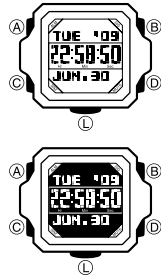


Operation Guide 3163

About This Manual

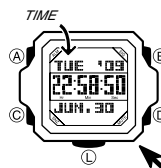


- Depending on the model of your watch, display text appears either as dark figures on a light background or light figures on a dark background. All sample displays in this manual are shown using dark figures on a light background.
- Button operations are indicated using the letters shown in the illustration.
- Each section of this manual provides you with the information you need to perform operations in each mode. Further details and technical information can be found in the "Reference" section.

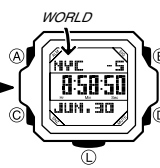
General Guide

- Press (C) to change from mode to mode.
- In any mode, press (L) to illuminate the display for about one second.
- Whenever there are too many characters to fit within the upper or lower display area, the characters will scroll automatically from right to left.

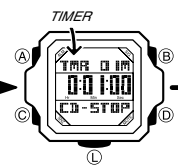
Timekeeping Mode



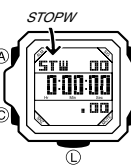
World Time Mode



Countdown Timer Mode



Stopwatch Mode



Alarm Mode



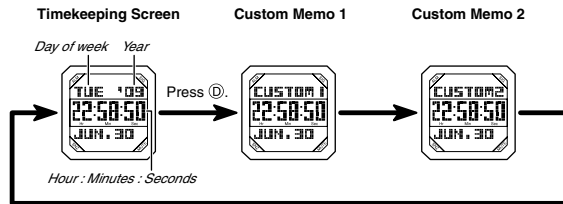
Timekeeping

- Use the Timekeeping Mode to set and view the current time and date.
- You can select from among four different date (day of the week, year, month, day) formats for the upper and lower parts of the display.
 - The calendar format for the upper display area depends on the currently selected display format for the lower display area. Pressing (B) will cycle through the available calendar formats as described below.

Example: Tuesday, June 30, 2009

When the date format (lower display area) is one of these settings:	Pressing (B) will cycle the calendar format (upper display area) between these settings:
MMM.DD (JUN.30)	DDD 'YY (TUE '09) → 'YY DDD ('09 TUE) → DDD (TUE) → YYYY (2009)
DD.MMM (30.JUN)	
MM-DD (06-30)	
DD-MM (30-06)	
DDD DD (TUE 30)	MMM 'YY (JUN '09) → 'YY MMM ('09 JUN) → MMM (JUN) → YYYY (2009)
DD DDD (30 TUE)	

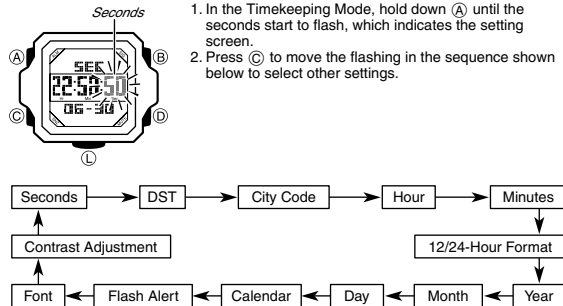
Pressing (D) in the Timekeeping Mode switches to the Custom Memo (1 and 2) screen.



Important!

- Be sure to select your Home City (the site where you normally will use the watch) and configure its current time and date settings before using the functions of this watch.

To set the time and date



- 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	
OFF	Toggle between Daylight Saving Time (ON) and Standard Time (OFF)	Press (D).
TYO +9	Change the city code	Use (D) (east) and (B) (west).
22:58	Change the hour or minutes	Use (D) (+) and (B) (-).
24H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press (D).
2009	Change the year	
06-30	Change the month or day	Use (D) (+) and (B) (-).
MM, DD	Change the calendar display.*	Use (D) and (B).
SYNCHRO	Configure the Flash Alert setting	See "Flash Alert".
TYPE-A	Change the font.**	Use (D) and (B).
CONT 4	Adjust display contrast	See "Contrast Adjustment".

* The following shows the available calendar display settings.

Example: Tuesday, June 30, 2009
 MMM.DD (JUN.30)
 DD.MMM (30.JUN)
 MM-DD (06-30)
 DD-MM (30-06)
 DDD DD (TUE 30)
 DD DDD (30 TUE)

** The following shows the available font settings.

TYPE-A: Bold
 TYPE-B: Narrow

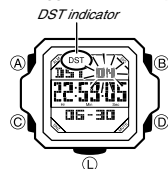
- See "Daylight Saving Time (DST)" for details about the DST setting.
- Press (A) to exit the setting screen.
- Resetting the seconds to 00 while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to 00 without changing the minutes.
- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.

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.

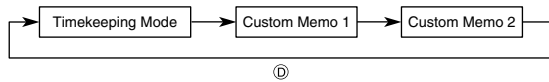
To toggle the Timekeeping Mode time between DST and Standard Time

- In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
 - Press (C) 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 display to indicate that Daylight Saving Time is turned on.



Custom Memo

Custom Memo lets you input and store two memos, each containing up to 14 characters. In the Timekeeping Mode, press **(D)** to cycle between the screens shown below.



- The following are the characters you can input for a Custom Memo.
0-9 A-Z () @ : ; . ! ? / ^ #
- The display can show up to seven characters of memo text at one time. If there are more than seven characters, the text will scroll from right to left once when you press **(D)** to display the memo. To scroll the text while Custom Memo 1 or Custom Memo 2 is displayed, press **(B)**.

To input memo text

- In the Timekeeping Mode, use **(D)** to select Custom Memo 1 or Custom Memo 2.
- Hold down **(A)** for about two seconds until the first character of the memo starts to flash.
 - This is the input screen.
- Use **(D)** (+) and **(B)** (-) to scroll through input characters at the current flashing position.
- When the character you want is displayed at the flashing position, press **(C)** to move the flashing to the next position to the right.
- Repeat steps 3 and 4 to input all of the characters you want.
 - To delete all currently input text, press **(D)** and **(B)** at the same time.
 - Pressing **(C)** while the flashing is located at the last (14th) character will cause it to move back to the first character.
- When the memo text is the way you want, press **(A)**.
 - This exits the input screen.

World Time

World Time shows the current time in 31 cities (31 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)**.

- World Time City code*
UTC
Differential
-
- World Time*
Month - Day
- 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 necessary changes.
 - You can change your Home City code in the Timekeeping Mode. For more information, see "To set the time and date".

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

- DST indicator*
-
- 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.
 - Hold down **(A)** for about two seconds 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 Standard Time/Daylight Saving 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 UTC is selected as the city code.

Countdown Timer

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

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



Timer Types

There are three different settings that you can use in order to configure the timer as describe below.

Timer Types	Screen	When the end of the countdown is reached
One-time Timer	CD-STOP	The original start time appears on the display and the countdown stops. This type of timer is best when you normally need to start the countdown from the same start time.
Countdown/Count Up Timer	CD-UP	An alert sounds and the watch starts an elapsed time measurement operation. The elapsed time operation is performed at one-second increments for up to 24 hours.
Auto Repeat Timer	CD-RPT	The timer automatically restarts a new countdown from the same start time.

Timer Start Time

You can use one of the watch's preset start times or you can set your own start time, if you want.

- **Preset Start Times:** You can select any one of the following fixed preset start times.
1 minute, 3 minutes, 5 minutes, 10 minutes, 15 minutes, 30 minutes, 45 minutes, 1 hour
- **Custom Timer:** You can set the start time you want.

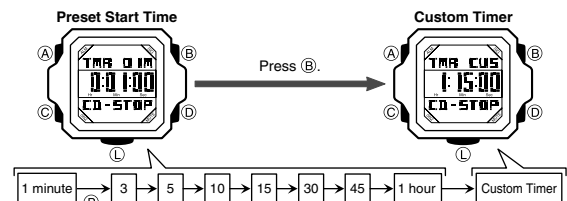
Timer Alarms

The watch beeps for about 10 seconds when the end of a countdown is reached. Pressing any button while the beeper is sounding stops it.

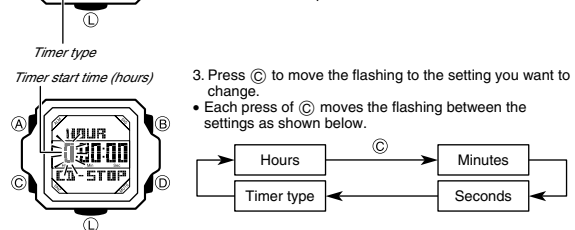
Setting the Timer

Using a preset timer: Display the screen for the preset start time you want and select the timer type.
Using a Custom Timer: Display the Custom Timer screen, set the start time and select the timer type.

- In the Countdown Timer Mode, press **(B)** to scroll through the start times and display a preset start time or the Custom Timer screen. Each press of **(B)** scrolls through the start time screens as shown below.



- Hold down **(A)** to display the setting screen.
 - If you displayed a preset start time, holding down **(A)** will cause the timer type to flash. Advance to "To select the timer type" in step 3.
 - If you displayed the Custom Timer, holding down **(A)** will cause the hour digit of the start time to flash. Advance to step 3.

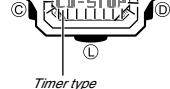


To set the start time hours, minutes, and seconds

- Use **(D)** (+) and **(B)** (-) to change the currently flashing setting.
- The start time can be set in 1-second increments up to 24 hours.
 - To configure a start time of 24 hours, set the start time as 0:00:00.

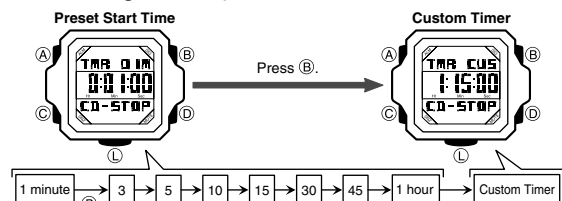
To select the timer type

- Use **(D)** to cycle through the timer type settings as shown below.
- CD-STOP: One-time Timer
 - CD-UP: Countdown/Count Up Timer
 - CD-RPT: Auto Repeat Timer



To use the countdown timer

- In the Countdown Timer Mode, press (B) to scroll through the start times and display a preset start time or the Custom Timer screen. Each press of (B) scrolls through the start time screens as shown below.



- Press (D) to start the countdown of the timer you selected in step 1.

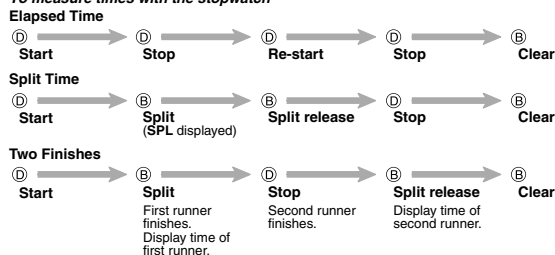
- The countdown timer operation continues even if you exit the Countdown Timer Mode.
- Press (D) while a countdown operation is in progress to pause it. Press (D) again to resume the countdown.
- To stop a countdown operation completely, first pause it (by pressing (D)), and then press (B). This returns the countdown time to its starting value.
- With the Countdown/Count Up Timer, an alert sounds and the watch starts an elapsed time measurement operation when the end of the countdown is reached. Pressing (D) will stop the elapsed time measurement operation. Pressing (B) while elapsed timing is stopped will reset the timer to its start time.

Stopwatch

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

- The display range of the stopwatch is 99 days, 23 hours, 59 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- 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).

To measure times with the stopwatch



Alarms

Your watch has five independent multi-function alarms. You can set the hour and minute for the alarm time, and you can select one of four repeat patterns (week day, weekend, daily, one-time). One of the alarms is a snooze alarm.

You also can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour. You can specify the Hourly Time Signal repeat pattern, and a start time and end time.

- There are five alarm screens, each of which shows an alarm name: **ALARM1** to **ALARM4**, and **SNOOZE**. The Hourly Time Signal is indicated by **SIGNAL**.
- When you enter the Alarm 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 Alarm Mode, which you enter by pressing (C).

To set an alarm time

- In the Alarm Mode, use (D) to scroll through the alarm screens until the one whose settings you want to configure is displayed.
 - Select alarm screen **ALARM1** through **ALARM4** to configure a normal alarm. Select the **SNOOZE** alarm screen to configure the snooze alarm.
 - 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 turns on the alarm automatically.

- 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.
 - You can select any one of the four alarm repeat patterns described below.

To configure the alarm to sound:	Select this setting:
Daily	DAILY
Once on the specified date only	ONCE
Daily on Saturday and Sunday	WEEKEND
Daily from Monday through Friday	WEEKDAY

- Press (A) to exit the setting screen.
 - With the 12-hour format, set the time correctly as a.m. or p.m.

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, until you turn the alarm off.

- Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode time.
- To stop the alarm tone after it starts to sound, press any button.
- When Flash Alert is turned on, the red and green LEDs at the bottom of the display will flash in time with the alarm beeper.
- 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
 - Displaying the Alarm Mode setting screen

To test the alarm

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

To turn an alarm on and off

Alarm on indicator

- In the Alarm Mode, use (D) to select an alarm.
- Press (B) to toggle it on (on) and off (– displayed).
- Turning on an alarm (**ALARM1** to **ALARM4**, or **SNOOZE**) 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.

On/Off status
Snooze alarm indicator

To configure Hourly Time Signal settings

Start time End time

- In the Alarm Mode, use (D) to display the Hourly Time Signal (**SIGNAL**) screen.
 - Hourly Time Signal times are displayed using the 24-hour time format.
- Hold down (A) until the Hourly Time Signal start time starts to flash. This is the setting screen.
 - This also will turn on the Hourly Time Signal.
- 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.
 - When the start time and end time settings specify a period that is 24 hours long (such as a start time of 7:00 a.m. and an end time of 6:00 a.m.), **ALL** is displayed.
 - If you set the same time for both the start time and end time (a single hourly time signal), only the start time will be displayed on the Hourly Time Signal screen. (Example: 8:00)
 - You can select any one of the three Hourly Time Signal repeat patterns described below.

To configure the Hourly Time Signal to sound:	Select this setting:
Daily	DAILY
Daily on Saturday and Sunday	WEEKEND
Daily from Monday through Friday	WEEKDAY

- Press (A) to exit the setting screen.
 - With the 12-hour format, set the time correctly as a.m. or p.m.(P).

To turn the Hourly Time Signal on or off

Hourly time signal on indicator

- In the Alarm Mode, use (D) to display the Hourly Time Signal (**SIGNAL**) screen.
- Press (B) to toggle the Hourly Time Signal on (**SIGNAL** (Check mark displayed.)) and off (**SIGNAL** (Check mark not displayed.)).
 - An Hourly Time Signal on indicator is on the Alarm Mode Hourly Time Signal screen while the Hourly Time Signal is on.
 - The Hourly Time Signal on indicator is on the display in all modes while the Hourly Time Signal is turned on.

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 for reading towards your face.

- The auto light switch must be enabled (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.

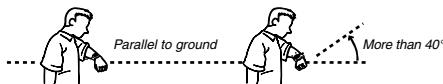
- The above operation turns on illumination regardless of the current auto light switch setting.

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 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 disabled 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 enable and disable the auto light switch

In the Timekeeping Mode, hold down (L) for about three seconds to toggle the auto light switch between enabled (auto light switch indicator displayed) and disabled (auto light switch indicator not displayed).

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

Reference

This section contains more detailed and technical information about watch operation. It also contains important precautions and notes about the various features and functions of this watch.

Auto Display



Auto Display cycles automatically through the screens of each mode.

To turn off Auto Display

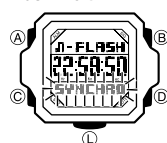
Press (A) or (C).

To turn on Auto Display

In the Timekeeping Mode, hold down (B) and (D) for about two seconds.

- Note that Auto Display cannot be turned on while a setting screen is on the display.

Flash Alert



When Flash Alert is on, the LED under the display will flash in time with the countdown alarm, alarms, and the Hourly Time Signal.

To turn Flash Alert on and off

1. In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
2. Press (C) ten times to display the Flash Alert setting screen.

3. Press (D) to toggle Flash Alert on (SYNCHRO displayed) and off (OFF displayed).
 4. Press (A) to exit the setting screen.
- The Flash Alert setting you select with the above procedure is applied in all modes.
 - You also can use the above procedure to check the current Flash Alert on/off setting.

Contrast Adjustment

You can adjust the contrast of the watch to make its display figures darker or lighter.

To adjust contrast

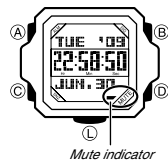
1. In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.
2. Press (C) 12 times to display the contrast adjustment (CONT) screen.
3. Use (D) (+) and (B) (-) to scroll through the available display format numbers (1 through 7).
4. Press (A) to exit the setting screen.

Button Operation Tone

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

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

To turn the button operation tone on and off



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

- Holding down (C) to turn the button operation tone on or off also causes the watch's current mode to change.
- The mute indicator is displayed in all modes when the button operation tone is turned off. The LED light will flash when you change modes.

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 exits the setting screen automatically.

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.

Initial Screens

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

Timekeeping

- The year can be set in the range of 2000 to 2099.
- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced.

World Time

- All World Time Mode times are calculated from the current Home City time in the Timekeeping Mode using UTC time differential values.
- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.
- 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 "Coordinated Universal Time", 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 alarm sounds.
- Frequent use of illumination runs down the battery.

Auto light switch precautions

- Avoid wearing the watch on the inside of your wrist. Doing so causes the auto light switch to operate when it is not needed, which shortens battery life. If you want to wear the watch on the inside of your wrist, disable the auto light switch feature.



- Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- Illumination turns off 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.

Specifications

Accuracy at normal temperature: ±15 seconds a month

Timekeeping: Hour, minutes, seconds, a.m./p.m., year, 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 31 city codes); Daylight Saving Time (summer time)/Standard Time

Custom Memo: 14 characters × 2

World Time: 31 cities (31 time zones)
 Other: Daylight Saving Time/Standard Time

Countdown Timer

Setting unit: 1 second
 Countdown unit: 1 second
 Countdown range: 24 hours
 Selection of One-time Timer, Countdown/Count Up Timer, or Auto Repeat Timer

Stopwatch

Measuring unit: 1/100 second
 Measuring capacity: 99 days, 23:59'59.99"
 Measuring modes: Elapsed Time, Split Times, Two Finishes

Alarm

5 multi-function* alarms: four one-time alarms; one snooze alarm
 * Four patterns (daily, once, weekend, weekday)
 Hourly Time Signal*
 * Start and stop time specification. Three patterns (daily, weekend, weekday)

Illumination: EL (electro-luminescent panel); Auto Light Switch

Other: Button operation tone on/off; Flash alert; Auto Display

Battery: One lithium battery (Type: CR2025) Approximately 5 years on type CR2025 (10 seconds of alarm operation per day, 1.5 seconds of illumination per day)

City Code Table

City Code	City	UTC Offset/ GMT Differential
PPG	Pago Pago	-11
HNL	Honolulu	-10
ANC	Anchorage	-9
LAX	Los Angeles	-8
DEN	Denver	-7
CHI	Chicago	-6
NYC	New York	-5
SCL	Santiago	-4
YYT	St. Johns	-3.5
RIO	Rio De Janeiro	-3
FEN	Fernando de Noronha	-2
RAI	Praia	-1
UTC		0
LON	London	
PAR	Paris	+1
CAI	Cairo	+2
JED	Jeddah	+3
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5
KTM	Kathmandu	+5.75
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 March 2008.
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.