

## About This Manual

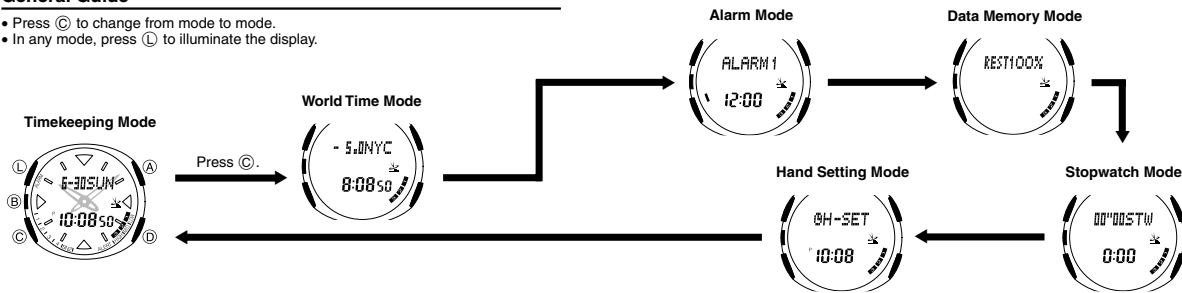


- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.



## General Guide

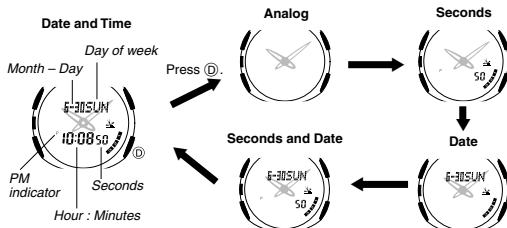
- Press (C) to change from mode to mode.
- In any mode, press (L) to illuminate the display.



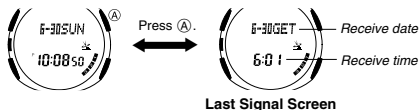
## Timekeeping

Use the Timekeeping Mode to set and view the current time and date.

- In the Timekeeping Mode, press (D) to change the screen format as shown below.



- Pressing (A) displays the Last Signal screen (date and time the time calibration signal was last received) in the Timekeeping Mode.



## Current Time Setting

This watch automatically adjusts its time setting in accordance with a time calibration signal. You can also perform a manual procedure to set the time and date, when necessary.

- Before using the watch in the Continental United States, first use the procedure under "Setting Up the Watch for Use in the Continental United States" to set the time in accordance with a time calibration signal.
- Note that after you set your Home City (the city where you normally use the watch) code, you must also turn on the watch's time calibration signal receiver if you want to enable auto time calibration. See "About Auto Receive" for more information.
- See "Setting the Digital Time and Date Manually" for information about manual settings.
- The analog time of this watch is synchronized with the digital time. Because of this, the analog time setting is automatically adjusted whenever you change the digital setting. See "Analog Timekeeping" for more information.
- Before using the watch in Japan, first specify your Home City, select the DST setting you want to use, and then perform the procedure under "To perform manual time calibration signal reception".

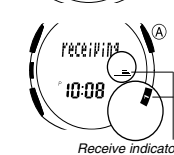
## Setting Up the Watch for Use in the Continental United States

You need to make the following three settings before using this watch in the Continental United States. The following provides a general overview of the setting procedure. For full details, see "Setting the Time and Date Manually" and "Time Calibration Signal Reception".

- Specify the city code for your Home City (the city where you will normally use the watch).
- Select the auto summer time (DST) setting.
- Perform the manual time calibration signal receive operation to set the current time.

## To set up the watch for use in the Continental United States

GMT differential City code



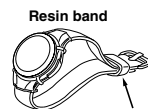
1. In the Timekeeping Mode, press (B). This causes the current auto receive on/off setting (the receive indicator) to flash, which indicates the setting screen.
2. Press (C) twice to move the flashing to the city code setting.
3. Use (D) (+) and (A) (-) to select the city code you want to use as your Home City.
  - The following are the city codes for major cities in the Continental United States time zones.
    - LAX:** Los Angeles, San Francisco, Las Vegas, Seattle
    - DEN:** Denver, El Paso
    - CHI:** Chicago, Houston, Dallas/Fort Worth, New Orleans
    - NYC:** New York, Detroit, Miami, Boston
4. Press (C) to display the summer time (DST) setting screen.
5. Use (D) to select **AUTO DST**.
  - **AUTO DST** specifies auto switching between Daylight Saving Time and Standard Time.
6. Press (B) to exit the setting screen.
  - If you changed the digital time setting with the above steps, the analog hands move at this time to match it. Wait until the analog hands stop moving before you advance to the next step.
7. Hold down (A) for about two seconds until the watch beeps.
  - Release (A) and the message **receiving** appears to indicate that signal reception has started.
  - Time calibration signal reception takes from two to six minutes. Take care that you do not move the watch during this time.
  - If the watch is indoors, we recommend that you place the watch near a window to allow better signal reception.
  - After signal reception is complete, the display of the watch changes to the Last Signal screen, and the analog time of the watch is adjusted automatically.

## Time Calibration Signal Reception

This watch is designed to pick up a time calibration signal and update its time setting in accordance with the signal. There are two different methods you can use to receive the signal: **Auto Receive** and **Manual Receive**. With **Auto Receive**, the watch automatically receives the calibration signal three times each day and makes appropriate adjustments. With **Manual Receive**, you perform a specific button operation to receive the calibration signal.

Before performing a signal receive operation, remove the watch from your wrist and position it as shown in the illustrations below.

- If your watch has a resin band, pass the end of the band through the band loop and place the watch on a stable surface.



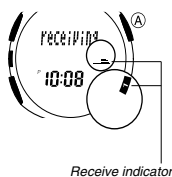
Pass through band loop.

### Note

- If you are using the time calibration signal to set the time for this watch, be sure to correctly set your Home City. Otherwise, there is the chance that the watch will not set the correct time.
- Note that signal reception is possible only when the watch is within range of a time calibration signal transmitter, and a city code that supports signal reception is selected as the Home City code.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make.
- Auto receive is turned on when the watch is shipped from the factory.
- Time calibration signal reception is disabled while the analog hands are moving after you change the digital time setting.
- See the information under "Time Calibration Signal Reception" if you experience problems with time calibration signal reception.

### To perform manual time calibration signal reception

- Place the watch on a stable surface so its top (12 o'clock side) is facing in the general direction of the signal transmitter.
  - Note that signal reception is poor if the watch is on its back or side.



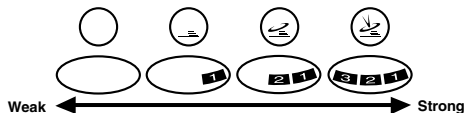
- In the Timekeeping Mode, hold down (A) for about two seconds until the watch beeps.
  - Release (A) and the message **RECEIVING** appears to indicate that signal reception has started.
  - Time calibration signal reception takes from two to six minutes. Take care that you do not move the watch during this time.
  - After signal reception is complete, the display of the watch changes to the Last Signal screen, and the analog time of the watch is adjusted automatically.
  - The receive indicator indicates that the calibration time reception attempt was successful.

### Note

- To interrupt a receive operation and return to the Timekeeping Mode, press (A).
- If the receive operation is unsuccessful, the message **ERROR!** appears on the display for about one or two minutes. After that, the watch returns to the Timekeeping Mode.
- You can also change from the Last Signal or **ERROR!** screen to the normal timekeeping screen by pressing (A).

### About the Receive Indicator

The receive indicator shows the strength of the calibration signal being received. For best reception, be sure to keep the watch in a location where signal strength is strongest.



- Even in an area where signal strength is strong, it takes about 10 seconds for signal reception to stabilize enough for the receive indicator to indicate signal strength.
- Use the receive indicator as a guide for checking signal strength and for finding the best location for the watch during signal receive operations.
- The receive indicator remains on the display in all modes following reception of the time calibration signal and calibration of the watch's time setting. The receive indicator does not appear if signal reception was unsuccessful or after manual adjustment of the current time setting.

### About Auto Receive

When auto receive is turned on, the watch automatically starts to receive the time calibration signal when the digital time in the Timekeeping Mode reaches 2:00 AM, 4:00 AM and 6:00 AM each day (calibration times).

### Note

- The auto receive operation is performed only if the watch is in the Timekeeping or World Time Mode when one of the calibration times is reached. It is not performed if a calibration time is reached while you are making settings (while settings are flashing on the display), while an alarm is sounding, or while a silent alert operation is being performed.
- Auto receipt of the calibration signal is designed to be performed early in the morning, while you sleep (provided that the digital time is set correctly). Before going to bed for the night, remove the watch from your wrist, and put it in a location where it can easily receive the signal.
- The receive indicator indicates that either the 2:00 AM, 4:00 AM, or 6:00 AM calibration signal reception was successful. Note, however, that the receive indicator is cleared from the display at 3:00 AM each day.
- If you do not see the receive indicator except for the above reason, it means there was some problem with the calibration reception operation. Either perform reception manually, or make sure the watch is set up properly to receive the time calibration signal for the next automatic reception time.
- When auto receive is turned on, the watch receives the calibration signal for two to six minutes each day when the digital time reaches 2:00 AM, 4:00 AM and 6:00 AM. Do not operate any of the watch's buttons within six minutes prior to or following the calibration times. Doing so can interfere with correct calibration.
- Remember that reception of the calibration signal depends on the time shown on the digital display. The receive operation will be performed whenever the digital display shows 2:00 AM, 4:00 AM and 6:00 AM, regardless of whether or not the displayed time is actually the correct time.
- When two or three receptions are successful, the watch uses the data of the last reception for calibration. When only one reception is successful, the watch uses the data of the successful reception.

### To turn auto receive on and off

- In the Timekeeping Mode, press (B). This causes the current auto receive on/off setting (the receive indicator) to flash, which indicates the setting screen.
- Press (D) to toggle auto receive on (ON) and off (OFF).
- Press (B) to exit the setting screen.

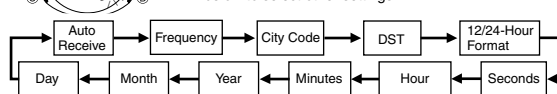


### Setting the Digital Time and Date Manually

Make sure you select your Home City code (the city code whose time and date you are setting) before change the current time and date settings. World Time Mode times are all displayed in accordance with the Timekeeping Mode settings. Because of this, World Time Mode times will not be correct if you do not select the proper Home City code before setting the time and date in the Timekeeping Mode.

### To set the current digital time and date manually

- In the Timekeeping Mode, press (B). This causes the current auto receive on/off setting (the receive indicator) to flash, which indicates the setting screen.
- Press (C) to move the flashing in the sequence shown below to select other settings.



- When the setting you want to change is flashing, use (A) and/or (D) to change it as described below.

Setting	Screen	Button Operations
Auto Receive	AUTO ON	Press (D) to toggle auto receive on and off.
Frequency	FREQ. 60	When TYO (Tokyo) is selected as the city code, press (D) to toggle the calibration signal reception frequency among Auto (FREQ. AT), 40KHz (FREQ. 40) and 60KHz (FREQ. 60). Note that frequency selection is available for the TYO city code only.
City code	+ 9.0TYO	Use (D) (+) and (A) (-) to change the setting.
DST	OFF DST	Press (D) to toggle between Daylight Saving Time (ON) and standard time (OFF). • Pressing (D) performs a different operation when HKG, TYO, SEL, NYC, CHI, DEN, LAX, ANC or HNL is selected as Home City Code. See "Auto Summer Time (DST) Switching".
12/24-Hour format	12H	Press (D) to toggle between 12-hour (12H) and 24-hour (24H) timekeeping.
Hour, Minutes	10:08 50	Use (D) (+) and (A) (-) to change the setting.
Seconds		Press (D) to reset the seconds to 00.
Month, Day, Year	6-30 '02	Use (D) (+) and (A) (-) to change the setting.

- Press (B) to exit the setting screen.

- The auto receive setting is used for time calibration signal reception only. See "About Auto Receive" for details.
- See "City Code Table" for a complete list of available city codes.
- Resetting the seconds to 00 while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to 00 without changing the minutes.

### Analog Timekeeping

The analog time of this watch is synchronized with the digital time. The analog time setting is adjusted automatically whenever you change the digital time.

### Note

- The hands for the analog timepiece move to adjust to a new setting whenever any of the following occurs.
  - When you change the digital time setting manually
  - When the digital time setting is changed by time calibration signal reception
  - When you change the Home City code and/or DST setting
- If the analog time does not match the digital time for any reason, use the procedure described under "To adjust the analog time" to match the analog setting to the digital setting.
- Whenever you need to adjust both the digital and the analog time settings manually, make sure you adjust the digital setting first.
- Depending on how much the hands have to move in order to adjust to the digital time, it may take some time before the analog hands stop moving.

### To adjust the analog time

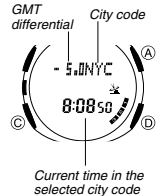
- In the Timekeeping Mode, press (C) five times to enter the Hand Setting Mode.
- Press (B) and the current digital time starts to flash, which indicates the setting screen.
- Use (D) (+) and (A) (-) to adjust the analog setting as described below.



When you want to do this:	Perform this button operation:
Move the hand setting forward 20 seconds	• Press (D).
Move the hand setting back 20 seconds	• Press (A).
Move the hand setting a short way forward at high speed	• Hold down (D). • Release (D) when the hands reach the setting you want.
Move the hand setting a short way back at high speed	• Hold down (A). • Release (A) when the hands reach the setting you want.
Move the hand setting a long way forward at high speed	• While holding down (D) to move the hands at high-speed, press (A) to lock the high-speed hand movement. • Press any button when the hands are close to the setting you want. • Hand movement stops automatically if the hour hand makes one full (12-hour) revolution.
Move the hand setting a long way back at high speed	• While holding down (A) to move the hands at high-speed, press (D) to lock the high-speed hand movement. • Press any button when the hands are close to the setting you want. • Hand movement stops automatically if the hour hand makes one full (12-hour) revolution.

- Press **(B)** to exit the setting screen.
- The minute hand will be adjusted slightly to match the seconds when you exit the setting screen.
- To return to the Timekeeping Mode, press **(C)**.

## World Time



World Time shows the current time in 30 cities (29 time zones) around the world.

- For full information on city codes, see the "City Code Table".
- The current time for all city codes in the World Time Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on the your Home City time setting.
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing **(C)**.

### To view the time in another city code

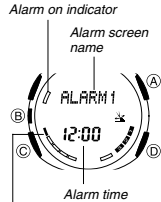
- In the World Time Mode, press **(D)** to scroll through the city codes (time zones) to the east or **(A)** to scroll to the west.
- If the current time shown for a city is wrong, check your Timekeeping Mode time and Home City settings and make the necessary changes.

### To toggle a city code time between standard time and Daylight Saving Time

- In the World Time Mode, use **(A)** and **(D)** to display the city code (time zone) whose standard time/Daylight Saving Time setting you want to change.
- Press **(B)** to toggle Daylight Saving Time (**DST** displayed) and standard time (**DST** not displayed).
- The **DST** indicator is on the display whenever you display a city code for which Daylight Saving Time is turned on.
- Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

- Daylight Saving Time (DST) advances the time setting by one hour from Standard Time. Remember that the not all countries or even local areas use Daylight Saving Time.
- Note that you cannot use the World Time Mode to change the DST ON/OFF setting of the Home City code you currently have selected in the Timekeeping Mode.
- The watch will perform a signal receive operation even if it is in the World Time Mode when a calibration time is reached. If this happens, the World Time Mode time settings will be adjusted in accordance with the Timekeeping Mode's Home City code time.

## Alarms



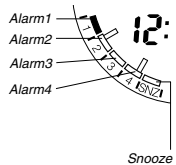
The Alarm Mode gives you a choice of four one-time alarms and one snooze alarm. You can select either an audible beeper or flashing silent alert to let you know when any of the alarm times is reached. You can also input reminder text that appears when the alarm time is reached.

Also use the Alarm Mode to turn the Hourly Time Signal on and off.

- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **(C)**.

### To display Alarm Mode screen

In the Alarm Mode, use **(D)** to cycle through the alarm screens as shown below.



- The following alarm screen names appear in the center of the display to indicate the alarm whose screen is currently displayed.
- ALARM1** through **ALARM4**: One-time alarm screen
- SNOOZE**: Snooze alarm screen
- SIGNAL**: Hourly Time Signal screen
- The currently displayed alarm screen is also indicated by the alarm name indicators along the bottom left of the watch's display.

### To set an alarm



- In the Alarm Mode, use **(D)** to select the alarm whose time you want to set.
- Press **(B)** and the hour setting of the alarm time starts to flash, which indicates the setting screen.
  - Pressing **(A)** and **(D)** at the same time resets the alarm time to 12:00 AM, and clears the reminder text in the upper part of the display (if there is any).
- Press **(C)** to move the flashing in the sequence shown below to select other settings.



- Selecting the text causes the text input cursor to appear. You can input up to eight characters of reminder text for each alarm.
- There are eight spaces in the text, so you have to press **(C)** eight times to move to the Hour setting.

- When the setting you want to change is selected, use **(A)** and **(D)** to change it.
  - While the hour or minute setting is flashing, use **(D)** (+) and **(A)** (-) to change it.
  - When setting the alarm time using the 12-hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (**P** indicator).
  - When inputting text, use **(A)** and **(D)** to cycle through characters at the current cursor location, and **(C)** to move the cursor to the right. See "Inputting Text" for more information.
- Press **(B)** to exit the setting screen.
- If you input reminder text, the text appears in place of the alarm screen name when you exit the setting screen.
- If the reminder text has more than six characters, it will scroll from right to left whenever it is displayed.

## Alarm Operation

The following table describes the different types of alarm operations that this watch can perform.

Alarm Operation Type	Description
Alarm off	<ul style="list-style-type: none"> <li>Nothing happens when the alarm time is reached.</li> </ul>
Alarm on	<ul style="list-style-type: none"> <li>The alarm on indicator and alarm name indicator flash on the display for 10 seconds.</li> <li>The watch beeps for 10 seconds.</li> </ul>
Alert on	<ul style="list-style-type: none"> <li>The alert on indicator and alarm name indicator flash on the display for 10 seconds.</li> <li>The watch does not beep.</li> </ul>

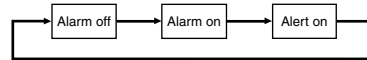
- Press any button to stop the alarm after it starts to sound.
- If any alarm operation (one-time alarm, silent alert, snooze) occurs while a signal receive operation is in progress, the receive operation is canceled.
- In the case of the snooze alarm, the alarm operation repeats up to seven times every five minutes until the alarm is turned off.
- If you input reminder text for an alarm, the text appears for one minute in place of the date on the Timekeeping Mode screen. The text is cleared from the Timekeeping Mode screen if you change to another mode while it is displayed.
- Alarm operations and the Hourly Time Signal operation are performed in all modes.

### To test the alarm

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

### To select the alarm operation type

- In the Alarm Mode, use **(D)** to select the screen for the alarm (**ALARM1** through **ALARM4**, or **SNOOZE**) whose alarm type you want to select.
- Press **(A)** to cycle through the available settings in the sequence shown below.



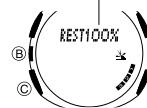
- The alarm on indicator (**ALARM**) and alarm name indicator are displayed for each alarm (1 through 4, snooze) for which alarm on is set. The alert on indicator (**ALERT**) and alarm name indicator are displayed for each alarm (1 through 4, snooze) for which alert on is set.
- In other modes besides the Alarm Mode, the alarm name indicator is displayed for each alarm for which alarm on is selected.
- In all modes, the alarm on indicator or alert on indicator is shown for any alarm (**ALARM1** through **ALARM4**, or **SNOOZE**) that is currently turned on.

### To turn the Hourly Time Signal on and off

- In the Alarm Mode, use **(D)** to select the Hourly Time Signal (**SIGNAL**).
  - Press **(A)** to toggle it on (**SIG** displayed) and off (**SIG** not displayed).
- The Hourly Time Signal on indicator (**SIG**) is shown on the display in all modes while this function is turned on.

## Data Memory

### Remaining memory



You can use the watch's data memory to store e-mail addresses, Web page URLs, and other text data.

- All of the operations in this section are performed in the Data Memory Mode, which you enter by pressing **(C)**.

### Data Memory Records

Each data memory record can contain up to 63 characters. Records are stored in memory in the sequence they are created.

- The number of records you can store in data memory depends on the number of characters that make up each record. See "Data Memory Management" for more information.

### To create a new data memory record

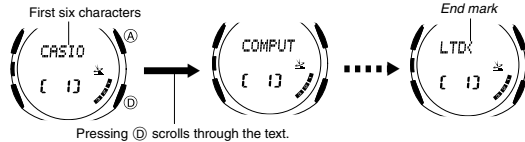
- In the Data Memory Mode, press **(A)** and **(D)** at the same time to display the remaining memory screen.
  - You do not have to perform the above step if the remaining memory screen is already on the display.
  - If **REST 0%** is shown for remaining memory, it means that memory is full. To store another record, you will first have to delete some of the records stored in memory.
- Press **(B)** and the flashing cursor appears on the display, which indicates the setting screen.
- Use **(A)** and **(D)** to cycle through characters at the current cursor location, and **(C)** to move the cursor to the right. See "Inputting Text" for more information.
  - If memory becomes full while you are inputting text, the cursor will jump to the first (leftmost) character of the text when you press **(C)**, instead of advancing to the right.

4. Press **(A)** to store your data and return to the data memory record screen (without the cursor).

- The message **SAVE!** appears for about two seconds, followed by a data memory record screen, which shows the text you just input in the upper part of the display, and a record number automatically assigned by the watch in the lower part of the display.
- While the record number is in the lower part of the display, you can see only six characters of the text in the record. You can scroll through the text on the screen by pressing **(D)**. See "To recall data memory records" for more information.

### To recall data memory records

- In the Data Memory Mode, press **(A)** to scroll forward through data memory records.
  - Each press of **(A)** advances to the next record and shows its record number and first six characters of its text.
  - Pressing **(A)** while the last record in memory is on the display changes to the remaining memory screen. Pressing **(A)** again displays the first record.
- Press **(D)** to scroll through the text on the screen.



- An end mark indicates the end of the text.

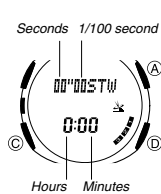
### To edit a data memory record

- In the Data Memory Mode, display the record you want to edit.
- Press **(B)** and the flashing cursor appears on the display.
- Press **(C)** to move the flashing to the character you want to change.
- Use **(D)** and **(A)** to change the character.
- After making the changes you want, press **(B)** to store them and return to the data memory record screen.

### To delete a data memory record

- In the Data Memory Mode, display the record you want to delete.
- Press **(B)** and the flashing cursor appears on the display.
- Press **(A)** and **(D)** at the same time to delete the record.
  - The message **CLEAR!** appears to indicate that the record is being deleted. After the record is deleted, the cursor appears on the display, ready for input.
- Input data or press **(B)** to return to the remaining memory screen.

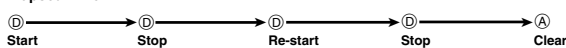
## Stopwatch



- The stopwatch lets you measure elapsed time, split times, and two finishes.
- The display range of the stopwatch is 23 hours, 59 minutes, 59.99 seconds.
  - The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
  - Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
  - The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
  - All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing **(C)**.

### To measure times with the stopwatch

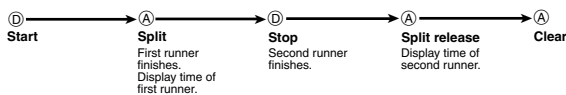
#### Elapsed Time



#### Split Time



#### Two Finishes



## Reference

This section contains more detailed and technical information about watch operation. It also contains important precautions and notes about the various features and functions of this watch.

### Auto Return Features

- If you leave the watch in the Alarm, Data Memory, or Hand Setting Mode for two or three minutes without performing any operation, it automatically changes to the Timekeeping Mode.
- If you leave a screen with flashing digits or a cursor on the display for two or three minutes without performing any operation, the watch automatically saves anything you have input up to that point and exits the setting screen.

### Data and Setting Scrolling

The **(A)** and **(D)** buttons are used in various modes and setting screens to scroll through data on the display. In most cases, holding down these buttons during a scroll operation scrolls through the data at high speed.

### Initial Screens

When you enter the Alarm or World Time Mode, the data you were viewing when you last exited the mode appears first.

## Time Calibration Signal Reception

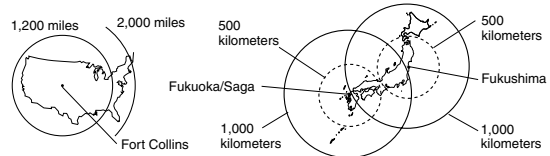
- This watch is designed to receive a time calibration signal originating from one of the three transmitters listed below.

Location	Call Sign	Frequency
Fort Collins, Colorado	WWVB	60kHz
Fukushima, Japan	JJY	40kHz
Fukuoka/Saga, Japan	JJY	60kHz

- When you select one of the city codes shown below as your Home City code, the watch sets up automatically to receive from the applicable transmitter. Time calibration signal reception is not possible whenever any other city code is specified as the Home City code.
- When you select **TYO** as your Home City code, the watch automatically selects either the Fukushima signal (40kHz) or the Fukuoka/Saga signal (60kHz), depending on which is stronger.

Home City Code	Received Transmitter
LAX, DEN, CHI, NYC	Fort Collins, Colorado
TYO	Fukushima or Fukuoka/Saga, Japan (selectable)

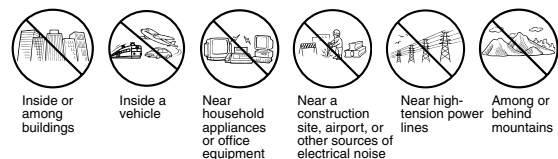
- Note that when **TYO** (Japan) is selected as the Home City code, you can specify one of two different time signal transmitters.



- Signal reception is possible within a radius of about 2,000 miles (3,000 kilometers) from the Fort Collins transmitter.
- At distances further than about 500 kilometers from the Fukushima and Fukuoka/Saga transmitter, the signal may become weak and reception may be impossible under certain conditions.

## General Precautions

- The watch is designed to automatically update the date and day of the week for the period January 1, 2000 to December 31, 2039. Setting of the date by the time calibration signal cannot be performed starting from January 1, 2040.
- This watch can receive signals that differentiate between leap years and non-leap years.
- Even when the watch is within the reception range of the transmitter, signal reception is impossible if the signal is blocked by mountains or other geological formations between the watch and signal source.
- Signal reception is affected by weather, atmospheric conditions, and seasonal changes.
- The time calibration signal is bounced off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the ionosphere to higher altitudes due to seasonal atmospheric changes or the time of day may change the reception range of the signal and make reception temporarily impossible.
- Reception is best when the antenna built into the 12 o'clock edge of the watch is facing in the general direction of the signal transmitter. Note, however, that moving the watch while the time calibration signal receive operation is taking place will make stable reception impossible.
- Think of the watch as acting like a TV or radio when it is receiving the calibration signal. **Place the watch near a window in a location where there are no nearby metal objects.**
- Proper signal reception can be difficult or even impossible under the conditions listed below.



- Do not move the watch or operate any of its buttons while signal reception is being performed.
- This watch automatically receives a time calibration signal in the middle of the night, when reception is best.
- Radio interference can make signal reception impossible.
- Strong electrostatic charge can result in the wrong time being set.
- If you are in an area where proper time calibration signal reception is impossible, the watch keeps time within  $\pm 15$  seconds a month at normal temperature.

## Troubleshooting

Check the following points whenever you experience problems with your watch.

Problem	Probable Cause	What you should do
Cannot perform manual receive.	The watch is not in the Timekeeping Mode.	Enter the Timekeeping Mode and try again.
Auto receive is turned on, but the receive indicator does not appear on the display.	<ul style="list-style-type: none"> <li>You changed the time setting manually.</li> <li>The watch was not in the Timekeeping or World Time Mode, or you were performing some button operation during the auto signal receive operation was performed.</li> <li>Even if receive is successful, the receive indicator disappears every day at 3am.</li> </ul>	<ul style="list-style-type: none"> <li>Perform manual signal receive or wait until the next auto signal receive operation is performed.</li> <li>Check to make sure the watch is in a location where it can receive the signal.</li> <li>Put the watch in a location that is suitable for good reception.</li> </ul>
Time setting is incorrect following signal reception.	<ul style="list-style-type: none"> <li>If the time is one hour off, the DST setting may be incorrect.</li> <li>The Home City Code setting is not correct for the area where you are using the watch.</li> </ul>	<ul style="list-style-type: none"> <li>Change the DST setting to <b>AUTO DST</b>.</li> <li>Select the correct Home City Code.</li> </ul>

### Auto Summer Time (DST) Switching

The time calibration signal transmitted from Fort Collins, Colorado includes both standard time and summer time (Daylight Saving Time) data. When auto summer time (DST) switching is turned on, the watch switches between standard time and summer time (DST) automatically in accordance with the Fort Collins signal.

- Daylight Saving Time (DST) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.
- The time calibration signals transmitted from the Fukushima and Fukuoka/Saga do not include summer time data.
- When using the watch in the Continental United States or in Japan, select **AUTO DST** for the auto summer time setting.
- The default auto summer time settings is **AUTO DST** whenever you select one of the following city codes as your Home City code: **HKG, TYO, SEL, NYC, CHI, DEN, LAX, ANC**, or **HNL**.
- If you experience problems receiving the time calibration signal in your area, it is probably best to turn off auto time switching.

### To select the auto summer time setting

- In the Timekeeping Mode, press **(B)**. This causes the current auto receive on/off setting (the receive indicator) to flash, which indicates the setting screen.
- Press **(C)** three times until the summer time (DST) setting screen appears.
- Use **(D)** to cycle through the summer time settings in the sequence shown below.



- When the setting you want is selected, press **(B)** to exit the setting screen.

### Timekeeping

- The day of the week is automatically displayed in accordance with the date (year, month, and day) settings.
- The year can be set in the range of 2000 to 2039.
- The watch's built-in full automatic calendar automatically makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced.
- The current time for all city codes in the Timekeeping Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on the your Home City time setting.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC\*) data.

\*The letters "UTC" stands for "Universal Time Coordinated," which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep accurate to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation. The reference point for UTC is Greenwich, England.

### 12-hour/24-hour Timekeeping Formats

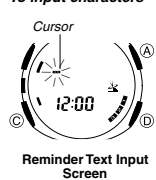
The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is also applied in all other modes.

- With the 12-hour format, the **P (PM)** indicator appears on the display for times in the range of noon to 11:59 p.m. and the **no** indicator appears for times in the range of midnight to 11:59 a.m.
- With the 24-hour format, times are displayed in the range of 0:00 to 23:59, with **24** indicator.

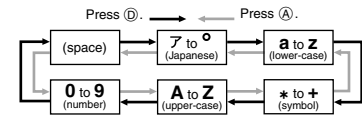
### Inputting Text

The following describes how to input text in the Alarm and Data Memory Modes.

#### To input characters



- When the cursor is on the display, use **(A)** and **(D)** to cycle through the available letters, numbers and symbols, in the sequence shown below.



- You can input Japanese phonetic characters (katakana), alpha characters, symbols, and numbers in the text area. For a complete list of characters you can input, see the "Character List".
- When the character you want is at the cursor position, press **(C)** to move the cursor to the right.
- Repeat steps 1 and 2 to input the rest of the characters you want.

### Data Memory Management

Data memory can hold up to 315 characters total, while each record can contain up to 63 characters. This means that 40 records can be stored in data memory when each record contains seven characters of text or less.

### Backlight Precautions

The backlight uses an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark.

- In any mode, press **(L)** to illuminate the display for about one second.
- The electro-luminescent panel that provides illumination loses power after very long use.
- The illumination provided by the backlight may be hard to see when viewed under direct sunlight.
- The watch may emit an audible sound whenever the display is illuminated. This is due to vibration of the EL panel used for illumination, and does not indicate malfunction.
- The backlight automatically turns off whenever an alarm sounds.
- Frequent use of the backlight shortens the battery life.

### City Code Table

City Code	City	GMT Differential	Other major cities in same time zone
---		-11	PAGO PAGO
HNL	HONOLULU	-10	PAPEETE
ANC	ANCHORAGE	-9	NOME
LAX	LOS ANGELES	-8	SAN FRANCISCO, LAS VEGAS, VANCOUVER, SEATTLE, DAWSON CITY
DEN	DENVER	-7	EL PASO, EDMONTON
CHI	CHICAGO	-6	HOUSTON, DALLAS/FORT WORTH, NEW ORLEANS, MEXICO CITY, WINNIPEG
NYC	NEW YORK	-5	MONTREAL, DETROIT, MIAMI, BOSTON, PANAMA CITY, HAVANA, LIMA, BOGOTA
CCS	CARACAS	-4	LA PAZ, SANTIAGO, PORT OF SPAIN
RIO	RIO DE JANEIRO	-3	SAO PAULO, BUENOS AIRES, BRASILIA, MONTEVIDEO
---		-2	
---		-1	PRAIA
GMT		+00	DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN
LON	LONDON	+00	
PAR	PARIS	+01	MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM
BER	BERLIN	+01	
ATH	ATHENS	+02	HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN
CAI	CAIRO	+02	
JRS	JERUSALEM	+02	
JED	JEDDAH	+03	KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI, MOSCOW
THR	TEHRAN	+3.5	SHIRAZ
DXB	DUBAI	+04	ABU DHABI, MUSCAT
KBL	KABUL	+4.5	
KHI	KARACHI	+05	MALE
DEL	DELHI	+5.5	MUMBAI, KOLKATA
DAC	DHAKA	+06	COLOMBO
RGN	YANGON	+6.5	
BKK	BANGKOK	+07	JAKARTA, PHNOM PENH, HANOI, VIENTIANE
HKG	HONG KONG	+08	SINGAPORE, KUALA LUMPUR, BEIJING, TAIPEI, MANILA, PERTH, ULAANBAATAR
TYO	TOKYO	+09	PYONGYANG
SEL	SEOUL	+09	
ADE	ADELAIDE	+9.5	DARWIN
SYD	SYDNEY	+10	MELBOURNE, GUAM, RABAU
NOU	NOUMEA	+11	PORT VILA
WLG	WELLINGTON	+12	CHRISTCHURCH, NADI, NAURU ISLAND

\*Based on data as of June 2002.

### Character List

(space)		ケ	ク	ツ	リ	ヒ	ヒ	ヤ	カ
ア	ア	コ	コ	テ	テ	フ	フ	ユ	ユ
イ	イ	サ	サ	ト	ト	ハ	ハ	ヨ	ヨ
ウ	ウ	シ	シ	ナ	ナ	ホ	ホ	ラ	ラ
エ	エ	ス	ス	ニ	ニ	マ	マ	リ	リ
オ	オ	セ	セ	ヌ	ヌ	ミ	ミ	ル	ル
カ	カ	ソ	ソ	ネ	ネ	ム	ム	レ	レ
キ	キ	タ	タ	ノ	ノ	メ	メ	ロ	ロ
ク	ク	チ	チ	ハ	ハ	モ	モ	ワ	ワ

ヲ	ヲ	ユ	ユ	イ	イ	オ	オ	ク	ク
ン	ン	ヨ	ヨ	グ	グ	プ	プ	ヤ	ヤ
ア	ア	ヨ	ヨ	ハ	ハ	ク	ク	ズ	ズ
イ	イ	。	。	イ	イ	リ	リ	*	*
ウ	ウ	a	a	j	j	s	s	-	-
エ	エ	b	b	k	k	t	t	_	_
オ	オ	c	c	l	l	u	u	@	@
ツ	ツ	d	d	m	m	v	v	~	~
ヤ	ヤ	e	e	n	n	w	w	/	/

?	?	=	=	E	E	N	N	W	W
#	#	÷	÷	F	F	O	O	X	X
!	!	x	x	G	G	P	P	Y	Y
%	%	-	-	H	H	Q	Q	Z	Z
.	.	+	+	I	I	R	R	0	0
:	:	A	A	J	J	S	S	1	1
'	'	B	B	K	K	T	T	2	2
,	,	C	C	L	L	U	U	3	3
&	&	D	D	M	M	V	V	4	4

5	5
6	6
7	7
8	8
9	9