

# SEIKO

## 取扱説明書

### I N S T R U C T I O N S

S770 世界4エリア対応 EPDソーラー電波  
日本・ドイツ・イギリス・アメリカ

## C-15

Thank you very much for choosing a SEIKO watch.  
For proper and safe use of your SEIKO watch,  
please read carefully the instructions in this  
booklet before using “it”.

Keep this manual handy for easy reference.

※ Length adjustment service for metallic bands is available at the retailer from whom the watch was purchased. If you cannot have your watch repaired by the retailer from whom the watch was purchased because you received the watch as a gift, or you moved to a distant place, please contact SEIKO CUSTOMER SERVICE CENTER.  
The service may also be available on a chargeable basis at other retailers, however, some retailers may not undertake the service.

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## Handling Cautions

### ⚠ WARNING

To indicate the risks of serious consequences such as severe injuries unless the following safety regulations are strictly observed.

• **Immediately stop wearing the watch in following cases.**

- If the watch body or band becomes edged by corrosion etc.
- If the pins protrude from the band

※ Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER.

• **Keep the watch and accessories out of the reach of babies and children.**

Care should be taken to prevent a baby or a child accidentally swallowing the accessories.

If a baby or a child swallows the battery or accessories, immediately consult a doctor, as it will be harmful to the health of the baby or child.

• **Do not remove the secondary battery from the watch.**

※ About the secondary battery → POWER SOURCE P152

Replacement of the secondary battery requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for replacement of the secondary battery. Installation of an ordinary silver oxide battery can generate heat that can cause bursting and ignition.

### ⚠ WARNING



**Do not use the watch in scuba diving or saturation diving.**

The various tightened inspections under simulated harsh environment, which are usually required for watches designed for scuba diving or saturation diving, have not been conducted on this watch. For diving, use special watches for diving.

### ⚠ CAUTION



**Do not pour running water directly from faucet onto the watch.**

The water pressure of tap water from a faucet is high enough to degrade the water resistant performance of a water resistant watch for everyday life.

### ⚠ CAUTIONS

To indicate the risks of light injuries or material damages unless the following safety regulations are strictly observed.

• **Avoid wearing or storing the watch in the following places.**

- Places where volatile agents (cosmetics such as polish remover, bug repellent, thinners etc.) are vaporizing
- Places where the temperature drops below 5 °C or rises above 35 °C for a long time
- Places of high humidity
- Places affected by strong magnetism or static electricity
- Dusty places
- Places affected by strong vibrations

• **If you observe any allergic symptoms or skin irritation**

Stop wearing the watch immediately and consult a specialist such as a dermatologist or an allergist.

• **Other cautions**

- Replacement of the metal band requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for replacement of the metal band, as there is a risk of hand or finger injury and fear of losing parts.
- Do not disassemble or tamper with the watch.
- Keep the watch out of the reach of babies and children. Extra care should be taken to avoid risks of any injury or allergic rash or itching that may be caused when they touch the watch.
- When disposing of used batteries, follow the instructions of your local authorities.
- If your watch is of the fob or pendant type, the strap or chain attached to the watch may damage your clothes, or injure the hand, neck, or other parts of your body.

### ⚠ CAUTION



**Do not turn or pull out the crown when the watch is wet.**

Water may get inside of the watch.

※ If the inner surface of the glass is clouded with condensation or water droplets appear inside of the watch for a long time, the water resistant performance of the watch is deteriorated. Immediately consult the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER.



**Do not leave moisture, sweat and dirt on the watch for a long time.**

Be aware of a risk that a water resistant watch may lessen its water resistant performance because of deterioration of the adhesive on the glass or gasket, or the development of rust on stainless steel.



**Do not wear the watch while taking a bath or a sauna.**

Steam, soap or some components of a hot spring may accelerate the deterioration of water resistant performance of the watch.

## Electrophoretic display (EPD)

This watch utilizes a special Electrophoretic Display, the kind of display commonly referred to as Electronic Paper Display. Equipped with a display drive system called an active matrix system, the Electrophoretic Display has the following distinctive features.

- Natural-looking smooth characters and figures
- High-contrast black-and-white display with high visibility
- Wide viewing angle even when tilted

→ Epd technology P151

## Response of the electrophoretic display

### Switching speed of the Electrophoretic Display

- The switching speed of the Electrophoretic Display is slower compared to other types of displays such as LEDs. Especially when the watch is used at a low temperature, the switching speed may become even slower.
- Wait until the watch finishes switching its display before proceeding to the next operation.

### Reverse motion of the black and white particles

- In the time display, once every 10 minutes and each time when the mode is switched, the black and white particles are reversed. This is not a malfunction. (This is a programmed action to maintain the display quality.)

### CAUTION

#### Display at a high temperature

When recharging the watch, do not place the watch in a place where it will be subjected to high temperatures. When the watch temperature rises above 50 °C, the display will go blank. If this happens, press any button. You will see the display shown at the right. In such a case, move the watch to a cool place and wait for a while until the display returns to the normal time display.

⚠ Too Hot  
Use Under 50°C

#### Display at a low temperature

When the watch temperature drops below -5°C, you will see the display shown at the right. In such a case, move the watch to a warm place and wait for a while until the display returns to the normal time display.

AM 10:08  
⚠ Too Cold  
Use Over -5°C

## Features

This solar-charged, radio-controlled watch has an Electrophoretic Display (EPD) with an active matrix system, which offers sharp, clear figures and graphics on screen. → Electrophoretic display P98

- The watch can receive standard radio waves from Japan, Germany, the United Kingdom or the United States.
- The watch can display the local time in 32 cities or regions around the world. With this function, the watch can be conveniently used anywhere across the globe.

■ Radio Wave Reception Function → P110  
The watch precisely adjusts the time and date by automatically receiving time signals via radio waves everyday. In addition, radio waves can be received by manual operation. The watch can receive time signals via radio waves transmitted from Japan (two locations), Germany, the United Kingdom or the United States.

■ Reception History Display Function → P122  
The watch displays the time and date of the latest successful radio wave reception. It also indicates the transmitting station from which the watch received the latest radio waves.

■ Solar Charging Function → P133  
The built-in solar panel converts any form of light into "electrical energy" to power the watch. Once fully charged, the watch can run for up to nine months.

■ Style Selection Function → P108  
You can choose a style (design) of time display so that the watch matches your situation or preference.

■ World Time Function → P124  
The watch can display the local time in 32 cities or regions around the world. The name of the designated city is shown in full.

■ Alarm Function → P130  
Three different alarm times can be set. The 1-time alarm, which sounds once at the designated time, and the Daily alarm, which sounds at the designated time everyday are available.

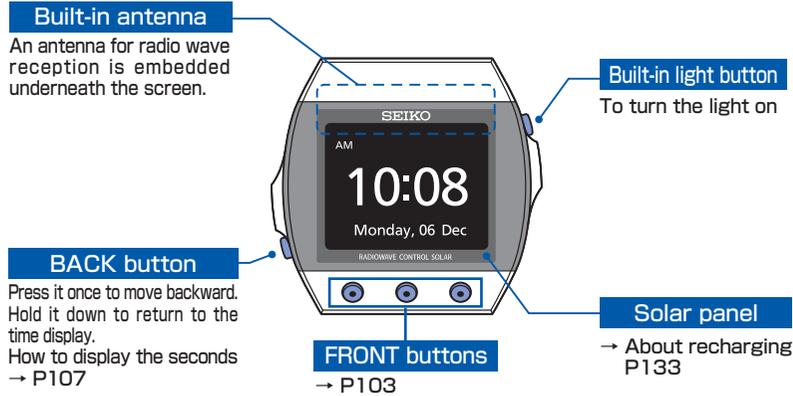
■ Fully Automatic Calendar Function  
No manual calendar adjustment at the end of the month is required up until the end of the year 2060.

■ Battery Life Indicator → P136  
The watch indicates the approximate remaining battery level.

■ Power Save Function → P138  
If no button is pressed while the watch remains in darkness, the Power Save Mode is activated to reduce the energy consumption.

## Names of the parts and their functions

About This Product



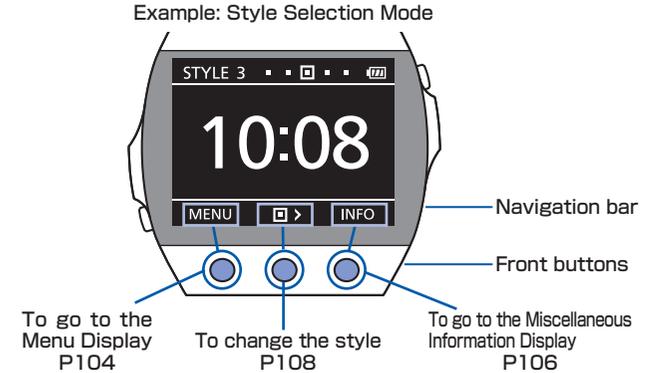
※ The size and orientation of the figures in the illustrations appearing in this instruction booklet may differ from what you see on your watch.

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## Navigation bar for the front buttons

The navigation words or symbols will appear above the front buttons to let you know the function of each button during the operation.

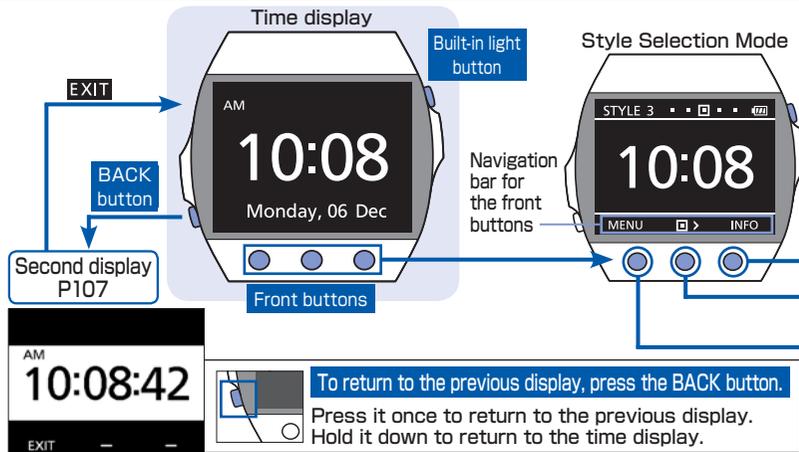
About This Product



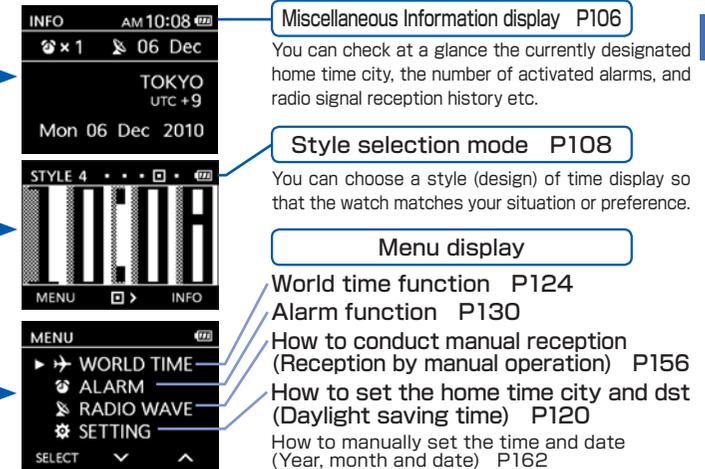
103

## How to change the modes or displays

About This Product



104



※ If no button is pressed for approximately one minute, the display returns to the time display.

105

## How to check the settings of the watch (Miscellaneous information display)

The Miscellaneous Information Display allows you to check at a glance the various settings of the watch including the designated home time city, the number of activated alarms, and the radio signal reception history.

To show the Miscellaneous Information Display → How to change the modes and displays P104

DST (Daylight Saving Time) indicator  
The "DST" appears only when the DST is turned on.

Current time

Battery life indicator → P136

Number of activated alarms  
→ How to use the alarm P130

Month and date of the latest successful radio wave reception  
→ Reception history display P122

Name of the home time city · Time difference from UTC  
→ How to set the home time city and dst (Daylight saving time) P120  
→ UTC P126

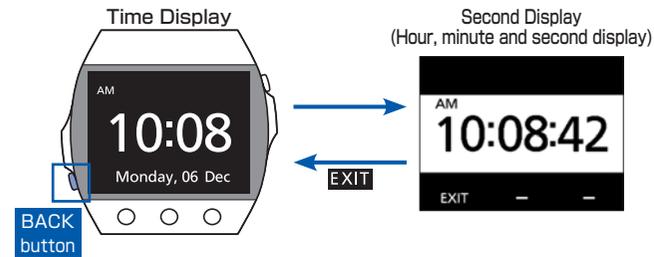
Current date, day of the week, month and year



If the home time city is not adequately designated, the watch cannot receive radio waves even if it is located within the radio wave reception range.

## How to display the seconds

In the time display, press the BACK button to display the seconds.



Press **EXIT** to return to the time display.  
If no button is pressed for approximately one minute, the watch automatically returns to the time display.

## How to change the style (DESIGN) of the time display

You can choose a style (design) of time display so that the watch matches your situation or preference.

① In the time display, press any one of the front buttons.

▶ The watch enters the Style Selection Mode.



※ If the watch is not in the time display, hold down the BACK button first to go back to the time display, and then press any front button.

② Press **□>** to select a style (design).

▶ With each pressing of **□>**, the style (design) will change.



The watch has five different styles (designs) to choose from.

How to read the time in the Style 5.  
Example: 10 o'clock and 8 minutes



hour minute

※ The watch has variations of background colors depending on the selected style.

③ Press the BACK button.

▶ The watch returns to the time display.



The watch displays the time in the selected style (design).

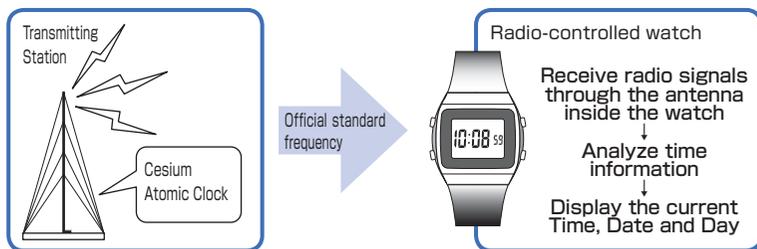
※ If the BACK button is not pressed for approximately one minute, the watch automatically returns to the time display.

※ The Style 2 and 4 do not have the AM/PM, month, date, and day of the week indications.  
The Style 5 does not have the AM/PM, month, date and day of the week indications or the 24-hour format display.

## Setting the Time, Date and Day by receiving a radio signal

### Mechanism of radio signal reception

The radio-controlled watch displays the precise Time, Date and Day by automatically receiving and synchronizing itself with the radio signal of an official standard frequency.



Time signal transmitted by a standard frequency is based on a super accurate "Cesium Atomic Clock" that may have a 1 second loss or gain per one hundred thousand years.

### Automatic reception and manual reception

#### Automatic reception

This watch sets the time, date and day by automatically receiving a radio signal at a fixed time. This watch automatically receives a radio signal at 2:00 AM and 4:00 AM. Automatic reception is carried out only when the watch is either in the TIME mode or in the WORLD TIME mode.

※ When this watch successfully receives a radio signal, it will stop automatic reception.

- Place the watch in a place where it can easily receive a radio signal such as near a window.
- While the watch is receiving radio signals, do not move it.
  - To Improve radio signal reception P117

#### Manual reception

When this watch cannot automatically receive a radio signal due to a difficult receiving environment, it is possible to receive them arbitrarily at any time.
   
→ How to conduct manual reception P156

※ Unless the city code of the home time is correctly set, the watch may fail to receive radio signals. Ensure that the city code of the home time is correctly set. → How to check the settings of the watch (Miscellaneous information display) ⇒ P106

※ The reception environment will often influence whether the watch successfully receives radio signals. → To Improve radio signal reception ⇒ P117 → Conditions in which the watch may be unable to receive radio signals ⇒ P118

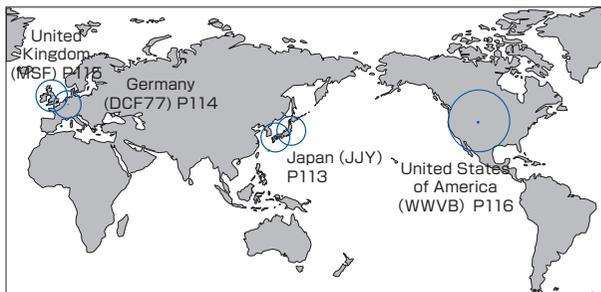
※ The watch is unable to receive radio signals outside the radio signal reception range → Radio signal reception range ⇒ P112

## Reception environment

### Radio signal reception range

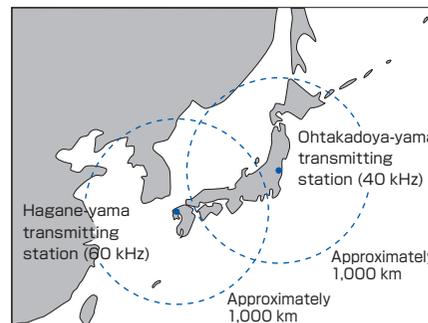
This watch can receive standard frequency signals of Japan (two transmitting stations), Germany, the United Kingdom and the United States of America. By setting the city code of the home time, you can choose the transmitting station from which the watch receives standard frequency signals.

→ How to set the home time city and dst (Daylight saving time) ⇒ P120



### Rough guide of radio signal reception range: Japan (JJY)

When TYO (Tokyo), SEL (Seoul) or HKG (Hong Kong) is selected for the city code of the home time, the watch receives standard frequency signals of Japan.



JJY is operated by the National Institute of Information and Communications Technology (NICT).

JJY is transmitted from two stations in Japan. Each station transmits JJY in different frequencies.

Fukushima (Ohtakadoya-yama transmitting station: 40 kHz)  
Kyushu (Hagane-yama transmitting station: 60 kHz)

As a rough guide, radio signal reception range is within an approximate radius of 1000 kilometers from the transmitting station.

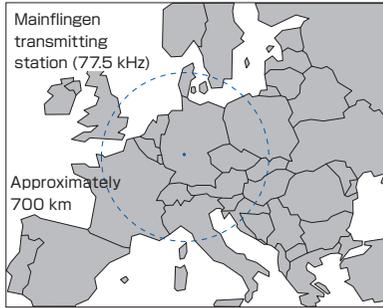
※ While the watch is receiving standard frequency signals of Japan (JJY), the JP40 or JP60 indicator appears on the display

※ Even if the watch is located within the radio signal reception range, the watch may fail to receive radio signals depending on its reception environment which is often influenced by a combination of factors including weather, terrain, buildings, direction etc.
   
→ Conditions in which the watch may be unable to receive radio signals ⇒ P118

■ Rough guide of radio signal reception range: Germany (DCF77)

When BER (Berlin), ATH (Athens), CAI (Cairo), LON (London), PAR (Paris) or UTC (Universal Time Coordinated) is selected for the city code of the home time, the watch receives standard frequency signals of Germany.

How to set the Time, Date and Day (Radio Signal Reception)



DCF77 is operated by PTB.  
Southeastern Frankfurt  
Mainflingen transmitting station: 77.5 kHz  
※ PTB : Physikalisch-Technische Bundesanstalt

As a rough guide, radio signal reception range is within an approximate radius of 700 kilometers from the transmitting station.

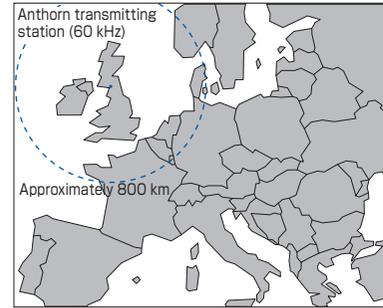
※ While the watch is receiving standard frequency signals of Germany (DCF77), the GE77 indicator appears on the display.

※ Even if the watch is located within the radio signal reception range, the watch may fail to receive radio signals depending on its reception environment which is often influenced by a combination of factors including weather, terrain, buildings, direction etc.  
→ Conditions in which the watch may be unable to receive radio signals ⇒ P118

■ Rough guide of radio signal reception range: United Kingdom (MSF)

When LON (London), PAR (Paris), BER (Berlin), ATH (Athens), CAI (Cairo) or UTC (Universal Time Coordinated) is selected for the city code of the home time, the watch receives standard frequency signals of the United Kingdom.

How to set the Time, Date and Day (Radio Signal Reception)



MSF is operated by NPL.  
North west Cumbria  
Anthorn transmitting station: 60 kHz  
※ NPL : National Physical Laboratory

As a rough guide, radio signal reception range is within an approximate radius of 800 kilometers from the transmitting station.

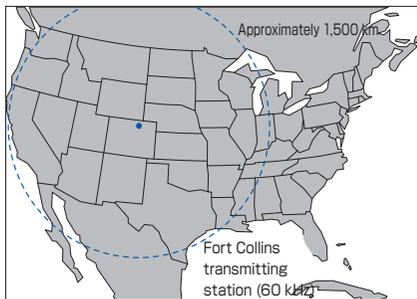
※ While the watch is receiving standard frequency signals of the United Kingdom (MSF), the UK60 indicator appears on the display.

※ Even if the watch is located within the radio signal reception range, the watch may fail to receive radio signals depending on its reception environment which is often influenced by a combination of factors including weather, terrain, buildings, direction etc.  
→ Conditions in which the watch may be unable to receive radio signals ⇒ P118

■ Rough guide of radio signal reception range: UNITED STATES OF AMERICA (WWVB)

When LAX (Los Angeles), DEN (Denver), CHI (Chicago) or NYC (New York) is selected for the city code of the home time, the watch receives standard frequency signals of the United States.

How to set the Time, Date and Day (Radio Signal Reception)



WWVB is operated by NIST.  
Fort Collins radio station (60 kHz),  
Denver, Colorado  
※ NIST : National Institute of Standards and Technology

As a rough guide, radio signal reception range is within an approximate radius of 1500 kilometers from the transmitting station.

※ While the watch is receiving standard frequency signals of the United States (WWVB), the US60 indicator appears on the display.

※ Even if the watch is located within the reception range, the watch may fail to receive radio signals depending on its reception environment which is often influenced by a combination of factors including weather, terrain, buildings, direction etc.  
→ Conditions in which the watch may be unable to receive radio signals ⇒ P118

■ To Improve radio signal reception

- Place the watch in a place where it can easily receive a radio signal such as near a window.

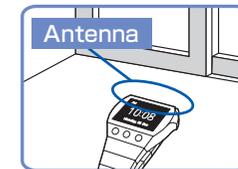
The antenna is embedded at the 12 o'clock position of the watch. Turning the antenna toward the outside of a window or the direction facing transmitting stations helps improve radio signal reception.

※ Locations of transmitting stations → Radio signal reception range Indication P112

- Do not move the watch while it is receiving radio signals.

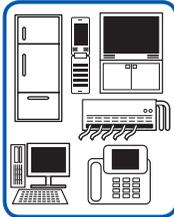
To enhance the reception of radio signals, do not move the watch or do not change the orientation of the watch while it is receiving radio signals.

※ If the button is operated while the watch is receiving a radio signal, the reception will be cancelled.



How to set the Time, Date and Day (Radio Signal Reception)

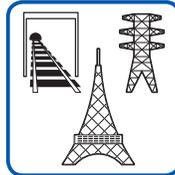
## Environments in which it is difficult to receive a radio signal



- Close to home electrical appliances such as TV's, refrigerators or air conditioners
- Close to OA devices such as mobile phones, personal computers or fax machines
- Close to steel desks or other furniture made of metal



- In places generating radio interference, such as construction sites or places with heavy traffic.



- Close to overhead power lines, TV stations, train cables.



- Inside a building, between tall buildings, underground.



- Inside a vehicle, train, or airplane

Avoid putting the watch in such places when it receives radio signals.

## How to set the home time city and dst (Daylight saving time)

When you use the watch in a different city or region than usual, or when the time difference from UTC changes or Daylight Saving Time starts or ends in the place you use the watch, follow the procedures below to change the settings of the watch.

- In the Menu Display, select **SETTING** and press **SELECT**.

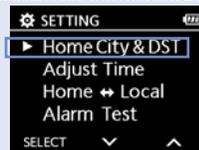
Menu Display



To show the Menu Display  
→ How to change the modes and displays P104

- In the Miscellaneous Setting Display, select **Home City & DST** and press **SELECT**.

Miscellaneous Information Display



## CAUTION

- The watch may display the wrong time if it fails to receive radio signals properly because of interference. The watch may also fail to receive radio signals properly depending on the location or radio wave receiving conditions. In this case, move the watch to another place where it can receive radio signals.
- When the watch is out of reception range, its accurate quartz movement (loss / gain:  $\pm 15$  seconds per month on average) will continue to keep the time.
- The time signal transmission may be stopped during maintenance of the facilities of each transmitting station or because of a lightning strike. In such a case, see each station's website for further information or contact SEIKO CUSTOMER SERVICE CENTER.

- Websites of transmitting stations (as of August, 2010)

Japan : NICT (Japan Standard Time Group) <http://www.jjy.nict.go.jp/>  
 Germany : PTB [http://www.ptb.de/en/org/4/44/442/dcf77\\_1\\_e.htm](http://www.ptb.de/en/org/4/44/442/dcf77_1_e.htm)  
 UK : NPL <http://www.npl.co.uk/>  
 USA : NIST <http://www.nist.gov/physlab/div847/grp40/wwwv.cfm>

## DST (Daylight Saving Time)

DST stands for Daylight Saving Time.

Daylight Saving Time is a system of advancing the watch one hour to prolong daytime during longer daylight hours in summer. Daylight Saving Time is observed mainly in Europe and the United States. The area or duration of Daylight Saving Time varies depending on the country. → Names of the cities and time difference P126

- Even if the watch can receive radio waves, it cannot automatically set the Daylight Saving Time. It is necessary to set the Daylight Saving Time by manual operation.

### Setting the home time city and DST (Daylight Saving Time)

Setting the home time city and time difference from UTC



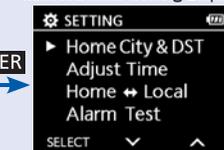
Press **▼** or **▲** to select the name of the city or time difference from UTC.  
Hold it down to fast-forward by 4 cities.

Setting the DST (Daylight Saving Time)



Press **▼** or **▲** to turn the DST on or off.

Returning to the Miscellaneous Setting Display



To return to the time display, hold down the **BACK** button. Hold Down

## Reception history display

You can check the details of the latest radio wave reception.  
 You can also check the month and date of the latest radio wave reception in the Miscellaneous information display. → P106

How to set the Time, Date and Day (Radio Signal Reception)

- In the Menu Display, select **RADIO WAVE** and press **SELECT**.

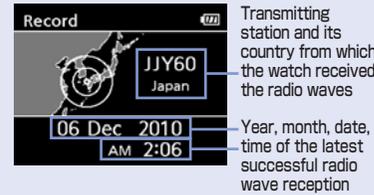


To show the Menu Display  
 → How to change the modes and displays P104

- Select **Record** and press **SELECT**.



- Check the year, month, date, time of the latest successful radio wave reception, and the transmitting station and country from which the watch received the radio waves.



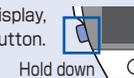
Transmitting station and its country from which the watch received the radio waves

Year, month, date, time of the latest successful radio wave reception

The transmitting station and its country will be shown in one of these displays.

Transmitting stations	Names of the countries	Screenshots
JJY 40kHz	Japan	
JJY 60kHz	Japan	
DCF77	Germany	
MSF	The United Kingdom	
WWVB	The United States	

To return to the time display, hold down the BACK button.



How to set the Time, Date and Day (Radio Signal Reception)

## How to use the world time function (How to show the current time around the world)

The watch can display the current time (the local time), month, date and day of the week in 32 cities and regions around the world. The time in the home time city is simultaneously displayed.

- ※ When you use the watch in a different city or region than usual, or when the time difference from UTC changes, the home time should be changed accordingly. → P120
- ※ The home time and local time can be switched. → P128

How to use the world time function

- In the Menu Display, select **WORLD TIME** and press **SELECT**.

The watch enters the World Time Display.

Menu display



To show the Menu Display → How to change the modes and displays P104



You can use the watch in the World Time Display.

- Press any one of the front buttons.

The navigation bar for the front buttons appears.



Navigation bar

- Press **←** or **→** to select the city of which you want to see the local time.



Press it once to advance one city. Hold it down to fast-forward by 4 cities.

- Press **DST** to set the DST as needed.

DST indicator (DST is ON.)



※ The DST can be set individually for each city and region. → DST P121

※ If the BACK button is pressed, or if no button is pressed for approximately one minute, the watch automatically returns to the World Time Display.

To return to the time display, hold down the BACK button.



How to use the world time function

## City names and time difference

City Codes	City Names	Names of the countries or regions	Time difference from UTC	Receivable radio waves
UTC	—	Coordinate Universal Time		DCF77/MSF
LONDON	London ★	United Kingdom	0 hour	DCF77/MSF
PARIS	Paris ★	France	1 hour	DCF77/MSF
BERLIN	Berlin ★	Germany	1 hour	DCF77/MSF
ATHENS	Athens ★	Greece	2 hours	DCF77/MSF
CAIRO	Cairo ★	Egypt	2 hours	DCF77/MSF
MOSCOW	Moscow ★	Russia	3 hours	—
BAGHDAD	Baghdad	Iraq	3 hours	—
TEHRAN	Teheran ★	Iran	3.5 hours	—
DUBAI	Dubai	United Arab Emirates	4 hours	—
KABUL	Kabul	Afghanistan	4.5 hours	—
KARACHI	Karachi	Pakistan	5 hours	—
DELHI	Delhi	India	5.5 hours	—
DHAKA	Dhaka	Bangladesh	6 hours	—
YANGON	Yangon	Myanmar	6.5 hours	—
BANGKOK	Bangkok	Thailand	7 hours	—

Daylight Saving Time is observed in the cities of regions with a "★" mark. (As of August 2010) → DST (Daylight Saving Time) P121  
 ※ The watch automatically tunes in to the transmitting station according to the designated home time city.  
 → How to check the settings of the watch (Miscellaneous information display) P106

3

How to use the world time function

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UTC: Coordinate Universal Time

UTC is the universal standard time coordinated through international agreement. It is used as the official time around the world.

City codes	City names	Names of the countries or regions	Time difference from UTC	Receivable radio waves
HONG KONG	Hong Kong	China	8 hours	JJY40/60
SEOUL	Seoul	Korea	9 hours	JJY40/60
TOKYO	Tokyo	Japan	9 hours	JJY40/60
ADELAIDE	Adelaide ★	Australia	9.5 hours	—
SYDNEY	Sydney ★	Australia	10 hours	—
NOUMEA	Nouméa	New Caledonia	11 hours	—
WELLINGTON	Wellington ★	New Zealand	12 hours	—
HONOLULU	Honolulu	United States	-10 hours	—
ANCHORAGE	Anchorage ★	United States	-9 hours	—
LOS ANGELES	Los Angeles ★	United States	-8 hours	WWVB
DENVER	Denver ★	United States	-7 hours	WWVB
CHICAGO	Chicago ★	United States	-6 hours	WWVB
NEW YORK	New York ★	United States	-5 hours	WWVB
SANTIAGO	Santiago ★	Chile	-4 hours	—
RIO DE JANEIRO	Rio de Janeiro ★	Brazil	-3 hours	—
AZORES	Azores ★	Azores	-1 hour	—

※ The time differences and use of Daylight Saving Time in each area are subject to change according to the governments of the respective countries or regions.  
 ※ In some regions, time zones that differ from UTC by half- or quarter-hour time differences are established. (For example, some parts of India.)

3

How to use the world time function

127

## How to switch the home time and local time

The home time and local time can be switched.

- In the Menu Display, select **SETTING** and press **SELECT**.



To show the Menu Display  
 → How to change the modes and displays P104

- In the Miscellaneous Setting Mode, select **Home ↔ Local** and press **SELECT**.



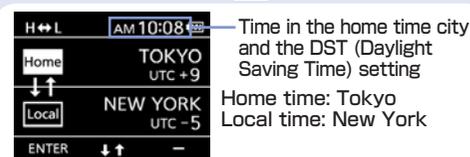
3

How to use the world time function

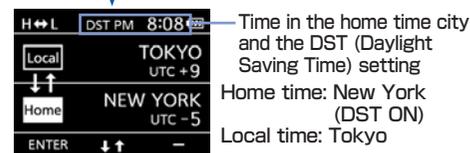
128

- Press **↓↑** to select Home or Local, and press **ENTER**.

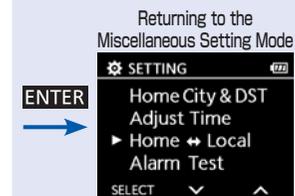
▶ With each pressing of **↓↑**, Home or Local is selected alternately.



Press **↓↑** to switch



※ When the home time and local time are switched, the DST setting will be carried over along with the time setting.



To return to the time display, hold down the **BACK** button.



3

How to use the world time function

129

## How to use the alarm

Up to three different alarm times that sounds at each designated time can be set. You can select either 1-time alarm, which sounds once at the designated time, or the Daily alarm, which sounds at the designated time every day. When the home time reaches the designated alarm time, the alarm sounds.

4

How to use the alarm

- In the Menu Display, select **ALARM** and press **SELECT**.

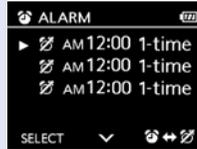
Menu Display



To show the Menu Display → How to change the modes and displays P104

- Press **SELECT** to select the desired alarm type.

Alarm Setting Mode

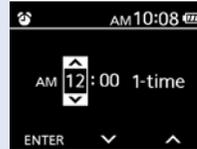


With each pressing of **SELECT**, the alarm is alternately turned on or off.



- Setting the alarm time.

Hour setting



Press **DOWN** or **UP** to set the hour. Press it once to advance by one hour. Hold it down to fast-forward.

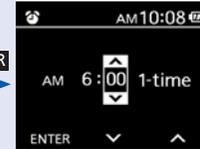
When the time reaches the designated alarm time, the alarm sounds for 10 seconds. To stop the alarm, press any button.

※ You can test the alarm sound. → How to test the alarm sound P132

※ If the alarm sounds while the watch is receiving radio waves, the reception will be terminated.

With each pressing of **ENTER**, the selectable segment will be activated.

Minute setting



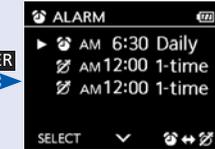
Press **DOWN** or **UP** to set the minute. Press it once to advance by one minute. Hold it down to fast-forward.

1-time alarm or Daily alarm setting



Press **DOWN** or **UP** to choose the desired alarm type. "1-time" stands for 1-time alarm, which sounds only once. "Daily" stands for Daily alarm, which sounds everyday.

Returning to the Alarm Setting Mode  
※ The alarm will be turned on.



To return to the time display, hold down the **BACK** button.



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How to use the alarm

## How to test the alarm sound

You can test the alarm sound for 10 seconds.

4

How to use the alarm

- In the Menu Display, select **SETTING**, and press **SELECT**.

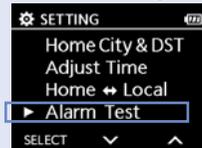
Menu Display



To show the Menu Display → How to change the modes and displays P104

- Select **Alarm Test**, and press **SELECT**.

Miscellaneous Setting Mode

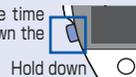


- Press **SELECT**.

The alarm sounds for 10 seconds.



To return to the time display, hold down the **BACK** button.

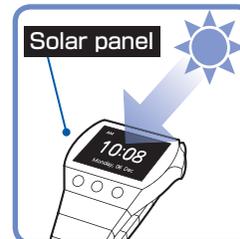


132

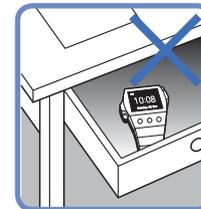
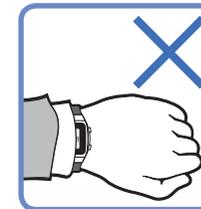
## How to charge

### How to charge the battery

To charge the battery, expose the solar panel to light.



To ensure optimal performance of the watch, make sure that the watch is kept sufficiently charged at all time.



Under the following conditions, it is very likely that the battery will run down due to insufficient battery charge.  
· When the watch is concealed under long sleeve shirts  
· If the watch is used or stored continually under conditions where it cannot receive sufficient light

※ When recharging the battery, make sure that the watch is not heated to a high temperature (The operational temperature range of the watch is between -5 °C and +50°C.)

※ When first using the watch or starting to use the watch after it has stopped because of the energy depletion, sufficiently charge the watch referring to the table on the P134

Charging the Solar Battery

5

133

## ■ Standard charging time

When charging the watch, use the table below as a charging time guide.

Indication				Charging time to run the watch for one day
Remaining battery level	Extremely low	Medium	High	
Outdoor on sunny day 100,000 LUX	Approximately 1 hour	Approximately 24 hours	Approximately 12 hours	Approximately 6 minutes
Approximately 37 hours				
By the window on sunny day 10,000 LUX	Approximately 2.5 hours	Approximately 45 hours	Approximately 23 hours	Approximately 19 minutes
Approximately 71 hours				
By the window on cloudy day 5,000 LUX	Approximately 31 hours	Approximately 58 hours	Approximately 50 hours	Approximately 35 minutes
Approximately 139 hours				
Indoor under fluorescent light 500 LUX	Approximately 74 hours	—	—	Approximately 8 hours

※ The time required to charge the watch may slightly vary depending on the model of the watch.

Once fully charged, the watch can run for up to nine months even without additional exposure to light for recharging.

### • Condition of use for one day

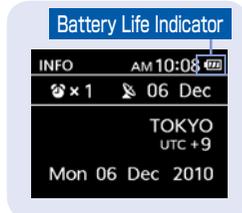
- Built-in backlight illuminated ..... Once for 3 seconds
- Alarm sounds ..... For 10 seconds
- Automatic reception conducted ..... For 10 minutes
- Power Save function (POWER SAVE) activated ..... For 6 hours

※ Frequent use of the built-in backlight will quickly consume the battery.  
 ※ Before using the watch for the first time or after the watch stopped due to battery depletion, charge the watch sufficiently enough, referring to the table on the left page.

## How to check the remaining battery level

Battery Life Indicator, which appears at the upper-right corner of the screen, lets you know the approximate remaining battery level.

Example: Miscellaneous Information Display



The remaining battery level can be checked in the Style Selection Mode or the World Time Display, as well.

Indication				Blank
Remaining battery level	High	Medium	Extremely low	No charge
Disabled operations or functions	No	No	Built-in light will be disabled.	Button operation/Radio wave reception will be suspended. Built-in light and alarm will be disabled.
Solutions	You can use the watch as it is.	Recharging is recommended. → How to charge the watch. P133	Recharge the watch sufficiently until the battery life indicator appears like  .  After recharging the watch, you can start using the watch. → How to charge the watch. P133	Follow the instructions ① and ②. ① Recharge the watch sufficiently until the battery life indicator appears like  . → How to charge the watch. P133 ② Conduct manual reception or set the time manually. → How to conduct manual reception (Reception by manual operation) P156 → How to manually set the time and date (Year, month and date) P162 If you see an abnormal display, reset the built-in IC. → Abnormal display or improper function P178

※ Battery life indicator does not appear in the time display. Go to the Style Selection Mode or the World Time Display to check the remaining battery level

## Power save (Power save and sleep)

If no button is pressed while the watch remains in darkness, the Power Save Mode is activated to reduce the energy consumption.

Indication	POWER SAVE 	SLEEP 
Status	<b>[POWER SAVE] appears.</b> No button has been pressed while the watch remains in darkness for approximately one hour.	<b>[SLEEP] appears.</b> No button has been pressed while the watch remains in darkness for approximately three days.
Disabled operations or functions	None	Automatic radio wave reception will be conducted only at two o'clock in the morning on odd days. Alarm sound will be disabled. ※ When the watch remains at the SLEEP status for a long time, the battery will run down.
Solutions	When the watch is exposed to light or any button is pressed, the Power Save function will be cancelled.	When the watch is exposed to light or any button is pressed, the Power Save function will be cancelled.

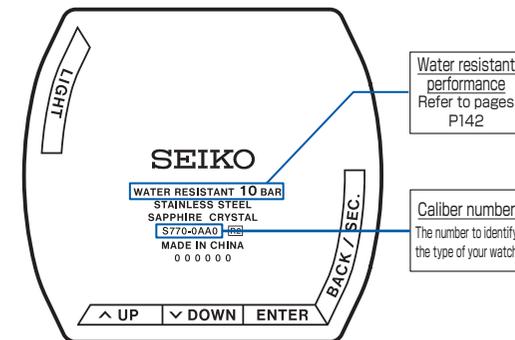
## Daily care

### ● The watch requires good daily care

- Wipe away moisture, sweat or dirt with a soft cloth
- After soaking the watch in seawater, be sure to wash the watch in clean pure water and wipe it dry carefully.
- ※ If your watch is rated as "Non-water resistant" or "water resistant for everyday life," do not wash the watch. Do not pour running water directly from faucet onto the watch. Put some water into a bowl first, and then soak the watch in the water to wash it.  
Performance and type → P141  
Water resistance → P142

## Performance and type

The case back shows the caliber and performance of your watch



※ The figure above is one example. Performance of your watch is different from above sample.

## Water Resistance

Refer the table below for the description of each degree of water resistant performance of your watch before using.

(Refer to " P141 ")

Indication on the case back	Water resistant performance	Condition of use
No indication	Non-water resistance	Avoid drops of water or sweat
WATER RESISTANT	Water resistance for everyday life	The watch withstands accidental contact with water in everyday life.  <b>WARNING</b> Not suitable for swimming
WATER RESISTANT 5 BAR	Water resistance for everyday life at 5 barometric pressures	The watch is suitable for sports such as swimming.
WATER RESISTANT 10 (20) BAR	Water resistance for everyday life at 10(20) barometric pressures.	The watch is suitable for diving not using an air cylinder.

## Band

The band touches the skin directly and becomes dirty with sweat or dust. Therefore, lack of care may accelerate deterioration of the band or cause skin irritation or stain on the sleeve edge. The watch requires a lot of attention for long usage.

### ● Metallic band

- Moisture, sweat or soil will cause rust even on a stainless steel band if they are left for a long time.
- Lack of care may cause a yellowish or gold stain on the lower sleeve edge of shirts.
- Wipe off moisture, sweat or soil with a soft cloth as soon as possible
- To clean the soil around the joint gaps of the band, wipe it out in water and then brush it off with a soft toothbrush.  
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- Because some titan bracelets use pins made of stainless steel, which has outstanding strength, rust may form in the stainless steel parts.
- If rust advances, pins may poke out or drop out, and the watch case may fall off the bracelet, or the clasp may not open.
- If a pin is poking out, personal injury may result. In such a case, refrain from using the watch and request repair.

### ● Leather band

- A leather band is susceptible to discoloration and deterioration from moisture, sweat and direct sunlight.
- Wipe off moisture and sweat as soon as possible by gently blotting them up with a dry cloth.
- Do not expose the watch to direct sunlight for a long time.
- Please take care when wearing a watch with light-colored band, as dirt is likely to show up.
- Refrain from wearing a leather band watch other than Aqua Free bands while bathing, swimming, and when working with water even if the watch itself is water-resistant enforced for daily use (10 or 20-BAR water resistant) .

### ● Polyurethane band

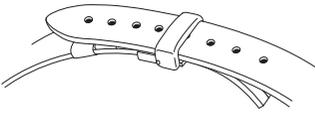
- A polyurethane band is susceptible to discoloration from light, and may be deteriorated by solvent or atmospheric humidity.
- Especially a translucent, white, or pale colored band easily adsorbs other colors, resulting in color smears or discoloration.
- Wash out dirt in water and clean it off with a dry cloth.  
(Protect the watch body from water splashes by wrapping it up in plastic wrap etc.)
- When the band becomes less flexible, have the band replaced with a new one. If you continue to use the band as it is, the band may develop cracks or become brittle over time.

Notes on skin irritation and allergy	Skin irritation caused by a band has various reasons such as allergy to metals or leathers, or skin reactions against friction on dust or the band itself.
Notes on the length of the band	Adjust the band to allow a little clearance with your wrist to ensure proper airflow. When wearing the watch, leave enough room to insert a finger between the band and your wrist. 

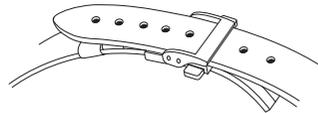
## Special clasps

There are 3 type of special clasps as described below;  
If the clasp of the watch you purchased is one of them,  
please refer to the indications.

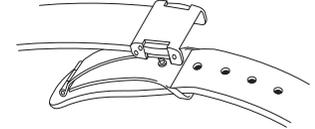
### A A Type → P147



### B B Type → P148



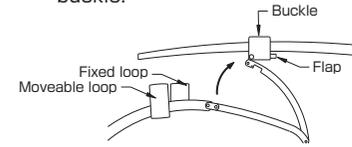
### C C Type → P150



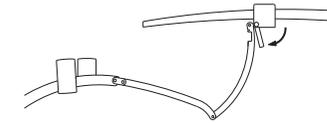
146

### A A Type

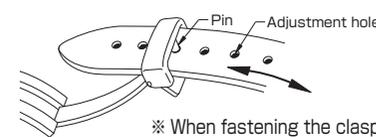
- 1 Lift up the clasp to release the buckle.



- 2 Open the flap.



- 3 Take the pin out of the adjustment hole, adjust the size of the strap by sliding it back and forth, and then put the pin back into the appropriate adjustment hole.



- 4 Close the flap.

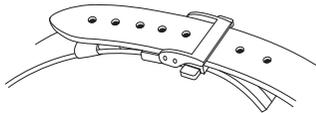
※ Do not push the flap in too hand.



※ When fastening the clasp, insert the tip of the band into the movable loop and fixed loop, and then, securely tighten the clasp.

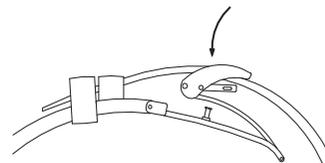
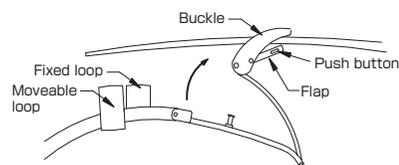
147

### B B Type



#### • How to wear or take off the watch

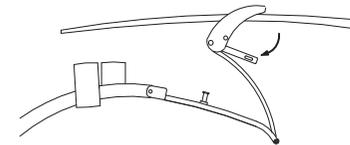
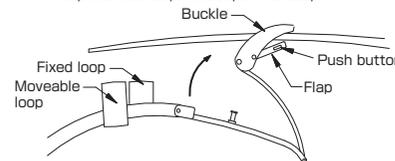
- 1 While pressing the push button on the both sides of the flap, pull the band out of the moveable loop and fixed loop. Then open the clasp.
- 2 Place the tip of the band into the moveable loop and fixed loop, and fasten the clasp by pressing the frame of the buckle.



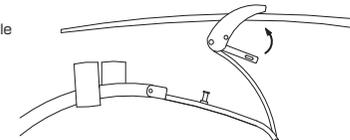
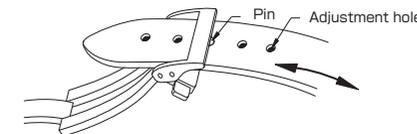
148

#### • How to adjust the length of the leather band

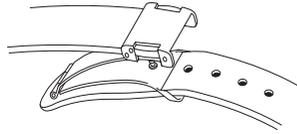
- 1 While pressing the push button on the both sides of the flap, pull the leather band out of the moveable loop and fixed loop. Then open the clasp.
- 2 Press the push buttons again to unfasten the flap.



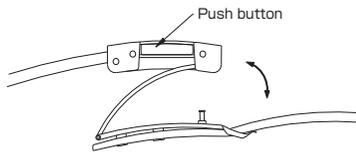
- 3 Pull the pin out of a adjustment hole of the band. Slide the band to adjust its length and find an appropriate hole. Place the pin into the hole.
- 4 Fasten the flap.



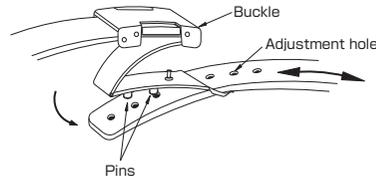
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**C C Type**

- ① While pressing the push button on the both sides of the flap, lift to open the clasp.



- ② Pull the pins out of the adjustment holes on the band. Slide the band to the appropriate length. Place the pins into the new holes on the band. Fasten the buckle.



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**Power Source**

The battery used in this watch is a special secondary battery, which is totally different from ordinary silver oxide batteries. Unlike other disposable batteries such as dry-cell batteries or button cells, this secondary battery can be used over and over again by repeating the cycles of discharging and recharging.

However, for various reasons such as long-term use or usage conditions, the capacity or recharging efficiency of the secondary battery may gradually deteriorate. Worn or contaminated mechanical parts or degraded oils may also shorten recharging cycles. If the efficiency of the secondary battery decreases, have the watch repaired.

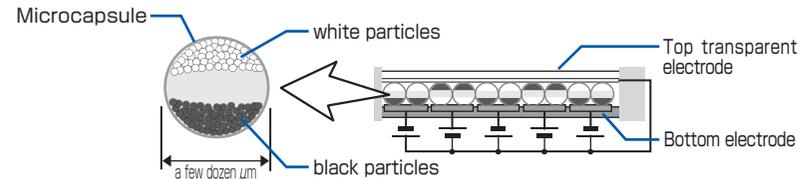
**NOTICE****Remarks on replacing the secondary battery**

- Do not remove the secondary battery yourself.
- Replacement of the secondary battery requires professional knowledge and skill. Please ask the retailer from whom the watch was purchased for repair.
- Installation of an ordinary silver oxide battery can generate heat that can cause bursting or ignition.

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**Epd technology**

- The principal components of electronic ink are millions of tiny microcapsules, about the diameter of a human hair. Each microcapsule contains negatively charged white particles and positively charged black particles suspended in a clear fluid.
- When a negative electric field is applied, the white particles move to the top of the microcapsule where they become visible to the user. This makes the surface appear white at that spot. At the same time, an opposite electric field pulls the black particles to the bottom of the microcapsules where they are hidden. By reversing this process, the black particles appear at the top of the capsule, which now makes the surface appear dark at that spot.



※ The Electrophoretic Display may gradually deteriorate over long-term use. If you find a decrease in contrast or readability of the display, contact the retailer from whom the watch was purchased and have the Electrophoretic Display replaced with a new one. You will be responsible for the cost of replacement of the Electrophoretic Display.

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**※ Overcharge prevention function**

When the secondary battery is fully charged, the overcharge prevention function is automatically activated to avoid further charging. There is no need to worry about damage caused by overcharging no matter how much the secondary battery is charged in excess of the "time required for fully charging the watch".

※ Refer to "Standard charging time" on P134 to check the time required for fully charging the watch.

**NOTICE****Notes on charging the watch**

- When charging the watch, do not place the watch in close proximity to an intense light source such as lighting equipment for photography, spotlights or incandescent lights, as the watch may be excessively heated resulting in damage to its internal parts.
- When charging the watch by exposure to direct sunlight, avoid places that easily reach high temperatures, such as a car dashboard.
- Always keep the watch temperature under 50°C .

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## After-sales service

### ● Notes on guarantee and repair

- Contact the retailer from whom the watch was purchased or SEIKO CUSTOMER SERVICE CENTER for repair or overhaul.
- Within the guarantee period, present the certificate of guarantee to receive repair services.
- Guarantee coverage is provided in the certificate of guarantee. Read carefully and retain it.
- For repair services after the guarantee period has expired, if the functions of the watch can be restored by repair work, we will undertake repair services upon request and payment.

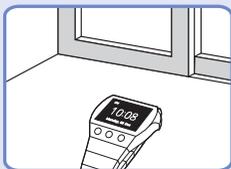
### ● Repair parts

- The repair parts of this watch will be retained usually for 7 years.
- Some alternative parts may be used for repair if necessary.

## How to conduct manual reception (Reception by manual operation)

### ① Place the watch.

Put the watch at a place with a good reception environment.



- To Improve radio signal reception P117
- Environments in which it is difficult to receive a radio signal P118

※ The watch cannot receive radio waves when it is located outside the radio wave reception range.  
→ "Radio wave reception range" P112

### ② In the Menu display, select **RADIO WAVE** and press **SELECT**.



To show the Menu display  
→ How to change the modes and displays P104

**If the home time city is not adequately designated, the watch cannot receive radio waves.**

→ How to check the settings of the watch (Miscellaneous information display) P106

### ● Inspection and adjustment by disassembly and cleaning (overhaul)

- Periodic inspection and adjustment by disassembly and cleaning (overhaul) are recommended approximately once every 3 to 4 years in order to maintain optimal performance of the watch for a long time.
- According to use conditions, the digital display may go out due to liquid leakage.
- As the parts such as the gasket may deteriorate, water-resistant performance may be impaired due to intrusion of perspiration and moisture.

Please contact the retailer from whom the watch was purchased for inspection and adjustment by disassembly and cleaning (overhaul). For replacement of parts, please specify "SEIKO GENUINE PARTS." When asking for inspection and adjustment by disassembly and cleaning (overhaul), make sure that the gasket and push pin are also replaced with new ones.

When your watch is inspected and adjusted by disassembly and cleaning (overhauled), the movement of your watch may be replaced.

### ③ Select **Receive**, and press **SELECT**.

▶ The watch starts receiving radio waves.



※ While the watch is receiving radio waves, keep the watch stationary. The watch cannot receive radio waves if it is moved during reception.

Screenshots during radio wave reception are shown on the next page.

< When you see an "Out Of Service" message on the screen >



You will see this message if the designated home time city is out of the radio wave reception range.

— Designated home time city

The watch can receive radio waves only when the home time city is designated for a city, such as Tokyo, within a radio wave reception range in which the radio wave reception function works.  
→ Radio wave reception range Japan P113, Germany P114, United Kingdom P115, United States P116

Continued on the next page

**4** Wait for several minutes, leaving the watch unmoved.

※ While the watch is receiving radio waves, keep the watch stationary. The watch cannot receive radio waves if it is moved during reception.

It takes time to complete the reception (17 minutes at the longest) depending on the reception environment.

Receive  
  
 Now Receiving ...

A different display will appear depending on the transmitting station from which the watch is receiving radio waves. While the watch is receiving radio waves, you will see one of those displays shown in the table at the right.

**Screenshots during reception**

Transmitting stations	Names of the countries	Screenshots
JJY 40kHz	Japan	
JJY 60kHz	Japan	
DCF77	Germany	
MSF	The United Kingdom	
WWVB	The United States	

**If the home time city is not adequately designated, the watch cannot receive radio waves.**

→ How to check the settings of the watch (Miscellaneous information display) P106

※ To cancel the reception, press any button. And then, press the BACK button to go back to the step ③.

## To improve radio wave reception

- **Move the watch to a different place or try rotating the watch to change its orientation.**  
 Even if the watch is within the radio wave reception range, radio reception may be obstructed depending on conditions such as weather, surrounding geographic features, buildings or direction. Refer to "Environments in which it is difficult to receive a radio signal" on P118. If the watch is located outside the reception range, it cannot receive radio waves. → Radio signal reception range P112
- **If the home time city is not adequately designated, the watch cannot receive radio waves.**  
 Check the home time city setting. → How to check the settings of the watch (Miscellaneous information display) P106
- **Try receiving radio waves at a different time of the day. (Manual reception)**  
 Even in the same location, the radio wave reception environment changes depending on the time of the day. Radio wave reception is generally easier at night.
- **When you see an "Out Of Service" message on the screen during manual reception**  
 You will see this message if the designated home time city is outside the radio wave reception range. Check the home time city setting. → How to check the settings of the watch (Miscellaneous information display) P106  
 The watch can receive radio waves only when the home time city is designated for a city, such as Tokyo, within a radio wave reception range in which the radio wave reception function works. → Radio signal reception range Japan P113, Germany P114, United Kingdom P115, United States P116
- When you use the watch in a place or region where the watch cannot receive radio waves or if you find your watch cannot receive radio waves, manually set the time. → How to manually set the time and date (Year, month and date) P162

**5** When you hear a bleep, check the reception result.

OK  
 Reception was successful. Bleep

NG  
 Reception was not successful. Bleep

Receive  
  
 Receive  


To return to the time display, hold down the BACK button.

※ When the watch cannot receive radio waves → P160  
 ※ If the watch is located outside the reception range, it cannot receive radio waves. → Radio wave reception range P112

## Radio wave reception Q & A

- Q : When will my watch receive radio waves?  
 A : Standard radio waves are transmitted almost 24 hours a day. But your radio-controlled watch does not receive radio waves all day. The watch is designed to conduct automatic reception a few times at midnight when radio waves are generally stronger. While the watch is not receiving radio waves, its accuracy is kept by the quartz movement with monthly accuracy within 15 seconds.
- Q : My watch does not correct time immediately after manual reception. Why does this happen?  
 A : It may take 17 minutes at the longest for your watch to complete receiving radio waves. It takes one minute in each instance for complete time and calendar data to be transmitted. In order to synchronize, the watch must receive an entire sequence of data. As reception interference often occurs due to various sources such as radio noise, the watch is designed to repeat receiving radio waves several times to verify correct data. Therefore, it takes some time for the watch to complete a reception. Additionally, a poor reception environment may prolong the duration of reception. While the watch is receiving radio waves, remember not to operate any buttons and keep your watch stationary.
- Q : What should I do for successful reception?  
 A : The strength of standard radio waves is affected by various factors such as distance from the transmitting station, surrounding geographical features including nearby buildings, or weather conditions. As the watch is designed to conduct automatic reception at midnight, it is a good idea to place the watch by a window facing the direction of the transmitting station before you go to bed. When you conduct manual reception, try looking for a place with a good reception environment.

## How to manually set the time and date (Year, month and date)

When you use the watch continuously outside the reception range or in a place or region where the watch cannot receive radio waves, manually set the time and date.  
→ "Radio wave reception range" P112

• When you start using the watch in a radio wave receivable environment, let the watch receive radio waves so that it can set the time and date.  
→ Automatic reception and manual reception P111

※ When the watch sets the time and date after it successfully received radio waves, you do not have to manually adjust the time and date.

※ Even if the watch cannot receive radio waves, its accuracy is kept by the quartz movement with monthly accuracy within 15 seconds.

※ If the watch receives radio waves after the time and date were manually set, it will indicate the time and date obtained by the reception.

Troubleshooting

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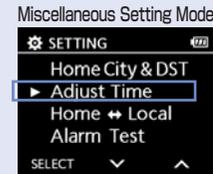
### Setting the time

① In the Menu Display, select **SETTING** and press **SELECT**.



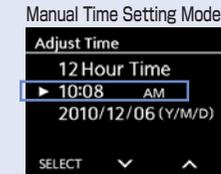
To show the Menu Display  
→ How to change the modes and displays P104

② In the Miscellaneous Setting Mode, select **Adjust Time** and press **SELECT**.



If you only want to set the date, go to step ⑥ on P166.

③ Press **SELECT** to select the time indication format.



Continued on the next page

Troubleshooting

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### Setting the hour and minute

With each pressing of **ENTER**, the selectable segment will be activated.

**Hour setting**

Adjust Time

AM 10:08

ENTER

Press **▼** or **▲** to set the hour.

**Minute setting**

Adjust Time

AM 10:08

ENTER

Press **▼** or **▲** to set the minute.

**Second setting**

Adjust Time

AM 10:20:00

ENTER

Press **▼** or **▲** to reset the figures to "00."

※ If you press **ENTER** or the **BACK** button without pressing **▼** or **▲**, the watch returns to the step ②.

※ If you press the **BACK** button after pressing **▼** or **▲**, the watch immediately starts moving from 0 seconds. This action will have the same effect as step ⑤, when the watch starts moving from 0 second.

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### Setting the second

**Second setting**

Adjust Time

AM 10:20:00

START

Press **START** simultaneously with a time signal.

**Counting starts**

Adjust Time

AM 10:20:01

EXIT

You can see the second counting.

To continue to the date setting, go to the next page.

**Returning to the Manual Time Setting Mode**

Adjust Time

- 12 Hour Time
- 10:20 AM
- 2010/12/06 (Y/M/D)

SELECT

To return to the time display, hold down the **BACK** button.

Hold down

Troubleshooting

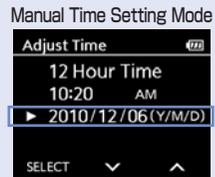
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## ■ Setting the date (year, month and date)

If you only want to set the date, after carrying out step ① and ②, skip to step ⑥.

- ⑥ Press **SELECT** to select Y/M/D.



- ⑦ Date setting

With each pressing of **ENTER**, the selectable segment will be activated.

Year Setting



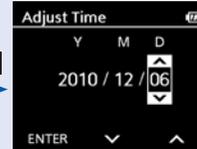
Press **▼** or **▲** to set the year.

Month setting



Press **▼** or **▲** to set the month.

Date setting



Press **▼** or **▲** to set the date.

Returning to the Manual Time Setting Mode



To return to the time display, hold down the **BACK** button.

Hold down

## How to switch between 12-Hour and 24-Hour format

You can select either 12-hour or 24-hour time indication format.

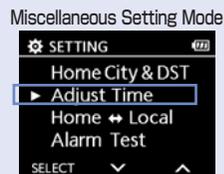
※ When the Style 5 (playing cards) is selected in the time display mode, 24-hour format cannot be selected.  
→ How to select the style (Design) of the time display P108

- ① In the Menu Display, select **SETTING** and press **SELECT**.

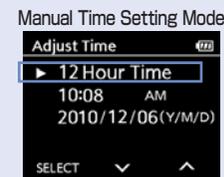


To show the Menu display  
→ How to change the modes and displays P104

- ② In the Miscellaneous Setting Mode, select **Adjust Time** and press **SELECT**.



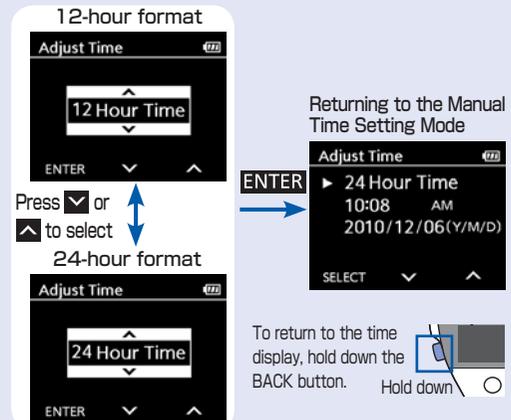
- ③ Press **12 Hour Time** to select **SELECT** (or **24 Hour Time**.)



The above illustration shows the display when the 12-hour format is selected.

12 Hour time: 12-hour format  
24 Hour time: 24-hour format

- ④ Press **ENTER** to select either 12-hour format or 24-hour format.



To return to the time display, hold down the **BACK** button.

Hold down

## When you see one of these displays

If you see one of these displays, follow the corresponding instructions.

Display	POWER SAVE 	SLEEP 	TOO COLD AM 10:08 	The display is blank. 	
Condition	The Power Save function has been activated.		The temperature of the watch has dropped below -5°C.	The display does not react when any button is pressed. → The battery is running low.	The message "Too Hot" appears when a button is pressed. → The temperature of the watch has risen above 50°C.
Instructions	Expose the watch to light or press any button to cancel the Power Save function. → Power save P138		Move the watch to a warm place and wait for a while until the watch shows the normal time display.	Follow the instructions ① and ②. ① Recharge the watch sufficiently until the battery life indicator appears like  . → How to charge the battery. P133 ② Conduct manual reception or set the time manually. → How to conduct manual reception (Reception by manual operation) P156 → How to set the home time city and dst (Daylight saving time) P120 If you see an abnormal display, reset the built-in IC. → Abnormal display or improper function P178	 If you see a display shown above, try moving the watch to a cool place and wait for a while until the watch shows the normal time display.

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## Troubleshooting

Troubles		Possible causes	Solutions	Ref. page
Radio wave reception	The watch cannot receive radio waves.	The watch was moved while it was receiving radio waves. (It may take 17 minutes at the longest to complete the reception.)	Do not move the watch while it is receiving radio waves. Wait until the reception is completed. It may take 17 minutes at the longest.	P117
		While the watch was receiving radio waves, any one of the buttons was pressed. (Radio wave reception was canceled.)	Do not press any button while the watch is receiving radio waves (during both automatic and manual reception.) Keep the watch stationary and leave the watch unmoved without holding or tilting it.	P117
		The watch is in a poor reception environment. (P118)	Move the watch to a place with a good reception environment and try receiving radio waves.	P117
		Radio wave transmission from the transmitting station is temporarily out of action. (Outages)	For the information on the scheduled outage periods, see each transmitting station's website. Try receiving radio waves after some time.	P119
		The home time city is not appropriately designated. → How to check the home time city P106	① Check if the home time city is appropriately designated as instructed in this booklet. Reset the home time city as necessary. ② If the time remains incorrect after the home time city is reset, try manually receiving radio waves.	P120 P111
Recharging the watch	The stopped watch was recharged, but it does not start working.	The light was too weak. The charging time was not long enough.	The time required for recharging varies depending on the illuminance level. Recharge the watch referring to the "Standard charging time."	P134
		The built-in IC has fallen into an unstable condition.	Reset the built-in IC, referring to "Abnormal display or improper function."	P178

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Troubles		Possible causes	Solutions	Ref. page
Wrong time indication	The watch temporarily gains or loses time.	Radio wave reception was interfered by external factors. (Reception failure)	① Try receiving radio waves in a different place with a good reception environment. ② Conduct manual reception as needed.	P117 P156
		The watch has been left in an extremely high or low temperature for a long time.	① When the watch returns to normal temperature, this condition will be corrected. ② After returning the watch to normal temperature, if the watch indicates the wrong time, conduct manual reception. If the condition is still not corrected to normal, consult the retailer from whom the watch was purchased.	— P162 —
	The watch indicates the correct minutes and seconds, but is off by one or more hours.	The home time city is not appropriately designated. → How to check the home time city P106	Reset the home time city.	P120
		DST (Daylight Saving Time) of the home time is not correctly set.	Correct the DST (Daylight Saving Time) setting.	P120
Button operation	The display does not respond to any button operations.	The battery is running low.	Recharge the watch.	P134
	The display does not switch when a button is pressed.	The switching speed of the Electrophoretic Display is slower compared to other types of displays such as LEDs.	This is not a malfunction. Wait until the watch finishes switching its display before proceeding to the next operation.	—
	The display switches slowly when a button is pressed.			

Troubles		Possible causes	Solutions	Ref. page
Display	The display went blank.	The battery is running low.	Recharge the watch.	P134
		The temperature of the watch has risen above 50°C. (When a button is pressed, the "TOO HOT USE UNDER 50 °C" message appears on the display.)	Move the watch to a cool place and wait for a while until the watch shows the normal time display.	—
	I find the black and white particles are occasionally reversed.	In the time display, once every 10 minutes and each time when the mode is switched, the black and white particles are reversed.	This is not a malfunction. (This is a programmed action to maintain the display quality.)	—
	The message "TOO HOT USE UNDER 50 °C" appears on the display.	The temperature of the watch has risen above 50 °C.	Move the watch to a cool place and wait for a while until the watch shows the normal time display.	—
	The message "TOO COLD USE OVER -5 °C" appears on the display.	The temperature of the watch has dropped below - 5 °C.	Move the watch to a warm place and wait for a while until the watch shows the normal time display.	—
Others	Blur on the dial glass persists.	Water has entered into the watch due to deterioration of the packing etc.	Consult the retailer from whom the watch was purchased.	—

※ For the solution of troubles other than the above, consult the retailer from whom the watch was purchased.

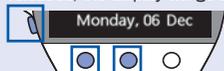
## Abnormal display or improper function

### ■ How to reset the built in IC

When the watch shows an abnormal display or does not properly function, or does not move even after it was sufficiently charged, follow the instructions below to reset the built-in IC. Then the watch will resume its normal operation.

- ① Simultaneously hold down the three buttons shown below for longer than two seconds and then, release them.

▶ A few seconds after the buttons are released, the display will go blank.



There is no display

- ② After approximately ten seconds, **SETTING** will appear on the screen.



After the built-in IC is reset, the watch will return to the Miscellaneous Setting Mode. The watch starts moving from 0 o'clock zero minute and zero second on Monday, January 1, 2010.

※ The style of the time display will be set to the Style 1.  
 ※ After the built-in IC is reset, both the home time city and the local time city will be set to TOKYO.

- ③ Setting the time and date.

- Conduct manual reception to set the time.  
 → How to conduct manual reception (Reception by manual operation) P156
- When the watch cannot receive radio waves  
 Manually set the time → How to manually set the time, date (Year, month and date) P162

## Specifications

1. Frequency of crystal oscillator ... 32,768 Hz (Hz=Hertz Cycles per second)
2. Accuracy ..... Monthly rate within 15 seconds (If time adjustment by automatic radio wave reception is not conducted and the watch is worn on the wrist within a temperature range between 5°C and 35°C)
3. Operational temperature range ..... Between -5 °C and +50 °C (Between 0 °C and +50 °C for display function)
4. Display medium ..... Active Matrix Electrophoretic Display
5. Power Source ..... Secondary battery, 1 piece
6. Duration of operation ..... Approximately nine months (When the watch is not exposed to light after being fully charged, and the built-in backlight is turned on once for 3 seconds, alarm sounds once for 10 seconds, radio wave reception is conducted once for 10 minutes and the Power Save function is activated for 6 hours per one day.)  
 ※ If the watch falls into a SLEEP state after being fully charged, it can run up to 41 months.
7. Radio wave reception function ..... Automatic reception: at 2:00 AM (If the watch cannot detect radio waves at this time, it will conduct radio wave reception again at 4:00 AM.)  
 ※ After a successful radio wave reception, the watch moves depending on the quartz movement until the next reception.  
 ※ Manual reception is also possible.
8. Built-in backlight ..... Front light LED
9. IC (Integrated Circuit) ..... Oscillator, frequency dividing, driving, reception and LED circuits: IC, 4 pieces

※ The specifications are subject to change without prior notice for product improvements.