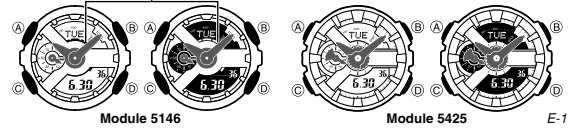


Operation Guide 5146 5425

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.
- Note that the product illustrations in this manual are intended for reference only, and so the actual product may appear somewhat different than depicted by an illustration.

Graphic (moves with seconds count)
Module 5146 only



• 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.

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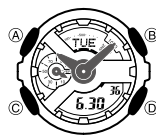
E-4

E-5

General Guide

- Press **C** to change from mode to mode.
- In any mode (except a setting mode), press **B** to illuminate the display.

Timekeeping Mode



Press **C**.

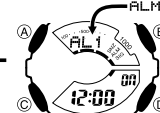
Stopwatch Mode (page E-14)



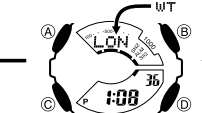
Countdown Timer Mode (page E-25)



Alarm Mode (page E-33)



World Time Mode (page E-29)

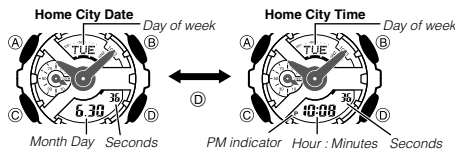


E-6

E-7

Timekeeping

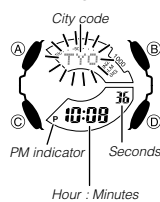
- You can adjust the Home Time city date and time in the Timekeeping Mode.
- The analog time of this watch is synchronized with the digital time. The analog time setting is adjusted automatically whenever you change the digital time.
 - If the analog time does not match the digital time for any reason, use the procedure described under "To adjust home positions" (page E-42) to match the analog setting to the digital setting.
 - Pressing **D** in the Timekeeping Mode toggles digital display between the Home City Date and Home City Time.



E-8

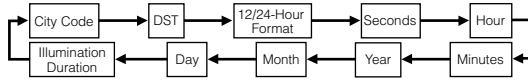
To set the digital time and date

1. In the Timekeeping Mode, hold down **A** for about three seconds until the currently selected city code flashes in the upper digital display. This is the setting mode.
2. Use **D** (east) and **B** (west) to select the city code you want.
 - Make sure you select your Home City code before changing any other setting.
 - For full information on city codes, see the "City Code Table" at the back of this manual.



E-9

3. Press **C** to change the flashing screen content in the sequence shown below to select the other settings.



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

| Screen: | To do this: | Do this: |
|---------|---|--|
| TYO | Change the city code | Use D (east) and B (west). |
| OFF | Toggle the DST setting between Daylight Saving Time (on) and Standard Time (OFF). | Press D . |
| 12H | Toggle between 12-hour (12H) and 24-hour (24H) timekeeping | Press D . |

E-10

| Screen: | To do this: | Do this: |
|------------|--|------------------------------------|
| 50 | Reset the seconds to 00 | Press D . |
| P 10:00 | Change the hour and minutes | Use D (+) and B (-). |
| 20 15 6.30 | Change the year, month, or day | |
| LT1 | Toggle the display illumination duration between 1.5 seconds (LT1) and three seconds (LT3) | Press D . |

5. Press **A** to exit the setting mode.

- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.

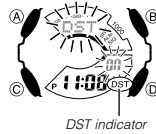
E-11

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 Daylight Saving Time (summer time) setting

- In the Timekeeping Mode, hold down **A** for about three seconds until the currently selected city code flashes in the upper digital display. This is the setting mode.
- Press **C**. This will display the DST setting screen.
- Use **D** to toggle the DST setting on (**on**) and off (**OFF**).
 - The default DST setting is off (**OFF**).
- When the setting you want is selected, press **A** to exit the setting mode.
 - The DST indicator appears to indicate that Daylight Saving Time is turned on.



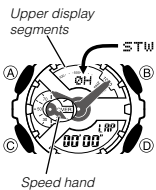
E-12

12-hour and 24-hour timekeeping

- With the 12-hour format, the PM indicator (**P**) appears for times in the range of noon to 11:59 p.m. and 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, without the PM indicator (**P**).
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all other modes.

E-13

Stopwatch



You can use the stopwatch to measure elapsed time, lap times and split times. If you specify a distance value, the stopwatch also will calculate and display speeds.

- The digital display range of the stopwatch is 99 hours, 59 minutes, 59.999 seconds. The stopwatch continues to run until you stop it. If it reaches the above limit, it will restart the time measurement from zero.
- The stopwatch operation continues even if you exit the Stopwatch Mode. If you exit the Stopwatch Mode while a stopwatch operation is in progress, the segments along the top of the upper digital display (upper display segments) will indicate the seconds of the current time. Each segment represents one second. This is to let you know that a stopwatch operation is in progress.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing **C** (page E-7).

E-14

Important!

- Check to make sure that the speed hand is not moving before you perform any Stopwatch Mode button operation.

Specifying a Distance Value

You can use the procedure below to specify a distance value, if you want. If you specify a distance value, the watch will calculate and indicate speed for certain stopwatch operations.

- The distance value represents kilometers, miles, or any other distance unit you want. Specifying a distance value of 10.0, for example, can mean 10.0 kilometers or 10.0 miles.
- No speed calculation is performed when 0.0 is specified as the current distance value.
- For lap time readings, you can specify either the lap distance (when all the laps are the same distance) or the total race distance.
- For split time readings, you can specify the total race distance only. Though the watch will indicate a speed each time you take a split reading, they will be based on the total race distance, and so they will not indicate actual intermediate split speeds.

E-15

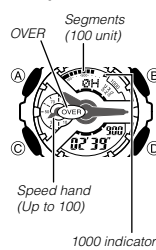
To specify a distance value



- In the Stopwatch Mode, make sure the stopwatch is stopped and reset to all zeros.
 - If you need to reset the stopwatch to all zeros, press **A**.
- Hold down **A** for about three seconds until the current distance value setting flashes in the lower digital display.
 - This is the distance value setting mode.
- Press **C** to move the flashing between the values on the left side and right side of the distance value decimal point.
- While a distance value is flashing, use **D** (+) and **B** (-) to change it.
 - You can specify a distance value in the range of 0.1 to 99.9.
- After specifying the distance value you want, press **A** to exit the setting mode.

E-16

How speed is indicated



- While an elapsed time measurement operation is being performed in the Stopwatch Mode, the watch will indicate a speed value, which is calculated based on the distance you specified and the elapsed time. The speed value is indicated as described below.
 - Speed hand: Up to 100
 - Upper display segments: 100 unit
 - A **1000** indicator points to 1000 (located to the right of the upper display segments) when the speed value exceeds 1000.
- The speed hand indicates speed values less than 100. Only even-numbered values are indicated.
- Speed can be indicated from 0 to 1998. **OVER** is indicated by the speed hand when the speed exceeds 1998.

Example:

When the speed value is 1,740.
 Speed hand: Indicates **40**.
 Upper display segments: Indicate **700**.
1000 indicator: Displayed

E-17

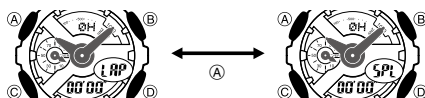
Time Measurement

You need to specify either lap time (page E-20) or split time (page E-22) measurement before you start a stopwatch operation.

- If you want to measure total elapsed time, select split time measurement.

To specify lap time or split time readings

- In the Stopwatch Mode, make sure the stopwatch is stopped and reset to all zeros.
 - Make sure that **LAP** (lap times) or **SPL** (split times) is shown in the lower digital display.
 - If you need to reset the stopwatch to all zeros, press **A**.
- You can toggle between **LAP** (lap times) and **SPL** (split times) by pressing **A**.



E-18

Elapsed Time Measurement

Use the following procedure to measure elapsed time, without taking lap time or split time readings.

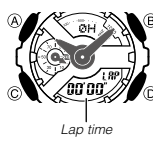
To perform elapsed time measurement

Select split time (**SPL**) measurement and then perform the following button operations.

- Start → Stop → **A** Reset
- If you have a distance value (page E-15) specified for the current elapsed time measurement, the upper display segments and speed hand will indicate the speed when you press **D** to stop the elapsed time operation.
- After pressing **D** to stop an elapsed time operation, you could press **D** again to restart from the point where you left off.

E-19

Lap Time



A lap time reading shows the time elapsed since the last lap time reading was taken.

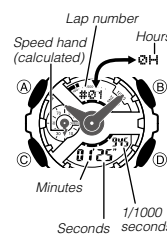
- If you want the watch to calculate the speed of each lap (when all of the laps are the same distance), specify the lap distance for the distance setting (page E-15).
- If you want the watch to calculate the speed of the entire race, specify the race distance for the distance setting (page E-15). A speed will be indicated each time you take a lap reading, but these lap speeds will not indicate actual speed of the entire race.

To set up the stopwatch to take lap time readings

- In the Stopwatch Mode, make sure the stopwatch is stopped and reset to all zeros.
 - If you need to reset the stopwatch to all zeros, press (A).
- Make sure that **LAP** (lap times) is shown in the lower digital display.
 - If **SPL** (split times) is displayed, press (A) to toggle it to **LAP**.

E-20

To perform a lap time measurement

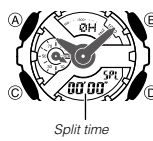


Select lap time (**LAP**) measurement and then perform the following button operations.

- (D) Start → (A) Lap* → (A) Lap* → (D) Stop → (A) Reset
- Normal elapsed time measurement reappears after about 12 seconds.
- You can press (A) to take lap readings as many times as you like.
- While a lap time is displayed, the upper digital display will alternate between the lap number (**#01** to **#99**) and the lap hour value. If you take more than 99 lap readings, the lap number will restart from **#00** following lap **#99**.
- Pressing (D) to stop elapsed time measurement displays the time (and speed if a distance is specified) of the final lap.

E-21

Split Time



A split time reading shows the time elapsed since the beginning of the current time measurement.

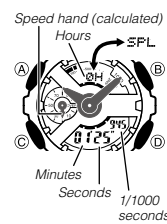
- If you want the watch to calculate the speed of the race, specify the race distance for the distance setting (page E-15).
- For split time readings, you can specify the total race distance only. Though the watch will indicate a speed each time you take a split reading, they will be based on the total race distance, and so they will not indicate actual intermediate split speeds.

To set up the stopwatch to take split time readings

- In the Stopwatch Mode, make sure the stopwatch is stopped and reset to all zeros.
 - If you need to reset the stopwatch to all zeros, press (A).
- Make sure that **SPL** (split times) is shown in the lower digital display.
 - If **LAP** (lap times) is displayed, press (A) to toggle it to **SPL**.

E-22

To perform a split time measurement



Select split time (**SPL**) measurement and then perform the following button operations.

- (D) Start → (A) Split → (A) Split Release* → (D) Stop → (A) Reset
- The split time is released automatically if you do not press (A) within about 12 seconds.
- You can press (A) to take split readings as many times as you like.
- The stopwatch continues elapsed time measurement internally while a split time reading is displayed.
- Pressing (A) while a split time is displayed will switch back to normal elapsed time measurement. The elapsed time will appear in the lower digital display.
- You also could press (D) to stop elapsed time measurement instead.
- Pressing (D) to stop elapsed time measurement displays the time (and speed if a distance is specified) of the final split (which is the overall elapsed time).

E-23

To measure times with the stopwatch

Elapsed Time



Lap Time

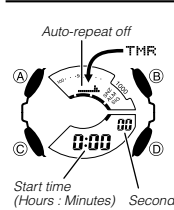


Split Time



E-24

Countdown Timer



You can set the countdown start time within a range of one minute to 24 hours. An alarm sounds when the countdown reaches zero.

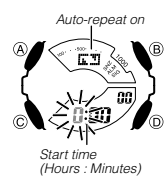
- You also can select auto-repeat, which automatically restarts the countdown from the original value you set whenever zero is reached.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (C) (page E-7).

To use the countdown timer

- Press (D) while in the Countdown Timer Mode to start the countdown timer.
- When the end of the countdown is reached, the alarm will sound for 10 seconds or until you stop it by pressing any button.
 - The countdown time is reset to its starting value automatically after the alarm stops if auto-repeat is turned off.
 - When auto-repeat is turned on, the countdown will restart automatically without pausing when it reaches zero.
 - The countdown timer measurement operation continues even if you exit the Countdown Timer Mode.
 - Press (D) while a countdown operation is in progress to pause it.
 - Press (D) again to resume the countdown.
 - To stop a countdown timer operation completely, first pause it (by pressing (D)), and then press (A). This returns the countdown time to its starting value.

E-26

To configure countdown start time and auto-repeat settings



- While the countdown start time is on the display in the Countdown Timer Mode, hold down (A) for about three seconds until the hour setting of the countdown start time starts to flash. This is the setting mode.
 - If the countdown start time is not displayed, use the procedure under "To use the countdown timer" (page E-26) to display it.

- Press (C) to move the flashing in the sequence shown below, and select the setting you want to change.



- Perform the following operations, depending on which setting currently is selected on the display.

- While the start time setting is flashing, use (D) (+) and (B) (-) to change it.
- While the auto-repeat on/off setting is flashing on the display, press (D) to toggle auto-repeat on (ON) and off (OFF).

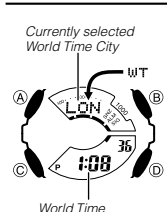
E-27

- Press (A) to exit the setting mode.

- The auto-repeat on (ON) is displayed on the Countdown Timer Mode screen while this function is turned on.

E-28

World Time



World Time digitally displays the current time in one of 48 cities (29 time zones) around the world. A simple operation swaps your Home City with the currently selected World Time City.

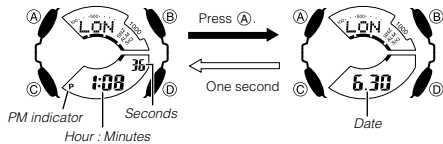
- The times kept in the World Time Mode are synchronized with the time being kept in the Timekeeping Mode. If you feel that there is an error in any World Time Mode time, check to make sure you have the correct city selected as your Home City. Also check to make sure that the current time as shown in the Timekeeping Mode is correct.
- Times in the World Time Mode are based on UTC offsets. See the "City Code Table" at the back of this manual for information about the UTC offsets that are supported.

- All of the operations in this section are performed in the World Time Mode, which you enter by pressing (C) (page E-7).

E-29

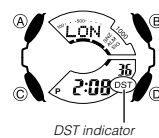
To view the current time in another time zone

- In the World Time Mode, use **(D)** to scroll through available city codes (time zones).
- The lower digital display will show the time in the currently selected World Time City.
 - A PM indicator (**P**) will be displayed in the lower digital display between the hours of noon and midnight.
 - When the city code (time zone) you want is selected, you can press **(A)** to display the date. After about one second, the watch will resume regular timekeeping for the currently selected city.



E-30

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



- In the World Time Mode, press **(D)** to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
- Hold down **(A)** for about three seconds to toggle between Daylight Saving Time (DST indicator displayed) and Standard Time (DST indicator not displayed).
 - A DST indicator will be displayed in the lower digital display if Daylight Saving Time is turned on.
 - You can turn on DST individually for each city code, except UTC.
 - Turning on DST for the city code that is currently selected as your Home City will turn on DST for normal timekeeping.

E-31

Swapping your Home City and World Time City

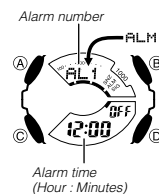
You can use the procedure below to swap your Home City and World Time City. This changes your Home City to your World Time City, and your World Time City to your Home City. This capability can come in handy when you frequently travel between two cities in different time zones.

To swap your Home City and World Time City

- In the World Time Mode, use **(D)** to select the World Time City you want.
 - Hold down **(A)** and **(B)** until the watch beeps.
 - This will make the World Time City you selected in step 1 your Home City, and cause the hour and minute hands to move to the current time in that city. At the same time, it will change the Home City you had selected prior to step 2 your World Time City, and cause the content of lower digital display to change accordingly.
 - After swapping the Home City and World Time City, the watch stays in the World Time Mode with the city that was selected as the Home City prior to step 2 now displayed as the World Time City.

E-32

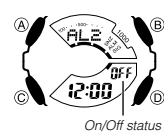
Alarms



- When an alarm is turned on, the alarm tone will sound when its alarm time is reached. One of the alarms is a snooze alarm, while the other four are daily alarms. You also can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.
- There are five alarm screens numbered **AL1**, **AL2**, **AL3** and **AL4** for the daily alarm, and a snooze alarm screen indicated by **SNZ**. The Hourly Time Signal screen is indicated by **SIG**.
 - All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **(C)** (page E-7).

E-33

To set an alarm time



- In the Alarm Mode, use **(D)** to scroll through the alarm screens until the one whose time you want to set is displayed.
 - To set a daily alarm, display alarm screen **AL1**, **AL2**, **AL3** or **AL4**. To set the snooze alarm, display the **SNZ** screen.
 - SIG** is the Hourly Time Signal setting (page E-37).
 - The snooze alarm repeats every five minutes.

- After you select an alarm, hold down **(A)** for about three seconds until the hour setting of the alarm time starts to flash. This is the setting mode.
 - This operation turns on the alarm automatically.
- Press **(C)** to move the flashing between the hour and minute settings.
- While a setting is flashing, use **(D)** (+) and **(B)** (-) to change it.
- Press **(A)** to exit the setting mode.

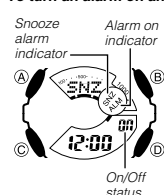
E-34

Alarm Operation

- The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, or until you turn the alarm off (page E-36).
- Alarm and Hourly Time Signal operations are performed in accordance with the current time in your Home City, as kept in the Timekeeping Mode.
 - 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 alarm operation.
 - Displaying the Timekeeping Mode setting screen (page E-9)
 - Displaying the **SNZ** setting screen (page E-34)

E-35

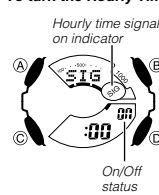
To turn an alarm on and off



- In the Alarm Mode, use **(D)** to select an alarm.
 - Press **(A)** to toggle it on (on) and off (OFF).
 - Turning on a alarm (**AL1**, **AL2**, **AL3**, **AL4** or **SNZ**) displays the alarm on indicator on its Alarm Mode screen.
 - In all modes, the alarm on indicator is shown for any alarm that currently is turned on.
 - The alarm on indicator flashes while the alarm is sounding.
 - The snooze alarm indicator flashes while the snooze alarm is sounding and during the 5-minute intervals between alarms.

E-36

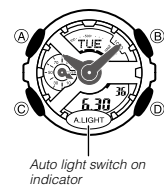
To turn the Hourly Time Signal on and off



- In the Alarm Mode, use **(D)** to select the Hourly Time Signal (**SIG**) (page E-34).
 - Press **(A)** to toggle it on (on) and off (OFF).
 - The Hourly Time Signal on indicator is shown on the display in all modes while this function is turned on.

E-37

Illumination



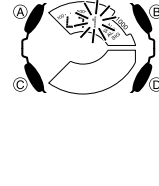
- An LED (light-emitting diode) illuminates the face of the watch for easy reading in the dark. The watch's auto light switch turns on illumination automatically when you angle the watch towards your face.
- The auto light switch must be turned on (indicated by the auto light switch on indicator) for it to operate.
 - See "Illumination Precautions" (page E-46) for other important information about using illumination.

To illuminate the display manually

- In any mode, press **(B)** to turn on illumination.
- The above operation turns on illumination regardless of the current auto light switch setting.
 - You can use the procedure below to select either 1.5 seconds or 3 seconds as the illumination duration. When you press **(B)**, illumination will remain on for about 1.5 seconds or 3 seconds, depending on the current illumination duration setting.

E-38

To specify the illumination duration



- In the Timekeeping Mode, hold down **(A)** until the display contents start to flash. This is the setting mode.
- Press **(C)** nine times to display the current illumination duration **LT1** or **LT3**.
- Press **(D)** to toggle the setting between **LT1** (1.5 seconds) and **LT3** (three seconds).
- Press **(A)** to exit the setting mode.

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About the Auto Light Switch

Turning on the auto light switch causes illumination to turn 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 towards you more than 40 degrees causes illumination to turn on.
 • Wear the watch on the outside of your wrist.



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Warning!

- Always make sure you are in a safe place whenever you are reading the display of 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 its auto light switch is turned off before riding 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 turn the auto light switch on and off

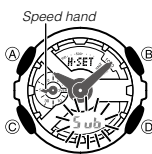
- In the Timekeeping Mode, hold down **(B)** for about three seconds to toggle the auto light switch on (auto light switch on indicator displayed) and off (auto light switch on indicator not displayed).
- The auto light switch on indicator remains in all modes while the auto light switch is turned on.
 - In order to protect against running down the battery, the auto light switch will turn off automatically approximately six hours after you turn it on. Repeat the above procedure to turn the auto light switch back on if you want.

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Hand Home Position Correction

The speed, hour, and minute hands of the watch can be thrown off by exposure to strong magnetism or impact. The watch is designed to correct speed, hour and minute hand manually.

To adjust home positions

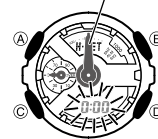


Correct speed hand position

1. In the Timekeeping Mode, hold down **(D)** for about three seconds until **Sub** flashes in the lower digital display.
 - This is the home position adjustment mode.
2. Check the position of the speed hand.
 - The speed hand is in the correct home position if it is pointed at 50 (9 o'clock). If it isn't, use **(D)** to move the hand clockwise until it is.
 - After confirming that the speed hand is in its correct home position, press **(C)**.

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Hour and minute hands



Correct hour and minute hand positions

3. Check the positions of the hour and minute hands.
 - The hands are in the correct home positions if they are pointed at 12 o'clock. If they aren't, use **(D)** (clockwise) and **(B)** (counterclockwise) to adjust their positions.
4. When everything is the way you want, press **(A)** to return to regular timekeeping.
 - This will cause the hour and minute hands to move to the current Timekeeping Mode time and the speed hand to move to the 0 position.
 - Pressing **(C)** here will return to the setting at the beginning of step 2.

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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 with a flashing setting on the display for two or three minutes without performing any operation, the watch will exit the setting mode automatically.
- The watch will return to the Timekeeping Mode automatically if you do not perform any operation for two or three minutes in the Alarm Mode.

High-Speed Movement

- The **(D)** and **(B)** buttons are used to change setting in various setting modes. In most cases, holding down these buttons will start high-speed movement.

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Initial Screens

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

Timekeeping

- 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.
- 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 when battery has replaced.
- The current time for all city codes in the Timekeeping Mode and World Time Mode is calculated in accordance with the Coordinated Universal Time (UTC) for each city, based on your Home City time setting.

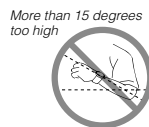
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Illumination Precautions

- Illumination may be difficult to see when viewed under direct sunlight.
- 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, turn off 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 in about 1.5 seconds or 3 seconds, even if you keep the watch pointed towards your face.

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- 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 toward 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.

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Specifications

Accuracy at normal temperature: ± 15 seconds a month

Digital Timekeeping: Hour, minutes, seconds, p.m. (P), month, day, day of the week
 Time format: 12-hour and 24-hour
 Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099
 Other: Home City code (can be assigned one of 48 city codes); Standard Time / Daylight Saving Time (summer time)

Analog Timekeeping: Hour, minutes (hand moves every 20 seconds)

Stopwatch:

Measuring unit: 1/1000 seconds
 Measuring capacity: 99:59'59.999"
 Measuring accuracy: ±0.0006%
 Measuring modes: Elapsed time, Lap time, Split time
 Other: Speed

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Countdown Timer:

Measuring unit: 1 second
 Input range: 1 minute to 24 hours (1-minute increments)
 Other: Auto-repeat timing

World Time:

48 cities (29 time zones)
 Other: Daylight Saving Time/Standard Time, Home City/World Time City Swapping

Alarms:

Four daily alarms, one snooze alarm, Hourly Time Signal
Illumination: LED (light-emitting diode), Auto Light Switch; Selectable illumination duration

Battery:

One lithium battery (Type: CR1220)
 Approximate Battery Life: 2 years on type CR1220
 (10 seconds of alarm operation per day, one illumination operation (1.5 seconds) per day)

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City Code Table



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City Code Table

| City Code | City | UTC Offset/ GMT Differential |
|-----------|-------------|---------------------------------|
| PPG | Pago Pago | -11 |
| HNL | Honolulu | -10 |
| ANC | Anchorage | -9 |
| YVR | Vancouver | -8 |
| LAX | Los Angeles | -7 |
| YEA | Edmonton | -7 |
| DEN | Denver | -6 |
| MEX | Mexico City | -6 |
| CHI | Chicago | -5 |
| MIA | Miami | -5 |
| YTO | Toronto | -5 |
| NYC | New York | -5 |

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| City Code | City | UTC Offset/ GMT Differential |
|-----------|----------------|---------------------------------|
| SCL | Santiago | -4 |
| YHZ | Halifax | -3.5 |
| YYT | St. Johns | -3.5 |
| RIO | Rio De Janeiro | -3 |
| RAI | Praia | -1 |
| UTC | | |
| LIS | Lisbon | 0 |
| LON | London | 0 |
| MAD | Madrid | +1 |
| PAR | Paris | +1 |
| ROM | Rome | +1 |
| BER | Berlin | +1 |
| STO | Stockholm | +1 |

| City Code | City | UTC Offset/ GMT Differential |
|-----------|-----------|---------------------------------|
| ATH | Athens | +2 |
| CAI | Cairo | +2 |
| JRS | Jerusalem | +2 |
| MOW | Moscow | +3 |
| JED | Jeddah | +3 |
| THR | Tehran | +3.5 |
| DXB | Dubai | +4 |
| KBL | Kabul | +4.5 |
| KHI | Karachi | +5 |
| DEL | Delhi | +5.5 |
| DAC | Dhaka | +6 |
| RGN | Yangon | +6.5 |

• Based on data as of December 2013.

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

| City Code | City | UTC Offset/ GMT Differential |
|-----------|------------|---------------------------------|
| BKK | Bangkok | +7 |
| SIN | Singapore | +7 |
| HKG | Hong Kong | +8 |
| BJS | Beijing | +8 |
| TPE | Taipei | +8 |
| SEL | Seoul | +9 |
| TYO | Tokyo | +9 |
| ADL | Adelaide | +9.5 |
| GUM | Guam | +10 |
| SYD | Sydney | +10 |
| NOU | Noumea | +11 |
| WLG | Wellington | +12 |

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