

Modes and Display Screens

Each press of the **(C)** button sounds a confirmation tone and cycles through available modes in the sequence shown below.

- Some of the example displays in this manual do not show the analog hands.
- The display will automatically revert to the Timekeeping screen if you leave the Alarm or Hand Setting screen displayed without performing any operation for about two or three minutes.

Timekeeping Mode

Changing Digital Display Contents
Each press of the **(B)** button cycles display contents in the following sequence: Date ⇒ Day of the Week ⇒ Current Time ⇒ Seconds.

Date Screen

Day of the Week Screen

Seconds Screen

Current Time Screen

Days of the Week
 SUN: Sunday MON: Monday TUE: Tuesday
 WED: Wednesday THU: Thursday FRI: Friday
 SAT: Saturday

- For details about the battery level indicator, see "Checking the Battery Level". For details about the receive indicator, see "Receive Mark and Receive Indicator".
- For details about the city codes (time zone names) around the periphery of the face, see "World Time City Code List".

World Time Mode

- The second hand points to the currently selected city code (time zone name).

Stopwatch Mode

- The second hand points to 12 when the stopwatch is rest to zero.

Hand Setting Mode

Alarm Mode

- Alarm off
- Hourly Time Signal off

Power Supply

The power supply of this watch uses a solar cell to generate electrical power, which is stored by a rechargeable battery. Using or storing the watch where it is not regularly exposed to light, or allowing it to be blocked from light by your sleeve for long periods as you are wearing it can cause the power of the rechargeable battery to run down. To ensure stable operation, be sure to allow the watch to be exposed to light as much as possible when you are wearing or storing it.

Important!
Note that all data in memory and all settings are cleared whenever you allow the level of the rechargeable battery to drop to Level 4.

■ Checking the Battery Level

Level 1		Normal operation enabled.
Level 2		Normal operation enabled.
Level 3		Digital display, face illumination, tones (alarm, hourly time signal), time calibration signal reception, and analog timekeeping disabled.
Level 4		All functions, including timekeeping, disabled.

- Exposing the watch to direct sunlight or other strong light may cause the battery level indicator to momentarily indicate a level that is higher than the actual battery level. Because of this, you should wait for a short while after charging to check the battery level indicator.
- When the battery level approaches Level 3, the indicator below **L-CHG** of the battery level indicator will start to flash, and the analog hands will move to the 12 o'clock position.
- Even after the battery drops to Level 4, you will be able to resume normal operation by charging the battery.
- When charging from Level 4, the display will start operating when the battery reaches Level 3. At this time, you will be able to configure digital time and date settings only. The analog hands will start to operate when the battery reaches Level 2. At that time, adjust the analog hand setting so it matches the digital time.
- When charging the battery, keep the watch exposed to light until the battery reaches Level 2 or Level 1.

■ Start charging at Level 3!

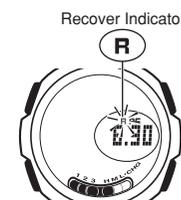
Battery Level 3 indicates that remaining battery power is very low. Be sure to expose the watch to light for recharging as soon as possible after Level 3 is indicated.

■ Flashing Recover Indicator

If you use the light or alarm a number of times during a short period, a recover (R) indicator will flash on the display and the following operations will become disabled as battery power recovers.

- Face illumination,
- Alarm and hourly time signal
- Analog timekeeping
- Time calibration signal reception

Normal operation will return after the battery recovers.



■ Charging Precautions

Avoid charging the watch in the following locations, and anywhere else where the watch may become very hot.

- On the dashboard of an automobile parked in the sun
 - Very close to an incandescent light source or other sources of heat
 - In a location exposed to direct sunlight for long periods
- Note that the display panel may become black under very high temperatures. This is temporary, and the display will return to normal at lower temperatures.

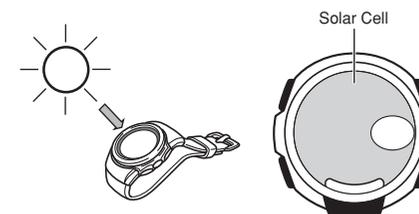
Depending on the light source you are using, the case of the watch may become quite hot during charging. Take care to guard against burn injury after charging.

■ To charge the battery

Point the solar panel (face) of the watch at a light source.

- Remember that even a partial blockage of the solar cell reduces charging efficiency.

Example: Positioning the watch



- The illustration shows the resin band model.

■ Charging Guide

Starting from a full charge, the watch should be able to continue operating for about six months without further charging under the conditions described below.

Daily Use

- Face Illumination: 2.5 seconds
- Alarm: 10 seconds
- Signal reception: 5 times

Making sure the watch is regularly exposed to light ensures stable operation.

Required Daily Charging Time

- The following is the approximate daily amount of charging required each day to support the operations under "Daily Use".

Exposure Level (Brightness)	Approximate Exposure Time
Outdoor Sunlight (50,000 lux)	6 minutes
Sunlight Through a Window (10,000 lux)	30 minutes
Daylight Through a Window on an Overcast Day (5,000 lux)	48 minutes
Indoor Fluorescent Lighting (500 lux)	8 hours

- Charge Times Required to Advance to a Higher Level

Exposure Level (Brightness)	Approximate Exposure Time			
	Level 4 → Level 3	Level 3 → Level 2	Level 2 → Level 1	Level 1
Outdoor Sunlight (50,000 lux)	2 hours	20 hours	6 hours	
Sunlight Through a Window (10,000 lux)	5 hours	98 hours	27 hours	
Daylight Through a Window on an Overcast Day (5,000 lux)	7 hours	159 hours	44 hours	
Indoor Fluorescent Lighting (500 lux)	69 hours	---	---	

- Note that the above charging times are for reference only. Actual charging time depends on a variety of environmental factors.

Face Illumination

An LED light is used to illuminate the face of the watch for easy reading in the dark. An auto light switch automatically illuminates the face when you angle the watch towards your eyes for reading.

■ To illuminate the face manually

Press the **L** button in any mode (except while a setting screen is on the display).

- This turns on LEDs located at 3 o'clock and 9 o'clock, which illuminate the face of the watch.
- You can use the procedure under "To specify the illumination duration" to configure the illumination duration as approximately 1.5 seconds or 2.5 seconds.



- Pressing the **L** button illuminates the face regardless of whether the auto light switch is on or off.

You may hear a faint rattling sound when you move the watch around. This sound is caused by the movement of a metal bulb that controls operation of the auto light switch, and does not indicate malfunction.

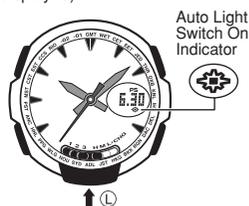
■ To illuminate the face with the auto light switch

The auto light switch automatically illuminates the face whenever you angle the watch towards your eyes for reading, but only when it is dark.

- The auto light switch does not illuminate the face when surrounding light is bright.
- You can use the procedure under "To specify the illumination duration" to configure the illumination duration as approximately 1.5 seconds or 2.5 seconds.

■ To turn the auto light switch on and off

While a setting screen (one on which a setting is flashing) is on the display, hold down the **L** button for about two seconds to toggle the auto light switch on (auto light switch on indicator displayed) and off (no indicator displayed).



Power Saving

Power Saving automatically causes the watch to enter a sleep state and save power whenever the watch is left in the dark. The Power Saving feature of the watch is turned on at the factory.

- Note that the watch may also enter the sleep state if the watch is blocked from light by your sleeve.

■ How the sleep state works

Display sleep state

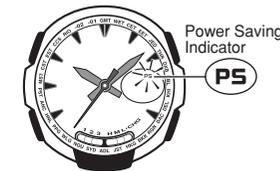
The display sleep state is triggered whenever the watch is left in the dark for three or four days.

- The display sleep state causes the display to go blank, except for a flashing Power Saving indicator. The alarm and the hourly time signal continue to operate normally while the watch is in the display sleep state. Even when the watch is in the sleep state, digital-analog time coordination and time calibration signal auto receive are both performed.
- The watch will not enter the display sleep state if it is in the Stopwatch Mode.

Function sleep state

The function sleep state is triggered whenever the watch is left in the dark for four days.

- The alarm and the hourly time signal are disabled while the watch is in the function sleep state. In the function sleep state, the analog hands stop and time calibration signal auto receive is not performed.
- Digital timekeeping functions continue to operate normally in the function sleep state.



■ To recover from the sleep state

Move the watch to a brightly lit location or press any button. The watch will also recover from the sleep state if you angle it towards your eyes for reading (see "To illuminate the face with the auto light switch").

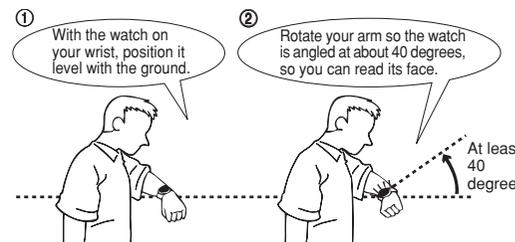
- It can take up to two seconds before display figures re-appear after you place the watch in a well-lit area.

■ To turn Power Saving on and off

Use the procedure under "Configuring Home Time Settings" to turn Power Saving on or off.

Leaving the watch in a drawer or anywhere else it is dark can cause Power Saving to trigger in order to conserve battery power.

■ Positioning Your Arm Correctly



- You should be wearing the watch on the **outside of your wrist** when using the auto light switch.
- Make sure that the left (9 o'clock) and right (3 o'clock) sides of the watch are within ± 15 degrees of being parallel with the ground. The auto light switch may not operate properly if the angle is greater.



Important!

- The light may be difficult to see if you turn it on under bright sunlight.
- If you press the **B** button or if an alarm operation starts while the face is illuminated, illumination will turn off.
- Face illumination does not work while you are performing a time calibration signal manual receive operation.

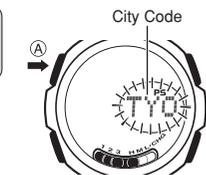
Auto Light Precautions

- Frequent use of the auto light can run down the battery.
- The auto light switch may cause the face to illuminate when your sleeve covers the face of the watch.
- The face may not illuminate immediately when you angle the watch towards your face. This does not indicate malfunction.
- The face remains illuminated for the currently set duration (1.5 or 2.5 seconds) only, even if you leave the watch angled towards your face.
- The auto light switch is automatically disabled whenever battery power is at Level 3 or lower.
- The face may illuminate unintentionally when you wear the watch on the inside of your wrist, when you shake your arm, or when you raise your arm. **Be sure to turn off the auto light switch whenever you do not need face illumination.**
- Keep the auto light switch turned off whenever you are wearing the watch on the inside of your wrist.
- Electro-static charge and magnetism can interfere with auto light operation and even make operation impossible. If this happens lower your arm to the starting position and then raise it again. If you still have trouble with illumination, try lowering your arm down to your side and then raise it to your face for reading.

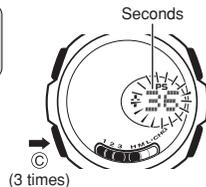
To specify the illumination duration

1. In the Timekeeping Mode, hold down the (A) button for about two seconds.

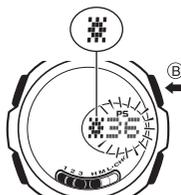
- This will cause your current Home City code to flash on the display. Also, the second hand will move so it points to the currently selected city code (time zone name).



2. Press the (C) button three times to display the flashing seconds count.



3. Press the (B) button to toggle the illumination duration between about 1.5 seconds (∨ indicator) and 2.5 seconds (⊞ indicator).



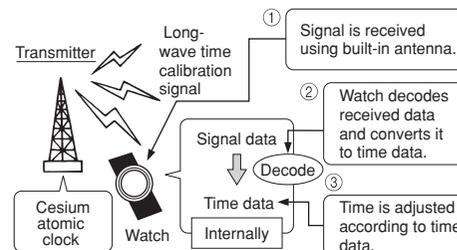
4. After the setting is the way you want, press the (A) button to exit the setting screen.

- When you exit the setting screen, the second hand will move to proper position that matches the seconds count on the digital display.
- The watch will also exit the setting screen automatically if you do not perform any operation for about two or three minutes.

How a Radio-controlled Watch Works

What is a radio-controlled watch?

Your radio-controlled watch is designed to receive a time calibration signal that contains standard time data, and adjust its current time setting accordingly.



After the watch receives the Standard Time signal, it performs internal calculations to determine the current time. Because of this, there may be an error of up to one second in the displayed time.

Calibration Signal

- The Japanese calibration signal (Call Sign: JJY) is maintained by the National Institute of Information and Communications Technology (NICT). It is a long wave signal transmitted 24 hours a day from the Mt. Otakadoya transmitter (40kHz) located in Tamura-gun, Fukushima Prefecture, and from the Mt. Hagane transmitter (60kHz) located on the border between Saga Prefecture and Fukuoka Prefecture.
- The U.S. calibration signal (Call Sign: WWVB) is transmitted by the National Institute of Standards and technology from Fort Collins, Colorado.

Note that transmission of the time calibration signal may be interrupted occasionally due to maintenance, lightning, etc.

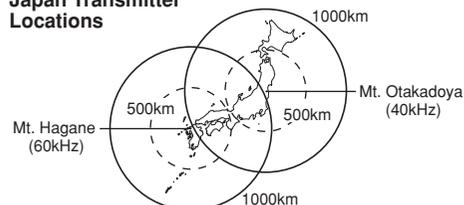
Reception Range

This watch is designed to receive the standard time calibration signal of Japan (JJY) or of the United States (WWVB). The signal that is received depends on the current Home City setting.

- For information about selecting a Home City, see "Configuring Home Time Settings". For information about city codes, see the "World Time City Code List".

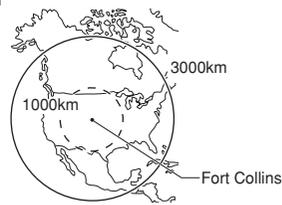
Home City	Transmitter
TYO	Either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz)
LAX, DEN, CHI, NYC	Fort Collins, Colorado signal

Japan Transmitter Locations



- Under optimum conditions, the calibration signal should be receivable up to 1,000 kilometers from the transmitter. Note that the wave is relatively weak at distances greater than 500km, so reception may be poor at long distances.

U.S. Transmitter Location



- Under optimum conditions, the calibration signal should be receivable up to 3,000 kilometers from the transmitter. Note that the wave is relatively weak at distances greater than 1,000km, so reception may be poor at long distances.

- Geographic contours, nearby buildings, seasonal conditions, the time of day, can even make reception impossible even when you are within range of the transmitter.
- Best reception is possible late at night.

Location

Reception is difficult and may even be impossible in the locations described below. Avoid such locations when performing signal reception.

- You should think of your watch operating like a radio or TV when it is receiving the calibration signal.



Among or near buildings



Near high-voltage lines



Inside a vehicle (automobile, train, plane, etc.)



Next to a household appliance or office equipment (TV, speaker, fax, computer, cell phone, etc.)



In a location where there is radio interference (construction site, airport, etc.)



Near mountains

If you are experiencing problems with reception, move away from the types of locations described above to a location with better reception, and try again.

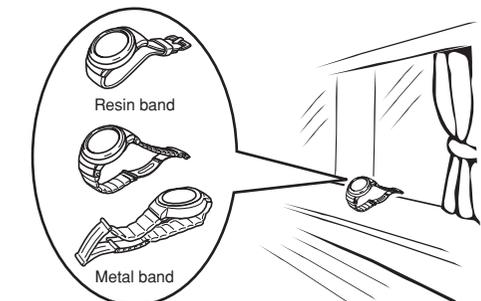
Receiving the Calibration Signal

There are two methods you can use to receive the time calibration signal.

- Auto receive (Reception is performed automatically at midnight, 1:00, 2:00, 3:00 and 4:00 each morning.)**
- Manual receive (You initiate reception using a button operation.)**
- If reception is not successful for any of the normal auto receive operations shown above, auto receive is performed one more time at 5:00 a.m.
- The watch is set up for auto receive at the factory, so all you need to do is place it in a location that allows good reception each night.

To position the watch for optimum reception

Remove the watch from your wrist and place it somewhere so its top (12 o'clock side, where the antenna is located) is facing approximately in the direction of the signal transmitter. Keep the watch away from metal objects.



- Orienting the watch so it is sideways to the transmitter makes it more difficult to receive the signal.
- Do not move the watch while it is receiving the calibration signal.

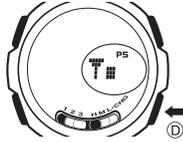
Time Required for Reception

A calibration signal receive operation takes anywhere from about two to seven minutes.

- Note that when "AUTO" (Auto Select) is specified as the transmitter selection mode, signal reception can take up to 14 minutes.
- See "Configuring Auto Receive Settings" for more information.

To perform manual receive

In the Timekeeping Mode, hold down the **(D)** button for about two seconds.



- The watch will beep and reception will start. A receive mark and receive indicator will appear on the display to indicate reception conditions.

To interrupt reception

Press the **(D)** button.

- All other buttons besides **(D)** are disabled during signal reception.

When reception is successful

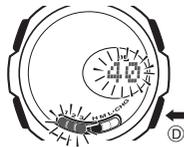
The watch terminates reception and adjusts the current time. Next it beeps and then displays the date and time that the adjustment was performed.

Reception Error (ERR Indicator)

The watch does not adjust its current time setting, and displays "ERR" when signal reception is unsuccessful for some reason.

- The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one or two minutes.

- Press the **(D)** button to cycle through the available auto receive settings.



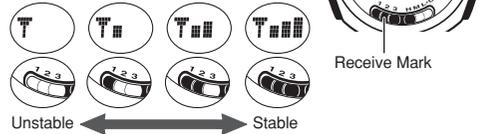
- When the setting is the way you want, press the **(A)** button.



- This will exit the setting screen and return to the last reception date and time screens.
- To return to the Timekeeping Mode, press the **(D)** button again.
- The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one or two minutes.

Receive Mark and Receive Indicator

The receive mark and receive indicator cycle from "Unstable" through "Stable" as shown below while reception is in progress. How far they cycle depends on the signal strength. Keep the watch in a location where reception is stable while reception is in progress.



- Even under optimum reception conditions, it can take about 10 seconds for reception to stabilize.

- Use the receive mark and receive indicator to check reception status and to determine the best location for signal reception.
- Note that weather, the time of day, surroundings, and other factors can all affect reception.

Analog Hand Operation During Signal Reception

Second Hand

When reception starts, the second hand moves to 12 o'clock and stops. Normal movement will resume after reception is complete. Pressing any button will terminate reception and cause the second hand to move to the seconds count indicated by the digital display.

Hour and Minute Hands

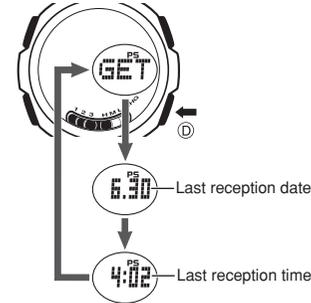
The hour and minute hands continue to operate normally during signal reception.

Note that the second hand does not move during signal reception.

To view the last reception date and time

In the Timekeeping Mode, press the **(D)** button.

- This causes the digital display to start cycling through the "SET" screen, last reception date screen, and last reception time screen at one-second intervals.
- "-- --" will appear in the digital display if the watch has not been able to perform any signal reception successfully.
- To return to the Timekeeping Mode, press the **(D)** button again.
- The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one or two minutes.



Configuring Auto Receive Settings

Use the procedure below to turn auto receive of the time calibration signal on or off. When **TYO** (Tokyo) is selected as your Home City, you can also specify the transmitter selection mode, which controls which Japanese transmitter signal should be used for time calibration.

- For information about selecting your Home City, see "Configuring Home Time Settings".
- The initial factory default settings for auto receive are Home City = **TYO** (Tokyo); Auto Receive = On; Transmitter = **AUTO**.
- The following procedure can be performed only when **TYO**, **NYC**, **CHI**, **DEN**, or **LAX** is selected as the Home City.

To configure auto receive settings

- In the Timekeeping Mode, press the **(D)** button.



- This causes the display to start cycling through the last reception date and time screens.
- The watch will return to the Timekeeping Mode automatically if you do not perform any operation for about one or two minutes.

- Hold down the **(A)** button for about two seconds.



- This will cause the current auto receive setting to flash on the display.

Auto Receive Settings when the Home City is TYO

- AUTO**
Auto receive turned on with automatic selection of either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz), whichever is strongest.
- 40**
Auto receive turned on for the Mt. Otakadoya signal (40kHz).
- 60**
Auto receive turned on for the Mt. Hagane signal (60kHz).
- OFF**
Auto receive turned off.

Auto Receive Settings when the Home City is NYC, CHI, DEN, or LAX

- ON**
Auto receive turned on for the Ft. Collins, Colorado signal.
- OFF**
Auto receive turned off.

Calibration Signal Reception Precautions

- Auto reception can be performed while the watch is in the Timekeeping Mode or World Time Mode only.
- When a time calibration signal is received, the watch corrects its digital time setting first, and then adjusts the analog time setting accordingly. In order to ensure that the analog time matches the digital time before signal reception is performed.
- Pressing any button while auto reception is in progress will cause the watch to beep and then exit the receive operation.
- Make sure you are within the range of the calibration signal transmitter before performing the reception operation. Remember that geographic contours, nearby buildings, seasonal conditions, the time of day, can even make reception impossible even when you are within range of the transmitter.
- Proper reception may be impossible if there is something blocking the signal. If reception is unsuccessful, try again.

- This watch is designed to adjust its current time setting in accordance with the calibration signal transmitted in Japan and the United States only. It operates like a standard (non-radio controlled) watch outside of the range of the receivable time calibration signal transmitters.
- When the watch is unable to adjust its time signal using the calibration signal for some reason, timekeeping accuracy is within ± 15 seconds per month.
- Strong electrostatic charge can cause timekeeping error.
- Signal reception is cancelled if the alarm starts to sound while it is being performed.
- The watch's calendar shows dates up to the year 2099. Attempting a receive operation after that causes an error.

Troubleshooting

The watch cannot receive the time calibration signal.

- Is the signal being transmitted?
Though the Japanese calibration signal (Call Sign: JJY) is continually transmitted by the National Institute of Information and Communications Technology (NICT) in theory, it may sometimes be interrupted for periodic maintenance work, or because of lightning or other problems.
- Are you within the reception range of a transmitter?
See "Reception Range" for information about areas where the watch can receive the signal.
- Is there something in the immediate area that may be interfering with reception?
Even if you are within the reception range of a transmitter, objects between you and the transmitter or electrical noise can interfere with reception. Avoid such areas during signal reception. See "Location" for more information.
- Do you have the correct Home City code selected?
Remember that auto receive is not performed unless **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles) is selected as the Home City. Select the correct Home City code using the procedure under "Configuring Home Time Settings".
- Is auto receive turned off (OFF)?
Use the procedure under "Configuring Auto Receive Settings" to turn on auto receive.
- Is the watch in any mode other than the Timekeeping Mode or World Time Mode during the auto receive times (midnight, 1:00 a.m., 2:00 a.m., 3:00 a.m., 4:00 a.m., and 5:00 a.m.)?
Auto receive is performed only when the watch is in the Timekeeping Mode or World Time Mode. It is not performed if the watch is in any other mode.

Time calibration signal reception is successful, but the hourly time signal and current time are slightly off.

- After the watch receives the time calibration signal, it performs an internal decoding process before updating its time setting. Because of this, the time setting may be slightly off (within one second).

Time calibration signal reception is successful, but the current time is one hour fast.

- Do you have summer time (DST) turned on (ON)? Use the procedure under "Configuring Home Time Settings" to turn off summer time.

Time calibration signal reception is successful, but the current time setting is wrong.

- Is the correct city code selected for your Home City?
If you are in Japan, you should have **TYO** selected for your Home City. For other areas, select the correct Home City code using the procedure under "Configuring Home Time Settings".

The digital display time and analog hand time are different.

- Normally, the received time calibration data is used to adjust the digital display time, and then the analog hands are adjusted to match the digital time. If the hands are misaligned for some reason, they will not indicate the correct time. If this happens, use the procedure under "Adjusting the Analog Time Setting" to adjust the analog time.

The auto receive ON/OFF settings don't appear when configuring auto receive settings.

- Auto receive ON/OFF settings do not appear on the display unless **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles) is selected as the Home City. Use the procedure under "Configuring Home Time Settings" to select your correct Home City.

The auto receive AUTO, 40, and 60 settings do not appear when configuring auto receive settings.

- The AT, JP40, and JP60 transmitter selection mode options are available only when **TYO** (Tokyo) is selected as the Home City code. Use the procedure under "Configuring Home Time Settings" to select your correct Home City.

What time is auto receive performed?

- Auto receive is performed in the middle of the night, when reception conditions are best. Before going to bed at night, place the watch near a window, with its 12 o'clock position facing in the general direction of the transmitter.

How can I perform manual receive?

- Hold down the lower right **(D)** button for about two seconds. The watch will beep to indicate that manual receive has started. Place it near a window, with its 12 o'clock position facing in the general direction of the transmitter.

How can I view the last reception date and time?

- In the Timekeeping Mode, press the lower right **(D)** button. This will display the date and time that the time calibration signal was last received successfully. To return to the Timekeeping Mode, press the **(D)** button again. See "To view the last reception date and time" for more information.
- Check the auto signal reception setting whenever you have problems with signal reception or when the time setting produced by signal reception is incorrect.
- The initial factory default configuration of the reception settings are shown below. You do not need to change these settings if you use the watch in Japan.

Auto Receive	AUTO	Auto Japan transmitter select (40kHz/ 60kHz)
Home City	TYO	Tokyo
Summer Time	AUTO	Auto switching in accordance with signal data

World Time Mode

World time lets you display the current time in any one of 31 cities (29 time zones) around the world.

- When you enter the World Time Mode, the screen for the city that was displayed when you last exited the mode appears first. Also, the second hand will move so it points to the currently selected city code (time zone name).
- The seconds count in the World Time Mode is linked with the Timekeeping Mode seconds count.
- The same 12-hour/24-hour format you select for the Timekeeping Mode time is also applied in the World Time Mode.

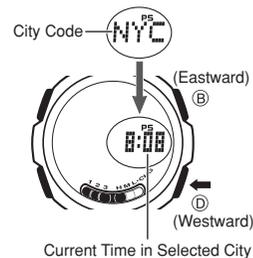
Important!

- If the World Time Mode time is incorrect, check the current time settings in the Timekeeping Mode and the World Time city settings.
- For more information, see "Configuring Home Time Settings".

To search for a city code (time zone name)

In the World Time Mode, use the **(D)** button (westward) or the **(B)** button (eastward) to scroll through the available city codes.

- A short while after a city code appears, the display will change to show the current time in that city.
- Holding down the **(D)** or **(B)** button scrolls at high speed.

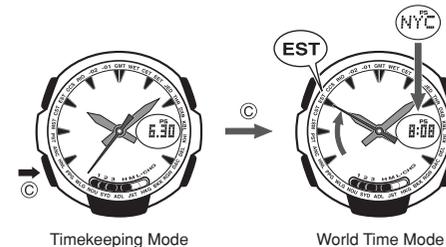


- If a time zone does not have a city code assigned to it, the GMT differential appears instead.

Analog Hand Operation in the World Time Mode

When you enter the World Time Mode, the second hand will move clockwise and stop at the currently selected World Time city code (zone name).

- If you change to another city code (time zone name), the second hand will move clockwise until it reaches the newly selected city code. If you scroll through city codes at high speed, the second hand will not move until you stop scrolling at a particular city code.
- The second hand does not move counterclockwise in the World Time Mode. In some cases, it may take some time before it reaches the currently selected city code.
- In the World Time Mode, the minute and second hands continue to indicate the Timekeeping Mode hour and minutes.



Using Summer Time (DST)

Summer time, or Daylight Saving Time (DST) as it is known in some countries, calls for setting clocks ahead one hour during the summer season. Note that the use of summer time depends on the country and even the local area.

To turn summer time on or off

- In the World Time Mode, use the **(D)** and **(B)** buttons to display the screen for the city code whose summer time setting you want to change.
- Hold down the **(A)** button for about two seconds.



- This toggles summer time on and off.
- The "DST" indicator appears on the display and timekeeping is advanced by one hour when summer time is turned on.
- In the World Time Mode, the second hand points to the currently selected city code (time zone name), regardless of whether summer time is turned on or off.
- You can turn summer time on or off independently for each World Time Mode city. Note, however, that you cannot turn on summer time for the "GMT" city code.

World Time City Code List

City Code	GMT Differential	City Name	Time Zone Indicated by Second Hand	City Code	GMT Differential	City Name	Time Zone Indicated by Second Hand
PPG	-11	Pago Pago	PPG	JED	+3	Jeddah	JED
HNL	-10	Honolulu	HNL	THR	+3.5	Teheran	THR
ANC	-9	Anchorage	ANC	DXB	+4	Dubai	DXB
LAX	-8	Los Angeles	PST (Pacific Standard Time)	KBL	+4.5	Kabul	KBL
DEN	-7	Denver	MST (Mountain Standard Time)	KHI	+5	Karachi	KHI
CHI	-6	Chicago	CST (Central Standard Time)	DEL	+5.5	Delhi	DEL
NYC	-5	New York	EST (Eastern Standard Time)	DAC	+6	Dakar	DAC
CCS	-4	Caracas	CCS	RGN	+6.5	Yangon	RGN
RIO	-3	Rio de Janeiro	RIO	BKK	+7	Bangkok	BKK
-02	-2		-02	HKG	+8	Hong Kong	HKG
-01	-1		-01	SEL	+9	Seoul	JST (Japan Standard Time)
GMT	+0	Greenwich Mean Time	GMT	TYO	+9	Tokyo	
LON	+0	London	WET (Western European Time)	ADL	+9.5	Adelaide	ADL
PAR	+1	Paris	CET (Central European Time)	SYD	+10	Sydney	SYD
BER	+1	Berlin		NOU	+11	Noumea	NOU
ATH	+2	Athens	EET (Eastern European Time)	WLG	+12	Wellington	WLG
CAI	+2	Cairo					
JRS	+2	Jerusalem					

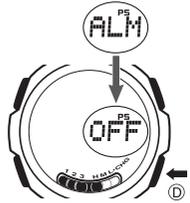
• The contents of the above table are current as of December 2003.
 • Time differentials in the above table are in accordance with Universal Time Coordinated (UTC).

Using the Alarm and Hourly Time Signal

You can use the Alarm Mode to set an alarm time. The watch beeps for 10 seconds when the current time in the Timekeeping Mode reaches the alarm time you set. The Hourly Time signal causes the watch to beep every hour on the hour.

To set the alarm time

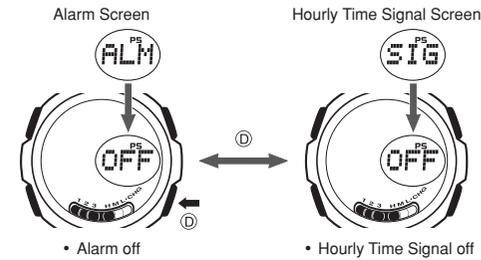
- In the Alarm Mode, press the **(D)** button to display the alarm screen.



To display the alarm screen

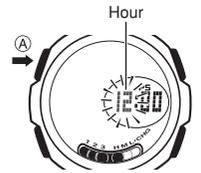
In the Alarm Mode, press the **(D)** button to toggle the display between the alarm screen and the Hourly Time Signal screen.

- The screen that was displayed the last time you exited the Alarm Mode will appear first.



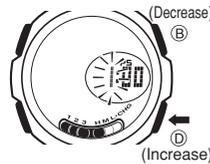
- Hold down the **(A)** button for about two seconds until the hour digits of the alarm time start to flash.

- Displaying the alarm setting screen automatically turns on the alarm.



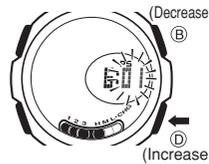
- Use the **(D)** (+) and **(B)** (-) buttons to change the hour setting.

- Holding down either button changes the setting at high speed.
- When setting the hour, make sure you specify AM (no indicator) or PM (P) correctly when using 12-hour timekeeping, or that you specify the correct 24-hour time.
- The same 12-hour/24-hour format you select for the Timekeeping Mode home time is also applied in the Alarm Mode.



- Use the **(D)** (+) and **(B)** (-) buttons to change the minute setting.

- Holding down either button changes the setting at high speed.

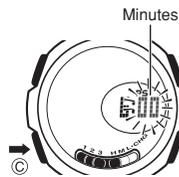


- When the setting is the way you want, press the **(A)** button.

- This exits the setting screen.
- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

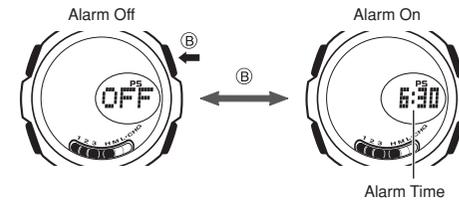
- Press the **(C)** button to select the minute setting.

- This causes the minute digits to flash.



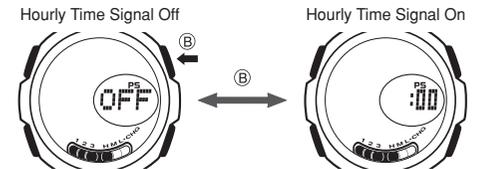
To turn the alarm on or off

- In the Alarm Mode, use the **(D)** button to display the alarm screen.
- Press the **(B)** button to toggle the alarm on (alarm time displayed) or off ("OFF" displayed).



To turn the hourly time signal on or off

- In the Alarm Mode, use the **(D)** button to display the Hourly Time Signal screen.
- Press the **(B)** button to toggle the Hourly Time Signal on ("SIG" displayed) or off ("OFF" displayed).



To stop the alarm beeper

Press any button.

To test the alarm

In the Alarm Mode, hold down the **(D)** button to sound the alarm.

Stopwatch Mode

The stopwatch measures elapsed time in units of 1/100 second up to 59 minutes, 59.99 seconds (60 minutes total). When the maximum limit is reached, the elapsed time automatically returns to zero and timing continues from there.

To perform elapsed time measurement

In the Stopwatch Mode, press the **(D)** button to start and stop elapsed time measurement.

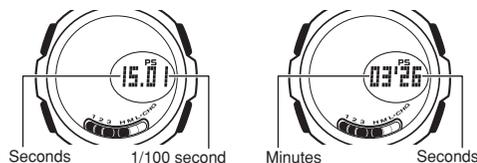


Analog Hand Operation in the Stopwatch Mode

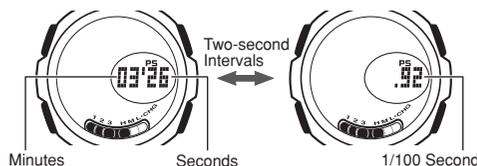
When you enter the Stopwatch Mode, the second hand will move to 12 o'clock. Starting an elapsed time measurement operation will cause the second hand to move along with the seconds count of the stopwatch operation. After you stop the elapsed time operation, resetting the stopwatch will cause the second hand to return to 12 o'clock.

Stopwatch Mode Display Screens

Elapsed Time Screen
The display shows counts for the seconds and 1/100 of a second for the first minute. After that, it shows the minutes and seconds.



Paused Elapsed Time Measurement Screen
When elapsed time measurement is paused, the display alternates between a minute/second screen and a 1/100 second screen at two-second intervals.



Elapsed Time Measurement



Pressing the **(B)** button while timing is stopped resets the stopwatch to all zeros.

Cumulative Time Measurement

Pressing the **(D)** button to restart the stopwatch without resetting it to all zeros causes the elapsed time measurement to resume from where it was last stopped.

Split Time Measurement



Pressing the **(B)** button while timing is being performed displays the split time screen, but timing continues internally.

• Changing to another mode while a split time is displayed clears the split time operation.

1st and 2nd Place Finishers



Pressing the **(D)** button while the split time screen is on the display stops elapsed time measurement, and leaves the split time screen on the display. Press the **(B)** button to exit the split time screen and display the elapsed time when the measurement was stopped.

Split Time Screen

The split time screen first shows the split indicator (SPL), followed by the split time.
• If the split time is less than one minute, the split time shows seconds and 1/100 second. If the split time is one minute or greater, the display alternates at two-second intervals between a screen that shows minutes and seconds, and a screen that shows 1/100 second.



Configuring Home Time Settings

Home time settings include your Home City (the city where you will normally use the watch), the current time and date in your Home City, and other settings.

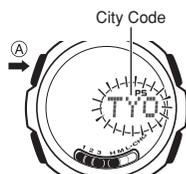
- Use the Timekeeping Mode to configure home time settings.
- Also use the following procedure when you want to turn Power Saving on or off.

If you are planning to adjust both the digital and analog settings manually, be sure to adjust the digital setting first.

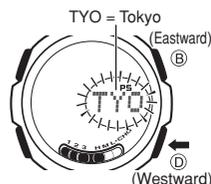
To configure home time settings

- In the Timekeeping Mode, hold down the **(A)** button for about two seconds.

- This will cause your current Home City code to flash on the display. Also, the second hand will move so it points to the currently selected city code (time zone name).



- Use the **(D)** button (westward) or the **(B)** button (eastward) to scroll through the available city codes.



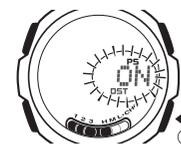
- See the "World Time City Code List" for information about city codes.
- Holding down either button scrolls at high speed, but the second hand will not move until you stop scrolling at a particular city code.
- The second hand does not move counterclockwise in the World Time Mode. In some cases, it may take some time before it reaches the currently selected city code.

- When the city code you want is displayed, press the **(C)** button.

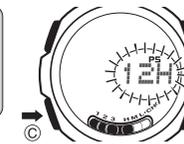
- This will display the summer time (DST) setting screen.



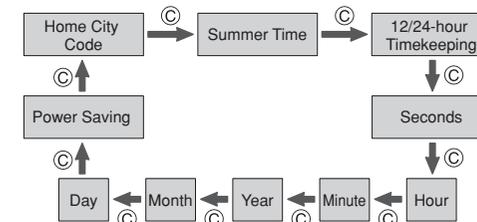
- Press the **(D)** button to cycle the display through the available summer time (DST) settings until the one you want to select is displayed.



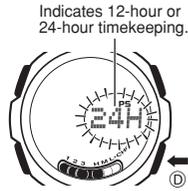
- When the summer time setting is the way you want, use the **(C)** button to cycle the display through the settings shown below.



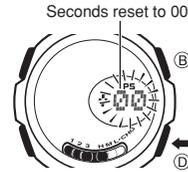
- **AUTO**
This setting enables the auto summer time setting, which turns summer time on or off in accordance with the received time calibration signal.
• This setting uses Japan summer time data when **TYO** is selected as the Home City, and U.S. summer time data when **NYC**, **CHI**, **DEN**, or **LAX** is selected as the Home City.
 - **OFF**
This setting turns off summer time and returns to normal timekeeping.
 - **ON**
This setting turns on summer time and advances the current time by one hour.
• The DST indicator appears on the display when summer time is turned on.
- Only OFF or ON can be selected if the current Home City code is a setting other than **HKG**, **TYO**, **SEL**, **NYC**, **CHI**, **DEN**, **LAX**, **ANC**, or **HNL**.



6. While the 12/24-hour timekeeping setting is flashing, press the **(D)** button to toggle between 12-hour ("12H") and 24-hour ("24H") timekeeping.

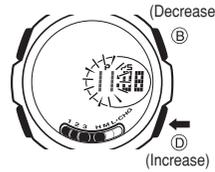


7. While the seconds are selected, press the **(D)** button to reset them to 00 in accordance with the time signal on the radio, TV, etc.



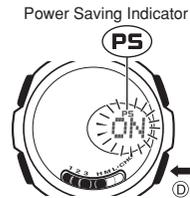
- Pressing the **(D)** button while the seconds count is in the range of 30 to 59 resets it to 00 and also adds 1 to the minutes. Pressing the **(D)** button in the range of 00 to 29 resets the seconds count without changing the minutes.
- Pressing the **(B)** button while the seconds count is flashing changes the face illumination duration. See "To specify the illumination duration" for more information.

8. While the hour, minutes, year, month, or day setting is flashing, use the **(D)** (+) and **(B)** (-) buttons to change the setting.



- Holding down either button changes the setting at high speed.
- When setting the hour, make sure you specify AM (no indicator) or PM (P) correctly, or that you specify the correct 24-hour time.
- You can set a year in the range of 2000 to 2099. The day of the week is set automatically in accordance with the date you set.
- The watch automatically makes adjustments for leap years and month lengths.

9. While the Power Saving setting is flashing, press the **(D)** button to toggle it on (ON) or off (OF).



- If you turn on Power Saving, the Power Saving indicator will be on the display when you exit the setting screen.

Use the **(C)** button to select each of the settings and the **(D)** button to change them.

10. When all of the settings are the way you want, press the **(A)** button.

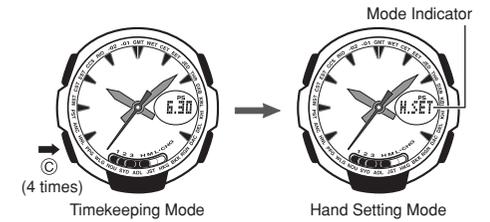
- This exits the setting screen.
- The display also will exit the setting screen automatically if you do not perform any operation for about two or three minutes.

Time Synchronization

- If you change the digital time setting, the analog hands will adjust accordingly.
- The analog hands will move clockwise until they reach the correct setting.
 - It may take some time for the analog hands to reach the correct setting.

Adjusting the Analog Time Setting

You can use the Hand Setting Mode to manually adjust the analog time when it does not match the digital time.



1. In the Hand Setting Mode, hold down the **(A)** button for about two seconds.

- This will cause the second hand to move to 12 o'clock.
- "00" will flash in the digital display.



2. If the second hand is not pointed exactly at 12 o'clock, use the **(D)** button to adjust its position.



- Each press of the **(D)** button moves the second hand one second clockwise.
- Holding down the **(D)** button moves the second hand at high speed.

High-speed Lock

- While holding down the **(D)** button to start high-speed clockwise movement of the hands, press the **(B)** button to lock the high-speed hand movement. You can then release the buttons.
- High-speed hand movement will continue until it completes a 12-hour cycle, or until you press any button to stop it.
- High-speed hand movement will also stop momentarily if an alarm starts to sound. High-speed hand movement will resume after the alarm stops.

3. Press the **(C)** button to change to hour and minute hand adjustment.



- This will cause the current digital hour and minute setting to flash on the digital display.

4. Use the **(D)** button to adjust the hour and minute hands so they match the digital time.



- Each press of the **(D)** button moves the hands 20 seconds clockwise.
- Holding down the **(D)** button moves the hands at high speed.