## General Guide

- **About This Manual**: Depending on the model of your watch, display text appears either as dark figures on a light background or light figures on a dark background. All sample displays in this manual are shown using dark figures on a light background. 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.

- **Procedure Lookup**: The following is a handy reference list of all the operational procedures contained in this manual.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>To set the time and date</td>
<td>E-7</td>
</tr>
<tr>
<td>To toggle the Timekeeping Mode time between DST and Standard Time</td>
<td>E-9</td>
</tr>
<tr>
<td>To configure the countdown timer</td>
<td>E-19</td>
</tr>
<tr>
<td>To view the time for another city code</td>
<td>E-11</td>
</tr>
<tr>
<td>To toggle a city code time between Standard Time and Daylight Saving Time</td>
<td>E-12</td>
</tr>
<tr>
<td>To measure times with the stopwatch</td>
<td>E-14</td>
</tr>
<tr>
<td>To use Auto-Start</td>
<td>E-15</td>
</tr>
<tr>
<td>To turn the Hourly Time Signal on and off</td>
<td>E-28</td>
</tr>
<tr>
<td>To specify the illumination duration</td>
<td>E-30</td>
</tr>
<tr>
<td>To enable and disable auto light switch operation</td>
<td>E-32</td>
</tr>
<tr>
<td>To turn Flash Alert on and off</td>
<td>E-35</td>
</tr>
<tr>
<td>To toggle the Timekeeping Mode time between DST and Standard Time</td>
<td>E-9</td>
</tr>
<tr>
<td>To turn an alarm on and off</td>
<td>E-27</td>
</tr>
<tr>
<td>To turn the Daily Time Signal on and off</td>
<td>E-28</td>
</tr>
<tr>
<td>To enable and disable auto light switch operation</td>
<td>E-30</td>
</tr>
<tr>
<td>To turn Flash Alert on and off</td>
<td>E-35</td>
</tr>
<tr>
<td>To toggle a city code time between Standard Time and Daylight Saving Time</td>
<td>E-12</td>
</tr>
<tr>
<td>To measure times with the stopwatch</td>
<td>E-14</td>
</tr>
<tr>
<td>To use Auto-Start</td>
<td>E-15</td>
</tr>
<tr>
<td>To configure the countdown timer</td>
<td>E-19</td>
</tr>
<tr>
<td>To set an alarm</td>
<td>E-24</td>
</tr>
<tr>
<td>To test the alarm</td>
<td>E-26</td>
</tr>
</tbody>
</table>

- **Read This Before You Set the Time and Date!** The times displayed in the Timekeeping Mode and World Time Mode are linked. Because of this, make sure you select a Home Time zone before you set the time and date.

- **Countdown Timer**: To configure the countdown timer, press [E-19].

- **Alarm Mode**: To set an alarm, press [E-24]. To test the alarm, press [E-26].

- **Stopwatch**: To measure times with the stopwatch, press [E-14].

### Timekeeping

**To set the time and date**

1. In the Timekeeping Mode, hold down [A] until the seconds start to flash, which indicates the setting screen.
2. Press [C] to move the flashing in the sequence shown below to select other settings.

   - **Seconds**
   - **DST**
   - **Home Time Zone**
   - **Hour**
   - **Month**
   - **Day**
   - **Year**
   - **Minute**
   - **Flash Alert**

**To toggle the Timekeeping Mode time between DST and Standard Time**

1. In the Timekeeping Mode, hold down [A] until the seconds start to flash, which indicates the setting screen.
2. Press [C] to display the DST setting screen.
4. Press [E] to exit the setting screen.

**To change the hour or minutes**

- **Daylight Saving Time (DST)**: Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

**To change the year**

- **Year**: Change the year.

**To change the day of the week**

- **Day of week**: Display automatically in accordance with the date (year, month, and day) settings.

**To change the home time zone**

- **Home Time Zone**: Use [C] (eastward) and [D] (westward).

**To change the month or day**

- **Month – Day**: Month and Day settings.

### About This Manual

- **Topics**: Depending on the model of your watch, display text appears either as dark figures on a light background or light figures on a dark background. All sample displays in this manual are shown using dark figures on a light background.

### Reference

- **Illumination**: To turn on and off, press [E-29].
- **Alarms**: To turn an alarm on and off, press [E-35].
- **Countdown Timer**: To configure the countdown timer, press [E-19].
- **Stopwatch**: To measure times with the stopwatch, press [E-14].
- **Timekeeping**: To set the time and date, press [E-7].
- **General Guide**: To specify the illumination duration, press [E-30].
- **Stopwatch**: To turn Flash Alert on and off, press [E-35].

### Operation Guide 3420

- **Specifcations**: To change the year, press [E-12].
- **Reference**: To change the month or day, press [E-10].
- **Alarms**: To change the hour or minutes, press [E-22].
- **Countdown Timer**: To change the home time zone, press [E-16].
- **Timekeeping**: To change the year, press [E-6].
- **Reference**: To change the month or day, press [E-2].
To toggle between 12-hour and 24-hour timekeeping

In the Timekeeping Mode, press (A) to toggle between 12-hour timekeeping and 24-hour timekeeping.

- 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 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 00 to 23:59, without any indicator.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all other modes.
- The P indicator is not displayed when the current time is displayed in other modes.

To toggle a city code time between Standard Time and Daylight Saving Time

1. In the World Time Mode, use (left) and (right) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
2. Hold down (A) for about one second to toggle Daylight Saving Time (DST) displayed and Standard Time (DST not displayed).
3. The DST indicator is on the display whenever you display a city code for which Daylight Saving Time is turned on.
4. Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

To measure times with the stopwatch

Start
Split
Stop
Re-start
Stop
Clear

- The time on the screen may not appear to stop immediately when you press a button to stop timing or to perform a split operation. Despite this, the time recorded by your button operation is accurate.

Stopwatch Mode

• The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
• Exiting the Stopwatch Mode while a split time is frozen on the display clears the split time and returns to elapsed time measurement.
• All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing (C) (page E-5).

About Auto-Start

With Auto-Start, the watch performs a 5-second countdown, and stopwatch operation starts automatically when the countdown reaches zero. During the final three seconds of the countdown, a beeper sounds with each second.

To use Auto-Start

1. While the stopwatch screen is showing all zeros in the Stopwatch Mode, press (D).
2. This displays a 5-second countdown screen.
3. To return to the all zeros screen, press (D) again.
4. Press (E) to start the countdown.
5. When the countdown reaches zero, a tone sounds and a stopwatch timing operation starts automatically.
6. The auto-repeat function is activated by pressing (C), or you can press (E) to reset to the countdown time starting value.

Countdown Timer Beeper Operations

The watch beeps at various times during a countdown so you can keep informed about the countdown status without looking at the display. The following describes the types of beeper operations the watch performs during a countdown.

To configure the countdown timer

1. While the countdown start time is on the display in the Countdown Timer Mode, hold down (A) until the current countdown start time starts to flash, which indicates the setting screen.
2. If the countdown start time is not displayed, use the procedure under “To use the countdown timer” (page E-21) to display it.
3. Press (B) to move the flashing in the sequence shown below to select other settings.
4. Press (C) to accept the countdown timer timer and stop the countdown.
Alarms

Alarm number

You can set up to three independent multifunction alarms with hour, minutes, month, and day. When an alarm is turned on, the alarm tone sounds when the alarm time is reached. One of the alarms is a snooze alarm, while the other two are one-time alarms. You can also turn on a Hourly Time Signal that causes the watch to beep twice every hour on the hour. If there are three alarm screens numbered A, B, and C for the one-time alarm, snooze alarm screen displayed by SNZ. The Hourly Time Signal screen is indicated by STS. The Auto-repeat is ON. All of the operations in this section are performed in the Alarm Mode, which you enter by pressing B (page E-6).

To set an alarm

1. In the Alarm Mode, use A or B to scroll through the alarm screens until the one whose time you want to set is displayed.
   - To set a one-time alarm, display an alarm screen A or B. To set the snooze alarm, display the SNZ screen.
   - The snooze alarm repeats every five minutes.
2. After you select an alarm, hold down A or B until the hour setting of the alarm time starts to flash, which indicates the setting screen.
3. This operation turns on the alarm automatically.

Alarm Types

The alarm type is determined by the settings you make, as described below.

- Daily alarm
  Set the hour and minutes for the alarm time. This type of setting causes the alarm to sound everyday at the time you set.
- Date alarm
  Set the month, day, hour, and minutes for the alarm time. This type of setting causes the alarm to sound at the specific time, on the specific date you set.
- Monthly alarm
  Set the day, hour, and minutes for the alarm time. This type of setting causes the alarm to sound every month at the time you set, on the day you set.

To use the countdown timer

Press A while in the Countdown Timer Mode to start the countdown timer.
- The countdown timer operation continues even if you exit the Countdown Timer Mode.
- Press A while a countdown operation is in progress to pause it. Press A again to resume the countdown.
- To stop a countdown operation completely, first pause it by pressing A, then press B. This returns the countdown timer to its starting value.

Progress Beeper

Press A, then press C to toggle the progress beeper on (ON) and off (OFF).

To test the alarm

Press A to turn on the alarm. When the setting you want to change is flashing, use A or B to change the setting.

Press A to test the alarm

Displaying the Timekeeping Mode setting screen (page E-7)

Auto-repeat

Press A to toggle auto-repeat on (C) and off (D) displayed).

Progress Beeper

Press A to toggle the progress beeper on (ON) and off (OFF).

Alarm Operation

The alarm tone sounds at the preset time for 10 seconds, regardless of the watch’s current mode. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, until you turn the alarm off (page E-27).

- Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode time.
- To stop the alarm tone after it starts to sound, press any button.
- Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze operation.

To use the alarm

To turn on an alarm and off

1. In the Alarm Mode, use A or B to select an alarm.
2. Press A to toggle it on and off.
3. Depending on an alarm (A, B, or C displays the alarm on indicator (E) on its Alarm Mode screen.
4. In all modes, the alarm on indicator is shown for any alarm that is currently turned on.
5. The alarm on indicator flashes while the alarm is sounding.
6. The snooze indicator (F) flashes while the snooze is sounding and during the 5-minute intervals between alarms.

Illumination

An LED (light-emitting diode) illuminates the face of the watch for easy reading in the dark. The watch’s auto light switch turns on illumination automatically when you angle the watch towards your face.

- The auto light switch must be enabled (indicated by the auto light switch on indicator). See “Illumination Precautions” (page E-39) for other important information about using illumination.

To illuminate the display manually

In any mode, press A to turn on illumination.
- The above operation turns on illumination regardless of the current auto light switch setting.

To turn the Hourly Time Signal on and off

1. In the Alarm Mode, use A or B to select the Hourly Time Signal (B) icon.
2. Press A to toggle it on and off.
3. The Hourly Time Signal on indicator (C) is shown on the display in all modes while this function is turned on.
To specify the illumination duration

1. In the Timekeeping Mode, hold down \( \text{A} \) until the seconds start to flash, which indicates the setting screen.
2. While the seconds are flashing, press \( \text{B} \) to toggle the setting between 1.5 seconds (\( \text{E-35} \)) and 3 seconds (\( \text{E-36} \)).
3. Press \( \text{C} \) to exit the setting screen.

Warning!

- Always make sure you are in a safe place whenever you are reading the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not startle or distract others around you.
- When you are wearing the watch, make sure that operation of its auto light switch is disabled before riding on a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.

To enable and disable auto light switch operation

In the Timekeeping Mode, hold down \( \text{A} \) for about three seconds to toggle the auto light switch operation between enabled (auto light switch indicator display) and disabled (auto light switch indicator not displayed). The auto light switch indicator is on the display in all modes while auto light switch operation is enabled.

To protect against running down the battery, auto light switch operation disables automatically approximately six hours after you enable it.

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.

Graphical Areas

There are three graphical areas named A and B. The information shown in each graphical area depends on the current mode.

Button Operation Tone

The button operation tone sounds any time you press one of the watch’s buttons. You can turn the button operation tone on or off as desired.

- Even if you turn off the button operation tone, the alarms, the Hourly Time Signal, the countdown alarm, and stopwatch auto start all operate normally.

To turn the button operation tone on and off

In any mode (except when a setting screen is on the display), hold down \( \text{D} \) to toggle the button operation tone (mute indicator not displayed) and off (mute indicator displayed).

Initial Screens

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

Timekeeping

- Restarting the seconds to \( \text{GD} \) 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 \( \text{GD} \) without changing the minutes.
- The year can be set in the range of 2000 to 2099.
- The watch’s built-in full automatic calendar 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.

World Time

All World Time Mode times are calculated from the current Home City time in the Timekeeping Mode using UTC time differential values.

- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.

About the Auto Light Switch

While the auto light switch is enabled, illumination turns on whenever you position your wrist as described below in any mode.

- Moving the watch to a position that is parallel to the ground and then tilting it away from you at more than 40 degrees causes illumination to turn on.
- Wear the watch on the outside of your wrist.

Illumination may be hard to see when viewed under direct sunlight.

Illumination Precautions

- Illumination turns off automatically whenever an alarm sounds.
- Frequent use of illumination runs down the battery.
Auto light switch precautions

- Avoid wearing the watch on the inside of your wrist. Doing so causes the auto light switch to operate when it is not needed, which shortens battery life. If you want to wear the watch on the inside of your wrist, disable the auto light switch feature.
- Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- Illumination turns off after the preset illumination duration (see “To specify the illumination duration” (page E-30)), even if you keep the watch pointed towards your face.
- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back towards you again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again.
- Under certain conditions, illumination may not turn on until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the auto light switch.
- You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does not indicate a problem with the watch.

Specifications

Accuracy at normal temperature: ±15 seconds a month

Timekeeping: Hour, minutes, seconds, p.m. (P), year, month, day, day of the week

Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099

Other: Home Time zone (selectable from among 29 zones); Daylight Saving Time (summer time)/Standard Time

World Time: 48 cities (29 time zones)

Alarms: 3 multi-function* alarms (with 1 snooze alarm); Hourly Time Signal

*Alarm type: Daily alarm, date alarm, 1-month alarm, monthly alarm

Countdown Timer

Measuring unit: 1 second

Input range: 1 minute to 24 hours (1-minute increments and 1-hour increments)

Other: Auto-repeat timer; Progress beeper

Stopwatch

Measuring unit: 1/100 second

Measuring modes: Elapsed time, split time, two finishes

Illumination: LED (light-emitting diode); Selectable illumination duration; Auto Light Switch

Other: Button operation tone on/off, Flash alert

Battery: One lithium battery (Type: CR2032)

Approximately 10 years on type CR2032 (10 seconds of alarm operation per day, one countdown timer operation with progress beeper per week, one stopwatch operation with auto start per week, 1.5 seconds of illumination per day)

City Code Table

<table>
<thead>
<tr>
<th>City Code</th>
<th>City</th>
<th>UTC Offset/GMT Differential</th>
<th>Other major cities in same time zone</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-40</td>
<td>Page 40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-41</td>
<td>Page 41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-2</td>
<td>City Code Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-3</td>
<td>City Code Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-4</td>
<td>City Code Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-5</td>
<td>City Code Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-7</td>
<td>Operation Guide 3420</td>
<td></td>
<td></td>
</tr>
<tr>
<td>L-8</td>
<td>City Code Table</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 As of December 2012, the official UTC offset for Caracas, Venezuela (CCS) has been changed from –4 to –4.5, but this watch still uses an offset of –4 (the old offset) for CCS.

2 As of December 2012, the official UTC offset for Moscow, Russia (MDW) has been changed from +3 to +4, but this watch still uses an offset of +3 (the old offset) for MDW. Because of this, you should leave the summer time setting turned on (which advances the time by one hour) for the MDW time.

This table shows the city codes of this watch.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

This table shows the city codes of this watch.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.

The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.