

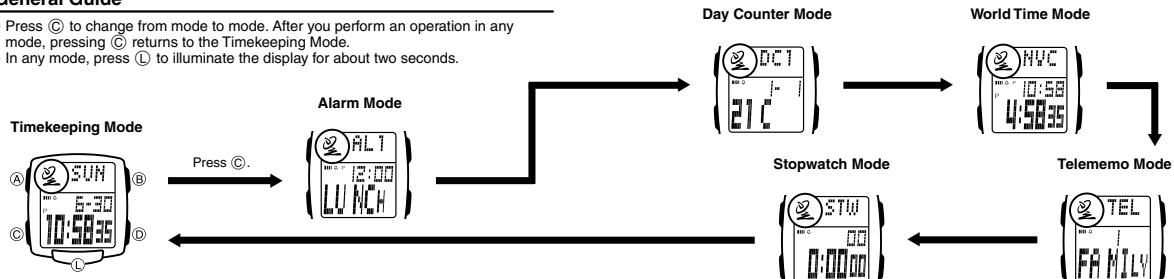
## About This Manual



- 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.

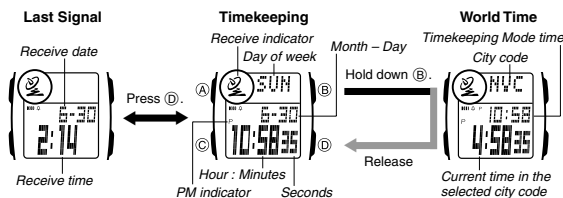
## General Guide

- Press **C** to change from mode to mode. After you perform an operation in any mode, pressing **C** returns to the Timekeeping Mode.
- In any mode, press **L** to illuminate the display for about two seconds.



## Timekeeping

Use the Timekeeping Mode to set and view the current time and date. You can also display the Last Signal and World Time screens.



- The Last Signal screen shows the time and date of the last successful time calibration signal reception.
- The World Time screen shows the data you were viewing when you last exited the World Time Mode.

## Current Time Setting

Normally, you do not need to do anything to set the current time as long as you are within an area in West Europe where the watch can pick up the time calibration signal. You can also set the current time manually when you are outside the range of the signal.

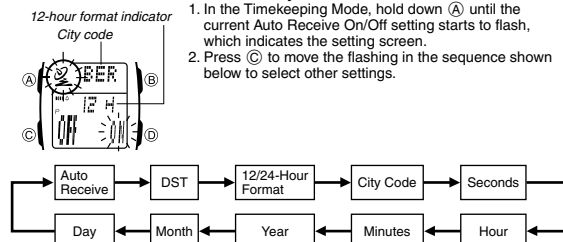
- Before using the watch after purchasing it, use the procedure under "Selecting Your Home City Code" to specify your home city, and then use the procedure under "To perform manual time calibration signal reception."
- Note that after you set your Home City code, you must also turn on the watch's time calibration signal receiver if you want to enable auto time calibration. See "About Auto Receive" for more information.
- See "Setting the Time and Date Manually" for information about manual settings.

## Setting the Time and Date Manually

The times displayed in the Timekeeping Mode and World Time Mode are linked. Even if you plan to use the watch without enabling auto time calibration, be sure to select a Home City code (the city code whose time and date you are setting), before you set the time and date.

## To set the current time and date manually

1. In the Timekeeping Mode, hold down **A** until the current Auto Receive On/Off setting starts to flash, which indicates the setting screen.
2. Press **C** to move the flashing in the sequence shown below to select other settings.



3. When the setting you want to change is flashing, use **B** and/or **D** to change it as described below.

| Setting                         | Button Operations   |
|---------------------------------|---|
| Auto Receive                    | Press <b>D</b> to toggle auto receive on and off.                                   |
| DST                             | Press <b>D</b> to toggle between Daylight Saving Time (ON) and standard time (OFF). |
| 12/24-Hour format               | Press <b>D</b> to toggle between 12-hour (12H) and 24-hour (24H) timekeeping.       |
| City Code                       | Use <b>D</b> (+) and <b>B</b> (-) to change the setting.                            |
| Seconds                         | Press <b>D</b> to reset to 00.  |
| Hour, Minutes, Year, Month, Day | Use <b>D</b> (+) and <b>B</b> (-) to change the setting.                            |

- 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 codes.
- 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.

4. Press **A** to exit the setting screen.

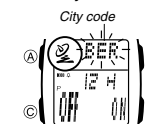
## Selecting Your Home City Code

You can select a city code for your Home City (the city where you normally use the watch). This data can be changed any time you move to another geographic area.

- See "City Code Table" for a complete list of available codes.

## To select your Home City code

1. In the Timekeeping Mode, hold down **A** until the current Auto Receive On/Off setting starts to flash, which indicates the setting screen.
2. Press **C** three times to move the flashing to the City Code setting.
3. Use **D** (+) and **B** (-) to change it.
4. Press **A** to exit the setting screen.



## Time Calibration Signal Reception

This watch is designed to pick up a time calibration signal transmitted from Mainflingen, Germany 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.

## 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. See the "To select your Home City code" for details.
- This watch automatically switches between DST and standard time while **BER** is selected as the home city code. For any other home city code, you must perform the procedure under "To set the current time and date manually" to switch between DST and standard time.
- Time calibration reception is limited to specific geographic areas in West Europe.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make.
- 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.
- Auto Receive is turned on when the watch is shipped from the factory.
- See the information under "Time Calibration Signal Reception Precautions" if you experience problems with time calibration signal reception.

## To perform manual time calibration signal reception

1. Place the watch on a stable surface to its top (12 o'clock side) is facing in the general direction of Frankfurt, Germany.
  - This puts the watch in the optimum position for time calibration signal reception.
2. In the Timekeeping Mode, hold down **D** for about two seconds, until the watch beeps.
  - At this time, the **JLT** indicator on the watch's display should scroll from left to right, which indicates that signal reception has started.
  - Time calibration signal reception takes from four to 11 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, which shows the new signal receive date and time.

## Note

- To interrupt a receive operation and return to the Timekeeping screen, press **D**.
- If the receive operation is unsuccessful, the message "ERR" appears on the Last Signal screen for about one or two minutes. After that, the watch returns to the Timekeeping screen.
- You can also change from the Last Signal screen to the Timekeeping screen by pressing **D**.

## 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

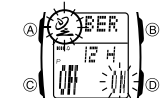
When auto receive is turned on, the watch automatically starts to receive the time calibration signal when the digital time in the Timekeeping Mode reaches 2:00 AM, 4:00 AM, and 6:00 AM each day (calibration times).

### Note

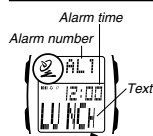
- The Auto Receive operation is performed only if the watch is in the Timekeeping Mode or World Time Mode when one of the calibration times is reached. It is not performed if the calibration time is reached while you are making settings (while settings are flashing on the display).
- Auto receipt of 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 one, two, or all three of the last calibration time reception attempts were successful.
- When auto receive is turned on, the watch receives the calibration signal for four to 11 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 15 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

1. In the Timekeeping Mode, hold down (A) until the current Auto Receive On/Off setting starts to flash, which indicates the setting screen.
2. Press (D) to toggle Auto Receive on (ON) and off (OFF).
3. Press (A) to exit the setting screen.



## Alarms



Alarm time

Alarm number

Text

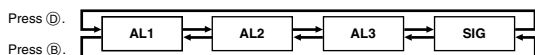
Remaining time (Hours : Minutes Seconds)

You can set three independent Daily Alarms, and even input text that appears on the display to remind you of the purpose of each alarm. When an alarm is turned on, the alarm tone sounds when the alarm time is reached. You can also turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

- The remaining time shows the amount of time from the current time (Timekeeping Mode time) until the alarm time whose screen is on the display.
- The alarm number ("AL1" through "AL3") indicates an alarm screen. "SIG" appears in place of the alarm number when the Hourly Time Signal screen is shown.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing (C).

### To view Alarm Mode screen

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



- Displaying an alarm time shows any text assigned to it for about two seconds (or a blank screen if no text is assigned), followed by the remaining time screen.
- Your watch comes preset with the text data "LUNCH" and an alarm time of 12:00PM (noon) for alarm AL1. You can use this setting as it is or change it to something else.

### To set an alarm

1. In the Alarm Mode, use (B) and (D) to select the alarm whose time you want to set.
2. Hold down (A) until the flashing cursor appears on the display, which indicates the setting screen.
  - This automatically turns on the alarm.
  - Holding down (L) for about two seconds at this time sets an alarm time of 12:00AM, without assigning any text to the alarm.
3. Press (C) to move the flashing in the sequence shown below to select other settings.

Cursor



- There are eight spaces in the text, so you have to press (C) eight times to move to the Hour setting.
4. When the setting you want to change is selected, use (B) and (D) to change it.
    - Selecting the text causes the text input cursor to appear.
    - When inputting text, use (B) and (D) to cycle through characters at the current cursor location, and (C) to move the cursor to the right. See "Inputting Text".
    - While the hour or minute setting is flashing, use (D) (+) and (B) (-) 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).
  5. Press (A) to exit the setting screen.

### Note

- Use the above procedure to edit alarm settings, too.

### Alarm Operation

The alarm sounds at the preset time for about 20 seconds, or until you stop it by pressing any button.

- Alarms and the Hourly Time Signal sound in all modes. To view text assigned to alarms and the remaining time, however, you must enter the Alarm Mode.

### To test the alarm

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

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

1. In the Alarm Mode, use (B) and (D) to select an alarm or the Hourly Time Signal.
2. When the alarm or the Hourly Time Signal you want to is selected, press (A) to turn it on and off.

### Note

- The on/off status of an alarm is indicated on the corresponding alarm screen (AL1 through AL3). The symbol (☉) indicates an alarm is turned on, while absence of the (☉) symbol indicates the alarm is turned off.
- The on/off status of the Hourly Time Signal is indicated on the SIG screen. The symbol (☉) along with the message "ON" indicates the Hourly Time Signal is turned on, while the message "OFF" without the (☉) symbol indicates it is turned off.
- The alarm on indicator and the Hourly Time Signal on indicator are shown on the display in all modes while these functions are turned on.
- If any alarm is on, the alarm on indicator is shown on the display in all modes.

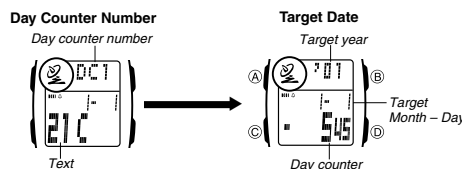
## Day Counter

The Day Counter lets you count the number of days from the Timekeeping Mode's current date to a specific target date.

- There are five Day Counter records, each of which can be set with its own text and target date (year, month, day).
- All of the operations in this section are performed in the Day Counter Mode, which you enter by pressing (C).

### To recall Day Counter records

Whenever you enter the Day Counter Mode, the Day Counter Number screen appears for about two seconds, followed by the corresponding Target Date screen.



- In the Day Counter Mode, use (B) and (D) to cycle through the Day Counter number screens as shown below.

Press (D).



Press (B).

- A Day Counter Number screen remains on the display for about two seconds, after which it is replaced by the corresponding Target Date screen. Pressing (A) while a Target Date screen is on the display switches to the corresponding Day Counter Number screen for about two seconds.
- The day counter value has a plus sign (+) in front of it when the corresponding target date comes after the current date, or a minus sign (-) in front of it when the target date comes before the current date.
- Your watch comes preset with the following Day Counter text settings. You can use these as they are or change them to something else, if you want.

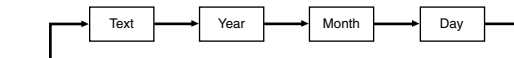
DC1: 21C (21ST century)

DC2: PAYDAY

DC3: BIRTHDAY

### To make Day Counter record settings

1. In the Day Counter Mode, use (B) and (D) to scroll through the Day Counter Number screens until the one you want is on the display.
2. Hold down (A) until the flashing cursor appears on the display, which indicates the setting screen.
  - Holding down (L) for about two seconds at this time clears the text (if there is any already input) and sets the current Timekeeping Mode date as the target date.
3. Press (C) to move the flashing in the sequence shown below to select other settings.



- There are eight spaces in the text, so you have to press (C) eight times to move to the Year setting.
  - When the Year setting is selected, the cursor changes for a four-digit target year. Though the setting screen shows four digits, other screens show only the last (rightmost) two digits.
4. When the setting you want to change is selected, use (B) and (D) to change it.
    - Selecting the text causes the text input cursor to appear.
    - When inputting text, use (B) and (D) to cycle through characters at the current cursor location, and (C) to move the cursor to the right. See "Inputting Text".
    - While the year, month, or day setting is flashing, use (D) (+) and (B) (-) to change the setting.
    - You can set a target date in the range of January 1, 1940 to December 31, 2039.
  5. Press (A) to exit the setting screen.

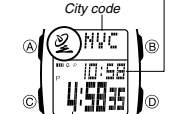
### Note

- Use the above procedure to edit Day Counter records, too.

## World Time

### Timekeeping Mode time

City code



Current time in the selected city code

World Time shows the current time in 28 cities (29 time zones) around the world.

- For full information on city codes, see the "City Code Table".
- 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

- While in the World Time Mode, press (D) to scroll forward through the city codes (time zones) and (B) to scroll back.
- If the current time shown for a city is wrong, check your Timekeeping Mode time and Home City settings and make the necessary changes.

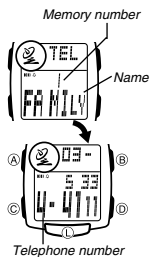
### To toggle a city code time between standard time and Daylight Saving Time



- In the World Time Mode, use (B) and (D) to display the city code (time zone) whose standard time/Daylight Saving Time setting you want to change.
- Hold down (A) for about two seconds 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.

### Telememo

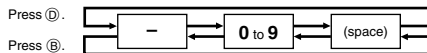


- Telememo lets you store up to 20 records, each containing name and telephone number data. Records are automatically sorted based on the characters of the name. You can recall records by scrolling through them on the display.
- See "Character List" for details on how the watch sorts records.
  - Your watch comes preset with three Telememo records with the names "FAMILY," "HOME," and "OFFICE," without any phone numbers. You can change or delete these records if you want.
  - All of the operations in this section are performed in the Telememo Mode, which you enter by pressing (C).

### To create a new Telememo record



- In the Telememo Mode, press (B) or (D) until a record showing the name "NEW" (indicating the new record input screen) appears.
  - If the message "FULL" appears on the display, it means that memory is full. To store another record, you will first have to delete some of the records stored in memory.
- Hold down (A) until the flashing cursor (■) appears on the display, which indicates the setting screen.
- Input a name.
  - When inputting the name, use (B) and (D) to cycle through characters at the current cursor location, and (C) to move the cursor to the right. See "Inputting Text".
  - You can input up to eight characters for the name.
- After you input the name, press (C) as many times as necessary to display the number input screen.
  - You can input up to eight characters for the name. When the cursor is located at the eighth space of the name, moving the cursor to the right causes it to jump to the first digit of the number. When the cursor is at the 12th digit of the number, moving it to the right (by pressing (C)) causes it to jump to the first character in the name.
- Input a telephone number.
  - Use (B) and (D) to change the character (hyphen, number, or space) at the cursor position. The character changes in the following sequence.



- When the character you want is at the cursor position, press (C) to move the cursor to the right.
- Repeat steps 5 and 6 until you complete number input.
  - You can input up to 12 digits for the number.
  - The number initially contains all hyphens. You can leave the hyphens or replace them with numbers or spaces.
- Press (A) to store your data and return to the Telememo record screen (without the cursor).
  - When you press (A), the message "SORT" appears on the display for a few seconds. After the sort operation is complete, the watch returns to the Telememo record screen (without the cursor).

### To recall Telememo records

- In the Telememo Mode, use (D) (+) and (B) (-) to scroll through Telememo records on the display.
- Only the memory number and name of each Telememo record appear on the display as you scroll through Telememo records. If you leave the memory number/name screen on the display for about two seconds, it changes to the phone number screen.
  - Pressing (A) while the phone number screen is on the display switches to the memory number/name screen for about two seconds.

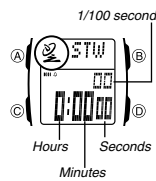
### To edit a Telememo record

- In the Telememo Mode, scroll through the records and display the one you want to edit.
- Hold down (A) until the flashing cursor appears on the display.
- Use (C) to move the flashing to the character you want to change.
- Use (B) and (D) to change the character.
- After making the changes that you want, press (A) to store them and return to the Telememo record screen.

### To delete a Telememo record

- In the Telememo Mode, scroll through the records and display the one you want to delete.
- Hold down (A) until the flashing cursor appears on the display.
- Hold down (L) until the message "CLEAR" appears on the display.
  - At this time the cursor appears on the display, ready for input.
- Input data or press (A) to return to the Telememo record screen.

### Stopwatch

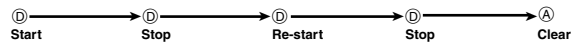


The stopwatch lets you measure elapsed time, split times, and two finishes.

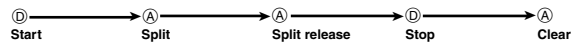
- The display range of the stopwatch is 23 hours, 59 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing (C).

### To measure times with the stopwatch

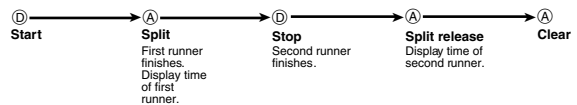
#### Elapsed Time



#### 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 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.
- If you leave the watch in Alarm, Day Counter, or Telememo Mode for about two minutes without performing any operation, it automatically changes to the Timekeeping Mode.

#### Data and Setting Scrolling

The (B) 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.

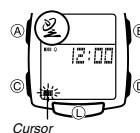
#### Initial Screens

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

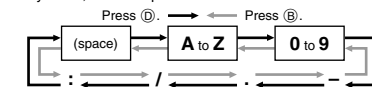
#### Inputting Text

The following describes how to input text in the Alarm, Day Counter, and Telememo Modes.

#### To input characters



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



- 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.

#### Display Text

Though you can input up to eight characters for Alarm text, Day Counter text and the Telememo name, only six characters can appear on the display at one time. Because of this, display screens switch alternately between the first six characters and the remaining two characters.

#### Timekeeping

- Pressing (D) while setting the current time in the Timekeeping Mode resets the seconds count to zero. Pressing (D) while seconds count is in the range of 30 to 59 resets the seconds to 00 and adds 1 to the minutes. In the range of 00 to 29, the minutes count is unchanged.
- 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.

#### 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 to the left of the hour digits for times in the range of noon to 11:59 p.m. and the no indicator appears to the left of the hour digits 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.

### Time Calibration Signal Reception Precautions



- This watch is able to receive the time calibration signal transmitted from Mainflingen, Germany (located 25 kilometers southeast of Frankfurt). Signal reception is possible within the area represented by a circle with a radius of about 800 kilometers.
- Even when the watch is within the reception range, 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.
- This watch is designed to receive the signal transmitted from Mainflingen. This means that reception is best when the antenna built into the 12 o'clock edge of the watch is facing towards Mainflingen. 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. When receiving indoors, move to a location as near as possible to a window. Proper signal reception can be difficult or even impossible under the conditions listed below.
  - Near TVs, refrigerators, computers, or other household appliances
  - Far away from broadcasting stations among ferro-concrete structures or near mountains
  - Underground, in tunnels or in ferro-concrete buildings
  - Near high-tension wires, neon signs, or radio stations with interfering frequencies
  - Near railroads, highways or airports
  - In trains or cars
- Radio interference can make signal reception impossible.
- Strong electrostatic charge can result in the wrong time being set.
- The daily alarm and hourly time signal do not operate during signal reception.
- 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 last auto signal receive operation was performed.</li> <li>The receive indicator does not appear if a single receive operation is not successful. Even if receive is successful, the receive indicator disappears every day at 3am.</li> </ul> | <ul style="list-style-type: none"> <li>Wait 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, DST is turned on.</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>Turn off DST.</li> <li>Select the correct Home City Code.</li> </ul>   |

### World Time

- The current time in all World Time Mode cities is calculated in accordance with the Greenwich Mean Time (GMT) differential for each city, based on the current Home City time setting in the Timekeeping Mode.
- GMT differential is calculated by this watch based on Universal Time Coordinated (UTC) data.

### Backlight Precautions

- 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.

### City Code Table

| City Code | City           | GMT Differential | Other major cities in same time zone   |
|-----------|----------------|------------------|--|
| ---       |                |                  | PAGO PAGO  |
| HNL       | HONOLULU       | -11              | PAPEETE  |
| ANC       | ANCHORAGE      | -9               | NOIIE  |
| 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       |                |                  | DUBLIN, LISBON, CASABLANCA, DAKAR, ABIDJAN                                     |
| LON       | LONDON         | +00              |  |
| BER       | BERLIN         |                  | MILAN, ROME, MADRID, AMSTERDAM, ALGIERS, HAMBURG, FRANKFURT, VIENNA, STOCKHOLM |
| PAR       | PARIS          | +01              | ATHENS, HELSINKI, ISTANBUL, BEIRUT, DAMASCUS, CAPE TOWN                        |
| CAL       | CAIRO          | +02              |  |
| JBS       | JERUSALEM      |                  | KUWAIT, RIYADH, ADEN, ADDIS ABABA, NAIROBI, MOSCOW                             |
| JED       | JEDDAH         | +03              |  |
| THR       | TEHRAN         | +3.5             | SHIBAZ   |
| 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              | SEOUL, PYONGYANG   |
| ADL       | 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 December 2001.

### Character List

|   |         |    |   |    |   |    |   |    |   |
|---|---------|----|---|----|---|----|---|----|---|
| 1 | (space) | 10 | I | 19 | R | 28 | 0 | 37 | 9 |
| 2 | A       | 11 | J | 20 | S | 29 | 1 | 38 | - |
| 3 | B       | 12 | K | 21 | T | 30 | 2 | 39 | . |
| 4 | C       | 13 | L | 22 | U | 31 | 3 | 40 | / |
| 5 | D       | 14 | M | 23 | V | 32 | 4 | 41 | : |
| 6 | E       | 15 | N | 24 | W | 33 | 5 |    |   |
| 7 | F       | 16 | O | 25 | X | 34 | 6 |    |   |
| 8 | G       | 17 | P | 26 | Y | 35 | 7 |    |   |
| 9 | H       | 18 | Q | 27 | Z | 36 | 8 |    |   |