# SEIKO ASTRON

# 7X52 GPS SOLAR
# QUICK START MANUAL

※ For details, please read the complete user guide.

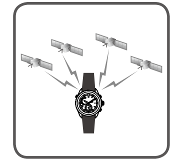
## 1 Features

### ☐ This is a GPS solar watch.

This watch has the following features.

**This watch can be set to the precise local time by just one button operation anywhere in the world.**

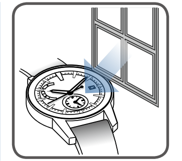
This watch quickly adjusts the time by receiving GPS signals from GPS satellites.
This watch responds to a total of 39 time zones around the world.



**This watch operates by solar charging.**

Expose the dial to light to charge the watch.
Once fully charged, the watch runs for approximately six months.

When the energy stored in the watch runs out completely, it takes time to fully charge the watch, so please keep in mind to charge the watch regularly.



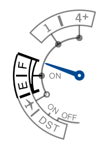
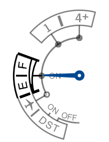
※Unlike navigation equipment, this GPS solar watch is not designed to constantly receive GPS signals from GPS satellites without any operation.This watch receives GPS signals only in the time zone adjustment mode, automatic or manual time adjustment mode.

## 2 Check the charging status

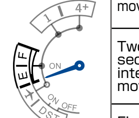
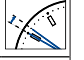
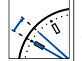
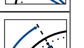
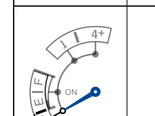
The indicator hand position shows whether this watch is able or unable to receive GPS signals. In addition, for the low charging state, the movement of the second hand shows the energy depletion state in further detail.

＊GPS radio signal reception requires a lot of energy. Keep in mind to regularly charge the watch by expose to light.

**Reception is allowed**

| Indicator display | Charging status | Solution |
|---|---|---|
|  | F (full) | Reception is allowed. |
|  | Level position (middle) | Reception is allowed, but keep in mind to charge the watch. |

**Reception is not allowed**

| Indicator display | Movement of second hand | | Charging status | | Solutions |
|---|---|---|---|---|---|
|  | One-second interval movement |  | E (low) | The watch is unable to receive GPS signals, but has energy to operate. | Charge the watch at least until the indicator hand points to the level position so that the watch is able to receive GPS signals. |
| | Two-second interval movement |  | | The watch is unable to receive GPS signals, and does not have energy to operate. (The energy depletion forewarning function is activated. ) | Continue to charge the watch at least until the indicator hand points to the level position so that the watch is able to continuously operate and receive GPS signals. |
| | Five-second interval movement |  | | | |
|  | — | | The charging status is not displayed for the in-flight mode (✈) | | Reset the in-flight mode (✈) as long as possible.<br>→Reset the in-flight mode (✈) When the indicator hand points to "E," charge the watch following the above. |

## 3 In-flight mode (✈) (When boarding)

### ☐ In-flight mode (✈)

Set to the in-flight mode (✈) where the reception may influence operation of other electronics devices in an airplane, etc.
In the in-flight mode (✈) the GPS signal reception (time zone adjustment, manual time adjustment, and automatic time adjustment) does not work.

< In-flight mode (✈)>
The indicator hand points to ✈

※ When the in-flight mode (✈) is reset, the indicator hand indicates the charging status.

### ☐ Set to the in-flight mode (✈)

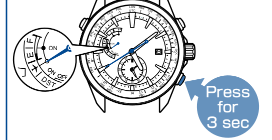
**1 Press Button B and then release it.**

The second hand indicates the reception result (Y or N), and the indicator hand points to the type of reception (1 or 4+).

**2 Continue to press Button C (3 sec) within approximately 5 sec after operation of ①.**

The second hand stops at the 40-sec position, and the indicator hand points to ✈

< In-flight mode (✈) state >
The indicator hand points to ✈ .



**3 In-flight mode setting automatically ends after 5 sec**

The watch returns to the time display mode.

When the in-flight mode (✈) is brought about, the indicator hand points to ✈ even after the watch has returned to the time display mode.

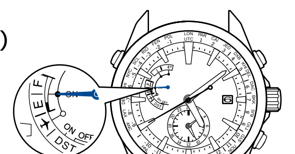
→Manual time zone setting (To set the watch to the local time of the destination in an airplane, etc.)

※When 5 seconds or longer have elapsed after operation of ①, the watch automatically returns to the time display mode. When the watch returned to the time display mode, restart operation from ①.

### ☐ Reset the in-flight mode(✈)

Carry out operation of ① to ③ .

In ② , when the indicator hand points to "● ON" in the figure at the right, the in-flight mode ( ✈ ) can be reset.



## 4 Manual time zone setting (To set the watch to the local time of the destination in an airplane, etc.)

### ☐ Manual time zone setting

In places where the time zone cannot be adjusted, the time zone can be set manually.

※ Refer to "Set Daylight Saving Time (DST)," to set Daylight Saving Time (DST).

### ☐ How to manually set the time zone

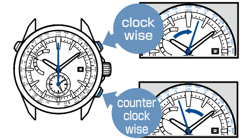
**1 Continue to press Button C (3 sec), and when the second hand has stopped, release it.**

The second hand moves to display the currently set time zone.

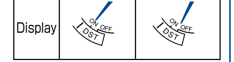
※If the time for pressing is short, the watch will enter operation for checking the time zone setting, so make certain to press the button for 3 sec.

**2 Press Button B or Button C to adjust the second hand to the time zone of the destination**

When the button is pressed once, the second hand moves to the next zone.



<Display of the indicator hand>
Displays ON/OFF setting of Daylight Saving Time (DST).

| DST | ON | OFF |
|---|---|---|
| Display |  |  |

※If Daylight Saving Time (DST) is not correct, change over ON/OFF with reference to "Set Daylight Saving Time (DST)" after operation of ③.

**3 When the hour and minute hands stop moving, press Button A**

The second hand starts moving.

※During movement of the date, the buttons and crown cannot be operated.

※If the second hand is stopped for one minute or longer, the watch will automatically return to the time display mode.

## 5 Time Zone Adjustment (When the region or time zone where the watch is used is changed)

**Precautions on time zone adjustment**

If the time zone is adjusted near a time zone boundary, the time of the adjacent time zone may be displayed.
In some areas the boundaries observed by the watch may not exactly correlate to the actual time zone markers on the land. This does not indicate a malfunction. In this case, set the time zone in the manual time zone setting mode.
When the time zone is adjusted while traveling on land, avoid time zone boundaries to carry out time zone adjustment in the representative cities in the time zone whenever possible. In addition, when the watch is used near time zone boundaries, make sure to check the time zone setting, and manually set the time zone as necessary.

### ☐ How to adjust the time zone

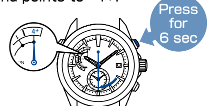
**1**

Move to the outdoors under an open sky with good visibility where GPS signals can be easily received.

**2 Continue to press Button B (6 sec), and then release it when the second hand moves to the 30-sec position.**

※Although the second hand moves to the 0-sec position 3 sec after pressing Button B, continue to press it.

When the second hand has reached the 30-sec position, reception is started. The indicator hand points to "4+.



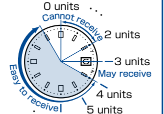
※While the indicator hand points to "E" or ✈ reception is not started even with operation for reception.
When the hand points to "E," charge the watch by expose to light.
When the hand points to ✈ reset the in-flight mode (✈) .

**3 Direct the watch face upward and wait**

※Please note that it may be difficult to receive GPS signals while you are in motion.

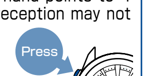
**It takes a maximum of 2 min to complete reception.**
※It depends on the receiving conditions.

<Display during reception>
The second hand indicates ease of receiving (= number of GPS satellites from which GPS signals are received).



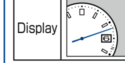
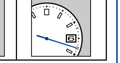
※Even when the hand points to 4 units or more, reception may not be allowed.

※To cancel the reception, press Button A.



**4 When the second hand points to "Y" or "N," reception is completed.**

The reception result is displayed for 5 seconds. Then, the hour and minute hands move, and the time and date are adjusted.

| Reception result display | Y : Successful | N : Failed |
|---|---|---|
| Display |  |  |

※During movement of the date, the buttons and crown cannot be operated.
※Daylight Saving Time (DST) is not automatically set. Carry out the setting manually

## 6 Set Daylight Saving Time (DST)

### ☐ Daylight Saving Time (DST)

Depending on the area, Daylight Saving Time (DST) is individually set.
Daylight Saving Time means summer time, which is a system to lengthen daylight time by advancing 1 hour when daylight time is long in summer. Daylight saving time has been adopted in about 80 countries, mainly in Europe and North America. The adoption and duration of daylight saving time vary depending on the country.

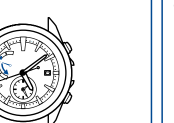
※ Daylight Saving Time is subject to change owing to circumstances of the country or region.

### ☐ Turn ON Daylight Saving Time (DST)

※ON/OFF of the DST is not automatically changed over even with operation of time zone adjustment/manual time zone setting. When traveling to a region where Daylight Saving Time (DST) is not adopted from a region where it is adopted, turn off the DST setting.

**1 Press Button A**

The indicator hand moves to indicate the current DST setting.
<When DST setting is OFF>



**2 Continue to press Button C (3 sec)within 5 sec after operation of ①**

The indicator hand moves to point to "ON," and the hour and minute hands advance by one hour.

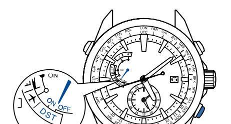
**3 When the hour and minute hands stop moving, the DST setting mode is automatically completed after approximately 5 sec.**

The watch returns to the time display mode. The indicator hand returns to display the charging status.

※The time at which the watch returns to the time display mode varies depending on the position of the indicator hand.
※The watch returns to the time display mode even by pressing button A within 5 sec after the hour and minute hands stop moving.

### ☐ Turn OFF Daylight Saving Time (DST)

Carry out operation of ① to ③ in the state where Daylight Saving Time (DST) setting is ON.
In operation of ② , adjust the indicator hand to the "OFF" position as shown in the figure at the right. The hour and minute hands return by one hour.



# 7 Manual time adjustment (To set only the time)

## Manual time adjustment

The watch can be set to the precise current time of the currently set time zone.

(The time zone is not changed.)

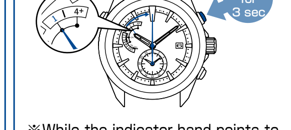
## How to manually adjust the time

### 1

Move to the outdoors under an open sky with good visibility where GPS signals can be easily received.

### 2 Continue to press Button B (3 sec), and then release it when the second hand moves to the 0-sec position.

When the second hand has reached the 0-sec position, reception is started.
The indicator hand points to "1."



※While the indicator hand points to "E" or ✈, reception is not started even with operation for reception. When the hand points to "E," charge the watch by expose to light.
When the hand points to ✈, reset the in-flight mode(✈)

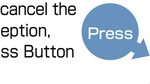
### 3 Direct the watch face upward and wait

**It takes up to 1 min to complete reception.**
※The reception time depends on the reception conditions.

<Display during reception>
The second hand indicates ease of receiving (= number of GPS satellites from which GPS signals are received).
※To acquire only time information, the number of satellites necessary for reception is one.

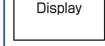
| Number of acquired satellites | 1 | 0 |
|---|---|---|
| Display |  |  |
| State | Easy to receive | Cannot receive |

※To cancel the reception, press Button A.



### 4 When the second hand points to "Y" or "N," reception is completed.

The reception result is displayed for 5 seconds. Then, the hour and minute hands move, and the time and date are adjusted.

| Reception result display | Y: Successful | N: Failed |
|---|---|---|
| Display |  |  |

Check that the reception is successful after the watch returns to the time display mode.
When the time is not correct even if "Y" is displayed, the time zone may not correspond to the region where you are. Check the time zone setting.

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# 8 How to set the sub-dial

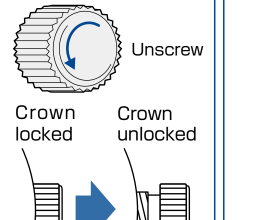
## How to set the sub-dial

- The sub-dial displays the time in a 24-hour system.
- Even when the time zone of the dial is changed, the time of the sub-dial is not changed.

The sub-dial moves independently from the dial.

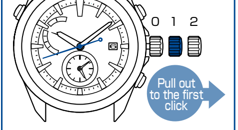
### 1 Unlock the crown

Unlock the crown
Turn the crown counterclockwise (downward) to unscrew it. Now the crown can be operated.

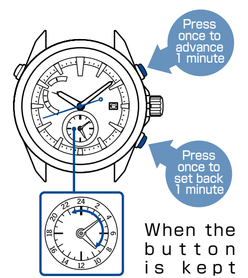


### 2 Pull out the crown to the first click

The watch enters the time setting mode of the sub-dial.
(Hands on the main-dial keep moving.)



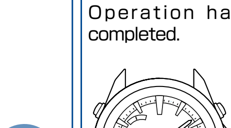
### 3 Press Button B or Button C to set the time



When the button is kept pressed for 2 seconds or longer, the sub-dial hour/minute hands will start to move continuously, and when it is pressed again, they stop moving.

### 4 Push the crown back in

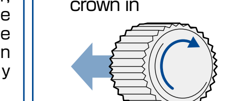
Operation has been completed.



※Lock the crown

Turn the crown clockwise (upward) while gently pressing it in toward the watch body until it stops.

While pressing the crown in



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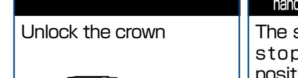
# 9 How to manually set the time

## How to manually set the time

- When using the watch again under a condition in which the watch is able to receive GPS signals, receive GPS signals to set the time.
- When adjusting the time, the date will be accordingly adjusted.

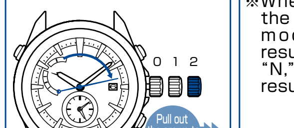
### 1 Unlock the crown

Unlock the crown



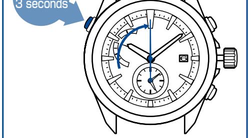
### 2 Pull out the crown to the second click

The second hand moves to the 13-second position and stops.



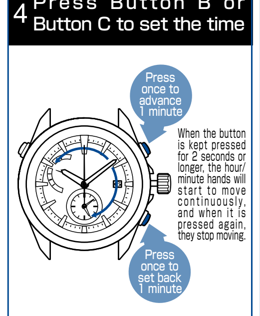
### 3 Continue to press Button A (3 seconds)and then release it when the hand moves to the 0-second position

The second hand moves to stop at the 0-second position.
The watch enters the manual time setting mode.



※When the watch enters the manual time setting mode, the reception result will be displayed as "N," since the reception results data will be lost.

### 4 Press Button B or Button C to set the time



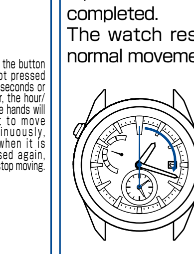
When the button is kept pressed for 2 seconds or longer, the hour/minute hands will start to move continuously, and when it is pressed again, they stop moving.

※The hands will not move by turning the crown.

※The point in which the date changes is at 0:00 AM (12:00 PM). Set the time taking into consideration AM or PM.

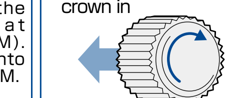
### 5 Push the crown back (in simultaneously with a time signal)

Operation has been completed.
The watch resumes its normal movement.



※Lock the crown.

While pressing the crown in



※ Even if GPS signals cannot be received, the watch can be used with the same accuracy as a normal quartz watch. (at loss/gain ± 15 seconds per month on average)
※ If the watch receives GPS signals after manual time setting, it displays the received time.

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# 10 How to manually set the date

## How to manually set the date

**Precautions on the setting the date manually**
Please refrain from doing this operation except where GPS signals cannot be received because this watch can be set to the precise current time and calendar by automatically receiving GPS signals. It may cause the preliminary position of this watch misaligned.

When the date is not automatically changed under a condition in which the watch is unable to receive GPS signals (when changing from months with 30 days or less to months with 31 days), set the date manually.

- The date can be set independently regardless of the time.
- When using the watch again under a condition in which the watch is able to receive GPS signals, receive GPS signals to set the time and date.
  → 5 How to adjust the time zone.

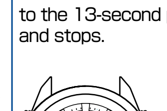
※When the date is not correct even when the watch has successfully received GPS signals, the preliminary position of the date may be misaligned.
→BASIC MANUAL「Adjust the preliminary positions of the date, indicator hand and hour/minute hands」P.55～56

### 1 Unlock the crown

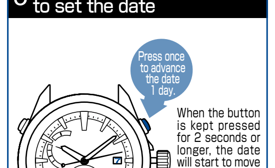
Unlock the crown

### 2 Pull out the crown to the second click

The second hand moves to the 13-second position and stops.



### 3 Press Button B or Button C to set the date



When the button is kept pressed for 2 seconds or longer, the date will start to move continuously. Press the button again to stop.

※When the watch enters the manual time setting mode, the reception result will be displayed as "N," since the reception results data will be lost.

※The date will not move by turning the crown.

※During movement of the date, the buttons cannot be operated.

### 4 Push the crown back in

Operation has been completed.

※ Lock the crown.

While pressing the crown in

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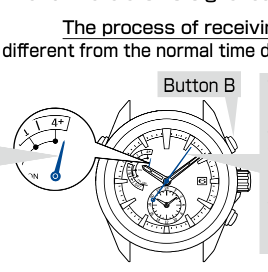
# 11 Instructions for Receiving Leap Second Data on Seiko Astron GPS Solar Watch

Thank you for purchasing a Seiko Astron Watch.
This watch enters the "leap second data" receiving mode after the first GPS signal is received on or after December 1st and June 1st.
It is conducted every six months whether the leap second data is put into effect or not. This process occurs automatically so no special operation is required from the user. The process of receiving the leap second data takes longer than the regular time adjustment. Be sure to complete receiving the leap second data in an environment where a GPS signal can be received, such as outdoors.

### The process of receiving leap second data

Although this movement is different from the normal time display, it is not an indication that the watch is defective.

The indicator hand points to the right side of the 4+ position.



The second hand begins moving counter-clockwise and displays the countdown in minutes until leap second data is received.
This may require up to 18 minutes.
When the second hand has reached the 12 o'clock position, reception of the leap second data beging. When reception is good, the second hand moves to the 1 o'clock position and the watch acquires the data (within approximately, one minute).
If the reception was successful, the second hand points to the Y position indicating successful data transfer.

※When the second hand points to the one-second position, it is indicating that one minute is required before the watch begins receiving the leap second data. At this time, it is recommended that you remain in an environment where a GPS signal can be received, such as outdoors.
※Please refrain from button operation while the watch is in the data receiving mode.

The watch will repeatedly enter the "leap second data" receiving mode until the process is successfully completed. During this time, no time adjustment will take place. In the event that the attempt to receive leap second data is unsuccessful, indicated by position N (not successful), it is recommended you move to a place where a GPS signal can be easily received, such as outdoors, and complete the process of receiving time data and then leap second data through a GPS signal by pressing and holding button B for 3 seconds.

For details, please read the Basic Manual (P.18).

### About Leap Second

The leap second is to compensate for deviations from the "Universal Time" (UT) which is astronomically determined and the "International Atomic Time" (TAI). 1 second may be added (deleted) once a year or every few years at the end of June or December.

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