

## Power Saving

Power saving causes the watch to automatically enter a sleep state to 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 its face is blocked from light by your sleeve.

### How the sleep state works

There are actually two sleep state levels, a "display sleep state" and a "function sleep state".

#### Display sleep state

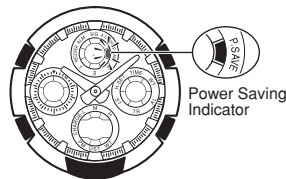
The display sleep state is triggered whenever the watch is left in the dark for about one hour between the hours of 10 p.m. and 6 a.m. The display sleep state causes the display to go blank.

- Alarms 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 display sleep state, analog time timekeeping and auto signal receive are both performed.
- The watch does not enter the display sleep state if it is in the Timer Mode or Stopwatch Mode.

#### Function sleep state

The function sleep state is triggered whenever the watch is left in the dark for six or seven days.

- Alarms and the Hourly Time Signal are also disabled while the watch is in the function sleep state. Analog time timekeeping and auto signal receive are not performed while the watch is in the function sleep state.
- Timekeeping functions continue to operate normally in the function sleep state.



### To recover from the sleep mode

Place the watch in an area that is well-lit, press any button, or angle the watch towards your face to illuminate the display using the auto light.

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

### To turn power saving on and off

See the procedure under "Manually Setting the Time and Date".

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

## LCD Types

This watch is available with either of two different LCD types: light background with dark figures (black-on-white) or dark background with light figures (white-on-black).

Note that all of the samples in this manual show the black-on-white type LCD.

Black-On-White Display

Black indicates "ON".



White-On-Black Display

White indicates "ON".



## Modes and Display Screens

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

- The watch will automatically revert to the Timekeeping Mode if you leave it in the Alarm Mode or Hand Setting Mode without performing any operation for about two or three minutes.

### Timekeeping Mode

Receive Icon — Receive Indicator

(Switches display screen.)

**(A)** button — **(B)** button

Graph Screen — Mode Indicator

**(C)** button — **(D)** button

(Changes mode)

Battery Level Indicator

**(L)** button (Illuminates display)

#### Days of the Week

SUN : Sunday    MON : Monday    TUE : Tuesday  
 WED : Wednesday    THU : Thursday    FRI : Friday  
 SAT : Saturday

- The segments around the seconds value in the left dial turn on and off to indicate the seconds count.
- For information about the battery indicator, see "Battery Indicator". For information about the receive icon and receive indicator, see "Receive Icon and Indicator".

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### Switching Between Screens

Each press of the **(B)** button cycles the middle dials in the sequence shown below.

Seconds

Day of the Week

Day

Day of the Week

Seconds

Hour and Minute

Seconds

Month and Day

PM Indicator (no indicator for AM)      Month and Day

### World Time Mode

City Code

Mode Indicator

World Time

Mode Indicator

### Alarm Mode

- When alarm is off

Alarm Number Graph

Mode Indicator

Alarm Number

Alarm Time

Mode Indicator

### Hand Setting Mode

Seconds

Mode Indicator

Mode Name

### Stopwatch Mode

Mode Indicator

Measured Value

### Timer Mode

- Auto Repeat

Number of Repeats

Mode Indicator

Timer Time

## 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 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.

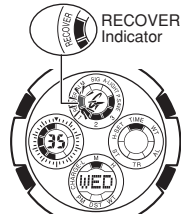
Note that all data in memory and all settings are cleared whenever you allow the level of the rechargeable battery to drop to Level 4.

### Flashing RECOVER Indicator

If you use the light or alarms a number of times during a short period, a RECOVER indicator flashes in the top dial, and the following operations become disabled as battery power recovers.

- Illumination
- Alarm and Hourly Time Signal
- Time calibration signal reception

Normal operation will return after the battery recovers.



### Battery Indicator

|         | Black-On-White Display | White-On-Black Display |   |
|---------|------------------------|------------------------|---|
| Level 1 |                        |                        | All functions enabled.  |
| Level 2 |                        |                        | All functions enabled.  |
| Level 3 |                        |                        | Display, illumination, alarms, Hourly Time Signal, signal reception, and analog timekeeping disabled. |
| Level 4 |                        |                        | All functions, including digital 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.
- Even if the battery level drops all the way to Level 4, you will still be able to recharge the battery and use the watch again.
- When recharging from Level 4, set the current time and date after the battery level recharges to Level 3. At this time you should continue to expose the watch to light so it can charge up to 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 the battery level indicator shows Level 3.

### Charging Precautions

Avoid charging the watch in the following locations, and anywhere else 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 appear normal again at lower temperatures.



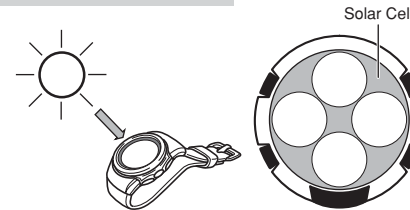
Depending on the light source you are using, the case of the watch may become quite hot during charging. Take care to guard against burn injury after charging.

### Charging 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 seven months without further charging under the conditions described below.

Daily Use (All time values are approximate.)

- Illumination: 1.5 seconds
- Alarms: 10 seconds
- Signal reception: 5 times
- Digital display: 18 hours

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

### Required Daily Charging Time

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

| Environment (Luminosity)              | Charging Time |
|---------------------------------------|---------------|
| Outdoor sunlight (50,000 lux)         | 6min.         |
| Indoor sunlight (10,000 lux)          | 30min.        |
| Outdoor overcast (5,000 lux)          | 48min.        |
| Fluorescent indoor lighting (500 lux) | 8hr.          |

### Charge Times Required to Advance to a Higher Level

| Environment (Luminosity)              | Charging Time |         |         |         |
|---------------------------------------|---------------|---------|---------|---------|
|                                       | Level 4       | Level 3 | Level 2 | Level 1 |
| Outdoor sunlight (50,000 lux)         | 2 hr.         | 19hr.   | 5hr.    |         |
| Indoor sunlight (10,000 lux)          | 7 hr.         | 97hr.   | 22hr.   |         |
| Outdoor overcast (5,000 lux)          | 11 hr.        | 157hr.  | 36hr.   |         |
| Fluorescent indoor lighting (500 lux) | 113hr.        | ---     | ---     |         |

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

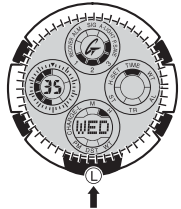
## Illumination

An LED is used to illuminate the display for easy reading in the dark. An auto light switch automatically turns on illumination when you angle the watch towards your face for reading.

### Illuminating the Display Manually

Press the **L** button in any mode to illuminate the display.

- You can use the procedure under "Specifying the Illumination Duration" to configure the illumination duration as approximately 1.5 seconds or 2.5 seconds.
- Pressing the **L** button illuminates the display 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.

### Illuminating the Display with the Auto Light Switch

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

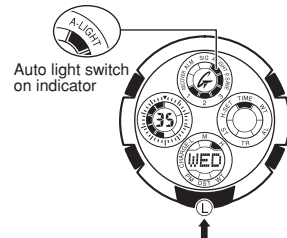
You can use the procedure under "Specifying the Illumination Duration" to configure the illumination duration as approximately 1.5 seconds or 2.5 seconds.

- The auto light switch does not illuminate the display when surrounding light is bright.

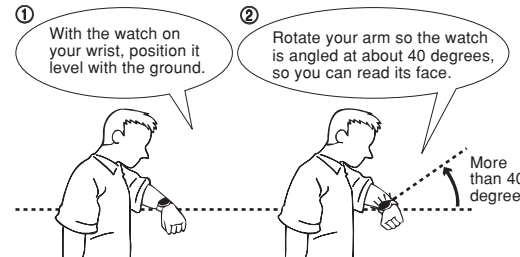
The auto light switch illuminates the display in all modes.

### Turning the Auto Light Switch On and Off

In any mode, hold down the **L** button for about two seconds to toggle the auto light switch on (auto light switch on indicator displayed in the upper dial) and off (no indicator displayed).



### 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  $\pm 15$  degrees of being parallel with the ground. The auto light switch may not operate properly if the angle is greater.



### Important!

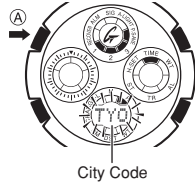
- The light may be difficult to see if you turn it on under bright sunlight.
- If you press the **L** button or if an alarm operation starts while the display is illuminated, illumination will turn off.

### Auto Light Precautions

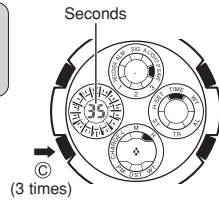
- Frequent use of the auto light can run down the battery.
- The auto light switch may cause the display to illuminate when your sleeve covers the display of the watch.
- The display may not illuminate immediately when you angle the watch towards your face. This does not indicate malfunction.
- The display remains lit for the currently set illumination 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 display 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 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.

## Specifying the Illumination Duration

- In the Timekeeping Mode, hold down **(A)** for about one second until the city code starts to flash in the bottom dial. This is the setting screen.



- Press the **(C)** button three times to move the flashing to the seconds count in the left dial.



- Press the **(B)** button to toggle the illumination duration between about 1.5 seconds (☺ in the bottom dial) and 2.5 seconds (☹ in the bottom dial).



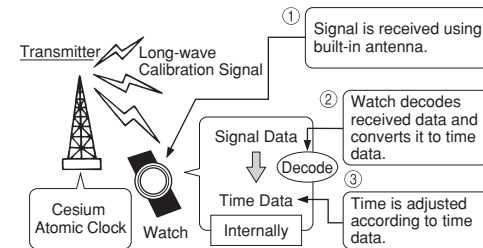
- After the setting is the way you want, press the **(A)** button to exit the setting screen.

- 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 time calibration 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 independent Japan Ministry of Posts and Telecommunications Communication Research Laboratory (CRL). 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.

Though the calibration signal is normally transmitted 24 hours a day, transmission may be interrupted occasionally due to maintenance, lightening, etc.

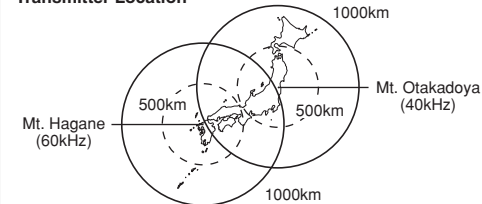
### Reception Range

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 "Manually Setting the Time and Date". For information about city codes, see the "City Code List".

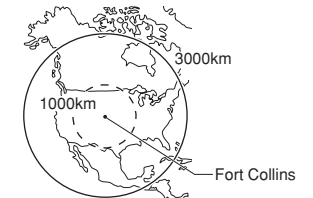
| Home City          | Transmitter  |
|--------------------|--|
| TYO                | Either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz) |
| LAX, DEN, CHI, NYC | Fort Collins, Colorado signal  |

#### Transmitter Location



- 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.

#### 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, the season, 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, PC, mobile 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.

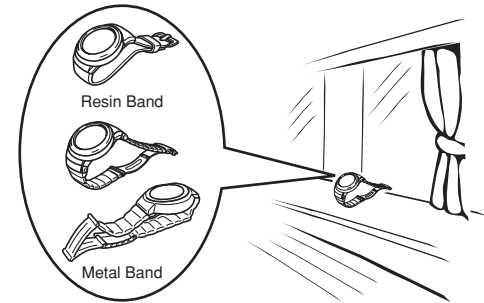
## Receiving the Calibration Signal

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 times shown above, auto receive is performed one more time at 5:00 a.m.
- The watch is set up for auto reception at the factory, so all you need to do is to place it in a location that allows good reception each night.

### Setting Up to Make Reception Easier

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

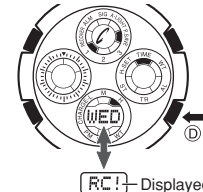
## Time Required for Reception

Signal reception takes anywhere from about two to six minutes.

- Note that when "AUTO" is specified as the frequency selection mode, signal reception can take up to 12 minutes.
- See "Configuring Signal Reception Settings" for more information.

## Triggering Reception Manually

In the Timekeeping Mode, hold down the **(D)** button for about one second until the watch beeps.



- This indicates that manual receive has started. Ongoing reception is indicated by the receive icon and the receive indicator.

### Stopping Signal 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 the date and time the adjustment was performed appears in the bottom dial.

- The receive icon and the receive indicator remain in the top dial to indicate that reception was successful.

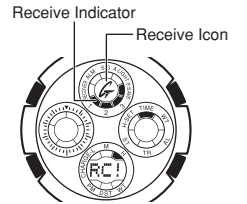
### When reception fails

The watch does not adjust its current time setting, and displays "ERR" instead.

- The display also return to the normal timekeeping screen automatically if you do not perform any operation for about one or two minutes.

## Receive Icon and Indicator

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



Black-On-White Display



White-On-Black Display



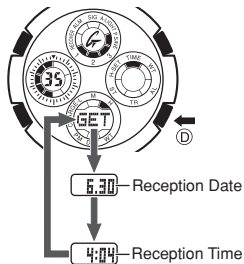
- Even under optimum reception conditions, it can take about 10 seconds for reception to stabilize.

- Use the receive icon 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.

## Viewing the Last Reception Date and Time

In the Timekeeping Mode, press the **(D)** button. This displays the date and time of the last successful signal reception in the bottom dial.

- To return the bottom dial to the day of the week, press the **(D)** button again.
- The bottom dial also returns to the day of the week automatically if you do not perform any operation for about one or two minutes.



## Configuring Signal Reception Settings

Use the procedure below to turn auto calibration signal reception on and off. When Tokyo (TYO) is selected as the Home City, you can select either of two different Japanese transmitters for reception.

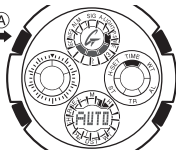
- For information about selecting a Home City, see "Manually Setting the Time and Date".**
- The initial factory default settings of the watch are **TYO** (Tokyo) for the Home City, and **AUTO** (auto select) for the transmitter selection mode.
- You can use the following procedure to turn auto signal reception on or off, and to specify transmitter selection while any one of the following is selected as your Home City: **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles).

1. In the Timekeeping Mode, press the **(D)** button to display the last reception date and time in the bottom dial.



- The display will return to the normal timekeeping screen automatically if you do not perform any operation for about one or two minutes.

2. Hold down the **(A)** button for about one second until the current transmitter mode starts to flash in the bottom dial.



- This is the transmitter mode setting screen.

3. Use the **(D)** and **(B)** buttons to cycle through the available transmitter mode settings.



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



- Press the **(D)** button to return to the Timekeeping Mode.
- The watch will return to the Timekeeping Mode if you do not perform any operation for about two or three minutes.

## When the Home City is TYO

- AUTO**  
Selecting this setting turns on auto receive and auto transmitter selection. The watch automatically selects either the Mt. Otakadoya signal (40kHz) or the Mt. Hagane signal (60kHz), whichever is strongest.
- 40**  
Selecting this setting turns on auto receive. The watch always receives the Mt. Otakadoya signal (40kHz).
- 60**  
Selecting this setting turns on auto receive. The watch always receives the Mt. Hagane Mountain (60kHz).
- OFF**  
Selecting this setting turns off auto receive and auto transmitter selection.

## When the Home City is NYC, CHI, DEN, or LAX

- ON**  
Selecting this setting turns on auto receive. The watch always receives the Fort Collins, Colorado signal.
- OFF**  
Selecting this setting turns off auto receive and auto transmitter selection.

## Calibration Signal Reception Precautions

- Auto reception can be performed while the watch is in the Timekeeping Mode or World Time Mode only.
- Signal reception cannot be performed while a timer operation is in progress.
- Receipt of a calibration signal causes the digital time to be adjusted first, followed by adjustment of the analog time. In order to ensure correct adjustment of the analog time, be sure to match the analog time with the digital time before performing a signal receive operation.
- Operating 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, the season, the time of day can 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. Note that you will need to make your own adjustments when using this watch outside of Japan or the United States, or in any area that is outside the range of one 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  $\pm 15$  seconds per month.
- Strong electrostatic charge can cause timekeeping error.
- Signal reception is cancelled if an 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

### Cannot perform manual reception.

- Cause:
- Manual receive can be performed in the Timekeeping Mode only.
  - Manual receive cannot be performed while a timer operation is in progress.
  - The Home City is set to a city other than **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles).
- Corrective Measures:
- Perform manual receive in the Timekeeping Mode.
  - Change the Home City to **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles). Correctly set the Home City as detailed under "Manually Setting the Time and Date".

### The receive (📶) icon is not on the display even though auto signal reception is turned on.

- Cause:
- The receive (📶) icon appears after the watch successfully receives the calibration signal and adjusts the current time setting.
  - A single receive operation was not successful.
  - The watch is not in the Timekeeping Mode or World Time Mode when an auto reception time is reached.
  - You performed manual reception, which clears the receive (📶) icon from the display.
- Corrective Measures:
- Check to make sure the watch is in a location where it can receive the signal.
  - Place the watch in a location where reception conditions are good.
  - Make sure that the watch is in the Timekeeping Mode or World Time Mode during the auto reception times.

### Time setting is incorrect following signal reception.

- Cause:
- If the current time is advanced by one hour, it probably means that summer time is turned on (indicated by the DST indicator).
  - If there is a large error in the setting, it probably means that the wrong Home City is selected.
- Corrective Measures:
- Correctly configure the summer time and Home City settings as detailed under "Turning Summer Time On and Off" and "Manually Setting the Time and Date".

### Cannot configure signal reception settings.

- Cause:
- The Home City is set to a city other than **TYO** (Tokyo), **NYC** (New York), **CHI** (Chicago), **DEN** (Denver), or **LAX** (Los Angeles).
- Corrective Measures:
- Select one of the above as the Home City as detailed under "Manually Setting the Time and Date".

- If you cannot receive the calibration signal or if the current time setting is incorrect after signal reception, check the current setup of the watch.
- The following are the watch's factory default settings, which are configured automatically whenever you have the battery of the watch replaced.

|                  |             |  |
|------------------|-------------|--|
| Transmitter Mode | <b>AUTO</b> | Auto Japan transmitter select (40kHz/ 60kHz) |
| Home City        | <b>TYO</b>  | Tokyo  |
| Summer Time      | <b>AUTO</b> | Auto switching (according to signal data)    |

## Using World Time

World time lets you display the current time in any one of 30 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.
- 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 your home time zone in the Timekeeping Mode is also applied in the World Time Mode.

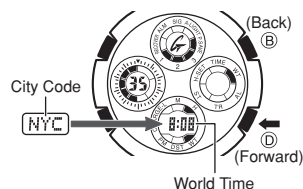
### Important!

- If the World Time Mode time is incorrect, adjust the setting of the current time in the Timekeeping Mode.
  - See "Manually Setting the Time and Date" for more information.

## City Search

In the World Time Mode, use the **D** (forward) and **B** (back) buttons to scroll through city codes. After a short time, the city code will be replaced by the current time in that city.

- Holding down either button scrolls city codes at high speed.



- Pressing the **A** button in the World Time Mode displays the city code of the currently selected city in the bottom dial for about one second.
- If the currently selected time zone does not have a city code, the GMT time differential appears instead of the city code.

## Using Summer Time (DST)

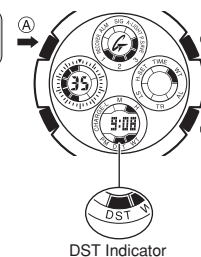
Summer time, or Daylight Saving Time (DST) as is it called in some countries, calls for setting clocks ahead one hour during the summer season. Note that the use of summer time depends on the country and even the local area.

## Turning Summer Time On and Off

1. In the World Time Mode, use the **D** and **B** buttons to select the city whose summer time setting you want to change.

2. Hold down the **A** button for one second.

- This toggles summer time on and off.
- The "DST" indicator appears on the bottom dial, and timekeeping is advanced by one hour when summer time is turned on.
- 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.



## City Code List

| City Code | GMT Differential | City Name           | City Code | GMT Differential | City Name  |
|-----------|------------------|---------------------|-----------|------------------|------------|
| ---       | -11              |                     | JRS       | +2               | Jerusalem  |
| HNL       | -10              | Honolulu            | JED       | +3               | Jeddah     |
| ANC       | -9               | Anchorage           | THR       | +3.5             | Teheran    |
| LAX       | -8               | Los Angeles         | DXB       | +4               | Dubai      |
| DEN       | -7               | Denver              | KBL       | +4.5             | Kabul      |
| CHI       | -6               | Chicago             | KHI       | +5               | Karachi    |
| NYC       | -5               | New York            | DEL       | +5.5             | Delhi      |
| CCS       | -4               | Caracas             | DAC       | +6               | Dakar      |
| RIO       | -3               | Rio De Janeiro      | RGN       | +6.5             | Yangon     |
| ---       | -2               |                     | BKK       | +7               | Bangkok    |
| ---       | -1               |                     | HKG       | +8               | Hong Kong  |
| GMT       | +0               | Greenwich Mean Time | SEL       | +9               | Seoul      |
| LON       | +0               | London              | TYO       | +9               | Tokyo      |
| PAR       | +1               | Paris               | ADL       | +9.5             | Adelaide   |
| BER       | +1               | Berlin              | SYD       | +10              | Sydney     |
| ATH       | +2               | Athens              | NOU       | +11              | Noumea     |
| CAI       | +2               | Cairo               | WLG       | +12              | Wellington |

- 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).

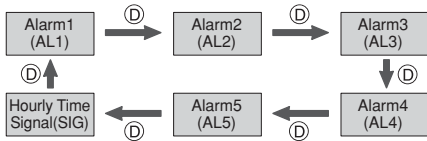
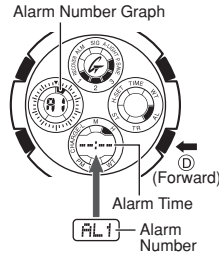
## Using Alarms and the Hourly Time Signal

You can set up to five independent daily alarms. An alarm sounds for 10 seconds when an alarm time is reached. The Hourly Time Signal causes the watch to beep every hour on the hour.

### Setting an Alarm Time

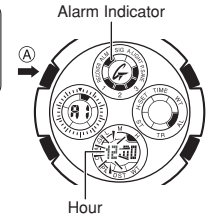
- In the Alarm Mode, use the **(D)** button to scroll through the alarm numbers in the left dial (A1 to A5) until the one you want is displayed.

- The current alarm time setting for the selected alarm will appear in the bottom dial. ---:-- will appear instead of the alarm time if that alarm is turned off.



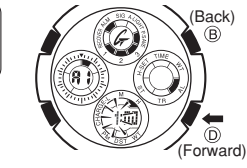
- Hold down **(A)** for about one second until the hour digits of the alarm time start to flash.

- This is the setting screen.
- This also causes the alarm indicator to appear in the top dial, and automatically turns on the alarm.



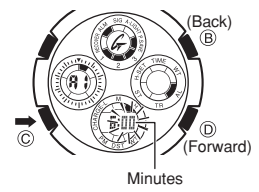
- Use the **(D)** (+) and **(B)** (-) buttons to change the hour setting.

- Holding down either button scrolls the hour 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 time is also applied in the Alarm Mode.



- Press the **(C)** button.

- This moves the flashing to the minute digits. As with the hour setting, use the **(D)** (+) and **(B)** (-) buttons to change the minute setting.



- After all of the setting is the way you want, press the **(A)** button.

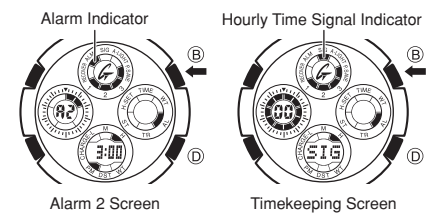
- This exits the setting screen.
- The watch will also exit the setting screen automatically if you do not perform any operation for about two or three minutes.

## Turning an Alarm or the Hourly Time Signal On and Off

- In the Alarm Mode, use the **(D)** button to select the alarm (A1 to A5) or the Hourly Time Signal.

- Press the **(B)** button to toggle the currently displayed alarm or the Hourly Time Signal on and off.

- Turning on an alarm or the Hourly Time Signal causes its indicator to appear in the top dial.
- Turning on an alarm also causes its alarm time setting to appear in the bottom dial.



## Stopping the Alarm Beeper

Pressing any button while an alarm is sounding stops it.

## Testing the Alarm

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

## Using the Timer

You can set the start time of the time in the range of 1 to 60 minutes, in units of one minute. The watch beeps for 10 seconds when the end of the countdown is reached. Turning on the auto repeat feature causes the countdown to restart from the start time whenever the end of the countdown is reached.

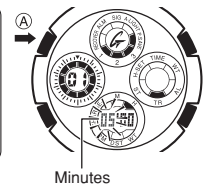
### Timer Types

There are two different settings that you can use to configure the timer as describe below.

- Repeat**  
With Repeat, the countdown stops, the original start time appears, and the watch beeps for 10 seconds when the end of the countdown is reached.
- Auto Repeat**  
Auto Repeat causes timing to restart from the start time when the end of the countdown is reached.  
• The countdown repeats up to 10 times, or until you stop it manually.

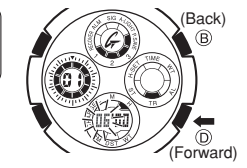
### Configuring Timer Settings

- In the Timer Mode, hold down **(A)** for about one second until the minute digits of the timer start time start to flash in the bottom dial. This is the setting screen.

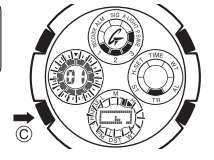


- Use the **(D)** (+) and **(B)** (-) buttons to change the start time minutes.

- Holding down either button scrolls the start time setting at high speed.

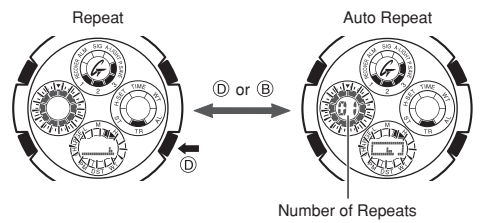


- Press the **(C)** button to change to the timer type setting.



- Use the **(D)** and **(B)** buttons to select the type of timer you want to use.

- To select Repeat, display "1:00".
- To select Auto Repeat, display "1:00". Selecting Auto Repeat also displays a value in the left dial indicating the current number of repeats.



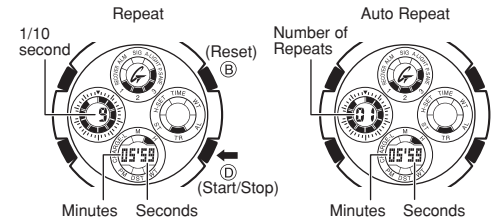
- After the settings are configured the way you want, press the **(A)** button.

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

## Using the Timer

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

- Each press of the **(D)** button starts or stops the countdown.
- Repeat counts down in 1/10-second units, while Auto Repeat counts down in 1-second units.



- Pressing the **(B)** button while the countdown is stopped resets the display time to the start time.
- Pressing the **(D)** button again while the timer countdown is stopped restarts the countdown.

## End of Countdown

The watch beeps for 10 seconds when the end of the countdown is reached.

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

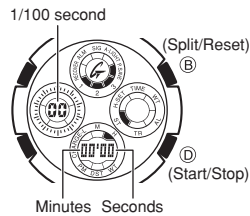
## Using the Stopwatch

The stopwatch measures elapsed time in units of 1/100 second up to 99 minutes, 59.99 seconds (100 minutes). When the maximum limit is reached, the elapsed time automatically returns to zero and timing continues from there.

### Performing Stopwatch Operations

In the Stopwatch Mode, press the **D** button.

- Each press of the **D** button starts or stops the stopwatch.



### ■ Elapse Time Measurement



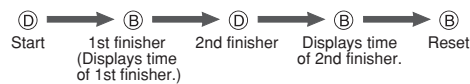
### ■ Cumulative Time Measurement

Pressing the **B** button to restart the stopwatch without resetting it to all zeros resumes elapsed time measurement from where it was last stopped.

### ■ Split Time Measurement



### ■ 1st and 2nd Place Finishers



- Pressing **B** while timing is being performed freezes the current elapsed time in the bottom dial, but timing of the next split continues internally.
  - Changing to another mode while a split time is displayed cancels the split time operation.
- Pressing the **B** button while timing is stopped resets the stopwatch to all zeros.

## Setting the Time and Date Manually

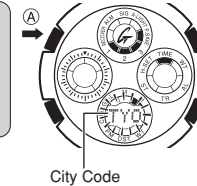
You can use the following procedure to set the current time and date of the Home City that you have selected in the Timekeeping Mode.

- Use the Timekeeping Mode to adjust the time and date settings.
- You can also use the procedure below to turn power saving on and off.

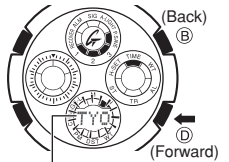
If you are planning manually change both the digital and analog settings, be sure to adjust the digital setting first.

### Manually Setting the Time and Date

- In the Timekeeping Mode, hold down **A** for about one second until the city code starts to flash in the bottom dial. This is the setting screen.

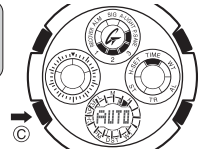


- Use the **D** (+) and **B** (-) buttons to scroll through the city codes until the one you want to use as your Home City is displayed.

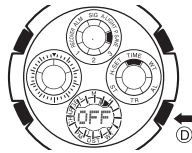


TYO = Tokyo

- Press the **C** button to display the summer time setting in the bottom dial.

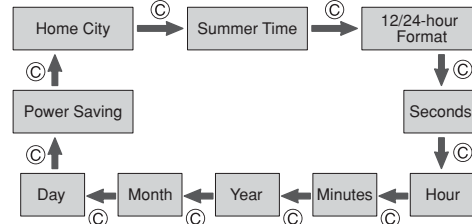
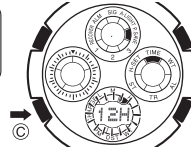


- Press the **D** button to cycle through the summer time settings until the one you want is displayed.



- Use the **C** button to cycle through the time and date settings shown below.

- Each press of **C** causes the applicable setting to flash.

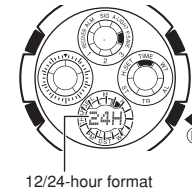


- While the setting you want to change is selected (flashing), use the **D** and **B** buttons to change it as described below.

- AUTO**  
This setting enables 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 code, and U.S. summer time data when **NYC**, **CHI**, **DEN**, or **LAX** is selected as the Home City code.
- OFF**  
This setting turns off summer time, and displays the current time normally.
- ON**  
This setting turns on summer time.
- Selecting this setting displays the DST indicator, and advances the current time setting by one hour.

### To select 12/24-hour timekeeping

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

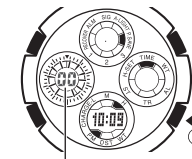


12/24-hour format

### To reset the seconds to 00

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

- Pressing **D** while the seconds count is in the range of 30 to 59 resets it to 00 and also adds 1 to the minutes. Pressing **D** in the range of 00 to 29 resets the seconds count without changing the minutes.

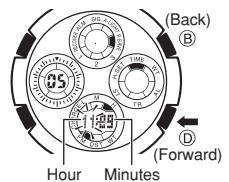


Resets to 00 seconds

### To change the hour, minutes, year, month, or day setting

Press the **D** button to increase the selected setting or the **B** button to decrease it.

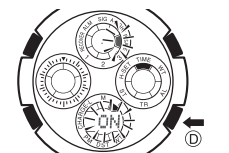
- Holding down either button scrolls the setting at high speed.
- When setting the hour, make sure you specify AM (no indicator) or PM (P) correctly when using 12-hour timekeeping, or that you specify the correct 24-hour time.
- You can set a year in the range of 00 (2000) to 99 (2099). The day of the week is set automatically in accordance with the date you set.
- The watch automatically makes adjustments for leap years and month lengths.



### To turn power saving on and off

While the power saving setting is selected, press the **D** button to toggle it ON and OFF.

- Turning on power saving causes the power saving indicator to appear in the top dial.



**7. After all of the settings are configured the way you want, press the **A** button.**

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

### Digital-Analog Synchronization

The watch automatically adjusts its analog setting to match the current digital time setting.

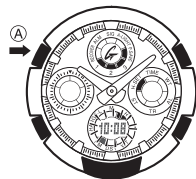
- When adjusting the analog time, the watch always moves the hands forward (clockwise direction).
- Depending on how different the digital and analog time settings are, it may take some time for the analog hand setting procedure to be finished.

## Manually Setting the Analog Time

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

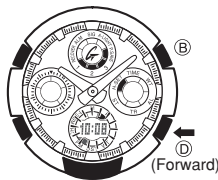
**1. Use the **C** button to enter the Hand Setting Mode.**

**2. Hold down **A** for about one second until the time digits start to flash in the bottom dial. This is the setting screen.**



**3. Use the **D** button to adjust the analog time.**

- Each press of the **D** button advances the analog time by 20 seconds.
- Holding down the **D** button advances the analog time at high speed.



### High-speed Lock

- While holding down the **D** button (which advances the analog time at high speed), press the **B** button to lock high-speed advance of the analog time.
- High-speed analog time advance will continue until it completes a 12-hour cycle, or until you press any button to stop it.

**4. After the setting is the way you want, press the **A** button.**

- This exits the setting screen and automatically synchronizes the minute hand with the current seconds count.
- The watch will also exit the setting screen automatically if you do not perform any operation for about two or three minutes.