

Contents

Basic Operations

General Guide

Watch Face Items

Using the Crown

Hands and the Day Indicator

Solar Charging

What is solar charging?

Charging the Watch

Charging Time Guidelines

Low and Dead Battery

Checking the Current Charge Level

Power Saving Function

Auto Time Adjustment

Receiving a Time Signal

Time Signal Cities

Time Signal Reception Ranges

Configuring City and Summer Time Settings

Appropriate Signal Reception Location

Auto Time Signal Receive

Enabling/Disabling Auto Receive

Manual Time Signal Receive

Checking the Receive Operation Result

Signal Reception Precautions

Manual Time Adjustment

Configuring City and Summer Time Settings

Adjusting the Time and Day Setting

Correcting Hand and Day Indicator Alignment

To correct hand and day indicator alignment

Other Information

City (Time Zone) List

Summer Time Table

Troubleshooting

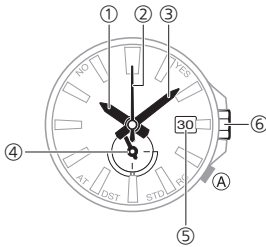
Basic Operations

This section provides an overview of the watch and its operations.

Note

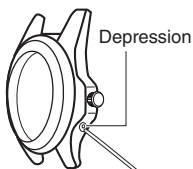
- In this manual, the expression “time signal” refers to a time calibration signal. Time signals include time information.
- Note that the watch illustrations in this manual are intended for reference only. The actual watch may appear somewhat different than depicted in the illustrations.

General Guide

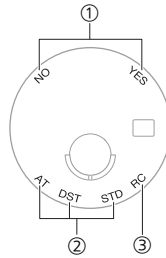


- 1 Hour hand
- 2 Second hand
- 3 Minute hand
- 4 24-hour hand
- 5 Day indicator
- 6 Crown

- The (A) button is designed to protect against accidental pressing. Insert a thin pointed object into the depression to press the (A) button.
- In the illustrations in this manual, the (A) button is shown as a raised button for ease of understanding.



Watch Face Items

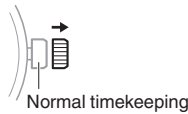


- 1 Auto receive results, auto receive settings
- 2 Summer time settings
- 3 Time calibration reception in progress indicator

Using the Crown

Depending on the operation you want to perform, pull out the crown to the first or second click and then rotate it.

First click



Second click



Important!

- To prevent loss of water resistance and/or damage due to impact, be sure to push the crown in to its normal position after you are finished using it.
- When pushing the crown back in, take care not to apply too much force.

● Fast Forward/Fast Reverse

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

● 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.

Hands and the Day Indicator

● Hands and the Day Indicator Movement

Note the precautions below whenever you are changing the city setting, adjusting the time or day setting, or correcting hand and day indicator alignment.

- Second hand and minute hand movement is synced.
- Hour hand, 24-hour hand, and day indicator movement is synced.

● Day

The day indication changes slowly each day between 10:00 p.m. and 2:00 a.m. the next day.

Solar Charging

What is solar charging?

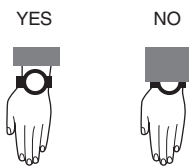
This watch runs on power supplied from a rechargeable (secondary) battery that is charged by a solar panel. The solar panel is integrated into the face of the watch, and power is generated whenever the face is exposed to light.

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 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

Charging Time Guidelines

The table below shows guidelines for approximate charging times.

Charging Times Required for 1 Day of Operation

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

Times Required to Achieve Next Charge Level

Light Intensity	Approximate Charging Time		
	Charge Level	Charge Level 1	Charge Level 2
High ↓	①	2 hours	27 hours
	②	4 hours	98 hours
Low	③	6 hours	159 hours
	④	63 hours	-

Light Intensity

- Sunny day, outdoors (50,000 lux)
- Sunny day, near a window (10,000 lux)
- Overcast day, near a window (5,000 lux)
- Indoor fluorescent lighting (500 lux)

Charge Level 1 :

Time from dead battery until watch operation starts.

Charge Level 2 :

Time from watch operation start until a full charge.

Note

- Actual charging time depends on the local charging environment.

Low and Dead Battery

The charge level is indicated by watch hand movement. Functions become disabled as battery power goes low.

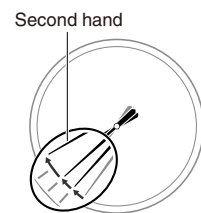
Important!

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

● Low Charge Level

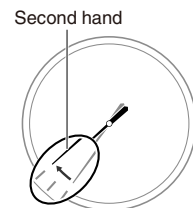
A low charge level is indicated by abnormal movement of the second hand in the pattern below.

1 second → 1 second → 2 seconds



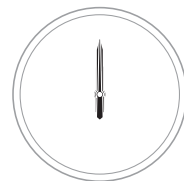
● Low Battery Power

The second hand jumps at two-second intervals.



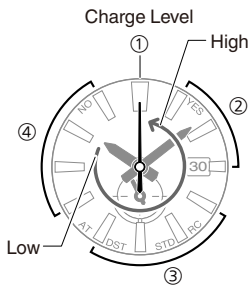
● Dead Battery

All hands are stopped.



Checking the Current Charge Level

- Pull out the crown to the first click.
The second hand points to the current city code.
- Push the crown back in to its normal position.
For about one second, the second hand will indicate the current charge level.
 - Failure to expose the watch to light for long periods will cause the charge to be reduced.
 - Depending on usage conditions, the battery charge may go low even if a relatively high charge is indicated. If this happens, expose the watch to light as soon as possible to charge the battery.



- Battery is charged.
- Take steps to charge the battery.
- Expose the watch to light more.
- Expose the watch to bright light for a long time.

Power Saving Function

Leaving the watch in a dark location for approximately one week will cause movement of all of the hands to stop in order to save power.

Recovering from Power Saving Operation

Press any button, perform a crown operation, or place the watch in a well-lit area to recover from power saving.

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, the city setting must be one of the cities shown under "Time Signal Cities".
- 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.

Note

- The city and summer time settings are as shown below when you purchase it. You do not need to change these settings if you use the watch in Japan.
 - City: Tokyo (TOKYO/TYO)
 - Summer Time Setting: AUTO

Receiving a Time Signal

Time Signal Cities

City code City Name	Offset	Second Hand Position
TOKYO (TYO) Tokyo	+9	22

Receivable Time Signal: Japan Time Calibration Signal (JJY)

City code City Name	Offset	Second Hand Position
HONG KONG (HKG) Hong Kong	+8	20

Receivable Time Signal: China Time Calibration Signal (BPC)

City code City Name	Offset	Second Hand Position
HALIFAX (YHZ) Halifax	-4	50
NEW YORK (NYC) New York	-5	47
CHICAGO (CHI) Chicago	-6	45
DENVER (DEN) Denver	-7	43
LOS ANGELES (LAX) Los Angeles	-8	40
ANCHORAGE (ANC) Anchorage	-9	38
HONOLULU (HNL) Honolulu	-10	35

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

City code City Name	Offset	Second Hand Position
LONDON (LON) London	0	0
PARIS (PAR) Paris	+1	3
ATHENS (ATH) Athens	+2	5

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.

Configuring City and Summer Time Settings

Use the procedure in this section to select a Home City and configure its summer time setting.

● 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.

● World Time

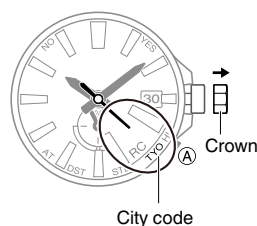
Your watch lets you select from among city codes for 24 cities around the globe. Selecting a city code causes the watch's time setting to change automatically to indicate the current time in that zone.

Note

- The initial factory default summer time setting for all cities (time zones) is "AT (AUTO)".
- 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 \(Time Zone\) List](#)".

1. Pull out the crown to the first click.

The second hand will move to the currently selected city code.



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

- If you do not want to change the summer time setting, advance to step 5.

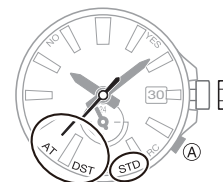
3. To change the summer time setting, press (A).

The second hand will move to the current summer time setting.

- "AT (AUTO)"
The watch switches between standard time and summer time automatically.
[Summer Time Table](#)
- "STD"
The watch always indicates standard time.
- "DST"
The watch always indicates summer time.
- After about three seconds, the second hand will return to the currently selected city code.

4. To change the summer time setting, hold down the (A) button for about one second. Each time you hold down the (A) button for about one second, the setting will cycle through options in the sequence shown below.

"AT (AUTO)" → "STD" → "DST"



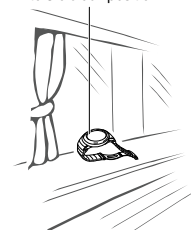
5. Push the crown back in to its normal position.

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.

7 to 8 o'clock position



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

Auto receive is automatically attempted up to three times each night between midnight and 5:00 a.m. A successful receive attempt causes any remaining attempts for that day to be canceled.

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

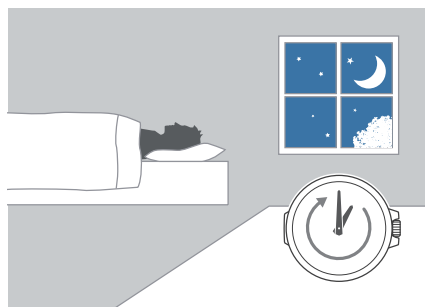
- When the receive operation is successful, the time and day settings will be adjusted automatically.

Note

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

Using Auto Receive

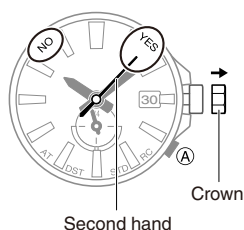
Before going to bed at night, leave the watch (with the correct city setting) near a window.



Enabling/Disabling Auto Receive

Use the procedure below to enable or disable Auto Receive.

1. Press (A).
This causes the last receive operation result to be indicated by the second hand.
2. Within 10 seconds after the last receive result is indicated, pull out the crown to the first click.
The second hand will move to the current auto receive setting.
“Y (YES)”: Auto receive on
“N (NO)”: Auto receive off



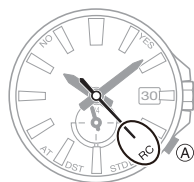
3. Rotate the crown to select either “Y (YES)” or “N (NO)”.
4. Push the crown back in to complete the setting operation.

Manual Time Signal Receive

You can use a button operation to receive the time signal.

1. Hold down (A) for about two seconds until the second hand points to “RC”.

This indicates that time signal reception has started.



2. Place the watch near a window or some other location appropriate for time signal reception.
 - To cancel an ongoing time signal receive operation, press the (A) button.
 - When a receive operation is successful, the time and day settings will be adjusted automatically.
 - If reception fails for some reason, check the surrounding reception environment and then try again.

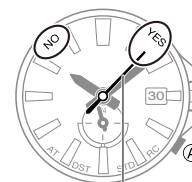
Note

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

Checking the Receive Operation Result

Use the procedure below to check the result of the last time signal receive operation.

1. Press (A).
The second hand will move and indicate the receive operation result.
“Y (YES)”: Receive successful
“N (NO)”: Receive failed



Second hand

2. Press (A) or do not perform any operation for 10 seconds to return to the current time.

Note

- Even if there was a successful receive operation, the second hand will point to “N(NO)” if you adjusted the time setting manually.

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
 - During power saving
- 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 January 2018, 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 when time signal reception and adjustment is not possible.

Configuring City and Summer Time Settings

Use the procedure in this section to select a Home City and configure its summer time setting.

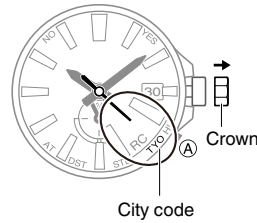
● World Time

Your watch lets you select from among city codes for 24 cities around the globe. Selecting a city code causes the watch's time setting to change automatically to indicate the current time in that zone.

Note

- The initial factory default summer time setting for all cities (time zones) is "AT (AUTO)".
- 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 \(Time Zone\) List](#)".

1. Pull out the crown to the first click.
The second hand will move to the currently selected city code.



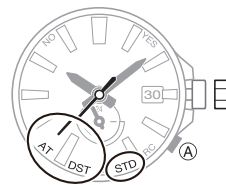
2. Rotate the crown to move the second hand to the city you want to set.
 - If you do not want to change the summer time setting, advance to step 5.
3. To change the summer time setting, press (A).

The second hand will move to the current summer time setting.

- "AT (AUTO)"
The watch switches between standard time and summer time automatically.
[Summer Time Table](#)
- "STD"
The watch always indicates standard time.
- "DST"
The watch always indicates summer time.
- After about three seconds, the second hand will return to the currently selected city code.

4. To change the summer time setting, hold down the (A) button for about one second.
Each time you hold down the (A) button for about one second, the setting will cycle through options in the sequence shown below.

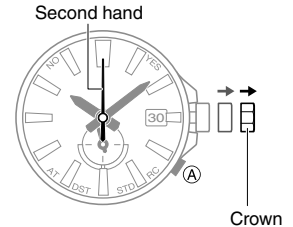
"AT (AUTO)" → "STD" → "DST"



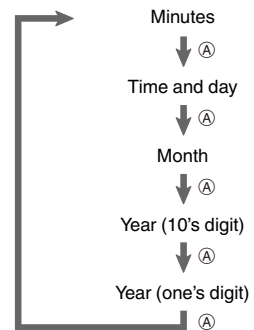
5. Push the crown back in to its normal position.

Adjusting the Time and Day Setting

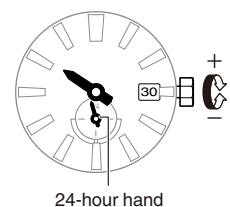
1. Pull out the crown to the second click.
This causes the second hand to move to 12 o'clock.



- Each press of (A) cycles through available setting items in the sequence shown below.

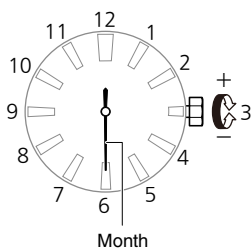


2. Rotate the crown to change the minute setting.
3. Press (A).
The hour hand will move slightly, indicating that the time and day setting operation is enabled.
4. Rotate the crown to change the time and day settings.
 - Keep rotating the crown to move the hour hand until the day indicator shows the day you want.
 - The day indicator will change gradually between 10 p.m. and 2 a.m. Because of this, the number indicating the day will not be centered in the indicator window at midnight.
 - You can determine whether the indicated time is a.m. or p.m. by checking the 24-hour hand. The 24-hour hand makes one revolution every 24 hours.



5. Press (A).

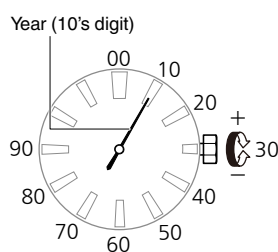
This enables the month setting operation.



6. Rotate the crown to change the month.

7. Press (A).

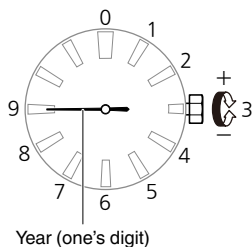
This enables the year 10's digit setting operation.



8. Rotate the crown to move the second hand to the desired setting for the year ten's digit.

9. Press (A).

This enables the year one's digit setting operation.



10. Rotate the crown to move the second hand to the desired setting for the year one's digit.

11. On a time signal at the top of a minute, push the crown back in.

Correcting Hand and Day Indicator Alignment

Strong magnetism or impact can cause the time indicated by the hands and the day indicator to go out of alignment. If this happens, adjust hand and day indicator alignment.

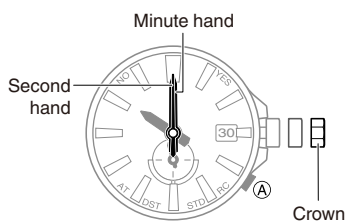
- The watch corrects second hand alignment automatically.

You can also correct hand alignment manually using the procedure below if you notice the following.

- Auto second hand alignment correction is not being performed for some reason.
- The positions of the hour hand, minute hand, and/or day indicator are not correct.

To correct hand and day indicator alignment

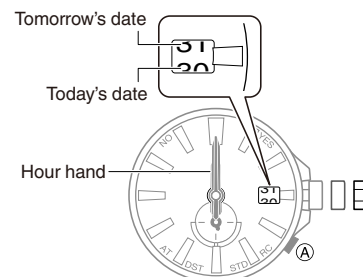
1. Pull out the crown to the second click.
2. Hold down the (A) button for at least five seconds. This should cause the second hand and minute hand to move to 12 o'clock.
3. If the second hand and minute hand do not stop at 12 o'clock, rotate the crown to move them there.
 - You can use the second hand fast forward or fast reverse operation to move the minute hand.



4. Press (A).

Confirm that the hour hand is stopped at 12 o'clock and the date indicator is stopped in between the today's date and tomorrow's date.

- If the hour hand is misaligned by up to three hours at this time, go to step 5 of this procedure.
- If the your hand is misaligned by more than three hours or if the indicated date is wrong, go to step 6 of this procedure.

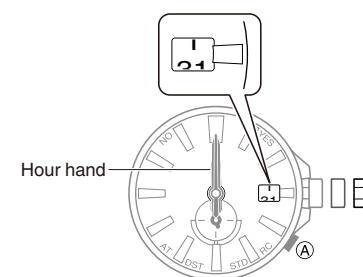


5. Rotate the crown to align the hour hand with 12 o'clock.

- After the hour hand is in the correct position, advance to step 8 of this procedure.

6. Hold down the (A) button for at least 2 seconds.

Confirm that the hour hand is stopped at 12 o'clock (home position) and that the day indicator is stopped between "31" and "1" (home position).



7. If the hour hand and day indicator are not in their home positions, rotate the crown to move them there.

- To move the day indicator, used the hour hand fast forward or fast reverse operation.

8. Push the crown back in to its normal position.

After finishing the above operation, configure time and date settings.

- If you are using the watch in Japan or another location where time calibration signal reception is possible

[Auto Time Adjustment](#)

- If you are using the watch where time calibration signal reception is not possible

[Manual Time Adjustment](#)

Note

- Leaving the crown pulled out for more than approximately 30 minutes without performing any operation will automatically cause the adjustment operation to become disabled. If this happens, push the crown back in to its normal position and then pull it out again to restart the procedure from the beginning. Pushing the crown in to its normal position part way through the alignment procedure will cause the hands to return to their normal position. Any alignment you performed up to that point will be applied.

Other Information

City (Time Zone) List

This list shows the 24 cities that are built in to watch memory.

City code	Offset	Second Hand Position
LONDON (LON)	0	0
PARIS (PAR)	+1	3
ATHENS (ATH)	+2	5
JEDDAH (JED)	+3	8
DUBAI (DXB)	+4	10
KARACHI (KHI)	+5	13
DHAKA (DAC)	+6	15
BANGKOK (BKK)	+7	17
HONG KONG (HKG)	+8	20
TOKYO (TYO)	+9	22
SYDNEY (SYD)	+10	25
NOUMEA (NOU)	+11	27
WELLINGTON (WLG)	+12	30
PAGO PAGO (PPG)	-11	33
HONOLULU (HNL)	-10	35
ANCHORAGE (ANC)	-9	38
LOS ANGELES (LAX)	-8	40
DENVER (DEN)	-7	43
CHICAGO (CHI)	-6	45
NEW YORK (NYC)	-5	47
HALIFAX (YHZ)	-4	50
RIO DE JANEIRO (RIO)	-3	52
F. DE NORONHA (FEN)	-2	55
PRAIA (RAI)	-1	57

- The information in the above table is current as of January 2018.

Summer Time Table

When [AT (AUTO)] is selected for a city that observes summer time, switching between standard time and summer time will be performed automatically at the timing shown in the table below.

Note

- If the summer time start and end dates for a location have been changed from those indicated in the table, you will need switch between "STD" and "DST" manually.

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
Sydney	02:00, first Sunday in October	03:00, first Sunday in April
Wellington	02:00, last Sunday in September	03:00, first Sunday in April
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
Rio de Janeiro	00:00, third Sunday in October	00:00, third Sunday in February or 00:00, fourth Sunday in February

- The information in the above table is current as of January 2018.

Troubleshooting

Time signal reception

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.

↪ [Charging the Watch](#)

Is your city setting correct for your location?

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

↪ [Auto Time Adjustment](#)

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.

- During power saving
- When the crown is pulled out

The watch cannot perform auto receive if auto receive is turned off.

↪ [Enabling/Disabling Auto Receive](#)

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 the signal transmitter in your area transmitting a signal?

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

Q3 Signal reception should have been successful, but the watch's time and/or day is wrong.

Do the hand and/or day indicator look out of alignment?

Correct hand and day indicator alignment.

↪ [Correcting Hand and Day Indicator Alignment](#)

After checking the above, the time and/or day settings is still wrong.

Adjust time and day settings manually.

↪ [Manual Time Adjustment](#)

Hand Movement and Indications

Q1 Second hand movement is abnormal.

The charge level of the watch battery is low. Keep the watch exposed to light until it recharges sufficiently.

↪ [Charging the Watch](#)

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

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

↪ [Charging the Watch](#)

Q3 All hands are stopped at 12 o'clock and buttons do not work.

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

↪ [Charging the Watch](#)

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 current time indicated by the watch is off by a relatively regular amount of time (such as nine hours, 3.5 hours, etc.).

The city setting is not correct. Select the correct setting.

↪ [Configuring City and Summer Time Settings](#)

Q7 The current time displayed by the watch is off by one hour.

The summer time setting is not correct. Select the correct setting.

↪ [Configuring City and Summer Time Settings](#)

Q8 Hands and/or the day indicator is out of alignment.

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

↪ [Correcting Hand and Day Indicator Alignment](#)

Q9 The time setting is correct, but the day indicator is between days.

The day is in the process of changing. For information about how the day changes, see the section below.

↪ [Hands and the Day Indicator](#)

Crown Operations

Q1 Nothing happens when I rotate the crown.

If you do not perform any operation for about two minutes after pulling out the crown (approximately 30 minutes in the case of hand and day indicator alignment operations), crown operations will automatically become disabled. Push the crown back in to its normal position and then pull it out again.

 [Using the Crown](#)

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.

 [Charging the Watch](#)