

Operation Guide 5470

CASIO

Basic Operations

This section provides an overview of the watch and explains operations that are common to all modes.

Important!

- This watch is not a special-purpose measuring instrument. Measurement function readings are intended for general reference only.
- Whenever using the Digital Compass of this watch for serious trekking, mountain climbing, or other activities, be sure to always take along another compass to confirm readings. If the readings produced by the Digital Compass of this watch are different from those of the other compass, perform bidirectional calibration of the Digital Compass to ensure better accuracy.
  - Compass readings and calibration will not be possible if the watch is in the vicinity of a permanent magnet (magnetic accessory, etc.), metal objects, high-voltage wires, aerial wires, or electrical household appliances (TV, computer, cellphone, etc.)

Digital Compass

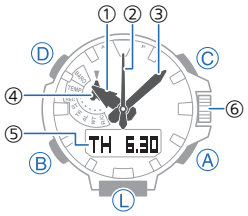
- The watch's Altimeter Mode calculates and displays relative altitude based on barometric pressure readings produced by its pressure sensor. Because of this, altitude values displayed by the watch may be different from your actual elevation and/or sea level elevation indicated for the area where you are located. Regular calibration in accordance with the local altitude (elevation) indications is recommended.

Altitude Measurement

Note

- In this manual, the expression "time signal" refers to a time calibration signal. Time signals include time information.
- Note that the watch illustrations in this manual are intended for reference only. The actual watch may appear somewhat different than depicted in the illustrations.

General Guide



① Hour hand

② Second hand

③ Minute hand

④ Mode hand

⑤ LCD

⑥ Crown

Indicators

① Appears when an alarm is turned on.

② Appears when the hourly time signal is on.

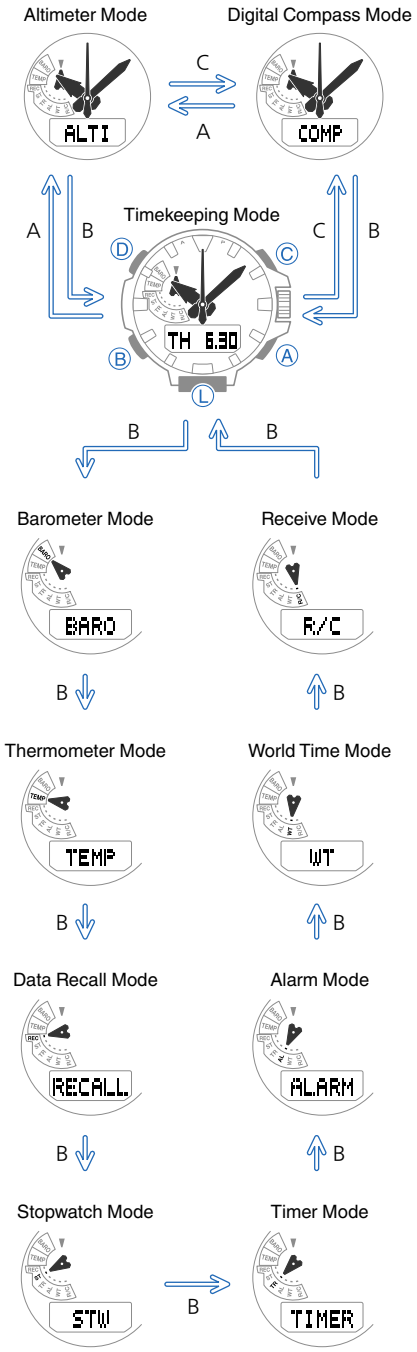
③ Appears when the indicated time is summer time.

④ Appears when Barometric Pressure Change Indications are on.

⑤ Shows the barometric pressure measurement unit.

Navigating Between Modes

Your watch has the modes shown below.



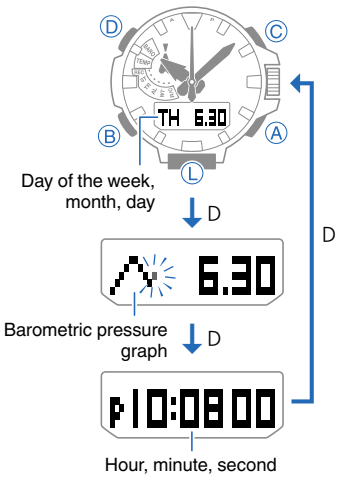
Use the buttons in the illustration above to navigate between modes.

Important!

- To return to the Timekeeping Mode from any other mode, hold down the (B) button for about two seconds.

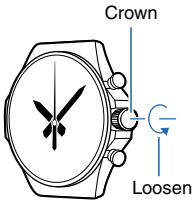
Selecting a Timekeeping Mode Digital Display Format

In the Timekeeping Mode, you can use the operation below to change the contents of the digital displays.



Using the Crown

The watch's crown is a screw-in (screw lock) type. To use the crown, you first need to rotate it towards you (leftwards) to loosen it.

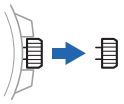


● Pulling Out and Pushing In the Crown

Pull out the crown before performing crown operations. Do not pull the crown with too much force.

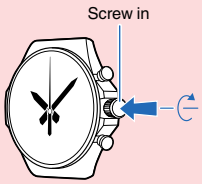
Normal timekeeping

Pull out



Important!

- To prevent loss of water resistance and/or damage due to impact, be sure to screw the crown in by rotating it away from you as you push it in.



- When pushing the crown back in, take care not to apply too much force.

● Fast Forward/Fast Reverse

After pulling out the crown, rotating it quickly in succession in either direction will start a fast forward or fast reverse operation. While a fast forward operation is in progress, quickly rotating the crown in succession again will increase the speed even further.

- The fast reverse operation speed is fixed and cannot be changed.

● Stopping Fast Forward/Fast Reverse

Rotate the crown in the direction opposite that of the ongoing operation or press any button.

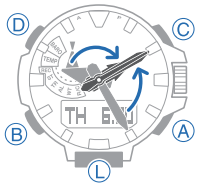
Note

- If you do not perform any operation for about two minutes after pulling out the crown, crown operations will automatically become disabled. If that happens, push the crown back in and then pull it out again.
- The message [PUSH] will appear on the display in the cases below. If that happens, push the crown back in and then pull it out again.
  - When the crown is pulled out while in a mode that does not support crown operation
  - When you do not perform any operation for about two minutes after pulling out the crown

Shifting the Hands

Hand shift moves the hands out of the way for easy viewing of display information.

1. While holding down (L), press (B).
   - All hands will move to 2 o'clock.



2. To return the hands to their normal timekeeping positions, press (A), (B), (C), or (D).

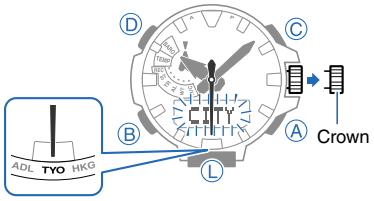
Note

- This function can be used in any mode.
  - Hand shift cannot be used while configuring the city code or the summer time setting, or when manually configuring time and date settings.
- Shifted hands will return to their normal positions if no button operation is performed within about ten seconds after hands are shifted.
- In the modes below, hands that are blocking a digital display will automatically move to 4 o'clock or 8 o'clock. The hands will return to their normal positions after about three seconds.
  - Altimeter Mode
  - Barometer Mode
  - Thermometer Mode

Switching between 12-hour and 24-hour Timekeeping

1. Pull out the crown.

   The second hand will move to the currently set city.



2. Press (B) five times so the current setting ([12H] or [24H]) is flashing on the display.

3. Rotate the crown to select [12H] (12-hour timekeeping) or [24H] (24-hour timekeeping).
4. Push the crown back in to complete the setting operation.

Note

- While 12-hour timekeeping is selected, the [A] indicator will be displayed for a.m. times, and [P] will be displayed for p.m. times.

Solar Charging

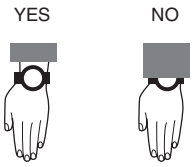
What is solar charging?

This watch runs on power supplied from a rechargeable (secondary) battery that is charged by a solar panel. The solar panel is integrated into the face of the watch, and power is generated whenever the face is exposed to light.

Charging the Watch

When you are not wearing the watch, put it in a location where it is exposed to bright light.

While you are wearing the watch, make sure that its face (solar panel) is not blocked from the light by the sleeve of your clothing. Power generation efficiency is reduced even when the face of the watch is blocked only partially.



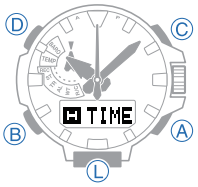
Important!

- Depending on light intensity and local conditions, the watch may become hot to the touch when exposed to light for charging. Take care to avoid burn injury after charging. Also, avoid charging the watch under high-temperature conditions like the ones described below.
  - On the dashboard of a vehicle parked in the sun
  - Near an incandescent light bulb or other source of heat
  - Under direct sunlight or in other hot areas for long periods
- The display panel may become black (or white, depending on the LCD type) under very high temperatures. This is temporary, and the display will return to normal at lower temperatures.

Checking the Charge Level

A display indicator shows the watch's charge level when you enter the Timekeeping Mode.

Navigating Between Modes



- The display will show charge levels 4 and 5, even if the watch is not in the Timekeeping Mode.

● Charge Level 1: Good

All functions enabled.

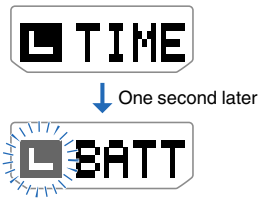
● Charge Level 2: Good

All functions enabled.

● Charge Level 3: Low

The functions below are disabled. Also, the second hand jumps at two-second intervals.

- Time signal reception
- Compass, altitude, barometric pressure, temperature measurements
- Face illumination
- Sounds (alarms, etc.)



● Charge Level 4: Low

Battery charge is lower than Level 3, and all functions are disabled. Also, all hands are stopped.

● Charge Level 5: Dead

All hands are stopped and digital displays are blank. Memory data is lost, and watch settings are returned to their initial factory defaults.

Important!

- Should the battery go low or go dead, expose the face (solar panel) to light as soon as possible.

Note

- If [RECOVER] is flashing on the display, it means that all functions are disabled due to momentary battery power consumption.

Charging Time Guidelines

The table below shows guidelines for approximate charging times.

● Required Charging Time for 1-day Use

Light Intensity		Approximate Charging Time
High ↓ Low	①	8 minutes
	②	30 minutes
	③	48 minutes
	④	8 hours

Light Intensity

① Sunny day, outdoors (50,000 lux)

② Sunny day, near a window (10,000 lux)

③ Overcast day, near a window (5,000 lux)

④ Indoor fluorescent lighting (500 lux)

● Time Required to Achieve Next Charge Level

Sunny day, outdoors (50,000 lux)

Charge Level		Approximate Charging Time
Level 1	Good	6 hours
Level 2	Good	23 hours
Level 3	Low Battery	3 hours
Level 4	Low Battery	
Level 5	Dead Battery	

Sunny day, near a window (10,000 lux)

Charge Level		Approximate Charging Time
Level 1	Good	23 hours
Level 2	Good	85 hours
Level 3	Low Battery	7 hours
Level 4	Low Battery	
Level 5	Dead Battery	

Overcast day, near a window (5,000 lux)

Charge Level		Approximate Charging Time
Level 1	Good	37 hours
Level 2	Good	138 hours
Level 3	Low Battery	11 hours
Level 4	Low Battery	
Level 5	Dead Battery	

Indoor fluorescent lighting (500 lux)

Charge Level		Approximate Charging Time
Level 1	Good	-
Level 2	Good	-
Level 3	Low Battery	121 hours
Level 4	Low Battery	
Level 5	Dead Battery	

Note

- Actual charging time depends on the local charging environment.

Power Saving Function

Leaving the watch in a dark location for about one hour between the hours of 10 p.m. and 6 a.m. will cause the second hand to stop, and the watch to enter Level 1 power saving. If the watch is left in this condition for six or seven days, all hands will stop at 12 o'clock and the watch will enter Level 2 power saving.

Power Saving Level 1 :

Second hand stops and digital displays go blank to save power.

Power Saving Level 2 :

All hands stop and the digital display goes blank to save power. Only timekeeping functions remain operational.

● Recovering from Power Saving Operation

Use one of the operations below to exit power saving.

- Press any button.
- Move the watch to a bright location.
- Trigger auto light by angling the watch towards your face.

Note

- The watch will not enter power saving in the cases below.
  - While barometric pressure indications are turned on
  - While in the Stopwatch Mode
  - While in the Timer Mode
- You can enable or disable Power Saving.

Configuring Power Saving Function Settings

- Note that the watch also may enter power saving if its face is blocked from light by your sleeve while you are wearing it.

Auto Time Adjustment

The watch's time and day settings can be configured in accordance with a received time signal.

Important!

- To receive a time signal, one of the cities shown under "Time Signal Cities" needs to be set as your Home City.
- Whenever you are in an area where a time signal cannot be received or if your Home City does not support time signal reception, you will need to configure time and date settings manually.

Receiving a Time Signal

Time Signal Cities

City	Offset	Second Hand Position
TOKYO (TYO)	+9	Second 30

Receivable Time Signal: Japan Time Calibration Signal (JJY)

City	Offset	Second Hand Position
HONG KONG (HKG)	+8	Second 28

Receivable Time Signal: China Time Calibration Signal (BPC)

City	Offset	Second Hand Position
NEW YORK (NYC)	-5	Second 52
CHICAGO (CHI)	-6	Second 50
DENVER (DEN)	-7	Second 48
LOS ANGELES (LAX)	-8	Second 46
ANCHORAGE (ANC)	-9	Second 44
HONOLULU (HNL)	-10	Second 42

Receivable Time Signal: U.S. Time Calibration Signal (WWVB)

City	Offset	Second Hand Position
LONDON (LON)	±0	Second 2
PARIS (PAR)	+1	Second 4
ATHENS (ATH)	+2	Second 6

Receivable Time Signal: U.K. (MSF) and German (DCF77) Time Calibration Signals

Time Signal Reception Ranges

● Japan (JJY)

The Japan time signal radio stations are located on Mt. Otakadoya in Fukushima and Mt. Hagane in Fukuoka/Saga.
The reception range of the Japanese time signals is approximately 1,000 km from each transmission station.

● China (BPC)

The China time signal radio station is located in Shangqiu, Henan Province, China.
The reception range of the Chinese time signal is approximately 1,500 km from the transmission station.

● United States (WWVB)

The United States time signal radio station is located in Fort Collins, Colorado.
The reception range of the U.S. time signal is approximately 3,000 km from the transmission station.

● U.K. (MSF)/Germany (DCF77)

The U.K. time signal radio station is located in Anthorn, Cumbria.
The German time signal radio station is located in Mainflingen, southeast of Frankfurt.
The reception range of the U.K. and German time signals is approximately 1,500 km from each transmission station.

Note

- Even if you are within the normal reception range of a time calibration signal, reception may be made impossible by the following factors: geographic contours, weather, the season, the time of day, wireless noise.

Setting a Home Time City

Use the procedure in this section to configure Home City (the city that is in the same time zone as your current location) and summer time settings.

Time Signal Cities
Summer Time

Important!

- Time signal reception will not be possible if your Home City setting is not correct.

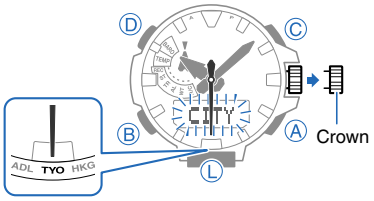
Getting ready

Enter the Timekeeping Mode.

Navigating Between Modes

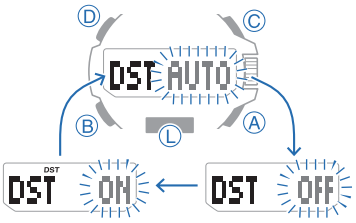
1. Pull out the crown.

   The second hand will move to the currently set city.



2. Rotate the crown to move the second hand to the city (one that supports time signal reception) you want to set.
3. To change the summer time setting, press (B).
   - If you don't want to change the summer time setting, push the crown back in to complete the setting operation.
4. Rotate the crown away from you to change the summer time setting.
   - [AUTO]
     The watch switches between standard time and summer time automatically. In many cases, the [AUTO] setting lets you use the watch without switching manually between summer time and standard time.

     Summer Time Table
   - [OFF]
     The watch always indicates standard time.
   - [ON]
     The watch always indicates summer time.



5. Push the crown back in to complete the setting operation.

Note

- If the currently indicated time is summer time, [DST] will be shown on the display.

- You cannot change the summer time setting by rotating the crown towards you.

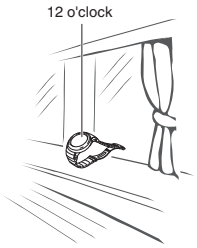
Summer Time

Summer time, which is also known as Daylight Saving Time (DST), advances the time setting one hour, 30 minutes, or some other amount of time from standard time (STD) during the summer months. Whether or not and how summer time is used depends on your country or local area. Summer time is not used in some countries and local areas.

Appropriate Signal Reception Location

A time calibration signal can be received while the watch is near a window.

- Keep metal objects away from the watch.
- Do not move the watch.
- Do not perform any operation on the watch.



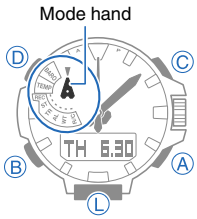
Note

- You may experience time 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

Auto Time Signal Receive

An automatic time signal receive operation is performed and the time and day settings are adjusted between midnight and 5:00 a.m. Once a signal receive operation is successful, no more auto receive operations are performed that day.

The receive operation is performed only while the watch is in the Timekeeping Mode.
Navigating Between Modes



Place the watch near a window or some other location appropriate for signal reception.

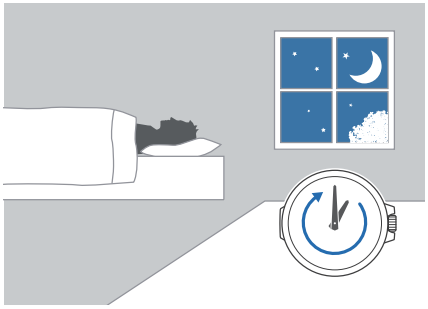
- When the receive operation is successful, the time and day settings will be adjusted automatically.

Note

- Reception takes anywhere from about two minutes to about 10 minutes. It can take as long as 20 minutes.

● Using Auto Receive

Before going to bed at night, put the watch into the Timekeeping Mode (whose settings should be configured correctly), and leave it near a window.

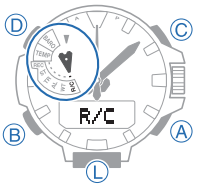


Enabling/Disabling Auto Receive

Use the procedure below to enable or disable Auto Receive.

Getting ready

Enter the Receive Mode.
Navigating Between Modes



1. Pull out the crown.
2. Rotate the crown to select either [ON] or [OFF].

   [ON]: Auto receive is on.

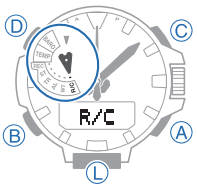
   [OFF]: Auto receive is off.
3. Push the crown back in to complete the setting operation.
4. Press (B) to return to the Timekeeping Mode.

Manual Time Signal Receive

You can use a button operation to receive the time signal. When a receive is successful, the time and date settings will be adjusted automatically.

Getting ready

Enter the Receive Mode.
Navigating Between Modes

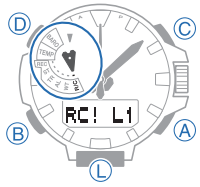


1. Place the watch near a window or some other location appropriate for time signal reception.

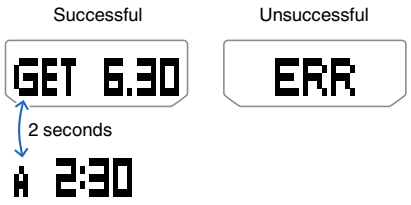
2. Hold down the (A) button for about two seconds until [RC!] appears on the dot display.

   This indicates that time signal reception has started.

   • To cancel an ongoing time signal receive operation, press any button.



After time signal receive ends, the result of the receive operation will appear on the display.



3. Press (B) to return to the Timekeeping Mode.

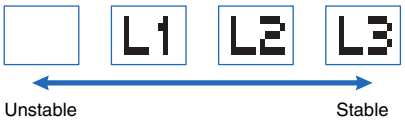
   • If reception fails for some reason, check the surrounding reception environment and then try again.

Note

- Reception takes anywhere from about two minutes to about 10 minutes. It can take as long as 20 minutes.
- The watch will automatically return to the Timekeeping Mode if you do not perform any operation for about two or three minutes after time signal receive ends.

Receive Levels

The current time signal receive level is indicated on the display. Refer to the level indicator to determine the best location for time signal reception.



Note

- It takes about 10 seconds for time signal reception conditions to stabilize.
- Reception conditions are affected by weather, the time of day, the surrounding environment, etc.

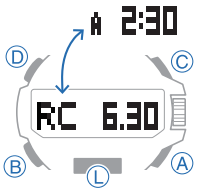
Checking the Receive Operation Result

Use the procedure below to check the date and time of the last successful time signal receive operation.

1. In the Timekeeping Mode, press (B) eight times.

   This enters the Receive Mode and displays the date and time of the last successful time signal receive operation.

   • The display will show [-:--] for the time and [-.--] for the date if no time signal receive operation has been successful yet.



2. Press (B) to return to the Timekeeping Mode.

Signal Reception Precautions

- When the watch is unable to adjust its time in accordance with a calibration signal for some reason, average timekeeping accuracy is within ±15 seconds per month.
- Time signal reception is not possible when any one of the conditions exists.
  - While battery power is low
  - Power Saving Level 2
  - Timer countdown operation in progress
  - barometric pressure indications turned on
- If an alarm starts to sound while time signal reception is in progress, reception will stop.
- If the receive operation is successful, the time and day settings will be adjusted automatically in accordance with the Home City and summer time settings. Summer time will not be applied correctly in the case described below.
  - When the summer time start date and time, end date and time, or other rules are changed by authorities
- Note that an internal decoding process the watch performs after it receives a signal may cause the time setting to be slightly off (by less than one second).
- As of December 2014, China does not observe summer time. If China starts to observe summer time in the future, the time displayed by the watch for China may not be correct.

Manual Time Adjustment

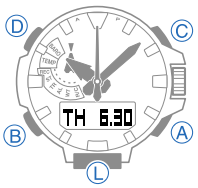
You can use the procedure below to adjust the time and day settings using the watch in an area where time signal reception is not possible.

Getting ready

Enter the Timekeeping Mode.

Navigating Between Modes

Timekeeping Mode



Setting a Home Time City

Use the procedure in this section to select a city to use as your Home City. If you are in an area that observes summer time, you can also enable or disable summer time.
Summer Time

Important!

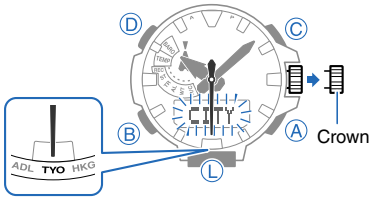
- World Time times will not be correct if you select the wrong city as your Home City.

Note

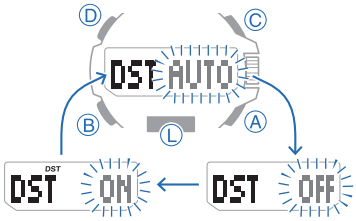
- Your watch has 29 built-in cities that you can select as a Home Time City. If you are using the watch in a location that is not among the built-in cities, use the built-in city that is in the same time zone as your location. For available city settings, see "City Code List".

1. Pull out the crown.

   The second hand will move to the currently set city.



2. Rotate the crown to move the second hand to the city you want to set.
3. To change the summer time setting, press (B).
   - If you don't want to change the summer time setting, push the crown back in to complete the setting operation.
4. Rotate the crown away from you to change the summer time setting.
   - [AUTO]
     The watch switches between standard time and summer time automatically.
     Summer Time Table
   - [OFF]
     The watch always indicates standard time.
   - [ON]
     The watch always indicates summer time.



5. Push the crown back in to complete the setting operation.

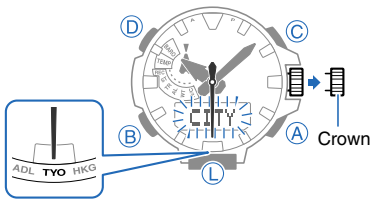
Note

- The [AUTO] setting works only when a Time Signal City is selected for your Home City.
- Select [OFF] or [ON] when your Home City is not a Time Signal City.
- Note that summer time (DST) cannot be selected while "UTC" is selected as the Home City.
- If the currently indicated time is summer time, [DST] will be shown on the display.

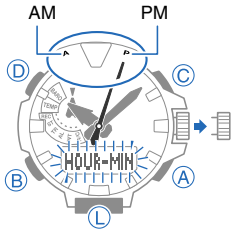
Setting the Time and Date

1. Pull out the crown.

   The second hand will move to the currently set city.

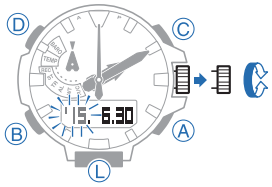


2. Press (D).
   - You can see if a time is a.m. or p.m. by checking the second hand position.

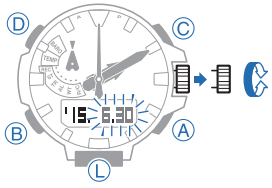


3. Rotate the crown to change the minute setting.
   - The hour hand will move in accordance with minute hand movement.
4. Press (B).

   This causes [HOUR] to flash on the display.
5. Rotate the crown to change the hour setting.
6. Press (B).
7. Rotate the crown to change the year setting.



8. Press (B).
9. Rotate the crown to change the month and day setting.
   - If you want to change the time and date settings at this point, press (B). Next, return to the minute setting in step 3 and perform the above steps again.



10. On a time signal at the top of a minute, push the crown back in to complete the setting operation.

Digital Compass

You can use the Digital Compass Mode to determine the direction of north, and to check your bearing to a destination.

Important!

- Check the information below to find out how to ensure correct readings.

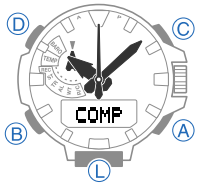
Calibrating Compass Readings (Bidirectional Calibration)
Digital Compass Reading Precautions

Getting ready

Enter the Compass Mode.

Navigating Between Modes

Digital Compass Mode



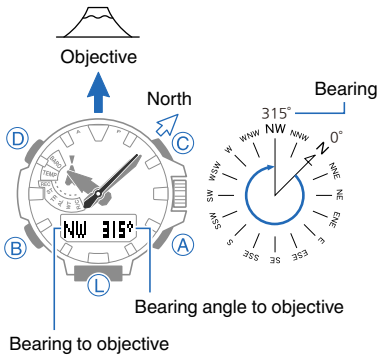
- Entering the Compass Mode starts compass readings.
- If you point 12 o'clock in the direction of an objective and then enter the Compass Mode, the bearing to the objective will appear immediately.

Taking a Compass Reading

Keeping the watch level, point 12 o'clock in the direction of your desired objective. The second hand will indicate north. The bearing and bearing angle to your objective will also appear on the display.

- To retrigger the compass operation, press (C).

Interpreting Bearing Readings



Directions: N (North), E (East), W (West), S (South)

Note

- Normally the Compass Mode indicates magnetic north. You can also configure settings to indicate true north.

Setting Up for True North Readings (Magnetic Declination Calibration)
Magnetic North and True North

- After the initial reading is displayed, the watch will continue to take readings about every second for about the next 60 seconds. The watch will return to the Timekeeping Mode automatically about 60 seconds after you press (C).
- Auto Light will not illuminate the face while a compass operation is in progress.
- If an alarm or other beeper sounds, or if you turn on illumination by pressing (L) while a compass operation is in progress, the compass operation will be suspended momentarily. The compass operation will resume when the beeper stops or illumination turns off.

● Aligning a Map with Actual Surroundings (Setting a Map)

Setting a map means to align the map so the directions indicated on it are aligned with the actual directions of your location. Once you set a map, you can more easily get a grasp of the relationship between map markings and actual geographic contours. To set a map with this watch, align north on the map with the north indication of the watch. Once you set the map, you can compare your bearing on the map with your surroundings, which will help you determine your current location and destination.

- Note that map reading skills and experience are required to determine your current location and destination on a map.

Calibrating Compass Readings

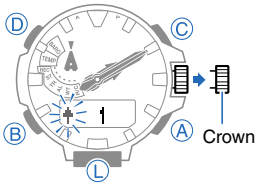
Calibrating Compass Readings (Bidirectional Calibration)

Perform calibration whenever you notice the watch's compass readings are different from those of another compass, or before setting out on a climb or trek.

- Note that accurate compass readings and/or calibration will not be possible in an area where strong magnetism is present.

Digital Compass Reading Precautions

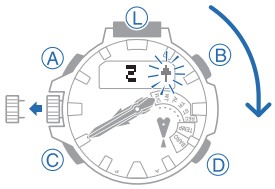
1. Pull out the crown.



2. While keeping the watch horizontal, press (C).

   This starts calibration of the first point, which causes [↑ WAIT] to appear on the display. If calibration is successful, indicators will appear on the display in the following sequence: [OK] → [Turn 180°] → [↓ 2].

3. Rotate the watch 180 degrees, taking care to be as exact as possible.



4. Press (C).

   This starts calibration of the second point, which causes [↓ WAIT] to appear on the display. [OK] will appear on the display if calibration is successful.

5. Push the crown back in to complete the setting operation.

Note

- [ERR] will appear if calibration fails for some reason. If this happens, restart the above procedure from step 1.

Setting Up for True North Readings (Magnetic Declination Calibration)

If you want the watch to indicate true north instead of magnetic north, you need to specify the current magnetic declination direction (east or west) and declination angle.

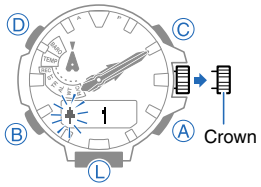
Magnetic North and True North

- The magnetic declination angle value can be set in 1° (degree) units only. Use a value that is closest to the angle you want to set.
  Example: For an angle of 7.4°, set 7°.
  Example: For an angle of 7°40' (7 degrees, 40 minutes), set 8°.

Note

- Magnetic declination angles (east or west) and angle degree values for specific locations can be found on geographic maps, mountain climbing maps, and other maps that include contour lines.

1. Pull out the crown.



2. Press (B).
3. Rotate the crown to change the magnetic declination direction and angle settings as desired.

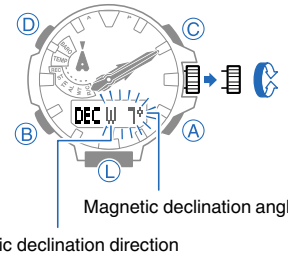
   Setting range: 90° west to 90° east

   [0° (OFF)]: Magnetic north

   [E]: East declination (Magnetic north is east of true north.)

   [W]: West declination (Magnetic north is west of true north.)

   - To return the setting to [0° (OFF)], press (A) and (C) at the same time.



4. Push the crown back in to complete the setting operation.

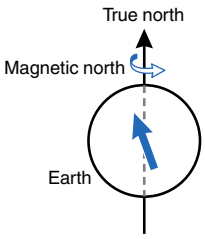
Magnetic North and True North

There are actually two types of north: magnetic north and true north.

Magnetic north: North indicated by the needle of a compass

True north: Direction to the North Pole

As shown in the illustration below, magnetic north and true north are not the same.



Note

- The north indicated on commercially available maps is normally true north.

Digital Compass Reading Precautions

Location During Use

Taking readings near sources of strong magnetism can cause reading error. Keep the watch away from the following types of items.

Permanent magnets (magnetic accessories, etc.), metal objects, high-voltage wires, aerial wires, electrical household appliances (TVs, computers, cellphones, etc.)

- Note that correct direction readings are not possible indoors, especially inside of reinforced concrete structures.
- Accurate direction readings are not possible in motor vehicles, on boats, on aircraft, etc.

Storage Location

Exposure of the watch to magnetism can affect the accuracy of digital compass readings. Keep the watch away from the types of items below.

Permanent magnets (magnetic accessories, etc.), metal objects, electrical household appliances (TVs, computers, cellphones, etc.)

Altitude Measurement

The watch takes altitude readings and displays results based on air pressure measurements taken by a built-in pressure sensor.

Important!

- The altitude readings displayed by the watch are relative values that are calculated based on barometric pressure measured by the watch's pressure sensor. This means that barometric pressure changes due to weather can cause altitude readings taken at the same location to be different. Also note that the value displayed by the watch may be different from the actual elevation and/or sea level elevation indicated for the area where you are located. When using the watch's altimeter while mountain climbing, it is recommended that you regularly calibrate its readings in accordance with local altitude (elevation) indications.

Calibrating Altitude Readings

- The altitude correction value and barometric pressure changes may result in display of a negative value.
- Check the information below to find out about how to minimize differences between readings produced by the watch, and values provided by local altitude (elevation) indications.

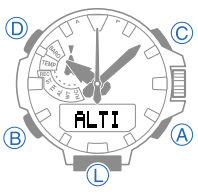
Altitude Reading Precautions

Getting ready

Enter the Altimeter Mode.

Navigating Between Modes

Altimeter Mode



- Entering the Altimeter Mode starts altitude readings.

Note

- When you enter the Altitude Mode, the second hand will indicate either timekeeping seconds, or the differential between altitude measurements (whichever was indicated the last time you were in the Altitude Mode). You can toggle the second hand indication between seconds and the measured value differential by pressing (D).

Taking a Relative Altitude Reading from Some Reference Point

Checking the Current Altitude

Starting an altitude measurement operation displays the altitude in your current location. The watch takes altitude readings every second for about the first three minutes. After that, it takes readings according to the watch's auto measurement interval setting.

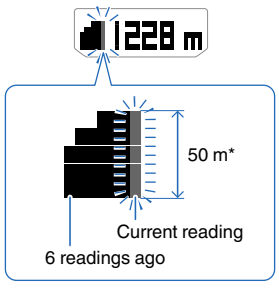
- Check the information below to find out how to configure the auto measurement interval.

Setting the Auto Measurement Interval

Note

- To retrigger measurement, press (A).
- Measurement range: -700 to 10,000 meters (-2,300 to 32,800 feet) (Measurement unit: 1 meter (5 feet)) Note that calibrating altitude readings will cause a change in the measurement range.
- [- - -] will appear for the measured value if it is outside the allowable range.
- Press (B) to return to the Timekeeping Mode.

Interpreting Altitude Graph Contents



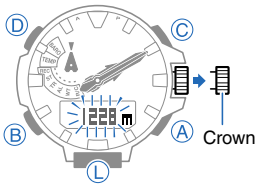
* 1 square (■) is 10 m.

Calibrating Altitude Readings

To minimize the difference between locally indicated and measured values, you should update the reference altitude value before setting off on and during treks or any other activities where you take altitude readings. You can find out the altitude at your current location from signs, maps, on the Internet, etc. While mountain climbing, it is highly recommended that you check a map, local altitude indications, or some other source for your current location's altitude and regularly calibrate watch readings with the latest information.

- Differences between actual altitude and watch readings can be caused by the factors below.
  - Changes in barometric pressure
  - Changes in temperature caused by variations in barometric pressure and by elevation
- Though altitude readings can be taken without calibration, doing so may produce readings that are very different from indications by altitude markers, etc.

1. Pull out the crown.



2. Rotate the crown to calibrate the displayed value to that of a local altitude (elevation) marker.

   Calibration unit: 1 m (5 feet)

   - To return the altitude setting to its initial factory default, press (A) and (C) at the same time.

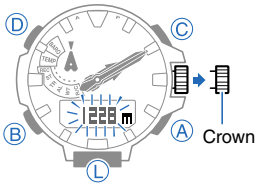
3. Push the crown back in to complete the setting operation.

Taking a Relative Altitude Reading from Some Reference Point

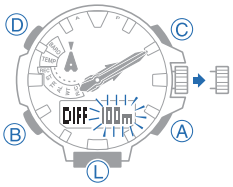
After you set a reference altitude, the second hand of the watch will indicate the difference between your current altitude and the reference altitude. This makes it easy to measure the altitude difference between two points while climbing or trekking.

● Setting the Altitude Differential Measurement Range

1. Pull out the crown.



2. Press (B) twice.



3. Rotate the crown to select either [100m] or [1000m].

   [100m]: ±100 meters (±328 feet) in 5-meter (16-foot) units

   [1000m]: ±1000 meters (±3280 feet) in 50-meter (164-foot) units

4. Push the crown back in to complete the setting operation.

● Measuring Altitude

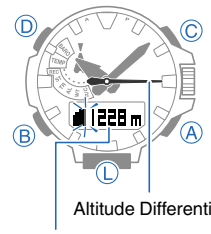
1. Use the contour lines on your map to determine the altitude differential between your current location and your destination.
2. Take an altitude reading of your current location.

Checking the Current Altitude

3. Hold down the (D) button for about two seconds to set your current location's altitude as the reference altitude.

   [DIFF RESET] and [RESET] will appear on the display, followed by the current altitude.

   • The second hand (Altitude Differential Indicator) will indicate the difference between the reference altitude and the current altitude reading. At this time the second hand should indicate ±0 m (±0 feet).



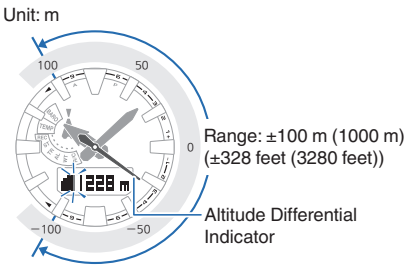
Altitude Differential Indicator

Current location altitude

4. While comparing the difference between the altitude you found on the map and the altitude differential indicated by the watch's second hand, advance towards your destination.

   • When the altitude differential you found on the map is the same as that indicated by the second hand, it means you are close to your destination.

   Example: Altitude differential of -30 m (-98 feet) (-300 m (-984 feet))



Range: ±100 m (1000 m) (±328 feet (3280 feet))

Altitude Differential Indicator

5. To exit the altitude differential indication, press (D).

   The second hand indicates the current time seconds.

   • To toggle the second hand between altitude differential and current time seconds indication, press (D).

Note

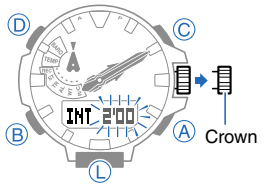
• The second hand will point to ▲ (over) if the current altitude differential is greater than the setting value, or ▼ (under) if it is lower than the setting value.
If either of these is indicated while using the ±100 m (328 feet) measurement range, change the range setting to ±1000 m (3280 feet).

• The second hand will move to 9 o'clock if a reading is outside the allowable altitude measurement range (-700 m to 10,000 m (-2,300 to 32,800 feet)), or if a reading error occurs.

Setting the Auto Measurement Interval

You can select an auto measurement interval of either five seconds or two minutes.

1. Pull out the crown.
2. Press (B).



Crown

3. Rotate the crown to select [0'05] or [2'00] as the auto measurement interval.

   [0'05]: Readings taken every second for the first three minutes, and then every five seconds for about the next one hour.

   [2'00]: Readings taken every second for the first three minutes, and then every two minutes for about the next 12 hours.

4. Push the crown back in to complete the setting operation.

Note

• The watch will automatically return to the Timekeeping Mode if you do not perform any operation in the Altimeter Mode for about one hour while [0'05] is selected as the measurement interval or about 12 hours while [2'00] is selected.

Recording Altitude Readings

Use the procedure below to record altitude measurements manually. Auto measurements are also recorded automatically.

• Use the Altitude Record Recall Mode to view or delete records.

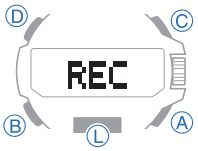
Viewing Altitude Records

● Recording Altitude Data Manually

Hold down the (A) button for about two seconds, until [REC] stops flashing on the display. This records the current altitude reading, along with the recording date and time.

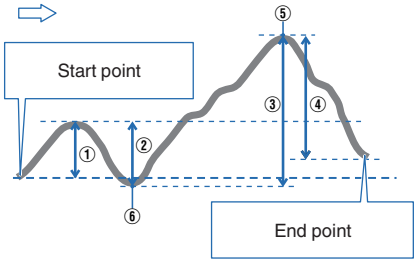
• There is enough memory to hold up to 30 altitude records.

• Recording altitude data when there are already 30 records in memory automatically deletes the oldest record to make room for the new one.



● Auto Altitude Data Recording

The altitude data described below is recorded automatically while the watch is in the Altitude Mode. One record each is maintained in memory for each of these items.



High Altitude (MAX): ⑤

Low Altitude (MIN): ⑥

Cumulative Ascent (ASC): ①+③*

Cumulative Descent (DSC): ②+④*

* Cumulative ascent and cumulative descent values are updated whenever there is a difference of at least ±15 m (±49 feet) from one reading to the next.

Note

- Auto recording ends when you exit the Altimeter Mode. Re-entering the Altimeter Mode restarts recording of cumulative values from where it was stopped when you last exited the Altimeter Mode.

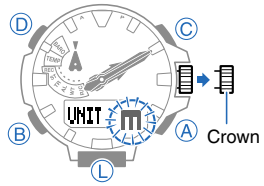
Specifying the Altitude Measurement Unit

You can select either meters (m) or feet (ft) as the Altimeter Mode display unit.

Important!

- When Tokyo (TYO) is set as the Home City, the altitude unit is fixed as meters (m) and cannot be changed.

1. Pull out the crown.
2. Press (B) three times.



3. Rotate the crown to select meters (m) or feet (ft) as the measurement unit.
4. Push the crown back in to complete the setting operation.

Altitude Reading Precautions

Effects of Temperature

When taking altitude readings, take the steps below to keep the watch at as stable a temperature as possible. Changes in temperature can affect altitude readings.

- Take readings with the watch on your wrist.
- Take readings in an area where temperature is stable.

Altitude Readings

- Do not use this watch while skydiving, hang gliding, paragliding, gyrocopter flying, glider flying, or engaged in other activities where altitude changes suddenly.
- Altitude readings produced by this watch are not intended for special-purpose or industrial level use.
- In an aircraft, the watch measures the in-cabin pressurized air pressure, so readings will not match altitudes announced by the crew.

Altitude Readings (Relative Altitude)

This watch uses International Standard Atmosphere (ISA) relative altitude data defined by the International Civil Aviation Organization (ICAO). Barometric pressure generally becomes lower as altitude increases.

Correct measurement may not be possible under the conditions below.

- During unstable atmospheric conditions
- During sudden temperature changes
- After the watch has been subjected to strong impact

Barometric Pressure Measurement

You can use the Barometer Mode to take a reading of the barometric pressure at your current location, and to track reading changes and trends.

Important!

- Check the information below to find out how to ensure correct readings.

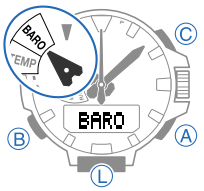
Barometric Pressure Reading Precautions

Getting ready

Enter the Barometer Mode.

Navigating Between Modes

Barometer Mode



- Entering the Barometer Mode starts barometric pressure readings.

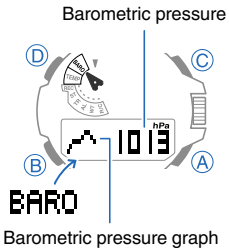
Note

- When you enter the Barometer Mode, the second hand will indicate either timekeeping seconds, or the differential between barometer measurements (whichever was indicated the last time you were in the Barometer Mode). You can toggle the second hand indication between seconds and the measured value differential by pressing (D).

Checking the Change in Barometric Pressure between Two Readings

Checking the Current Barometric Pressure

Entering the Barometer Mode displays the current barometric pressure and a barometric pressure graph. After you enter the Barometer Mode, the watch takes readings about every five seconds for three minutes. After that, a measurement is taken about every two minutes.

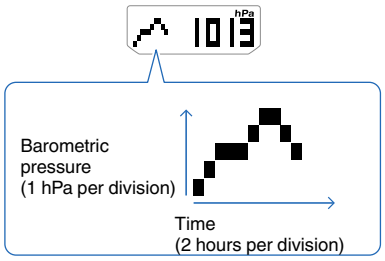


Note

- To retrigger measurement, press (A).
- The watch will automatically return to the Timekeeping Mode from the Barometer mode if you do not perform any operation for about one hour.
- The measurement range is 260 hPa to 1,100 hPA (7.65 inHg to 32.45 inHg) (1 hPa (0.05 inHg) units). [- - -] will appear for the measured value if it is outside the allowable range.
- To return to the Timekeeping Mode, hold down the (B) button for about two seconds.

Checking Changes in Barometric Pressure Over Time

The watch displays a graph of 20 hours of barometric pressure readings taken every two hours. The square (■) at the far right of the graph indicates the latest barometric pressure reading.



● Predicting Upcoming Weather

A trend like this:	Indicates this:
	Rising barometric pressure, which indicates that upcoming weather probably will be fair.
	Falling barometric pressure, which indicates that upcoming weather probably will be bad.

Note

- Large changes in barometric pressure and/or temperature can cause past data readings to be plotted outside of the visible area of the graph. Though plots are not visible, the data is still maintained in watch memory.
- The barometric pressure graph is not displayed while Barometric Pressure Change Indications are displayed.

Barometric Pressure Change Indications

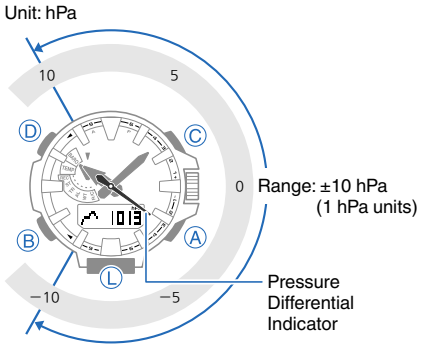
Checking the Change in Barometric Pressure between Two Readings

When you perform the procedure below in the Barometer Mode, the second hand will indicate the difference between the current barometric pressure measurement and the last auto measurement value (taken at two-hour intervals).

1. Press (D).

   The second hand will indicate the barometric pressure differential (Pressure Differential Indicator).

   Example: Barometric pressure differential of -3 hPa (approximately -0.09 inHg)



2. To exit barometric pressure differential indication, press (D).
   - Each press of (D) toggles the second hand between barometric pressure differential and current time seconds indication.

Note

- The second hand will point to ▲ (over) if the current barometric pressure differential is greater than +10 hPa (0.3 inHg), or ▼ (under) if it is less than -10 hPa (-0.3 inHg).
- A reading that is outside the allowable measurement range of 260 hPa to 1,100 hPa (7.65 inHg to 32.45 inHg), or any measurement error will cause the second hand to move to 9 o'clock.

Barometric Pressure Change Indications

Whenever the watch detects a significant change in air pressure readings (due to sudden ascent or descent, or to the passage of a low pressure or high pressure area), it will beep to let you know. An arrow will also flash on the display at this time if the watch is in the Barometer Mode, or if it is in the Timekeeping Mode with the barometric pressure graph displayed. The arrow that appears shows the direction of the pressure change. These alerts are called “Barometric Pressure Change Indications”.

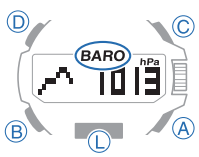
This indicator:	Means this:
	Sudden drop in pressure
	Sudden rise in pressure
	Sustained rise in pressure, shifting to a fall
	Sustained fall in pressure, shifting to a rise

Important!

- To ensure correct barometric pressure change indicator operation, enable it in a location where the altitude is constant (such as a lodge, camp area, or on the ocean).
- A change in altitude causes a change in air pressure. Because of this, correct readings are impossible. Do not take readings while ascending or descending a mountain, etc.

1. Hold down the (D) button for about two seconds.

   [BARO] is displayed while Barometric Pressure Change Indications are on.



2. Hold down the (D) button for about two seconds to turn off Barometric Pressure Change Indications.

Note

- If Barometric Pressure Change Indications are on, barometric pressure readings are taken every two minutes even while the watch is not in the Barometer Mode.
- The barometric pressure change indicator becomes disabled automatically 24 hours after it is enabled.
- Time signal reception is disabled while Barometric Pressure Change Indications are turned on. Power saving is also disabled.

Power Saving Function

- You will not be able to turn on Barometric Pressure Change Indications are while charge level of the watch’s battery is low.
- Low battery power will also cause barometric pressure trend information to turn off.

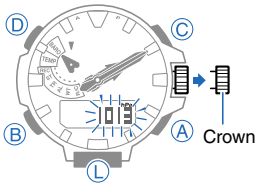
Calibrating Barometric Pressure Readings

The watch’s pressure sensor is adjusted at the factory and normally does not require calibration. However, you can calibrate the displayed value if you notice major errors in readings.

Important!

- The watch will not be able to produce correct barometric pressure readings if you make a mistake during the calibration procedure. Check to make sure that the value you use for calibration produces correct pressure readings.

1. Pull out the crown.



2. Rotate the crown to change the value.

   Calibration Unit: 1 hPa (0.05 inHg)

   - To return the barometric pressure setting to its initial factory default, press (A) and (C) at the same time.

3. Push the crown back in to complete the setting operation.

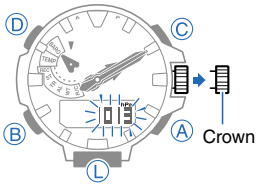
Specifying the Barometric Pressure Measurement Unit

You can specify either hectopascals (hPa) or inches of mercury (inHg) as the display unit for barometric pressure values.

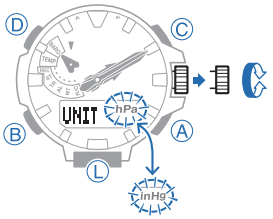
Important!

- When Tokyo (TYO) is set as the Home City, the barometric pressure unit is fixed as hectopascals (hPa) and cannot be changed.

1. Pull out the crown.



2. Press (B).
3. Rotate the crown to select hectopascals (hPa) or inches of mercury (inHg) as the measurement unit.



4. Push the crown back in to complete the setting operation.

Barometric Pressure Reading Precautions

- The barometric pressure graph produced by this watch can be used to obtain an idea of upcoming weather conditions. However, this watch should not be used in place of precision instruments required for official weather prediction and reporting.
- Pressure sensor readings can be affected by sudden changes in temperature. Because of this, there may be some error in the readings produced by the watch.

Temperature Measurement

The watch can be used to take current air temperature readings.

Important!

- Check the information below to find out how to ensure correct readings.

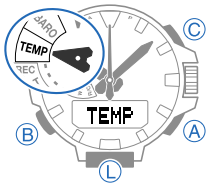
Temperature Reading Precautions

Getting ready

Enter the Temperature Mode.

Navigating Between Modes

Thermometer Mode



- Entering the Temperature Mode starts temperature readings.

Checking the Current Temperature

Entering the Temperature Mode displays temperature reading results. After you enter the Temperature Mode, the watch takes readings about every five seconds for three minutes. After that, a measurement is taken about every two minutes.

- To retrigger measurement, press (A).

Note

- The watch will automatically return to the Timekeeping Mode if you do not perform any operation in the Temperature Mode for about one hour.
- The measuring range is -10.0 °C to 60.0 °C (14.0 °F to 140.0 °F) (0.1 °C (0.2 °F) units). [- - .-] will appear for the measured value if it is outside the allowable range.
- To return to the Timekeeping Mode, hold down the (B) button for about two seconds.

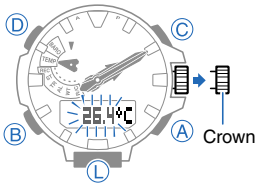
Calibrating Temperature Readings

The watch's temperature sensor is adjusted at the factory and normally does not require calibration. However, you can calibrate the displayed value if you notice major errors in readings.

Important!

- Check to make sure that the value you use for calibration produces correct temperature readings.
- Before calibrating the temperature reading, remove the watch from your wrist and leave it in the area where you plan to measure temperature for about 20 or 30 minutes to allow the case temperature to become the same as the air temperature.

1. Pull out the crown.



2. Rotate the crown to calibrate the temperature value.

   Calibration unit: 0.1 °C (0.2 °F)

   - To return the barometric pressure setting to its initial factory default, press (A) and (C) at the same time.

3. Push the crown back in to complete the setting operation.

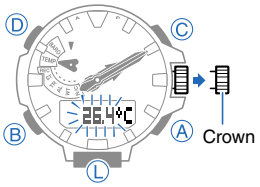
Specifying the Temperature Measurement Unit

You can select either Celsius (°C) or Fahrenheit (°F) as the temperature display unit.

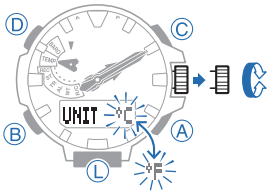
Important!

- When Tokyo (TYO) is set as the Home City, the temperature unit is fixed as Celsius (°C) and cannot be changed.

1. Pull out the crown.



2. Press (B).
3. Rotate the crown to select Celsius (°C) or Fahrenheit (°F) as the measurement unit.



4. Push the crown back in to complete the setting operation.

Temperature Reading Precautions

Body temperature, direct sunlight, and humidity all have an effect on temperature readings. To help ensure more accurate temperature readings, remove the watch from your wrist, wipe it dry of any moisture, and place it in a well-ventilated location not exposed to direct sunlight. You should be able to take temperature readings after about 20 to 30 minutes.

Viewing Altitude Records

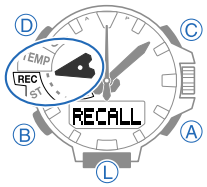
You can use the Altitude Record Recall Mode to view manually recorded and auto recorded data.

Getting ready

Enter the Altitude Record Recall Mode.

Navigating Between Modes

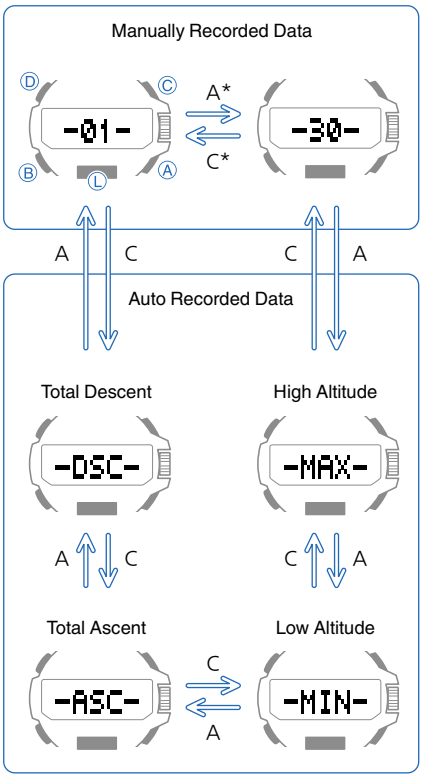
Data Recall Mode



Viewing Recorded Data

Entering the Altitude Record Recall Mode displays the data type screen of an altitude data record. Use the (A) and (C) buttons to scroll between the data top screens as shown below.

- Holding down (A) or (C) scrolls at high speed.



* Each press of a button scrolls to the top screen of the next manually recorded data record. There can be up to 30 records in memory, numbered from 1 ([-01-]) to 30 ([-30-]).

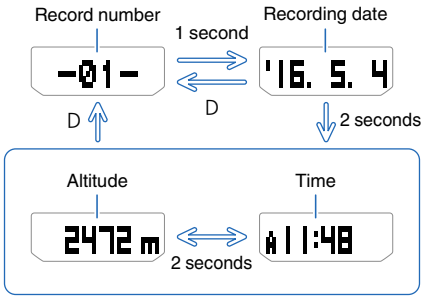
Note

- If there is no data left in memory due to a data delete operation, error, or some other reason, [- - - -] or [0] will appear on the display.
- If the cumulative ascent (ASC) or cumulative descent (DSC) value exceeds 99,999 m (327,995 feet), it will revert to 0 and continue from there.
- Pressing (D) returns to the top screen (record number, DSC, ASC, MAX, or MIN) of the data that you are viewing.

● Manually Recorded Data

After displaying the top screen of a manually recorded data record (01 through 30), you can navigate between the record's data screens as shown below.

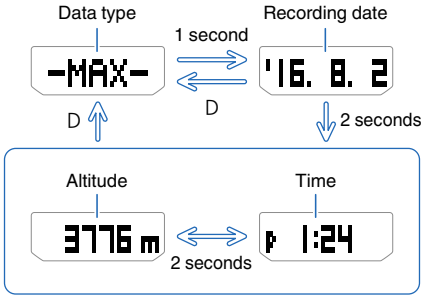
Example: Manually recorded Record 01



● Auto Recorded Data

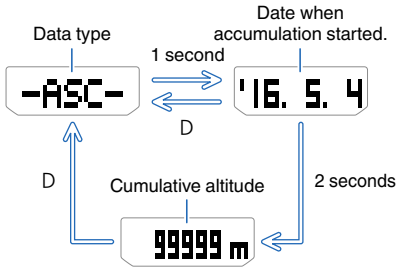
High altitude and low altitude

Example: High altitude



Cumulative ascent and cumulative descent

Example: Cumulative ascent



Deleting a Particular Record

1. Use the (A) and (C) buttons to scroll through the top screens of the records and display the one you want to delete .
   - Note that holding down the (D) button for more than five seconds in step 2 below will delete all data.
2. Hold down the (D) button for approximately two seconds. Release the button as soon as [CLEAR] changes from flashing to not flashing.

   This deletes the record you selected.

Deleting All Records

Hold down the (D) button for about five seconds, until the message [CLEAR ALL] changes from flashing to not flashing. This deletes all the altitude record data.

Stopwatch

The stopwatch can be used to perform 1/100 second elapsed time measurement up to 23 hours, 59 minutes, 59.99 seconds.

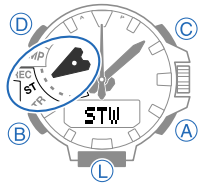
It can also measure split times.

Getting ready

Enter the Stopwatch Mode.

Navigating Between Modes

Stopwatch Mode



Note

- Elapsed time returns to zero automatically and timing continues from there when the maximum limit is reached.
- Once started, elapsed time measurement continues until you press (C) to reset the stopwatch, even if you change to a different mode and even if the stopwatch reaches the elapsed time measurement limit.
- Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.

Measuring Elapsed Time

1. Use the operations below to measure elapsed time.

Ⓐ Start
↓
Ⓐ Stop
↓
Ⓐ Resume
↓
Ⓐ Stop

Hours, minutes, seconds, 1/100 seconds

2. Press (C) to reset the elapsed time to all zeroes.

Measuring a Split Time

1. Use the operations below to measure elapsed time.

Ⓐ Start
↓
Ⓒ Split
↓
Ⓒ Split release
↓
Ⓐ Stop

Hours, minutes, seconds, 1/100 seconds

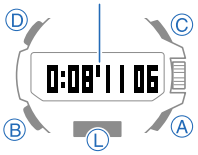
2. Press (C) to reset the elapsed time to all zeroes.

Timing the First and Second Place Finishers

1. Use the operations below to measure elapsed time.

Ⓐ Start
↓
Ⓒ 1st Finisher
(Time of 1st finisher)
↓
Ⓐ 2nd Finisher
↓
Ⓒ Split release
(Time of 2nd finisher)

Hours, minutes, seconds, 1/100 seconds



2. Press (C) to reset the elapsed time to all zeroes.

Timer

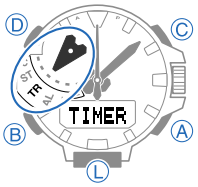
The timer counts down from a start time specified by you. A beeper sounds when the end of the countdown is reached.

Getting ready

Enter the Timer Mode.

Navigating Between Modes

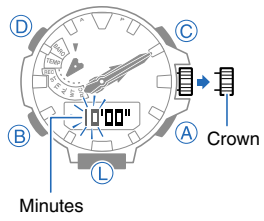
Timer Mode



Setting the Timer Start Time

1. Pull out the crown.

   This will cause the timer minutes digits to flash.



2. Rotate the crown to change the minutes value.

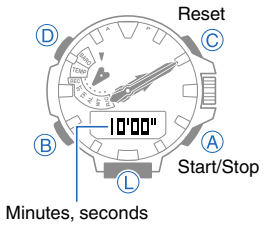
   The start time can be set in 1-minute units up to 60 minutes.

3. Push the crown back in to complete the setting operation.

Using the Timer

Press (A) to start the countdown. A beeper sounds when the end of the countdown is reached.

- Pressing (A) toggles the countdown between pause and resume.
- Pulling out the crown while a countdown is in progress will reset to the countdown start time. You can then use the crown to change the start time.



● To stop the timer and reset it to the start time

1. While a countdown operation is in progress, press (A).

   This stops the timer.

2. Press (C).

   This resets the timer to the start time.

Stopping the Timer

Pressing any button while the timer beeper is sounding stops it.

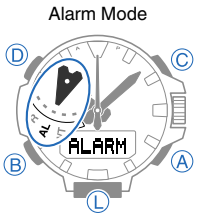
Alarms

The watch will beep when an alarm time is reached. You can set up to five different alarms. The hourly time signal causes the watch to beep every hour on the hour.

Getting Ready

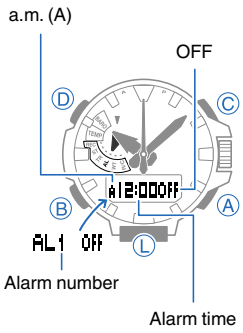
Enter the Alarm Mode.

Navigating Between Modes



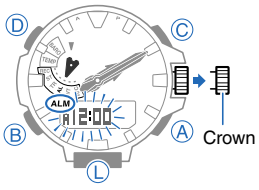
Configuring Alarm Settings

1. Use the (A) and (C) buttons to display the alarm ([AL1] to [AL5]) you want to configure.



2. Pull out the crown.

   This turns on the alarm.



3. Rotate the crown to change the minute setting.
   - The hour hand will move in accordance with minute hand movement.
   - To set the hour hand separately, go to step 4 of this procedure.

4. Press (B).

5. Rotate the crown to change the hour setting.
   - If you are using 12-hour timekeeping, [A] indicates a.m., while [P] indicates p.m.

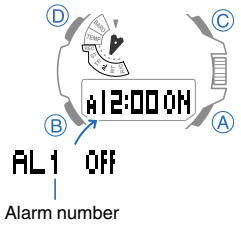
6. Push the crown back in to complete the setting operation.

Note

- In the Alarm Mode, hold down the (A) button to sound the alarm.

Turning an Alarm On or Off

1. Use the (A) and (C) buttons to display the alarm ([AL1] to [AL5] or [SIG]) you want to turn on or off.



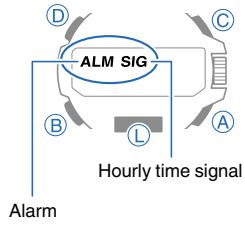
2. Press (D) to toggle the displayed alarm between on and off.

Stopping an Alarm

Pressing any button while the beeper is sounding stops it.

Finding Out an Alarm's On/Off Status

Turning on an alarm or the hourly time signal causes the corresponding indicator to appear on the display.



When any alarm is turned on :
[ALM] is displayed.

When the hourly time signal is enabled :
[SIG] is displayed.

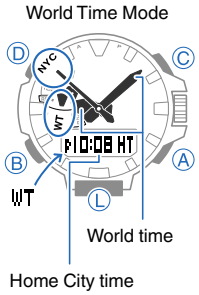
World Time

You can view the current time in 29 cities (29 time zones), and UTC (Coordinated Universal Time) time.

Getting Ready

Enter the World Time Mode.

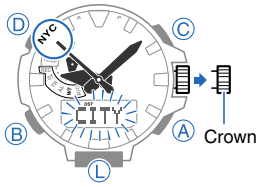
Navigating Between Modes



Checking the Time in Another Zone

1. Pull out the crown.

   The second hand will move to the currently set World Time City.

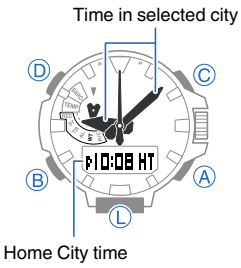


2. Rotate the crown to move the second hand to the city you want to set.

   The hour and minute hands will indicate the current time in the selected World Time City.

3. Push the crown back in to complete the setting operation.

   This will cause the current time in the selected Home City to appear on the digital display.



Note

- To look up the current time in a city that is not among the built-in cities, select a built-in city that is in the same time zone as the city you want to look up. For information about built-in cities, see the "City Code List".
- Pressing (D) while in the World Time Mode will cause the second hand to move to the city code of the currently selected World Time City.
- To check whether the currently selected World Time City time is a.m. or p.m., enter the World Time Mode, and then press (A). The second hand will move to "A" (a.m.) or "P" (p.m.).

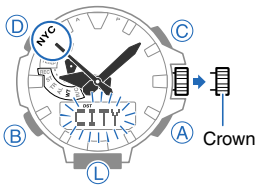
Configuring the Summer Time Setting

When summer time is used in a World Time city, you can enable Summer Time for that city.

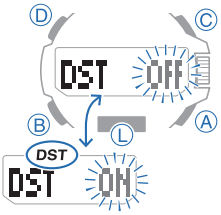
Summer Time

1. Pull out the crown.

   The second hand will move to the currently set World Time City.



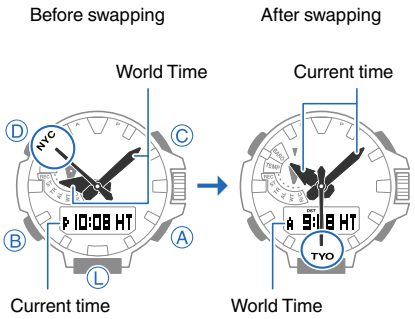
2. Press (B).
3. Rotate the crown to change the summer time setting.
   - [OFF]
     The watch always indicates standard time.
   - [ON]
     The watch always indicates summer time.



4. Push the crown back in to complete the setting operation.

Swapping the World Time and Current Location Time

Holding down the (D) button for about three seconds will swap your World Time with your current location time (Home Time).



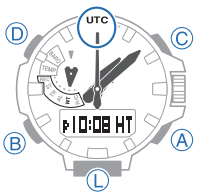
Note

- This function comes in handy when you need to move to another time zone.

International Travel

Accessing the UTC (Coordinated Universal Time) Zone

To select UTC as the World Time City, hold down the (A) button for about three seconds.



Display Illumination

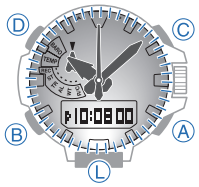
The face of the watch can be illuminated for reading in the dark. The watch also has an auto light function that automatically illuminates the display whenever the watch is angled for reading in the dark.

Note

- Illumination will turn off automatically if an alarm starts to sound or if you perform a crown operation.
- Display illumination is disabled when any one of the conditions below exists. Display illumination is also disabled while measurement by a sensor is in progress.
  - While a time signal receive operation is in progress
  - While a hand movement operation is in progress

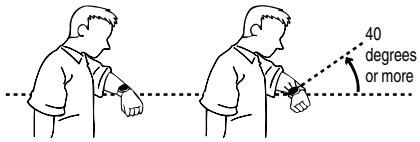
Illuminating the Display Manually

Pressing (L) in any mode turns on face illumination.



Auto Light

If Auto Light is enabled, display illumination will turn on automatically whenever the watch is positioned at an angle of 40 degrees or more when it is dark.



Important!

- Auto Light may not operate properly when the watch is at a horizontal angle of 15 degrees or greater from horizontal as shown in the illustration below.

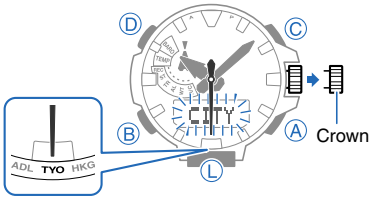
- Auto Light may operate unintentionally and run down the battery if the watch is blocked from light by your sleeve.
- Electro-static charge or magnetism can interfere with proper auto light operation. If this happens, try lowering your arm and then angle it towards your face again.
- When moving the watch you may note a slight rattling sound. This is due to operation of the auto light switch, which determines the current orientation of the watch. It does not indicate malfunction.

Note

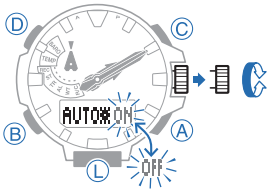
- Auto Light is disabled when any one of the conditions below exists.
  - Alarm, timer alert, or other beeper sounding
  - Watch in the Compass Mode
  - Time signal receive operation in progress
  - Hand movement operation is in progress
- If Auto Light is enabled, face illumination may be delayed if you angle the watch towards your face while a compass, altitude, barometric pressure, or temperature reading operation is being performed.

Configuring the Auto Light Setting

1. In the Timekeeping Mode, pull out the crown.



2. Press (B) three times so [AUTO] is displayed.
3. Rotate the crown to turn the setting on or off.



[ON]: Auto Light enabled.

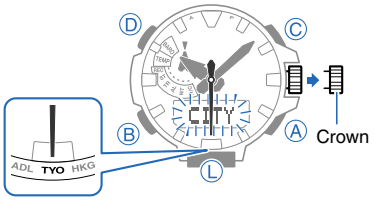
[OFF]: Auto Light disabled.

4. Push the crown back in to complete the setting operation.

Specifying the Illumination Duration

You can select either 1.5 seconds or three seconds as the illumination duration.

1. In the Timekeeping Mode, pull out the crown.

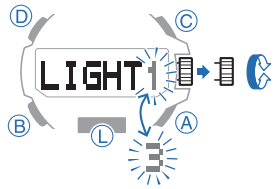


2. Press (B) four times so the current setting ([LIGHT1] or [LIGHT3]) is displayed.

3. Rotate the crown to select an illumination duration.

   [LIGHT1]: 1.5-second illumination

   [LIGHT3]: 3-second illumination



4. Push the crown back in to complete the setting operation.

Hand Alignment Adjustment

Strong magnetism or impact can cause the time indicated by the analog hands to become different from the time on the digital display. If this happens, correct the hand position.

- The watch has a function to adjust hand alignment automatically.

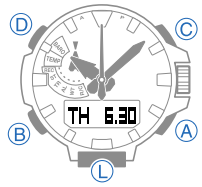
Important!

- You do not need to perform the operation below as long as the analog hands indicate the same time as the digital display.

Getting ready

Enter the Timekeeping Mode.
Navigating Between Modes

Timekeeping Mode

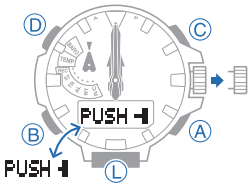


Adjusting Hand Alignment

1. Pull out the crown.
2. Hold down the (A) button for about five seconds until [HAND ADJ] flashes on the display.

   This indicates that hand alignment adjustment has started.

   - [HAND SET] will flash first on the display about 0.5 seconds after you hold down the (A) button. Keep the button depressed until [HAND ADJ] flashes on the display.
   - All of the hands will move to 12 o'clock when hand alignment adjustment is complete.



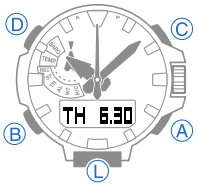
3. Check to make sure that all of the hands are stopped at 12 o'clock.
   - Hand alignment will not be adjusted correctly if you advance to the next step while the hands are still moving.
4. Push the crown back in to complete the setting operation.
   - After hand alignment adjustment is complete, check to make sure that the proper time is being indicated in the Timekeeping Mode by the hands and on the digital display. If the time indication is not correct, adjust hand alignment again.

Other Settings

Getting ready

Enter the Timekeeping Mode.
Navigating Between Modes

Timekeeping Mode

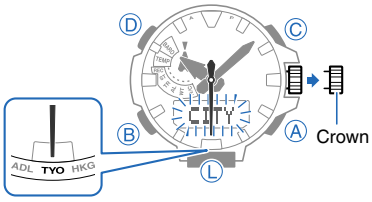


Enabling the Button Operation Tone

Use the procedure below to enable or disable the tone that sounds when you press a button.

1. Pull out the crown.

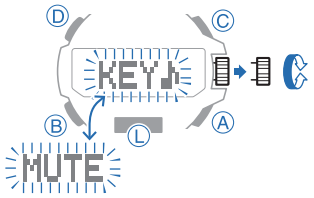
   The second hand will move to the currently set city.



2. Press (B) twice so the current setting ([KEY♪] or [MUTE]) is displayed.
3. Rotate the crown to select either [KEY♪] or [MUTE].

   [KEY♪]: Operation tone enabled.

   [MUTE]: Operation tone muted.

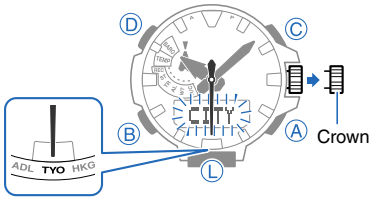


4. Push the crown back in to complete the setting operation.

Configuring Power Saving Function Settings

1. Pull out the crown.

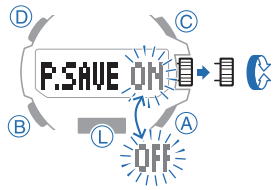
   The second hand will move to the currently set city.



2. Press (B) six times so [P.SAVE] is displayed.
3. Rotate the crown to turn the setting on or off.

   [ON]: Power Saving enabled.

   [OFF]: Power Saving disabled.



4. Push the crown back in to complete the setting operation.

Note

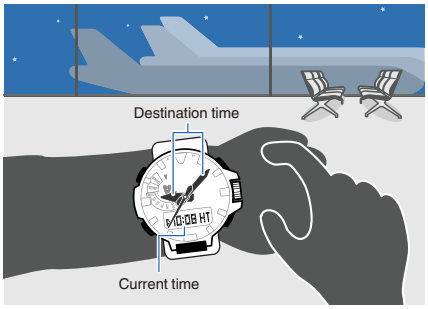
- For details about Power Saving, see “Power Saving Function”.

International Travel

Use the procedure below to easily change day and time settings of the watch to a destination location.

● Before Boarding

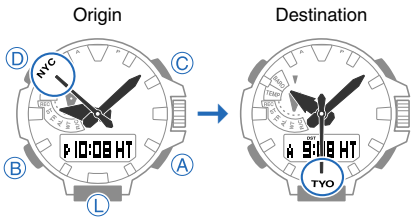
Select a World Time City that corresponds to your destination.



World Time

● After Arriving

Swap the origin time zone time with the destination time zone time.



Swapping the World Time and Current Location Time

Other Information

City Code List

This list shows the 29 cities that are built in to watch memory.

City Code	City Name	Offset
LON	London	+0
PAR	Paris	+1
ATH	Athens	+2
JED	Jeddah	+3
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5
KTM	Kathmandu	+5.75
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
PPG	Pago Pago	-11
HNL	Honolulu	-10
ANC	Anchorage	-9
LAX	Los Angeles	-8
DEN	Denver	-7
CHI	Chicago	-6
NYC	New York	-5
YHZ	Halifax	-4
RIO	Rio de Janeiro	-3
RAI	Praia	-1

- The information in the above table is current as of December 2014.

Summer Time Table

This list shows the summer time periods of Time Signal Cities. When the summer time setting is “AT (AUTO)”, switching between standard time and summer time is performed automatically at the timing shown in the table below.

City Name	Summer Time Start	Summer Time End
London	01:00, last Sunday in March	02:00, last Sunday in October
Paris	02:00, last Sunday in March	03:00, last Sunday in October
Athens	03:00, last Sunday in March	04:00, last Sunday in October
Anchorage	02:00, second Sunday in March	02:00, first Sunday in November
Los Angeles	02:00, second Sunday in March	02:00, first Sunday in November
Denver	02:00, second Sunday in March	02:00, first Sunday in November
Chicago	02:00, second Sunday in March	02:00, first Sunday in November
New York	02:00, second Sunday in March	02:00, first Sunday in November

- The information in the above table is current as of December 2014.

Troubleshooting

Auto time setting is not correct.

Q1 The watch cannot perform a receive operation.

Is the watch’s battery charged?

Signal reception is not possible while battery power is low. Keep the watch exposed to light until it recharges sufficiently.

Solar Charging

Is the watch in the Timekeeping Mode?

Time signal auto receive is performed only while the watch is in the Timekeeping Mode. Press (B) to enter the Timekeeping Mode.

- To trigger a time signal receive operation manually, enter the Receive Mode and then hold down the (A) button for about two seconds.

Navigating Between Modes
Auto Time Adjustment

Is your Home City setting correct for your location?

The watch will not indicate the correct time if the Home City setting is wrong. Change your Home City setting so it correctly reflects your location.

Setting a Home Time City

After checking the above, the watch still cannot perform a receive operation.

Time signal reception is not possible when any one of the conditions exists.

- When watch is at Level 2 power saving
- Barometric Pressure Change Indications turned on
- Timer countdown in progress

If successful reception is not possible for some reason, you can adjust the time and day settings manually.

Q2 The signal receive operation always fails.

Is the watch in a location that is appropriate for signal reception?

Check your surroundings and move the watch to a location where signal reception is better.

Appropriate Signal Reception Location

Did you avoid touching the watch while the receive operation was in progress?

Minimize movement of the watch and do not perform any watch operation while a receive operation is in progress.

Is there an alarm configured to sound during the same period that the signal receive operation is performed?

Receive stops if an alarm operation starts while it is being performed. Disable the alarm.

Turning an Alarm On or Off

Is the signal transmitter in your area transmitting a signal?

The transmitter of the time signal may not be transmitting. Try again later.

Q3 Time setting is incorrect even when time signal reception is successful.

Strong magnetism or impact may cause the hands of the watch to go out of alignment. Adjust hand alignment.

Adjusting Hand Alignment

Altitude Measurement

Q1 Readings produce different results at the same location.
Watch readings are different from altitude information available from other sources.
Correct altitude readings are not possible.

Relative altitude is calculated based on changes in barometric pressure measured by the watch's pressure sensor. This means that barometric pressure changes can cause readings taken at the same location to be different. Also note that the value displayed by the watch may be different from the actual elevation and/or sea level elevation indicated for the area where you are located. When using the watch's altimeter while mountain climbing, it is recommended that you regularly calibrate its readings in accordance with local altitude (elevation) indications.

Calibrating Altitude Readings

Q2 Following a relative altitude reading, the watch's second hand points to 9 o'clock.

The second hand will move to 9 o'clock if a reading is outside the allowable altitude measurement range (-700 m to 10,000 m (-2,300 to 32,800 feet)). If [ERR] is displayed, there may be a problem with the sensor.

Taking a Relative Altitude Reading from Some Reference Point

Q3 [ERR] appears during measurement.

There may be a problem with the sensor. Try taking another measurement. If [ERR] keeps appearing after multiple measurement attempts, contact a CASIO service center.

Digital Compass

Q1 The entire display is flashing.

Abnormal magnetism has been detected. Move away from any potential source of strong magnetism and try taking a reading again.

- If the display flashes again, it could mean that the watch itself has become magnetized. Move away from any potential source of strong magnetism, perform bidirectional calibration, and then try taking a reading again.

Calibrating Compass Readings (Bidirectional Calibration)
Digital Compass Reading Precautions

Q2 [ERR] appears during measurement.

There is a problem with the sensor or there may be a source strong magnetic force nearby. Move away from any potential source of strong magnetism and try taking a reading again. If [ERR] keeps appearing after multiple measurement attempts, contact a CASIO service center.

Digital Compass Reading Precautions

Q3 [ERR] appears following bidirectional calibration.

If [- - -] is followed by [ERR] on the display, it could mean there is something wrong with the sensor.

- If [ERR] disappears after about one second, try performing 2-point calibration again.
- If [ERR] continues to appear even after multiple attempts, contact your original retailer or CASIO service center.

Q4 Direction information indicated by the watch is different from that indicated by a backup compass.

Move away from any potential source of strong magnetism, perform 2-point calibration, and then try taking a reading again.

Calibrating Compass Readings (Bidirectional Calibration)
Digital Compass Reading Precautions

Q5 Readings at the same location produce different results.
Cannot take readings indoors.

Move away from any potential source of strong magnetism and try taking a reading again.

Digital Compass Reading Precautions

Barometric Pressure Measurement

Q1 Following a relative barometric pressure reading, the watch's second hand points to 9 o'clock.

The second hand will move to 9 o'clock if a reading is outside the allowable barometric pressure measurement range (260 hPa to 1,100 hPa (7.65 inHg to 32.45 inHg)). If [ERR] appears on the display, there may be a problem with the sensor.

Checking the Change in Barometric Pressure between Two Readings

Q2 [ERR] appears during measurement.

There may be a problem with the sensor. Try taking another measurement. If [ERR] keeps appearing after multiple measurement attempts, contact a CASIO service center.

Temperature Measurement

Q1 [ERR] appears during measurement.

There may be a problem with the sensor. Try taking another measurement. If [ERR] keeps appearing after multiple measurement attempts, contact a CASIO service center.

World Time

Q1 The time for a World Time City is not correct.

The summer time setting (standard time/summer time) is wrong.

Configuring the Summer Time Setting

Hand Movement and Indications

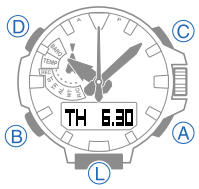
Q1 I don't know what mode the watch is in.

You tell which mode the watch is currently in by checking the position of the mode hand.

Navigating Between Modes

- Hold down the (B) button for about two seconds to enter the Timekeeping Mode.

Timekeeping Mode



Q2 The second hand is jumping at two-second intervals.

Battery power is low. Keep the watch exposed to light until it recharges sufficiently.

Checking the Charge Level

Q3 All hands are stopped and buttons do not work.

The battery is dead. Keep the watch exposed to light until the battery recharges sufficiently.

Checking the Charge Level

Q4 The hands suddenly start moving at high speed.

This is due to one of the reasons below, and does not indicate malfunction. Simply wait until normal hand movement resumes.

- The watch is recovering from a power saving state.

Power Saving Function

- A time signal is being received and the time setting is being adjusted.

Auto Time Adjustment

Q5 Hands are stopped and buttons do not work.

The watch is in the charge recovery mode. Wait until the recovery process is complete (for about 15 minutes). The watch will recover more quickly if you place it in a brightly lit location.

Q6 The time indicated by the hands is different from the digital time.

Strong magnetism or impact may cause the hands of the watch to go out of alignment. Correct hand position alignment.

Adjusting Hand Alignment

Crown Operations

Q1 Nothing happens when I rotate the crown.

Leaving the crown pulled out for more than two minutes without performing any operation will automatically disable crown operation. Push the crown back in to its normal position and then pull it out again.

Using the Crown

Usage Restrictions

Q1 [RECOVER] is flashing on the display.

A flashing [RECOVER] indicates that some functions have been temporarily disabled to protect against a drop in battery voltage.

Checking the Charge Level

Charging

Q1 The watch does not work even though it is exposed to light.

The watch stops operating whenever the battery goes dead. Keep the watch exposed to light until it recharges sufficiently.

Checking the Charge Level

Q2 [CHARGE] is flashing on the digital display.

The charge level of the watch is extremely low. Immediately expose the watch to light to charge it.

Checking the Charge Level