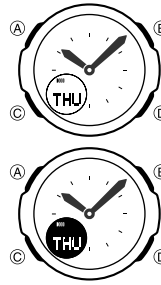


Operation Guide 5194

About This Manual



- Button operations are indicated using the letters shown in the illustration.
- For the sake of simplicity, the sample displays in this manual do not show the analog hands of the watch.
- 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.

E-1

- 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. For indicators, "On" is indicated by a dark indicator on the positive (dark-on-light) display, and by a light indicator on the negative (light-on-dark) display.

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Procedure Lookup

The following is a handy reference list of all the operational procedures contained in this manual.

To set the digital time and date	E-11
To toggle the Timekeeping Mode digital time between DST and Standard Time	E-14
To adjust the analog time	E-15
To view the time in another city	E-17
To toggle a city code time between Standard Time and Daylight Saving Time	E-18
To configure the countdown timer	E-22
To use the countdown timer	E-24
To measure times with the stopwatch	E-26
To set an alarm time	E-28

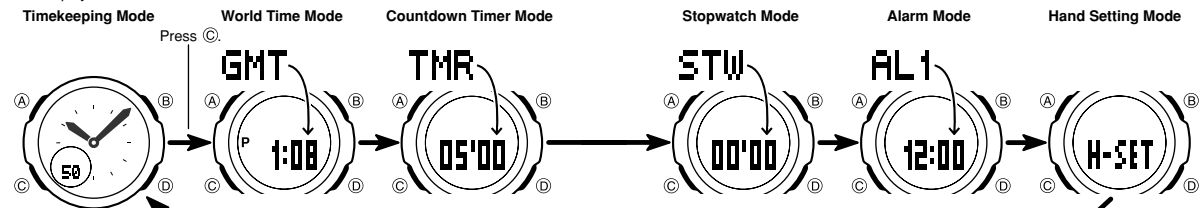
To test the alarm	E-29
To turn an alarm on and off	E-30
To turn the Hourly Time Signal on and off	E-31
To turn on illumination	E-33
To specify the illumination duration	E-33

E-4

E-5

General Guide

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

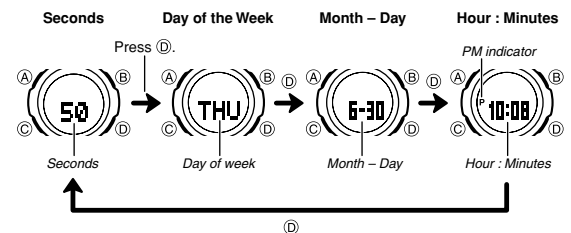


E-6

E-7

Timekeeping

This watch features separate digital and analog timekeeping. The procedures for setting the digital time (page E-11) and analog time (page E-15) are different. In the Timekeeping Mode, you can press D to change the display format as shown below.



E-8

E-9

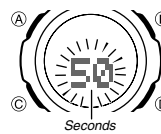
Digital Time and Date

Use the Timekeeping Mode to set and view a digital display of the current time and date. When setting the digital time, you can also configure settings for summer time (Daylight Saving Time or DST), your Home City code (the code for the city where you normally use the watch), the 12/24-hour format, and the illumination duration.

- This watch is preset with a number of city codes, each of which represents the time zone where that city is located. When setting the digital time, it is important that you select the correct city code for your Home City. If your location is not included in the preset city codes, select the preset city code that is in the same time zone as your location.
- Note that all of the times for the World Time Mode city codes (page E-17) are displayed in accordance with the digital time and date settings you configure in the Timekeeping Mode.
- After you correctly set your Home City time and date, you can set the watch up for timekeeping with a different city code simply by changing the Home City code in the Timekeeping Mode.

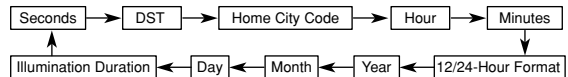
E-10

To set the digital time and date



- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
- Press (C) twice to move the flashing to the Home City code setting (see the illustration below), and then use (B) and (D) to select the 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.

3. Press (C) to move the flashing in the sequence shown below to select the other settings.



E-11

4. When the setting you want to change is flashing, use (B) and (D) to change it as described below.

Screen	To do this:	Do this:
50	Reset the seconds to 00	Press (D).
OFF	Toggle between Daylight Saving Time (ON) and Standard Time (OFF)	Press (D).
TYO	Change the Home City code	Use (D) (east) and (B) (west).
10:00	Change the hour or minutes	Use (D) (+) and (B) (-).
12H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press (D).
2011	Change the year	Use (D) (+) and (B) (-).
6:30	Change the month or day	
LT*	Select one second (*) or three seconds (**) as the illumination duration	Press (D).

E-12

5. Press (A) to exit the setting screen.

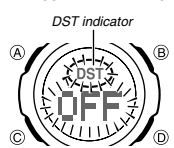
- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.
- Resetting the seconds only (without changing the DST, Home City code, hour, or minute setting) causes the analog minute hand setting to be adjusted automatically.
- See "Digital Time Daylight Saving Time (DST) Setting" below for details about the DST setting.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all modes.
- For details about illumination duration, see "Illumination" on page E-32.

Digital Time Daylight Saving Time (DST) Setting

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

E-13

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



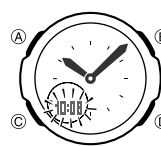
- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
- Press (C) once to display the DST setting screen.
- Press (D) to toggle between Daylight Saving Time (ON displayed) and Standard Time (OFF displayed).
- Press (A) to exit the setting screen.
 - The DST indicator appears on the Timekeeping, Alarm, and Hand Setting Mode to indicate that Daylight Saving Time is turned on.

E-14

Setting the Analog Time

Perform the procedure below when the time indicated by the analog hands does not match the time of the digital display.

To adjust the analog time



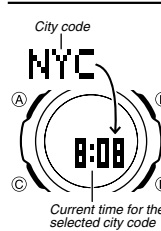
- In the Timekeeping Mode, press (C) five times to enter the Hand Setting Mode (page E-7).
- Hold down (A) until the current digital time starts to flash, which indicates the analog setting screen.
- Press (D) to advance the analog time setting by 20 seconds.
 - Holding down (D) advances the analog time setting at high speed.

- If you need to advance the analog time setting a long way, hold down (D) until the time starts advancing at high speed, and then press (B). This locks the high-speed hand movement, so you can release the two buttons. High-speed hand movement continues until you press any button. It will also stop automatically after the time advances 12 hours or if an alarm (daily alarm, Hourly Time Signal, or countdown beeper) starts to sound.

- Press (A) to exit the setting screen.
- The watch will automatically adjust the minute hand slightly to match its internal second count when you exit the setting screen.
- To return to the Timekeeping Mode, press (C).

E-16

World Time



World Time digitally displays the current time in 27 cities (29 time zones) around the world.

- All of the operations in this section are performed in the World Time Mode, which you enter by pressing (C) (page E-6).

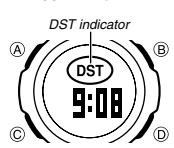
To view the time in another city

In the World Time Mode, press (D) to scroll eastwardly through city codes.

- For full information about city codes, see the "City Code Table" at the back of this manual.
- If the current time shown for a city is wrong, it probably means there is a problem with your Timekeeping Mode time and/or Home City code settings. Go to the Timekeeping Mode and make the necessary adjustments.

E-17

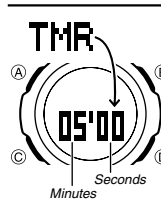
To toggle a city code time between Standard Time and Daylight Saving Time



- In the World Time Mode, use (D) to display the city code whose Standard Time/Daylight Saving Time setting you want to change.
- Hold down (A) for about two seconds to toggle between Daylight Saving Time (DST indicator displayed) and Standard Time (DST indicator 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.
 - Note that you cannot switch between Standard Time and Daylight Saving Time while GMT is selected as the city code.

E-18

Countdown Timer



The countdown timer can be set within a range of one minute to 60 minutes. An alarm sounds when the countdown reaches zero. The countdown timer also has an auto-repeat feature and a progress beeper that signals the progress of the countdown.

- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (C) (page E-6).

Configuring the Countdown Timer

The following are the settings you should configure before actually using the countdown timer.

- Countdown start time; Auto-repeat on/off; Progress beeper on/off
- See "To configure the countdown timer" on page E-22 for information about setting up the timer.

E-19

Auto-repeat

When auto-repeat is turned on, the countdown automatically restarts from the countdown start time when it reaches zero. If left running, the countdown is repeated a total of eight times, after which it stops automatically. When auto-repeat is turned off, the countdown stops when it reaches zero and the display shows the original countdown start time.

- Pressing **(D)** while an auto-repeat countdown is in progress pauses the current countdown. You can resume the auto-repeat countdown by pressing **(D)**, or you can press **(A)** 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.

Countdown End Beeper

The countdown end beeper lets you know when the countdown reaches zero.

- When the progress beeper is turned off, the countdown end beeper sounds for about 10 seconds, or until you press any button to stop it.
- When the progress beeper is turned on, the countdown end beeper sounds for about one second.

Progress Beeper

When the progress beeper is turned on, the watch uses beeps to signal countdown progress as described below.

- Starting from five minutes before the end of the countdown, the watch emits four short beeps at the top of each countdown minute.
- 30 seconds before the end of the countdown, the watch emits four short beeps.
- The watch emits a short beep for each of the last 10 seconds of the countdown.
- If the countdown start time is six minutes or greater, the watch emits a short beep for each second of the final 10 seconds before the five-minute point is reached. Four short beeps are emitted to signal when the five-minute point is reached.

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E-21

To configure the countdown timer

- 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.
 - If the countdown start time is not displayed, use the procedure under "To use the countdown timer" (page E-24) to display it.
- Press **(C)** to move the flashing in the sequence shown below to select other settings.


```

            graph LR
            A[Start Time] --> B[Auto-repeat]
            B --> C[Progress Beeper]
            C --> A
            
```
- When the setting you want to change is flashing, use **(B)** and **(D)** to change it as described below.

Setting	Screen	Button Operation
Start Time	05:00	Use (D) (+) and (B) (-) to change the setting. • You can set a start time in the range of 1 to 60 minutes in 1-minute increments.
Auto-repeat		Press (D) to toggle auto-repeat on (displayed) and off (displayed).
Progress Beeper		Press (D) to toggle the progress beeper on (ON) and off (OFF).

4. Press **(A)** to exit the setting screen.
• You can also perform steps 1 and 2 of the above procedure whenever you need to view the current auto-repeat and progress beeper settings.

E-22

E-23

To use the countdown timer

Press **(D)** 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 **(D)** while a countdown operation is in progress to pause it. Press **(D)** again to resume the countdown.
- To completely stop a countdown operation, first pause it (by pressing **(D)**), and then press **(A)**. This returns the countdown time to its starting value.

Stopwatch

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

- The display range of the stopwatch is 59 minutes, 59 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.
- 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-7).

E-24

E-25

To measure times with the stopwatch

Elapsed Time

(D) Start → **(D)** Stop → **(D)** Re-start → **(D)** Stop → **(A)** Clear

Split Time

(D) Start → **(A)** Split (SPL indicator displayed) → **(A)** Split release → **(D)** Stop → **(A)** Clear

Two Finishes

(D) Start → **(A)** Split (First runner finishes. Display time of first runner.) → **(D)** Stop (Second runner finishes.) → **(A)** Split release (Display time of second runner.) → **(A)** Clear

Alarms

You can set five independent Daily Alarms. 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 four are one-time alarms. You can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.

- There are six screens in the Alarm Mode. Four are for one-time alarms (indicated by numbers from AL 1 through AL 4), one is for a snooze alarm (indicated by SNZ), and one is for the Hourly Time Signal (indicated by Σ 1 Σ).
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **(C)** (page E-7).

E-26

E-27

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 one-time alarm, display one of the screens indicated by an alarm number from AL 1 through AL 4. To set the snooze alarm, display the screen indicated by SNZ.
 - The snooze alarm repeats every five minutes.
- After you select an alarm, hold down **(A)** until the hour setting of the alarm time starts to flash, which indicates the setting screen.
 - This operation automatically turns on the alarm.
- Press **(C)** to move the flashing between the hour and minute settings.

4. While a 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.

Alarm Operation

The alarm sounds at the preset time for about 20 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-30).

- Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode digital 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 alarm operation.
 - Displaying the Timekeeping Mode setting screen (page E-11)
 - Displaying the Σ 1 Σ setting screen (page E-28)

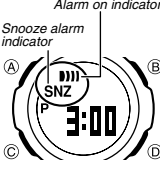
To test the alarm

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

E-28

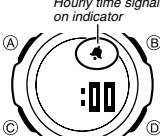
E-29

To turn an alarm on and off

- 
- In the Alarm Mode, use (D) to select an alarm.
 - Press (A) to toggle it on (AL displayed) and off (AL not displayed).
 - Turning on a one-time alarm (AL 1 through AL 4) displays the alarm on indicator on its Alarm Mode screen.
 - Turning on the snooze alarm (SNZ) displays the alarm on indicator and snooze alarm indicator on the Alarm Mode snooze alarm screen, and in all other modes.
 - In all modes (except for the Alarm Mode), the alarm on indicator is shown for any alarm that is currently turned on.
 - The alarm on indicator flashes while the alarm is sounding.
 - The snooze alarm indicator flashes during the 5-minute intervals between alarms.

E-30

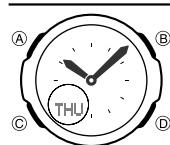
To turn the Hourly Time Signal on and off

- 
- In the Alarm Mode, use (D) to select the Hourly Time Signal (HTS I/G).
 - Press (A) to toggle it on (HTS displayed) and off (HTS not displayed).
 - The Hourly Time Signal on indicator is shown on the display on the Alarm Mode Hourly Time Signal screen, and in all other modes while the Hourly Time Signal is turned on.

E-31

Illumination

An ultraviolet LED (light-emitting diode) causes the parts of the analog face to glow for easy reading in the dark.



Illumination Precautions


- The illumination provided by the light may be hard to see when viewed under direct sunlight.
- Illumination automatically turns off whenever an alarm sounds.

E-32

To turn on illumination

- In any mode (except when a setting screen is on the display), press (B) to turn on illumination.
- You can use the procedure below to select either one second or three seconds as the illumination duration. When you press (B), the illumination will remain on for about one second or three seconds, depending on the current illumination duration setting.

To specify the illumination duration

- 
- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
 - Press (C) nine times so the illumination duration setting screen is on the display.
 - While the illumination duration setting is flashing, press (D) to toggle the setting between one second (1) and three seconds (3).
 - Press (A) to exit the setting screen.

E-33

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 Feature

If you leave a screen with flashing digits on the display for two or three minutes without performing any operation, the watch automatically exits the setting screen.

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

E-34

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.
- With the 12-hour format, the P indicator appears on the display 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 any indicator.
- The year can be set in the range of 2000 to 2039.
- 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 batteries replaced.
- The current time for all city codes in the Timekeeping Mode is calculated in accordance with the Greenwich Mean Time (GMT) differential of each city, based on your Home City time setting.

E-35

- GMT differential is calculated by this watch based on Coordinated Universal Time (UTC) data. UTC is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation. The reference point for UTC is Greenwich, England.

E-36

Specifications

- Accuracy at normal temperature:** ±30 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 2039
Other: 4 screen formats (Day of the Week, Month – Day, Hour: Minutes, Seconds); Home City code (can be assigned one of 31 city codes); Daylight Saving Time (summer time)/Standard Time
- Analog Timekeeping:** Hour, minutes (hand moves every 20 seconds)
- World Time:** 27 cities (29 time zones)
Other: Daylight Saving Time/Standard Time
- Countdown Timer**
Measuring unit: 1 second
Countdown range: 60 minutes

E-37

Countdown start time setting range: 1 to 60 minutes (1-minute increments)
Other: Auto-repeat timing; Progress beeper

Stopwatch

Measuring unit: 1 second
Measuring capacity: 59'59"
Measuring modes: Elapsed time, split time, two finishes

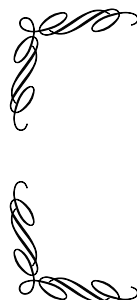
Alarm: 5 daily alarms (4 one-time alarms: 1 snooze alarm); Hourly Time Signal

Illumination: Ultraviolet LED (light-emitting diode); selectable illumination duration (approximately 1 second or 3 seconds)

Battery: Two silver oxide batteries (Type: SR726W)

Approximately 2 years on type SR726W (assuming alarm operation 20 seconds per day and one illumination operation 1.5 seconds per day)

E-38



City Code Table



L-1

City Code Table

City Code	City	UTC Offset/ GMT Differential
--		
HNL	Honolulu	-11
ANC	Anchorage	-10
LAX	Los Angeles	-9
DEN	Denver	-8
CHI	Chicago	-7
NYC	New York	-6
CCS*	Caracas	-5
RIO	Rio De Janeiro	-4
--		-3
--		-2
--		-1
GMT		0
LON	London	
PAR	Paris	+1
CAI	Cairo	
JRS	Jerusalem	+2

City Code	City	UTC Offset/ GMT Differential
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
BKK	Bangkok	+7
HKG	Hong Kong	+8
TYO	Tokyo	+9
ADL	Adelaide	+9.5
SYD	Sydney	+10
NOU	Noumea	+11
WLG	Wellington	+12

- Based on data as of July 2010.
- UTC offsets and the use of summer time are subject to change in the country where they are used.
- * In December 2007, the UTC offset for Caracas, Venezuela (CCS) was changed from -4 to -4.5. However, this watch still uses the old UTC offset of -4 when the Caracas (CCS) city code is selected.