific objective and to determine your current position.

- See “Magnetic North and True North” (page E-28) for information about the two types of north. For information about maximizing digital compass accuracy, see “Calibrating Direction Readings” (page E-24) and “Digital Compass Precautions” (page E-28).

To take a direction reading



1. Point the 12 o’clock position of the watch in the direction you want to read.
2. In any mode (except a setting mode), hold down Ⓒ for 0.5 seconds to perform a digital compass operation.
   - **COMP** will appear on the digital display and then direction reading will start.
   - After the watch completes a reading, the second hand will indicate north and a literal direction indication that shows the direction that 12 o’clock is pointed will appear on the digital display. See “Digital Compass Readings” (page E-21) for information about how direction readings are indicated by the watch.
   - Now, each press of Ⓐ will cause the information on digital display to switch between the current direction indication and an angle value.
   - At this time, the Bearing Memory pointer will be pointing at the direction currently stored in Bearing Memory.

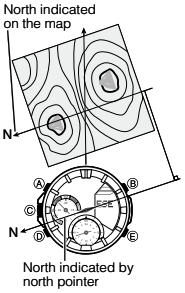


   - The watch will take readings for about one minute, and then automatically return to the mode it was in previously. If you press Ⓒ during the one-minute period, the reading operation will be extended about one minute from when the button is pressed. To return the watch will automatically return to the mode it was previously in, press Ⓓ or allow one minute to elapse.

Digital Compass Readings

- The following table shows the meanings of each of the direction abbreviations that appear on the digital display.

Direction	Meaning	Direction	Meaning	Direction	Meaning	Direction	Meaning
N	North	**NNE**	North-northeast	**NE**	Northeast	**ENE**	East-northeast
E	East	**ESE**	East-southeast	**SE**	Southeast	**SSE**	South-southeast
S	South	**SSW**	South-southwest	**SW**	Southwest	**WSW**	West-southwest
W	West	**WNW**	West-northwest	**NW**	Northwest	**NNW**	North-northwest

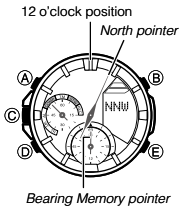


Example: Determining your current position and your objective on a map

Having an idea of your current location and the direction to your destination is important when mountain climbing or hiking. In this example, we show you how to plot directions on a map and determine your current location using direction measurements taken by the watch.

1. In any mode (except a setting mode), hold down Ⓒ for 0.5 seconds.
2. Rotate the map (without moving the watch) until north on the map is aligned with north as indicated by the watch’s second hand. Depending on how the watch is set up, it may be indicating magnetic north or true north.
   Magnetic north: Indicates north in accordance with the Earth’s magnetic field.
   True north: Indicates the direction to the North Pole.
   - For information about setting the watch up to indicate magnetic north or true north, see “Magnetic Declination Correction” (page E-27).
3. Determine your location and destination by checking the map and the geographic contours around you.

Using Bearing Memory



Bearing Memory lets you temporarily store and display a single direction reading so you can use it as a reference when you take subsequent readings. The bearing currently stored in Bearing Memory is indicated by the Bearing Memory pointer.

To store a direction angle reading in Bearing Memory

1. Point the 12 o’clock position of the watch in the direction of your reference bearing.
2. Press Ⓒ to start a digital compass operation (page E-20).
3. While direction readings are being taken, press Ⓔ to store the current reading in Bearing Memory.
   - The stored reading is indicated by the Bearing Memory pointer. Since you pointed the 12 o’clock position of the watch in the direction of your reference bearing, that direction is what is indicated by the Bearing Memory pointer.
   - Holding down Ⓔ for about two seconds will reset the Bearing Memory to zero. At this time, the Bearing Memory pointer will point in the same direction as the second hand.
   - The watch will take readings for about one minute, and then automatically return to the mode it was in previously. If you press Ⓒ during the one minute period, the reading operation will be extended about one minute from when the button is pressed.

Bearing Memory Pointer

The Bearing Memory pointer indicates the bearing value that is currently stored in Bearing Memory.

Example:

Bearing straight ahead

Bearing Memory direct to the left

Bearing straight back

Calibrating Direction Readings

You can use the information in this section to calibrate direction readings, which helps to improve digital compass accuracy.

Direction Reading Calibration Methods

Important!

- To ensure correct direction readings by this watch, be sure to perform bidirectional calibration before using it. The watch may produce incorrect direction readings if you do not perform bidirectional calibration.
- Keep the watch away from audio speakers, magnetic necklace, cell phone, and other devices that generate strong magnetism. Exposure to strong magnetism can magnetize the watch and cause incorrect direction readings. If incorrect readings continue even after you perform bidirectional calibration, it could mean that your watch has been magnetized. If this happens, contact your original retailer or an authorized CASIO Service Center.

Bidirectional Calibration

- Use this method when using the watch to take readings in an area where magnetic force is present, or if you notice that the readings produced by the watch are different from another compass.

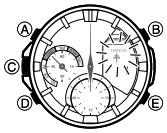
Magnetic Declination Calibration

- You can use this method to specify a magnetic declination value, which sets the digital compass up to take magnetic north or true north readings.

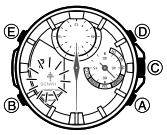
Precautions about bidirectional calibration

- You can use any two opposing directions for bidirectional calibration. You must, however, make sure that they are 180 degrees opposite each other. Remember that if you perform the procedure incorrectly, you will get wrong bearing sensor readings.
- Do not move the watch while calibration of either direction is in progress.
- You should perform bidirectional calibration in an environment that is the same as that where you plan to be taking direction readings. If you plan to take direction readings in an open field, for example, calibrate in an open field.

To perform bidirectional calibration



1. In the Digital Compass Mode, hold down Ⓐ for two seconds.
   - This will cause the bidirectional calibration screen to appear on the digital display.
   - The second hand will move to 12 o'clock. This is indicated by an upward pointing arrow (▲) and **1** on the digital display.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.
2. Place the watch on a level surface facing any direction you want, and press Ⓒ to calibrate the first direction.
   - When calibration is successful, **OK** will appear in the display for a short while, and then a downward pointing arrow (▼) and **2** appear on the digital display. This indicates that the watch is ready for calibration of the second direction.

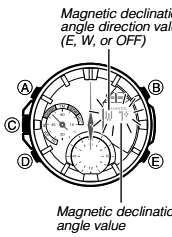


3. Rotate the watch 180 degrees.
4. Press Ⓒ again to calibrate the second direction.
   - After calibration is successful, the digital display will show **OK** and then the watch will return to the Digital Compass Mode.
   - **ERR** will appear on the digital display for a short while if an error occurs. After that, the digital display will automatically return to the first direction calibration screen (the one that appears after Ⓐ is held down in step 1).

- **Magnetic Declination Correction**

With magnetic declination correction, you input a magnetic declination angle (difference between magnetic north and true north), which allows the watch to indicate true north. You can perform this procedure when the magnetic declination angle is indicated on the map you are using. Note that you can input the declination angle in whole degree units only, so you may need to round off the value specified on the map. If your map indicates the declination angle as 7.4°, you should input 7°. In the case of 7.6° input 8°, for 7.5° you can input 7° or 8°.

To perform magnetic declination correction

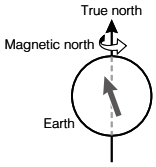


1. In the Digital Compass Mode, hold down Ⓐ for two seconds.
   - This will cause the bidirectional calibration screen to appear on the digital display.
2. Press Ⓓ to enter the magnetic declination correction mode.
3. Use Ⓔ (East) and Ⓑ (West) to change the settings.
   - The following explains magnetic declination angle direction settings.
     OFF: No magnetic declination correction performed. The northerly magnetic declination setting will be 0°.
     E: When magnetic north is to the east (east declination)
     W: When magnetic north is to the west (west declination)
   - You can select a value within the range of W 90° to E 90° with these settings.
   - You can turn off (**OFF**) magnetic declination correction by pressing Ⓔ and Ⓑ at the same time.
   - The illustration, for example, shows the value you should input and the direction setting you should select when the map shows a magnetic declination of 7° West.

4. When the setting is the way you want, press Ⓐ to exit the setting screen.

Digital Compass Precautions

Magnetic North and True North



The northerly direction can be expressed either as magnetic north or true north, which are different from each other. Also, it is important to keep in mind that magnetic north moves over time.

- Magnetic north is the north that is indicated by the needle of a compass.
- True north, which is the location of the North Pole of the Earth's axis, is the north that is normally indicated on maps.
- The difference between magnetic north and true north is called the "declination". The closer you get to the North Pole, the greater the declination angle.

Location

- Taking a direction reading when you are near a source of strong magnetism can cause large errors in readings. Because of this, you should avoid taking direction readings while in the vicinity of the following types of objects: permanent magnets (magnetic necklaces, etc.), concentrations of metal (metal doors, lockers, etc.), high tension wires, aerial wires, household appliances (TVs, personal computers, washing machines, freezers, etc.).
- Accurate direction readings are impossible while in a train, boat, air plane, etc.
- Accurate readings are also impossible indoors, especially inside ferroconcrete structures. This is because the metal framework of such structures picks up magnetism from appliances, etc.

Storage

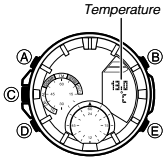
- The precision of the bearing sensor may deteriorate if the watch becomes magnetized. Because of this, you should store the watch away from magnets or any other sources of strong magnetism, including: permanent magnets (magnetic necklaces, etc.) and household appliances (TVs, personal computers, washing machines, freezers, etc.).
- Whenever you suspect that the watch may have become magnetized, perform the procedure under "To perform bidirectional calibration" (page E-26).

Other

- Any ongoing digital compass operation is paused temporarily while the watch is performing an alert operation (daily alarm, Hourly Time Signal, countdown timer alarm) or while illumination is turned on (by pressing Ⓑ). The digital compass operation resumes for its remaining duration after the operation that caused it to pause is finished.
- The auto light switch is disabled while a digital compass operation is in progress.

Taking Temperature Readings

This watch uses a temperature sensor to measure temperature.



To take temperature readings

1. While in the Timekeeping Mode, press Ⓔ to enter the Thermometer Mode.
   - **TEMP** will appear on the digital display and temperature measurement will start. After about one second, the measurement reading will appear on the digital display.
   - The watch will continue to take temperature readings every five seconds for one or two minutes.
2. Press Ⓓ to return to the Timekeeping Mode.
   - The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one or two minutes after entering the Thermometer Mode.

Temperature

- Temperature is displayed in units of 0.1°C (or 0.2°F).
- The displayed temperature value changes to **- - -** °C (or °F) if a measured temperature falls outside the range of –10.0°C to 60.0°C (14.0°F to 140.0°F). The temperature value will reappear as soon as the measured temperature is within the allowable range.

Display Units

You can select either Celsius (°C) or Fahrenheit (°F) for the displayed temperature value. See "To specify the temperature unit" (page E-33).

Temperature Sensor Calibration

The temperature sensor built into the watch is calibrated at the factory and normally require no further adjustment. If you notice serious errors in the temperature readings produced by the watch, you can calibrate the sensor to correct the errors.

Important!

- Incorrectly calibrating the temperature sensor can result in incorrect readings. Carefully read the following before doing anything.
  – Compare the readings produced by the watch with those of another reliable and accurate thermometer.
  – If adjustment is required, remove the watch from your wrist and wait for 20 or 30 minutes to give the temperature of the watch time to stabilize.

To calibrate the temperature sensor

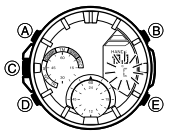
1. Take a reading with another measurement device to determine the exact current temperature.
2. With the watch in the Timekeeping Mode, press Ⓔ to enter the Thermometer Mode.
3. Hold down Ⓐ for about two seconds until the temperature reading disappears from the digital display. Release Ⓐ at this time, which will cause the temperature reading to flash, which indicates the setting mode.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.

4. Use Ⓔ (+) and Ⓑ (–) to calibrate the temperature value with the reading of another instrument.
   - Each press of a button changes the temperature value in units of 0.1°C (0.2°F).
   - To return the currently flashing value to its initial factory default setting, press Ⓔ and Ⓑ at the same time.
5. Press Ⓐ to return to the Thermometer Mode.

Thermometer Precautions
Temperature measurements are affected by your body temperature (while you are wearing the watch), direct sunlight, and moisture. To achieve a more accurate temperature measurement, remove the watch from your wrist, place it in a well ventilated location out of direct sunlight, and wipe all moisture from the case. It takes approximately 20 to 30 minutes for the case of the watch to reach the actual surrounding temperature.

Specifying Temperature Unit

Use the procedure below to specify the temperature unit to be used in the Thermometer Mode.



Important!
When **TOKYO** is selected as the Home City, the temperature unit is set automatically to Celsius (**°C**). This setting cannot be changed.

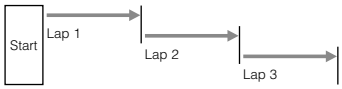
To specify the temperature unit
1. In the Timekeeping Mode, press Ⓔ to enter the Thermometer Mode.
2. Hold down Ⓐ for about two seconds until the temperature reading disappears from the digital display. Release Ⓐ at this time, which will cause the temperature reading to flash, which indicates the setting mode.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.
3. Press Ⓓ to display the current temperature unit on the digital display.
4. Press Ⓔ to toggle the temperature unit between **°C** (Celsius) and **°F** (Fahrenheit).
5. After the setting is the way you want, press Ⓐ to exit the setting screen.

Using the Stopwatch

You can use the Stopwatch Mode to measure, record, and recall lap times and split times. Up to 100 lap times can be stored in memory and a record of the fastest lap time is also maintained. Though no more lap times are stored after 100 times are in memory, the fastest lap time continues to be updated as required. Starting a new elapsed time operation clears all of the memories (including fastest lap time).

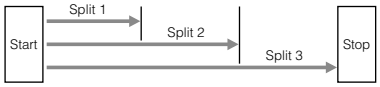
What is a lap time?
A lap time is the time elapsed over a specific segment of a race.

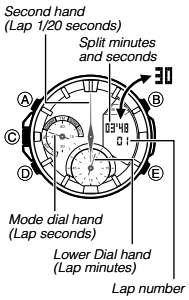
Example: Car race on an oval track



What is a split time?
A split time is the time elapsed from the beginning of a race to any point within the race.

Example: During a marathon, the time at 10km, 20km, etc.





To enter the Stopwatch Mode
Use Ⓓ to select the Stopwatch Mode as shown on page E-8.
The mode dial hand will move to **STW**, and then to the lap seconds value.
- The lap time is indicated by the mode dial hand, the lower dial hand, and the seconds hand.
- The split time is shown on the digital display.

To perform an elapsed time operation

Ⓔ Start → Ⓔ Stop → Ⓔ (Resume) → Ⓔ (Stop) → Ⓐ Reset

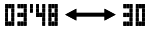
To perform lap time measurement

Ⓔ Start → Ⓐ Lap (LAP1) → Ⓐ Lap (LAP2) → ..... → Ⓔ Stop → Ⓐ Reset

- Each press of Ⓐ records a lap time. You can record up to 100 lap times. After that, you can still perform lap time operations, but they will not be recorded (though the fastest lap time continues to be updated as required).
- Use the Recall Mode (page E-37) to view data stored in memory.

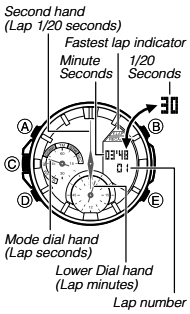
Digital display
During timing
Displays split minutes and seconds

When paused
Alternates between minutes, seconds, and 1/20 seconds



Note
- The Stopwatch Mode can indicate elapsed time up to 59 minutes, 59.95 seconds.
- The second hand, which indicates the 1/20-second (0.05-second) count during stopwatch operation, moves only 30 seconds after an elapsed time measurement operation is started or resumed, or after a lap time is cleared. After that, the second hand stops.
- Once started, stopwatch timing continues until you press Ⓔ to stop it, even if you exit the Stopwatch Mode to another mode.

Recall Mode



Use the Recall Mode to recall and delete records stored by the Stopwatch Mode.

To enter the Recall Mode
Use Ⓓ to select the Recall Mode as shown on page E-8.

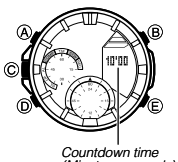
To recall stopwatch records
In the Recall Mode, use Ⓔ to scroll through the lap times stored in watch memory.
- Pressing Ⓐ will cause **F.LAP** to appear on the digital display along with the current fastest lap time. Press Ⓐ again to return to the Recall Mode screen.

To delete lap times from watch memory
While the stopwatch is stopped (no ongoing elapsed time operation), hold down Ⓐ for about two seconds to clear the lap time.

Note
- The screen (lap time or fastest lap time) that appears first when you enter Recall Mode is the one that was displayed when you last exited the Recall Mode.
- For a fastest lap time that was recorded after 100 lap times are recorded, hyphens (**- -**) will be displayed in place of the lap number of the fastest lap time.

Using the Countdown Timer

The countdown timer can be configured to start at a preset time and sound an alarm when the end of the countdown is reached.



To enter the Countdown Timer Mode
Use Ⓓ to select the Countdown Timer Mode as shown on page E-8.
- The mode dial hand will move to **TM** and the digital display will show the current countdown time.

To specify the countdown start time
1. Enter the Countdown Timer Mode.
   - If a countdown is in progress (indicated by the seconds counting down), press Ⓔ to stop it and then press Ⓐ to reset to the current countdown start time.
   - If a countdown is paused, press Ⓐ to reset to the current countdown start time.
2. Hold down Ⓐ until the minute setting of the current countdown start time starts to flash. This is the setting screen.
   - Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.
3. Use Ⓔ (+) and Ⓑ (–) to change the minute.
   - To set the starting value of the countdown time to 60 minutes, set **60'00**.
4. Press Ⓐ to exit the setting screen.

To perform a countdown timer operation

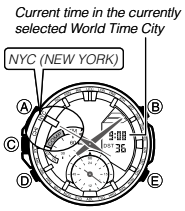
Ⓔ Start → Ⓔ Stop → Ⓔ (Restart) → Ⓔ (Stop) → Ⓐ Reset

- Before starting a countdown timer operation, check to make sure that a countdown operation is not already in progress (indicated by the seconds counting down). If it is, press Ⓔ to stop it and then Ⓐ to reset to the countdown start time.
- An alarm sounds for ten seconds when the end of the countdown is reached. This alarm will sound in all modes. The countdown time is reset to its starting value automatically after the alarm sounds.

To stop the alarm
Press any button.

Checking the Current Time in a Different Time Zone

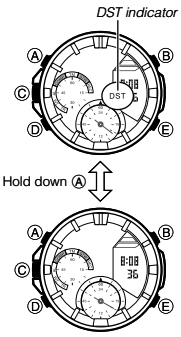
You can use the World Time Mode to view the current time in one of 29 time zones (29 cities) around the globe. The city that is currently selected in the World Time Mode is called the "World Time City".
• You also can swap the current World Time City and Home Time City in the World Time Mode (page E-42).



To enter the World Time Mode
Use Ⓓ to select the World Time Mode as shown on page E-8.
• The mode dial hand will point to **WT**, and second hand will move to the currently selected World Time City.
• The hour and minute hands will indicate the current Timekeeping Mode time.

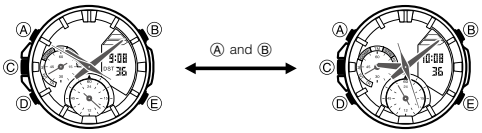
To view the time in another time zone
In the World Time Mode, use Ⓔ (East) to scroll through city codes.
• To change the city code to **UTC**, press Ⓑ and Ⓔ at the same time.

To specify standard time or daylight saving time (DST) for a city



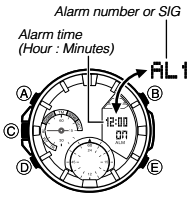
1. In the World Time Mode, use Ⓔ (East) to scroll through the available city codes.
   • Keep scrolling until the city code whose standard time/daylight saving time setting you want to change is shown on the digital display.
2. To toggle between summer time (**DST** indicator in the digital display) and standard time (**DST** indicator not displayed), hold down Ⓐ.
   • Using the World Time Mode to change the DST setting of the city code that is selected as your Home City also will change the Timekeeping Mode time DST setting.
   • Note that you cannot switch between standard time/daylight saving time (DST) while **UTC** is selected as the World Time City.
   • Note that the standard time/daylight saving time (DST) setting affects only the currently selected time zone. Other time zones are not affected.

To swap your Home Time and World Time Cities
1. In the World Time Mode, use Ⓔ to select the city you want to use as your new Home City.
2. To swap, press Ⓐ and Ⓑ at the same time.



• This will make the World Time City you selected in step 1 (**NYC** (NEW YORK)) your new Home City.
• Your previous Home City (**TYO** (TOKYO)) will be your new World Time City.

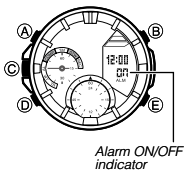
Using the Alarm



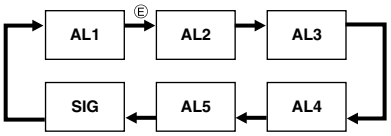
You can set five independent daily alarms. When an alarm is turned on, an alarm will sound for about 10 seconds each day when the time in the Timekeeping Mode reaches the preset alarm time. This is true even if the watch is not in the Timekeeping Mode.
You can also turn on an Hourly Time Signal, which will cause the watch to beep twice every hour on the hour.

To enter the Alarm Mode
Use Ⓓ to select the Alarm Mode as shown on page E-8.
• The mode dial hand will move to **AL**, the digital display will show the currently selected alarm number (**AL1** to **AL5**) and alarm time, or the hourly time signal indicator (**SIG**).
• When you enter the Alarm Mode, the data you were viewing when you last exited the mode appears first.

To set an alarm time



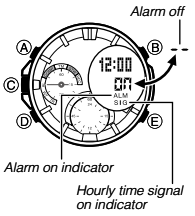
1. In the Alarm Mode, use Ⓔ to scroll through the alarm screens until the one you want to change is shown.



2. Hold down Ⓐ until the hour digits of the alarm setting start to flash.
   • This is the setting screen.
   • Whenever you enter a setting mode, the hour and minute hands will automatically move to positions that allow easier viewing of the digital dials.
3. Press Ⓓ to move the flashing between the hour and minute settings.
4. While a setting is flashing, use Ⓔ (+) and Ⓑ (–) to change it.
   • When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (**P** indicator).
5. Press Ⓐ to exit the setting screen.

To test the alarm
In the Alarm Mode, hold down Ⓔ to sound the alarm.

To turn an alarm and the Hourly Time Signal on and off
1. In the Alarm Mode, use Ⓔ to select an alarm or the Hourly Time Signal.
2. When the alarm or the Hourly Time Signal you want is selected, press Ⓐ to turn it on and off.



• The alarm on indicator (when any alarm is on) and the Hourly Time Signal on indicator (when the Hourly Time Signal is on) are shown on the digital display in all modes.

To stop the alarm
Press any button.

Illumination

The face of the watch is illuminated for easy reading in the dark. The watch's auto light switch turns on illumination automatically when you angle the watch towards your face.
• The auto light switch must be enabled (page E-48) for it to operate.

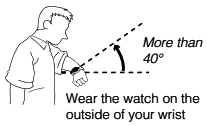
To turn on illumination manually
Press Ⓑ in any mode (except when a flashing setting screen is displayed) to turn on illumination.
• You can use the procedure below to select either 1.5 seconds or three seconds as the illumination duration. When you press Ⓑ, the illumination will remain on for about 1.5 seconds or three seconds, depending on the current illumination duration setting.
• The above operation turn on illumination regardless of whether the auto light switch is enabled or disabled.
• Illumination is disabled while configuring sensor measurement mode settings, and during bearing sensor calibration.

To change the illumination duration
1. In the Timekeeping Mode, hold down Ⓐ until **ADJ** appears in the digital display.
   • When you release Ⓐ (after **ADJ** appears), the second hand will move to the city code of the currently selected Home City. This is the setting mode.
2. Use Ⓓ to cycle through the settings on the digital display until the current illumination duration (**LT1** or **LT3**) is shown.
   • See the sequence in step 2 of the procedure under "To change the current time and date settings" (page E-15) for information about how to scroll through setting screens.

3. Press Ⓔ to toggle the illumination duration between three seconds (**LT3** displayed) and 1.5 seconds (**LT1** displayed).
4. After all of the settings are the way you want, press Ⓐ to exit the setting screen.

About the Auto Light Switch

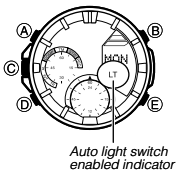
While the Auto Light Switch is enabled, illumination will turn on whenever you position your wrist as described below in any mode.
Moving the watch to a position that is parallel to the ground and then tilting it towards you more than 40 degrees causes illumination to turn on.



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

Note
- The auto light switch is always disabled, regardless of its enabled/disabled setting, when any one of the following conditions exists.
  While an alarm is sounding
  During sensor measurement
  While a bearing sensor calibration operation is being performed in the Digital Compass Mode

To enable or disable the auto light switch



Auto light switch enabled indicator

In the Timekeeping Mode, hold down Ⓑ for about three seconds to toggle the auto light switch between enabled (**LT** shown on the digital display) and disabled (**LT** not displayed).
- The auto light switch enabled indicator (**LT**) is on the digital display in all modes while the auto light switch is enabled.
- The auto light switch remains enabled for about six hours. After that disables automatically.

Illumination Precautions
- Do not look directly at the ultraviolet LED light source.
- Never try to remove the ultraviolet LED from the watch and use it as a light source.
- Do not use a lens or other object to concentrate the ultraviolet LED light.
- Illumination may be hard to see when viewed under direct sunlight.
- Illumination will not turn on while an alarm is sounding, while high-speed hand movement is in progress, while a sensor is taking a reading. Illumination will turn on if Ⓑ is pressed between sensor reading operations.

- Illumination turns off automatically whenever an alarm sounds.
- Frequent use of illumination runs down the battery.

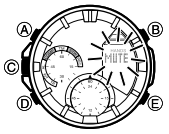
Auto light switch precautions

- Illumination 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 the preset illumination duration (page E-46), 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 illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it 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.
- 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.

Button Operation Tone

When enabled, the button operation tone sounds any time you press one of the watch's buttons. You can enable or disable the button operation tone as desired.
- Even if you disable the button operation tone, the alarm, Hourly Time Signal, and Countdown Timer Mode alarm all operate normally.

To enable or disable the button operation tone



1. In the Timekeeping Mode, hold down Ⓐ until **ADJ** appears in the digital display.
   - When you release Ⓐ (after **ADJ** appears), the second hand will move to the city code of the currently selected Home City. This is the setting mode.
2. Use Ⓓ to cycle through settings on the digital display until the current button operation tone setting (**MUTE** or **KEY** ♪) is shown.
   - See the sequence in step 2 of the procedure under "To change the current time and date settings" (page E-15) for information about how to scroll through setting screens.
3. Press Ⓔ to toggle the button operation tone setting between enabled (**KEY** ♪) and disabled (**MUTE**).
4. After the setting is the way you want, press Ⓐ to exit the setting screen.

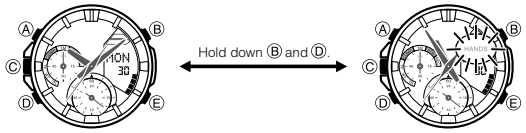
Moving the Hands for Easy Viewing of the Digital Dials

You can use the procedure below to move the analog hands in order to better view a digital dial.

Note
- The analog hands will not move while battery power is low.

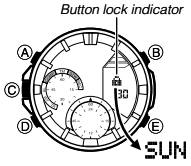
To move the hands and view the digital display, and to move them back

1. Hold down Ⓑ and then, at the same time, hold down Ⓓ.
   - This will cause the hands to move so you can read the digital display.
2. After you are finished reading the display, press Ⓑ and Ⓓ again to move the hands back to their normal positions.



Note
- The hands automatically move away from the digital display whenever you enter a setting mode.
- The hands return to their normal positions in the cases below.
  – When you do not perform any operation for about one hour
  – When the watch returns to the Timekeeping Mode because you press Ⓓ or because of auto return operation
  – When you exit the setting mode

Locking the Watch Buttons



You can use button lock to disable the watch's buttons and protect against unintended operation.
- The Ⓑ (light) button remains enabled even while buttons are locked.
- Buttons are locked in the Timekeeping Mode only.

To lock the watch buttons

In any mode, hold down Ⓓ for about two seconds until the watch enters the Timekeeping Mode. Keep Ⓓ depressed as you press Ⓒ.
- Pressing any button other than the light button while buttons are locked will cause a button lock indicator to appear momentarily on the digital display.

To unlock the watch buttons

Press Ⓓ and Ⓒ at the same time.

Troubleshooting

Time Setting

■ Why is the current time setting off by a couple of hours?
Your Home City setting may be wrong (page E-13). Check your Home City setting and correct it, if necessary.

■ Why is the current time setting off by one hour?
You may need to change your Home City's standard time/daylight saving time (DST) setting. Use the procedure under "To change the current time and date settings" (page E-15) to change the standard time/daylight saving time (DST) setting.

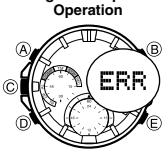
Sensor modes

■ Why can't I change the temperature unit setting?
The temperature unit setting is always Celsius (°**C**) whenever **TOKYO** is selected as the Home City. In this case, the setting cannot be changed.

■ Why does "ERR" appear while a sensor operation is in progress?
Subjecting the watch to strong impact can cause sensor malfunction or improper contact of internal circuitry. When this happens, **ERR** (error) will appear on the digital display and sensor operations will be disabled.

Example:

Digital Compass Operation

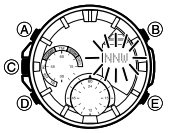


- If **ERR** appears while a measurement operation is being performed in a sensor mode, restart the measurement. If **ERR** appears on the digital display again, it can mean there is something wrong with the sensor.
- If **ERR** keeps appearing during measurement, it could mean there is a problem with the applicable sensor.

Note
- If **ERR** appear during a digital compass operation, the watch will return to the Timekeeping Mode automatically after about 10 seconds.

■ Why does "ERR" appear on the digital display following bidirectional calibration?
If **- - -** appears and then changes to **ERR** (error) while you are performing sensor calibration, it means that there is something wrong with the sensor.
- If **ERR** disappears after about one second, try performing the calibration again.
- If **ERR** keeps appearing, contact your original dealer or nearest authorized CASIO distributor to have the watch checked.

■ **The digital display flashes at one-second intervals.**



- This occurs during a digital compass operation when abnormal magnetism is detected. The watch hands continue to move normally.
- Move the watch away from magnetic accessories, electric devices, computers, and any other devices that generate strong magnetism, and try performing the sensor operation again.
- Try performing the operation again. If abnormal magnetism is not indicated again, you will be able to perform the operation normally.
- If abnormal magnetism detection is indicated again, it may mean that the watch case may have become magnetized or that magnetism conditions are completely different from those where you last performed bidirectional calibration. Perform bidirectional calibration using the procedure under "To perform bidirectional calibration" (page E-26).

Whenever you have a sensor malfunction, take the watch to your original dealer or nearest authorized CASIO distributor as soon as possible.

■ **What causes incorrect direction readings?**

- Incorrect bidirectional calibration. Perform bidirectional calibration (page E-26).
- Nearby source of strong magnetism, such as a household appliance, a large steel bridge, a steel beam, overhead wires, etc., or an attempt to perform direction measurement on a train, boat, etc. Move away from large metal objects and try again.

■ **What causes different direction readings to produce different results at the same location?**

Magnetism generated by nearby high-tension wires is interfering with detection of terrestrial magnetism. Move away from the high-tension wires and try again.

■ **Why am I having problems taking direction readings indoors?**

A TV, personal computer, speakers, or some other object is interfering with terrestrial magnetism readings. Move away from the object causing the interference or take the direction reading outdoors. Indoor direction readings are particularly difficult inside ferro-concrete structures.
Remember that you will not be able to take direction readings inside of trains, airplanes, etc.

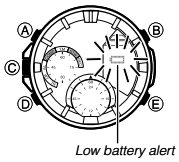
World Time Mode

■ **The time for my World Time City is off in the World Time Mode.**

This could be due to incorrect switching between standard time and daylight saving time.
See "To specify standard time or daylight saving time (DST) for a city" (page E-41) for more information.

Battery

■ **Why is the low battery alert flashing?**



Low battery alert

Battery power is low. Watch operations are disabled while the low battery alert is flashing on the digital display.
If the low battery alert disappears after battery power recovers but then starts to flash again after a short while, it means that you need to have the watch's batteries replaced.

Specifications

Accuracy at normal temperature: ±15 seconds a month

Digital Timekeeping: Hour, minutes, seconds, p.m. (P), month, day, day of the week
Time format: 12-hour and 24-hour
Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099
Other: Three digital display formats (day of the week and day, month, day, and second, hour minute, and second); Home City code (can be assigned one of 29 city codes); standard time / daylight saving time (summer time)

Analog Timekeeping: Hour, minutes (hand moves every 10 seconds), seconds

Digital Compass: 16 directions; Angle value 0° to 359°; Hand indication of north; Calibration (bidirectional); Magnetic declination correction; Bearing Memory

Thermometer:
Measurement and display range: –10.0 to 60.0°C (or 14.0 to 140.0°F)
Display unit: 0.1°C (or 0.2°F)
Measurement timing: Every five seconds in the Thermometer Mode
Other: Calibration; Selectable measurement unit

Bearing Sensor Precision:
Direction: Within ±15°
Values are guaranteed for a temperature range of –10°C to 40°C (14°F to 104°F).
North indicated by second hand: Error within ±20°.

Temperature Sensor Precision:
±2°C (±3.6°F) in range of –10°C to 60°C (14.0°F to 140.0°F)

Stopwatch:
Measuring unit: 1/20 second
Measuring capacity: 59' 59.95"
Measuring modes: Elapsed time, lap times
Lap time (Memories: 100, Fastest lap memory)

Countdown Timer:
Measuring unit: 1 second
Countdown range: 60 minutes
Setting ranges: Countdown start time (1 to 60 minutes, 1-minute increments)

World Time: 29 cities (29 time zones)
Other: daylight saving time/standard time

Alarms: 5 daily alarms; Hourly Time Signal

Illumination: Ultraviolet LED (light-emitting diode); Selectable illumination duration (approximately 1.5 seconds or 3 seconds); Auto Light Switch

Other: Button operation tone on/off, button lock

Battery: Two silver oxide batteries (Type: SR927W)
Approximate battery operating time: 2 years under the following conditions:
- 1 illumination operation (1.5 seconds) per day
- Alarm: 10 seconds/day
- Direction readings: 20 times/month
- Temperature readings: Once/week

Frequent use of illumination runs down the battery. Particular care is required when using the auto light switch (page E-49).

City Code Table

City Code Table

City Code	City name	UTC Offset/ GMT Differential
PPG	PAGO PAGO	–11
HNL	HONOLULU	–10
ANC	ANCHORAGE	–9
LAX	LOS ANGELES	–8
DEN	DENVER	–7
CHI	CHICAGO	–6
NYC	NEW YORK	–5
SCL	SANTIAGO	–4
RIO	RIO DE JANEIRO	–3
FEN	F. DE NORONHA	–2
RAI	PRAIA	–1
UTC		0
LON	LONDON	
PAR	PARIS	+1
ATH	ATHENS	+2
JED	JEDDAH	+3

City Code	City name	UTC Offset/ GMT Differential
THR	TEHRAN	+3.5
DXB	DUBAI	+4
KBL	KABUL	+4.5
KHI	KARACHI	+5
DEL	DELHI	+5.5
DAC	DHAKA	+6
RGN	YANGON	+6.5
BKK	BANGKOK	+7
HKG	HONG KONG	+8
TYO	TOKYO	+9
ADL	ADELAIDE	+9.5
SYD	SYDNEY	+10
NOU	NOUMEA	+11
WLG	WELLINGTON	+12

- Based on data as of June 2013.
- The rules governing global times (UTC offset and GMT differential) and summertime are determined by each individual country.