

# Operation Guide 2993

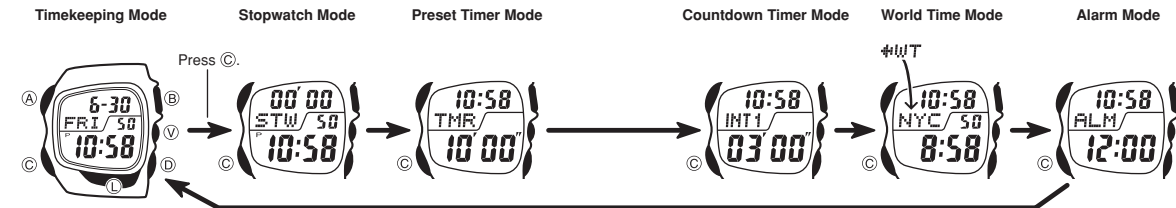
## About This Manual



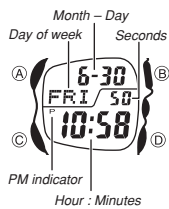
- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

## General Guide

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



## Timekeeping



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

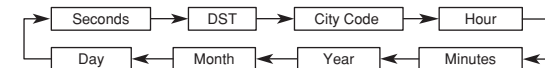
**Read This Before You Set the Time and Date!**  
The times displayed in the Timekeeping Mode and World Time Mode are linked. Because of this, make sure you select a city code for your Home City (the city where you normally use the watch) before you set the time and date.

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

### 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.



3. When the setting you want to change is flashing, use D and B 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 city code	Use D (east) and B (west).
P 10:58	Change the hour or minutes	Use D (+) and B (-).
2 00E	Change the year	
6-30	Change the month or day	

- See "Daylight Saving Time (DST)" for details about the DST setting.
- 4. Press A to exit the setting screen.

### 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 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.
  3. Press D to toggle between Daylight Saving Time (ON displayed) and Standard Time (OFF displayed).
  4. Press A to exit the setting screen.
- The DST indicator is on the display while Daylight Saving Time is turned on.

### To toggle between 12-hour and 24-hour timekeeping

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

- With the 12-hour format, the P (PM) indicator appears 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 0:00 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 with the Timekeeping Mode time on the Preset Timer Mode, Countdown Timer Mode, World Time Mode, and Alarm Mode screens.

## Stopwatch

### Initial Stopwatch Mode Screen

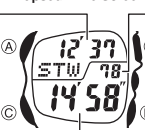


The stopwatch lets you measure elapsed time. The upper display and lower display can be used for official timing of an event or game.

- You can configure the watch for beeper alert or vibration alert. For details about vibration alert, see "Vibration Alert".
- The measurement range of the upper display is 59 minutes 59 seconds.
- The measurement range of the lower display is 99 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.
- All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing C.

### Elapsed Time Screen

Minutes Seconds  
\* Press B to pause and restart elapsed time measurement.



• This time measurement (1/100 second) cannot be paused.

Minutes Seconds  
• This time measurement cannot be paused. It shows the total elapsed time since the timing operation started.

### To measure times with the stopwatch



- \*1 Elapsed time measurement in the lower display continues.

### Using the Watch for Official Timing of a Sport Event

After you set a game or event time, the watch will perform an alert operation (beeper or vibration) when the time in the lower display reaches that time.

If the event is interrupted for some reason, you can press B to pause and restart timing in the upper display. The lower display shows the total elapsed time since the start of the timing operation. You can calculate the total amount of time that play was interrupted (lost time or injury time) by subtracting the upper display time from the lower display time.

### To set the event time



- In the Stopwatch Mode, hold down (A) until the current event time setting starts to flash in the lower display. This is the setting screen.
  - If the current event time is not displayed, use the procedure under "To reset elapsed time measurement to zero" to display it.
- While a setting is flashing, use (D) (+) and (B) (-) to change it.
  - You can set the event time in the range of 1 minute to 60 minutes, in 1-minute units.
  - "--" indicates there is no event time set.
- Press (A) to exit the setting screen.

### To start timing at the beginning of an event

When the current time in the lower display reaches the event start time, press (B) to start timing.

- This will display elapsed time measurement in the upper and lower displays.

### To pause timing

- Press (B). This stops elapsed time measurement in the upper display.
  - Elapsed time measurement in the lower display continues.
- To restart elapsed time measurement in the upper display, press (B) again.

### When the preset event time is reached

- The watch performs an alert operation when the elapsed time measurement in the lower display (total elapsed time since timing started) reaches the preset event time.
- Elapsed time measurement continues to be performed even after the preset event time is reached.

### To reset elapsed time measurement to zero

- Press (B). This stops elapsed time measurement in the upper display.
  - Elapsed time measurement in the lower display continues.
- Hold down (D) until the initial Stopwatch Mode screen appears.

## Preset Timer

### Timekeeping Mode time



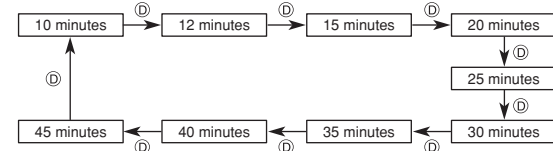
Preset timer time

The watch includes a number of different preset times that you can select for the countdown start time. The currently selected alert operation (beeper or vibration) is performed when the countdown reaches zero.

- The following are the preset start times, all in minutes: 10, 12, 15, 20, 25, 30, 35, 40, 45.
- You can also select auto-repeat, which automatically restarts the preset start time you selected, whenever zero is reached.
- You can configure the watch for beeper alert or vibration alert. For details about vibration alert, see "Vibration Alert".
- All of the operations in this section are performed in the Preset Timer Mode, which you enter by pressing (C).

### To perform a preset timer operation

- In the Preset Timer Mode, use (D) to scroll through the preset times until the one you want to use is displayed.



### Number of repeats



Auto-repeat on indicator

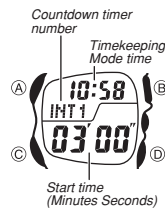
- To turn on auto-repeat, hold down (A) while a start time selection screen is displayed. The number of repeats will appear above the timer time.
- Frequent use of auto-repeat and the alert operation (beeper or vibration) can run down the battery.



- Press (B) to start the countdown timer.
  - Press (B) while a countdown operation is in progress to pause it. Press (B) again to resume the countdown.

- When the end of the countdown is reached, an alert operation (beeper or vibration) is performed for 10 seconds or until you stop it by pressing any button.
- When the end of the countdown is reached while auto-repeat is turned off, the watch will go into an elapsed time operation and display how much time has elapsed since the end of the countdown was reached. The elapsed time operation will stop automatically when it reaches 60 minutes. At that time the countdown timer start time selection screen will appear.
- When the end of the countdown is reached while auto-repeat is turned on, a new countdown starts from the selected preset start time. The number of repeats is displayed above the timer time. The number of repeats display changes to "--" when the count reaches 100.
- To stop a countdown operation completely, first pause it (by pressing (B)), and then press (D). This will display the initial Preset Timer Mode screen.

## Countdown Timer



With the countdown timer, you can set up to nine start times, which are counted down in sequence one after the other.

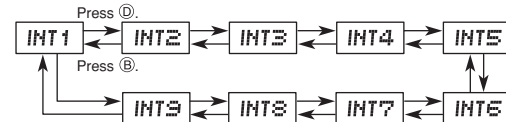
The countdown timer can be used for interval training (for example, three minutes running with INT1, 1 minute rest with INT2, five minutes running with INT3) or for timing a multi-period event (for example, 45 minutes of play with INT1, 15 minutes rest with INT2, 45 minutes play with INT3).

- You can configure the watch for beeper alert or vibration alert. For details about vibration alert, see "Vibration Alert".
- The watch performs an alert operation (beeper or vibration) when any timer reaches zero.

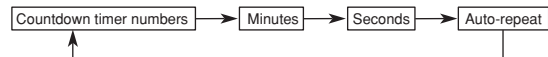
- An alert operation (about one second) is performed when any countdown timer (except for the last one in the series) reaches zero. When the last countdown timer in the series reaches zero, an alert operation is performed for about five seconds.
- You can turn on an auto-repeat feature that restarts the timer sequence from the beginning when the end of the last timer is reached.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (C).

### To configure countdown timer settings

- In the Countdown Timer Mode, hold down (A) until the countdown timer number starts to flash. This is the setting screen.
- Use (D) (+) and (B) (-) to scroll through the countdown timer numbers until the one you want to set is displayed.



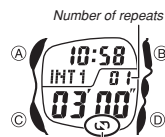
- Press (C) to move the flashing in the sequence shown below to select other settings.



- While a setting is flashing, use (D) and (B) to change it as described below.

Screen	To do this:	Do this:
INT 1	Change the countdown timer number	Use (D) (+) and (B) (-).
03 00	Change the minutes (00-59)	Use (D) (+) and (B) (-).
	Change the seconds (00-55, 5-second units)	
↔	Toggle auto-repeat on (↔) and off (→)	Press (D).

- Any timer whose start time is 00:00 will not be used during the countdown timer operation.
- There is no auto-repeat for individual countdown timers. In the Countdown Timer Mode, auto-repeat repeats the entire set of timers.



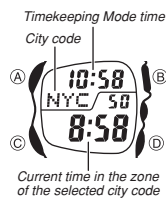
Auto-repeat on indicator

- Set the times of all of the timers that you want.
- Press (A) to exit the setting screen.
- When auto-repeat is turned on, the number of repeats will appear above the timer time.
- Frequent use of auto-repeat and the alert operation (beeper or vibration) can run down the battery.

### To perform a countdown timer operation

- In the Countdown Timer Mode, press (B) to start the countdown of the lowest numbered countdown timer that has a start time setting that is not zero.
- To pause the countdown timer that is currently counting down, press (B). Press (B) again to restart.
- During a countdown timer operation, any countdown timer whose start time is zero (00:00) is skipped.
- The first countdown timer of the series is the lowest numbered one with a start time that is not zero. The final countdown timer of the series is the highest numbered one with a start time that is not zero.
- While auto-repeat is turned off, the watch performs an alert operation (beeper or vibration) when each countdown timer reaches zero. An alert operation is performed for about five seconds when the final countdown timer reaches zero.
- While auto-repeat is turned on, the watch beeps (or vibrates) once when each countdown timer reaches zero. A five-second alert operation is performed when the final countdown timer reaches zero, unless the start time of the final countdown timer is 10 seconds or less. In such a case, the alert operation for the final countdown timer is only one second long.
- Timing restarts from the first timer when the final countdown timer reaches zero. The number of repeats is displayed above the timer time. The number of repeats display changes to "--" when the count reaches 100.
- An ongoing countdown timer operation continues to be performed even if you exit the Countdown Timer Mode.
- To stop a countdown timer operation, first press (B) to pause the countdown of the current timer, and then press (D). This will display Countdown Timer 1 (INT 1).

## World Time



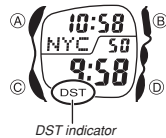
World Time shows the current time in 48 cities (29 time zones) around the world.

- When you enter the World Time Mode, the data you were viewing when you last exited the mode appears first.
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing **C**.

### To view the time for another city code

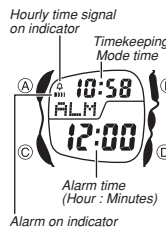
- In the World Time Mode, press **D** to scroll eastward through city codes or **B** to scroll westward.
- For full information about city codes, see the "City Code Table".
  - If the current time for a city is wrong, check your Timekeeping Mode time and Home city code settings and make the necessary changes.

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



1. In the World Time Mode, use **D** and **B** 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 between 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.

## Alarm



When the Daily Alarm is turned on, the currently selected alert operation (beeper or vibration) is performed at the preset time each day. When the Hourly Time Signal is turned on, the watch performs an alert operation every hour on the hour.

- You can configure the watch for beeper alert or vibration alert. For details about vibration alert, see "Vibration Alert".
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **C**.

### To set the alarm time

1. Hold down **A** while in the Alarm Mode until the hour setting of the alarm time starts to flash, which indicates the setting screen.
- This operation turns on the alarm automatically.

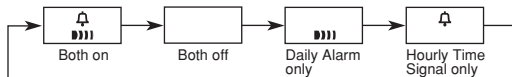
2. Press **C** to move the flashing between the hour and minute settings.
3. While a setting is flashing, use **D** (+) and **B** (-) to change it.
4. After you set the alarm time, press **A** to exit the setting screen.
- With the 12-hour format, set the time correctly as a.m. or p.m. (P indicator).

### To stop the alarm tone after it starts to sound

Press any button.

### To switch the Daily Alarm and Hourly Time Signal on and off

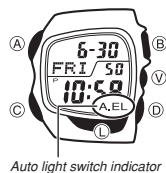
Press **D** while in the Alarm Mode to change the status of the Daily Alarm and Hourly Time Signal in the following sequence.



### To test the alert operation

In the Alarm Mode, hold down **D** to perform the currently selected alert operation (beeper or vibration).

## Illumination



This watch has an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. The watch's auto light switch turns on illumination automatically when you angle the watch towards your face for reading.

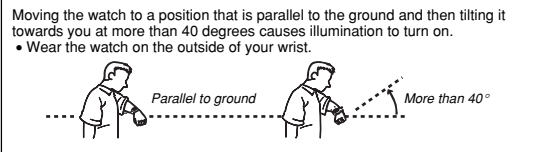
- The auto light switch must be turned on (indicated by the auto light switch indicator) for it to operate.
- See "Illumination Precautions" for more important information.

### To illuminate the display manually

- In any mode, press **L** to turn on illumination for about one second.
- The above operation turns on illumination regardless of the current auto light switch setting.

## 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 towards you at more than 40 degrees causes illumination to turn on.
- Wear the watch on the outside of your wrist.

### 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 its auto light switch is turned off 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 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 (A,EL displayed) or off (A,EL not displayed).

- The auto light switch indicator is on the display in all modes while the auto light switch is turned on.
- In order to protect against running down the battery, the auto light switch turns off automatically approximately six hours after you turn it on.

## 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.

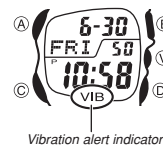
### Vibration Alert

When Vibration Alert is turned on, the watch vibrates instead of sounding a beeper. This lets you use the watch without disturbing others with beeping sounds.

- Vibration Alert can be used to replace alarm sounds.
- For information about selecting the alert type, see "To switch between vibration alert and beeper alert" below.
- Watches with a metal band may produce a noise when a vibration operation is performed. This is due to vibration of the metal band, and does not indicate malfunction of the watch.

### To switch between vibration alert and beeper alert

In any mode, press **V** to toggle the alert operation between vibration (VIB displayed) and beeper (VIB not displayed).



### 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 at high speed. This is true except when the countdown timer number is flashing on the Countdown Timer Mode screen.

### Auto Return Features

- If you leave the watch in the Alarm Mode for two or three minutes without performing any operation, it changes to the Timekeeping Mode automatically.
- If you leave a screen with flashing digits on the display for two or three minutes without performing any operation, the watch exits the setting screen automatically.

### 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 after you have the watch's battery replaced.

### World Time

- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.
- All World Time Mode times are calculated from the current Home City time in the Timekeeping Mode using UTC time differential values.
- The UTC differential is a value that indicates the time difference between a reference point in Greenwich, England and the time zone where a city is located.
- The letters "UTC" is the abbreviation for "Universal Time Coordinated", which 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.

## Illumination Precautions

- The electro-luminescent panel that provides illumination loses power after very long use.
- Illumination 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.
- Illumination turns off automatically whenever an alert operation (beeper or vibration) is performed.
- 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 one second, 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.

## City Code Table

City Code	City	UTC Differential	Other major cities in same time zone
PPG	Pago Pago	-11.0	
HNL	Honolulu	-10.0	Papeete
ANC	Anchorage	-09.0	Nome
YVR	Vancouver	-08.0	Las Vegas, Seattle/Tacoma, Dawson City
SFO	San Francisco		
LAX	Los Angeles		
DEN	Denver	-07.0	El Paso, Edmonton
MEX	Mexico City	-06.0	Winnipeg, Houston, Dallas/Fort Worth, New Orleans
CHI	Chicago		
MIA	Miami	-05.0	Montreal, Detroit, Boston, Panama City, Havana, Lima, Bogota
NYC	New York		
CCS	Caracas	-04.0	La Paz, Santiago, Port Of Spain
YYT	St. Johns	-03.5	
RIO	Rio De Janeiro	-03.0	Sao Paulo, Buenos Aires, Brasilia, Montevideo
RAI	Praia	-01.0	
LIS	Lisbon	+00.0	Dublin, Casablanca, Dakar, Abidjan
LON	London		
BCN	Barcelona	+01.0	Amsterdam, Algiers, Hamburg, Frankfurt, Vienna, Stockholm, Madrid
PAR	Paris		
MIL	Milan		
ROM	Rome		
BER	Berlin		
ATH	Athens	+02.0	Helsinki, Beirut, Damascus, Cape Town
JNB	Johannesburg		
IST	Istanbul		
CAI	Cairo		
JRS	Jerusalem		
MOW	Moscow	+03.0	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi
JED	Jeddah		
THR	Tehran	+03.5	Shiraz
DXB	Dubai	+04.0	Abu Dhabi, Muscat
KBL	Kabul	+04.5	
KHI	Karachi	+05.0	
MLE	Male		
DEL	Delhi	+05.5	Mumbai, Kolkata
DAC	Dhaka	+06.0	Colombo
RGN	Yangon	+06.5	
BKK	Bangkok	+07.0	Jakarta, Phnom Penh, Hanoi, Vientiane
SIN	Singapore	+08.0	Kuala Lumpur, Taipei, Manila, Perth, Ulaanbaatar
HKG	Hong Kong		
BJS	Beijing		
SEL	Seoul	+09.0	Pyongyang
TYO	Tokyo		
ADL	Adelaide	+09.5	Darwin
GUM	Guam	+10.0	Melbourne, Rabaul
SYD	Sydney		
NOU	Noumea	+11.0	Port Vila
WLG	Wellington	+12.0	Christchurch, Nadi, Nauru Island

\*Based on data as of June 2005.