Operation Guide 2941

CASIO

Getting Acquainted

Congratulations upon your selection of this CASIO watch. To get the most out of your purchase, be sure to read this manual carefully and keep it on hand for later reference when necessary.

Warning!

- The longitude, lunitidal interval, Moon phase indicator, and tide graph data that appear on the display of this watch are not intended for navigation purposes. Always use proper instruments and resources to obtain data for navigation purposes.
- This watch is not an instrument for calculating low tide and high tide times. The tide graph of this watch is intended to provide a reasonable approximation of tidal movements only.
- CASIO COMPUTER CO., LTD. assumes no responsibility for any loss, or any claims by third parties that may arise through the use of this watch.

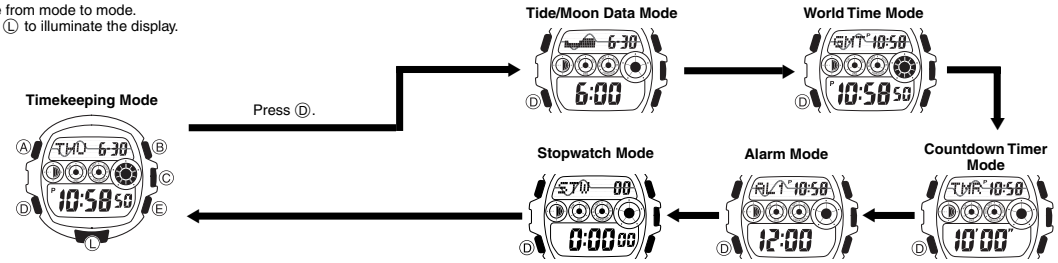
About This Manual

(Light)

- 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

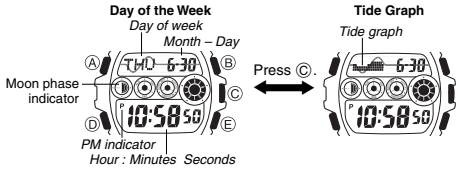
- Press Ⓓ to change from mode to mode.
- In any mode, press Ⓛ to illuminate the display.



Timekeeping

Use the Timekeeping Mode to set and view the current time and date. You can also use the Timekeeping Mode to select either audible beeper or vibration alert for alarms.

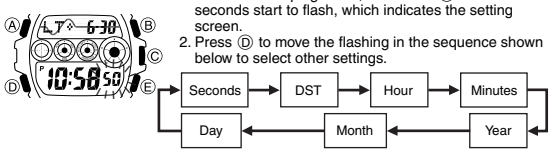
- The tide graph shows tidal movements for the current date in accordance with the current time as kept in the Timekeeping Mode.
- The Moon phase indicator shows the current Moon phase in accordance with the current date as kept in the Timekeeping Mode.
- In the Timekeeping Mode, you can press Ⓒ to change the display format as shown below.



Important!

- Moon phase, tide graph data, and Tide/Moon Data Mode data will not be displayed properly unless the Timekeeping Mode current date and time settings and Home Site data are configured correctly. See “Home Site Data” for more information.

To set the time and date



1. In the Timekeeping Mode, hold down Ⓐ until the seconds start to flash, which indicates the setting screen.
2. Press Ⓓ to move the flashing in the sequence shown below to select other settings.
3. When the setting you want to change is flashing, use Ⓔ and Ⓑ to change it as described below.

To change this setting	Perform this button operation
Seconds	Press Ⓔ to reset to 00.
DST	Press Ⓔ to toggle between Standard Time (OFF) and Daylight Saving Time (ON).
Hour, Minutes, Year, Month, Day	Use Ⓔ (+) and Ⓑ (–) to change the setting.

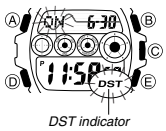
4. Press Ⓐ twice to exit the setting screen.

- The first press of Ⓐ displays the GMT differential setting screen. Pressing Ⓐ again exits the setting screen.
- See “Daylight Saving Time (DST)” for details about the DST setting.
- For information about specifying how long the display of the watch remains illuminated, see “To specify the illumination duration”.
- 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 digital time between DST and Standard Time



1. In the Timekeeping Mode, hold down Ⓐ until the seconds start to flash, which indicates the setting screen.
2. Press Ⓓ once and the DST setting screen appears.
3. Press Ⓔ to toggle between Daylight Saving Time (ON displayed) and Standard Time (OFF displayed).
4. Press Ⓐ twice to exit the setting screen.

- The **DST** indicator appears on the display to indicate that Daylight Saving Time is turned on.

To toggle between 12-hour and 24-hour timekeeping

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

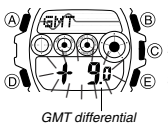
- With the 12-hour format, the **P** (PM) indicator appears on the display for times in the range of noon to 11:59 p.m. and no indicator appears for times in the range of midnight to 11:59 a.m.
- With the 24-hour format, times are displayed in the range of 0:00 to 23:59, without any indicator.
- The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all modes.

Home Site Data

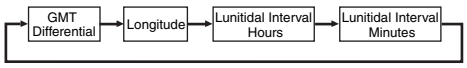
Tide graph data will not be displayed properly unless Home Site data (GMT differential, longitude, and lunitidal interval) is configured correctly.

- The GMT differential is the time difference of the time zone where the site is located from Greenwich Mean Time.
- The lunitidal interval is the time elapsing between the Moon’s transit over a meridian and the next high tide at that meridian. See “Lunitidal Interval” for more information.
- This watch displays lunitidal intervals in terms of hours and minutes.
- The “Site/Lunitidal Interval Data List” provides GMT differential, longitude, and lunitidal interval information around the world.
- The following is the initial factory default Home Site data (Tokyo, Japan) when you first purchase the watch and whenever you have the battery replaced. Change these settings to match the area where you normally use the watch.
  GMT differential (+9.0); Longitude (East 140 degrees); Lunitidal interval (5 hours, 20 minutes)

To configure Home Site data



1. In the Timekeeping Mode, hold down Ⓐ until the seconds start to flash, which indicates the setting screen.
2. Press Ⓐ again to display the GMT differential setting screen.
3. Press Ⓓ to move the flashing in the sequence shown below to select other settings.



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

Setting	Screen	Button Operations
GMT Differential	GMT + 9.0	Use Ⓔ (+) and Ⓑ (–) to change the setting. • You can specify a value in the range of –11.0 to +14.0, in 0.5-hour units.
Longitude	LONG 140° E	Use Ⓔ (+) and Ⓑ (–) to change the setting. • You can specify a value in the range of 179°W to 180°E, in 1-degree units.
Lunitidal Interval Hours, Minutes	INT 5:20	Use Ⓔ (+) and Ⓑ (–) to change the setting.

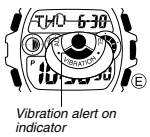
5. Press Ⓐ to exit the setting screen.

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.

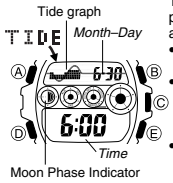
- Vibration Alert can be used to replace alarm sounds.
- For information about selecting the alert type, see “To switch between vibration alert and beeper alert” below.
- For information about countdown timer alerts, see “Countdown Timer”.
- For information about the daily alarm and hourly time signal alerts, see “Alarms”.
- 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 the Timekeeping Mode, hold down Ⓔ for about two seconds to toggle between vibration alert (the vibration alert on indicator displayed in all modes) and beeper alert (the vibration alert on indicator not displayed).

Tide/Moon Data



Tide/Moon data lets you view the Moon phase for a particular date, and tidal movements for a particular date and time for the Home Site.

- When you enter the Tide/Moon Data Mode, the data for 6:00 a.m. on the current date appears first.
- If you suspect that the Tide/Moon data is not correct for some reason, check the Timekeeping Mode data (current time, date, and Home Site settings), and make changes as required.
- See "Moon Phase Indicator" for information about the Moon phase indicator and "Tide Graph" for information about the tide graph.
- All of the operations in this section are performed in the Tide/Moon Data Mode, which you enter by pressing Ⓓ.

To view the Moon data for a particular date

In the Tide/Moon Data Mode, use Ⓔ (+) and Ⓑ (–) to display the date whose Moon data you want to view.

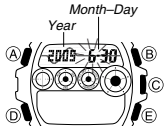
- You can select any date from 2000 to 2039.
- You can also specify a date for tide data or Moon data. For details, see "To specify a date".

To view tide data for a particular time

1. In the Tide/Moon Data Mode, use Ⓔ (+) and Ⓑ (–) to display the date whose tide data you want to view.
   - The initial screen shows the tide graph for 6:00 AM.
2. Specify the time for which you want to display tide data.

- Use Ⓒ (+) to change the time in one-hour steps.

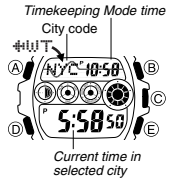
To specify a date



1. In the Tide/Moon Data Mode, hold down Ⓐ until the month setting starts to flash, which indicates the setting screen.
2. Press Ⓓ to move the flashing in the sequence shown below to select the other settings.

3. While a setting is flashing, use Ⓔ (+) or Ⓑ (–) to change it.
   - You can specify a date in the range of January 1, 2000 to December 31, 2039.
4. Press Ⓐ to exit the setting screen.

World Time



The World Time Mode shows you the current time in 28 cities (29 time zones) around the world.

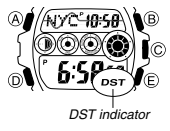
- The time settings of the Timekeeping Mode and the World Time Mode are independent from each other, so you must make separate settings for each.
- Whenever you change the time setting for any city in the World Time Mode, the settings of all other cities are changed accordingly.
- All of the operations in this section are performed in the World Time Mode, which you enter by pressing Ⓓ.

To view the time in another city

While in the World Time Mode, press Ⓔ to scroll through the city codes (time zones) eastwardly or Ⓑ to scroll westwardly.

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

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



1. In the World Time Mode, use Ⓑ and Ⓔ to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
2. Hold down Ⓒ to toggle Daylight Saving Time (**DST** indicator displayed) and Standard Time (**DST** indicator not displayed).

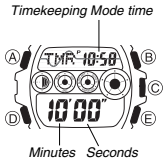
- Note that you cannot switch between Standard Time and Daylight Saving Time while GMT is selected as the city code.
- The **DST** indicator will appear whenever you display a city code for which Daylight Saving Time is turned on.
- Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.

To set the current time in the World Time Mode

1. In the World Time Mode, use Ⓔ and Ⓑ to select the city code whose time you want to set.
2. After you select a city code, hold down Ⓐ until the hour setting of the World time starts to flash, which indicates the setting screen.
3. Use Ⓓ to move the flashing between the hour and minute settings.
4. When the setting you want to change is flashing, use Ⓔ (+) and Ⓑ (–) to change it.
   - When setting the world 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 Ⓐ to exit the setting screen.

- Note that you cannot make settings for individual city codes. Daylight Saving Time (summer time) advances the time setting of all the World Time Mode cities by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

Countdown Timer



The countdown timer can be set within a range of one minute to 60 minutes. The currently selected alert operation (beeper or vibration) is performed when the end of the countdown is reached. The countdown timer has two modes: auto-repeat and elapsed time. A progress alert (beeper or vibration) signals the progress of the countdown. All of this makes the countdown timer a valuable tool for timing the start of a yacht race.

- You can select either beeper alert or vibration alert for the alarm. The explanations in this section are based on the beeper alert, unless stated otherwise.
- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing Ⓓ.

Configuring Countdown Timer Settings

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

Countdown start time and reset time
Timer mode (auto-repeat, elapsed time)

- See "To configure countdown timer settings" for information about setting up the timer.

Reset Time

You can set a "reset time," which is a kind of alternate countdown start time. After you set a reset time, you can recall with the press of a button any time a countdown operation is in progress.

Timer Mode

The countdown timer gives you a choice of two modes: auto-repeat and elapsed time.

Auto-repeat

Auto-repeat automatically restarts the countdown from the countdown start time whenever zero is reached.

- Auto-repeat mode is best when timing the starts of match races.
- Even if you start a countdown operation from the reset time, the countdown automatically restarts from the countdown start time whenever it reaches zero.
- Auto repeat timing repeats up to seven times.

Elapsed Time

When the end of the countdown is reached in the elapsed time mode, the timer automatically switches to an elapsed time measurement operation.

- The elapsed time mode is best when timing the speed of yachts during ocean races.
- The elapsed time operation is performed in one-second increments up to 99 hours, 59 minutes, 59 seconds.

Countdown Timer Alert Operations

While a countdown is in progress, the watch performs various different alert operations, so you can keep informed of the countdown status, without looking at the watch display. The following explains each of the countdown timer alert operations.

Countdown End Alert

The following countdown alert operations are performed for each of the final ten seconds of the countdown, and when the countdown reaches zero.

Countdown	Beep	Vibration
Final seconds 10 through 6 (5 times)	High pitch	2 each
Final seconds 5 through 1 (5 times)	Lower pitch	1 each
When the countdown reaches zero	Longer beep	Longer vibration

- Except in the Stopwatch Mode, all buttons are disabled while a countdown end alert operation is being performed.

Progress Alert

There are two types of progress alert: a reset time alert and a reset period progress alert.

Reset Time Alert

The reset time alert is similar to the alert operations performed for each of the final 10 seconds of a countdown. For the reset time alert, the watch performs an alert operation for each of the final 10 seconds before the reset time is reached.

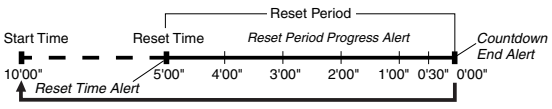
- Except in the Stopwatch Mode, all buttons are disabled while a reset time alert is being performed.

Reset Period Progress Alert

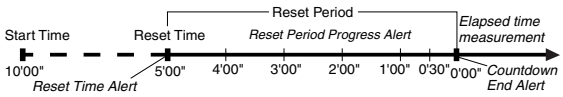
The reset period is the portion of the countdown between the reset time and zero. During the reset period, the watch performs an alert operation at the top of each minute, and at the point 30 seconds before the end of the countdown is reached. Each reset period progress alert operation consists of four short beeps or two vibrations, depending on the type of alert that is selected.

Countdown Timer Examples

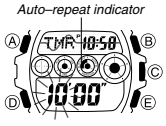
Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Auto-repeat



Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Elapsed time



To configure countdown timer settings



1. While the countdown start time is on the display in the Countdown Timer Mode, hold down Ⓐ until the countdown start time setting 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" to display it.
2. Press Ⓓ to move the flashing in the sequence shown below to select other settings.

3. When the setting you want to change is flashing, use Ⓔ and Ⓑ to change it as described below.

Setting	Screen	Button Operations
Start Time		Use Ⓔ (+) and Ⓑ (–) to change the setting. • You can set a start time in the range of 1 to 60 minutes in 1-minute increments.
Reset Time		Use Ⓔ (+) and Ⓑ (–) to change the setting. • You can set a reset time in the range of 1 to 5 minutes in 1-minute increments.
Timer Mode		Press Ⓔ to toggle between the auto-repeat mode ( ) and the elapsed time mode (⟶). • An auto-repeat indicator appears when the auto-repeat mode is selected.

4. Press Ⓐ to exit the setting screen.
• The reset time setting must be less than the countdown start time setting.

To use the countdown timer

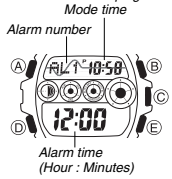
In the Countdown Timer Mode, press Ⓒ to start the countdown timer.
• The countdown timer measurement operation continues even if you exit the Countdown Timer Mode.
• The table below describes button operations you can perform to control countdown operations.

To do this:	Do this:
Stop the countdown operation	Press Ⓒ.
Resume a stopped countdown operation	Press Ⓒ again.
Display the countdown start time	While the countdown is stopped, press Ⓑ.
Stop the countdown operation and display the reset time	Press Ⓑ.
Start the countdown from the displayed reset time	Press Ⓒ.

• The table below describes button operations you can perform during an elapsed time measurement operation in the elapsed time mode.

To do this:	Do this:
Stop the elapsed time operation	Press Ⓒ.
Resume a stopped elapsed time operation	Press Ⓒ again.
Display the countdown start time	While the elapsed time is stopped, press Ⓑ.
Stop the elapsed time operation and display the reset time	Press Ⓑ.
Start the countdown from the displayed reset time	Press Ⓒ.

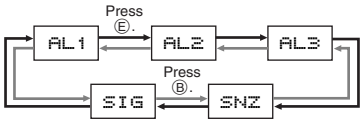
Alarms



The Alarm Mode gives you a choice of three one-time alarms and one snooze alarm.
When an alarm is turned on, an alert operation (beep or vibration) is performed when the alarm time is reached. You can also turn on an Hourly Time Signal (SIG) that causes the watch to beep or vibrate every hour on the hour.
• There are four alarms numbered AL1 through AL3, and SNZ. You can configure SNZ as a snooze alarm only. Alarms AL1 through AL3 can be used as one-time alarms only.
• All of the operations in this section are performed in the Alarm Mode, which you enter by pressing Ⓓ.

To set an alarm time

1. In the Alarm Mode, use Ⓔ (+) and Ⓑ (–) to scroll through the alarm screens until the one whose time you want to set is displayed.



2. After you select an alarm, hold down Ⓐ until the hour setting of the alarm time starts to flash, which indicates the setting screen.
• This operation automatically turns on the alarm.
3. Use Ⓓ to move the flashing between the hour and minute settings.
4. While a setting is flashing, use Ⓔ (+) and Ⓑ (–) to change it.
5. Press Ⓐ to exit the setting screen.
• 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).

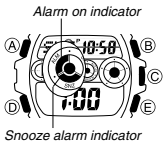
Alarm Operation

The alert operation (beep or vibration) is performed at the preset time for about 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alert operation is performed a total of seven times, every five minutes, or until you turn the alarm off.
• Pressing any button stops the alert operation.
• 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 snooze alarm setting screen

To test the alarm

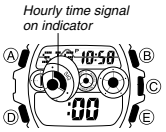
In the Alarm Mode, hold down Ⓔ to perform the currently selected Alarm Mode alert operation.

To turn an alarm on and off



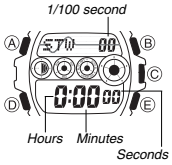
1. In the Alarm Mode, use Ⓔ and Ⓑ to select an alarm.
2. Press Ⓒ to toggle it on and off.
• Turning on a one-time alarm (AL1, AL2, AL3) displays the alarm on indicator on its Alarm Mode screen. Turning on the snooze alarm (SNZ) displays the alarm on indicator and the snooze alarm indicator on its Alarm Mode screen.
• In all modes, the alarm on indicator is displayed for any alarm that is currently turned on. When the snooze alarm is on, the snooze alarm indicator is displayed in all modes.
• The alarm on indicator flashes while an alert operation is being performed.
• The snooze alarm indicator flashes during the 5-minute intervals between alarms.

To turn the Hourly Time Signal on and off



1. In the Alarm Mode, use Ⓔ and Ⓑ to select the Hourly Time Signal (SIG).
2. Press Ⓒ to toggle it on (Hourly Time Signal on indicator displayed) and off (Hourly Time Signal on indicator not displayed).
• The Hourly Time Signal on indicator is displayed in all modes when the Hourly Time Signal is turned on.

Stopwatch



The stopwatch lets you measure elapsed time, split times, and two finishes.
• The display range of the stopwatch is 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 Ⓓ.

To measure times with the stopwatch

Elapsed Time

Ⓒ Start → Ⓒ Stop → Ⓒ Re-start → Ⓒ Stop → Ⓑ Clear

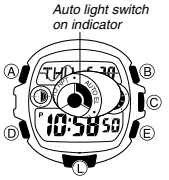
Split Time

Ⓒ Start → Ⓑ Split (**SPL** displayed) → Ⓑ Split release → Ⓒ Stop → Ⓑ Clear

Two Finishes

Ⓒ Start → Ⓑ Split (First runner finishes. Display time of first runner.) → Ⓒ Stop (Second runner finishes.) → Ⓑ Split release (Display time of second runner.) → Ⓑ Clear

Illumination



The 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 automatically illuminates the display 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" for other important information about using illumination.

To turn on illumination manually

In any mode, press Ⓛ to illuminate the display.
• You can specify 1.5 seconds or 3 seconds as the illumination duration. See "To specify the illumination duration" for more information.
• The above operation turns on illumination regardless of the current auto light switch setting.

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 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 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 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 any mode, hold down Ⓛ for about two seconds to toggle the auto light switch on (auto light switch on indicator displayed) and off (auto light switch on indicator not displayed).

- In order to protect against runnning 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.
- The auto light switch on indicator is on the display in all modes while the auto light switch is turned on.

To specify the illumination duration

1. In the Timekeeping Mode, hold down Ⓐ until the seconds start to flash, which indicates the setting screen.
2. Press Ⓑ to toggle the illumination duration setting between 3 seconds (✻) and 1.5 seconds (✧).
3. Press Ⓐ to exit the setting screen.

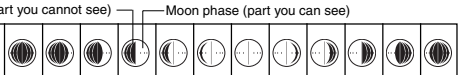
Reference

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.

Moon Phase Indicator

The Moon phase indicator of this watch indicates the current phase of the Moon as shown below.

(part you cannot see) — Moon phase (part you can see)

Moon Phase Indicator												
Moon Age	0, 1, 29	2 - 4	5, 6	7, 8	9, 10	11-13	14-16	17-19	20, 21	22, 23	24, 25	26-28
Moon Phase	New Moon			First Quarter (Waxing)			Full Moon			Last Quarter (Waning)		

- The Moon phase indicator shows the Moon as viewed at noon from a position in the Northern Hemisphere looking south. Note that at times the image shown by the Moon phase indicator may differ from that of the actual Moon in your area.
- The left-right orientation of the Moon phase is reversed when viewing from the Southern Hemisphere or from a point near the equator.

Moon Phases and Moon Age

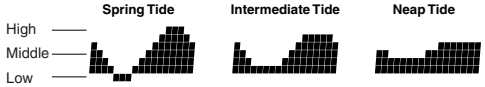
The Moon goes through a regular cycle that averages 29.53 days. During each cycle, the Moon appears to wax and wane as the relative positioning of the Earth, Moon, and Sun changes. The greater the angular distance between the Moon and the Sun,* the more we see illuminated.

** The angle to the Moon in relation to the direction at which the Sun is visible from the Earth.*

This watch performs a rough calculation of the current Moon age starting from day 0 of the moon age cycle. Since this watch performs calculations using integer values only (no fractions), the margin for error of the displayed Moon age is ±3 days.

Tide Graph

The Tide Graph screen shows one of three different waveforms to indicate spring tide, intermediate tide, or neap tide as the current tide pattern. In addition, the current tide level is indicated within the displayed tide pattern as a column of flashing dots.



- Spring Tide: Tides occurring at new and full Moons, when the range between high and low tide is greatest.
- Neap Tide: Tides occurring at first and third Moon quarters, when the range between high tide and low tide is smallest.
- Intermediate Tide: Indicates tide at the midpoint between spring tide and neap tide.

Tidal Movements

Tides are the periodic rise and fall of the water of oceans, seas, bays, and other bodies of water caused mainly by the gravitational interactions between the Earth, Moon and Sun. Tides rise and fall about every six hours. The tide graph of this watch indicates tidal movement based on the Moon's transit over a meridian and the lunitidal interval. The lunitidal interval differs according to your current location, so you must specify a lunitidal interval in order to obtain the correct tide graph readings.

- The tide graph displayed by this watch is based on the current Moon age. Remember that the margin for error of the Moon age displayed by this watch is ±3 days. The greater the error in a particular Moon age, the greater the error in the resulting tide graph.

Lunitidal Interval

Theoretically, high tide is at the Moon's transit over the meridian and low tide is about six hours later. Actual high tide occurs somewhat later, due to factors such as viscosity, friction, and underwater topography. Both the time differential between the Moon's transit over the meridian until high tide and the time differential between the Moon's transit over the meridian until low tide are known as the "lunitidal interval." When setting the lunitidal interval for this watch, use the time differential between the Moon's transit over the meridian until high tide.

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 saves any settings you have made up to that point and exits the setting screen.

Scrolling

The Ⓑ and Ⓔ 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.

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** (PM) 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 battery replaced.

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 automatically turns off whenever an alarm operation (beep and vibration) is performed.
- Frequent use of illumination runs down the battery.

Auto light switch precautions

- Wearing the watch on the inside of your wrist, movement of your arm, or vibration of your arm can cause frequent activation of the auto light switch and illumination of the display. To avoid running down the battery, turn off the auto light switch whenever engaging in activities that might cause frequent illumination of the display.

More than 15 degrees too high

- Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
- Illumination turns off after the preset illumination duration (see "To specify the illumination duration"), 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	GMT Differential	Other major cities in same time zone
PPG	Pago Pago	–11.0	
HNL	Honolulu	–10.0	Papeete
ANC	Anchorage	–09.0	Nome
LAX	Los Angeles	–08.0	San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City
DEN	Denver	–07.0	El Paso, Edmonton
CHI	Chicago	–06.0	Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg
NYC	New York	–05.0	Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota
CCS	Caracas	–04.0	La Paz, Santiago, Port Of Spain
RIO	Rio De Janeiro	–03.0	Sao Paulo, Buenos Aires, Brasilia, Montevideo
– – –		–02.0	
– – –		–01.0	Praia
GMT		+00.0	Dublin, Lisbon, Casablanca, Dakar, Abidjan
LON	London		
PAR	Paris	+01.0	Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Berlin, Frankfurt, Vienna, Stockholm
CAI	Cairo	+02.0	Helsinki, Istanbul, Beirut, Damascus, Cape Town, Athens
JRS	Jerusalem		
JED	Jeddah	+03.0	Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow
THR	Tehran	+03.5	Shiraz
DXB	Dubai	+04.0	Abu Dhabi, Muscat
KBL	Kabul	+04.5	
KHI	Karachi	+05.0	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
HKG	Hong Kong	+08.0	Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Perth, Ulaanbaatar
TYO	Tokyo	+09.0	Seoul, Pyongyang
ADL	Adelaide	+09.5	Darwin
SYD	Sydney	+10.0	Melbourne, Guam, Rabaul
NOU	Noumea	+11.0	Port Vila
WLG	Wellington	+12.0	Christchurch, Nadi, Nauru Island

- Based on data as of June 2004.

Site/Lunitidal Interval Data List

Site	GMT Differential		Longitude	Lunitidal Interval
	Standard Time	DST/ Summer Time		
Anchorage	–9.0	–8.0	149°W	5:40
Bahamas	–5.0	–4.0	77°W	7:30
Baja, California	–7.0	–6.0	110°W	8:40
Bangkok	+7.0	+8.0	101°E	4:40
Boston	–5.0	–4.0	71°W	11:20
Buenos Aires	–3.0	–2.0	58°W	6:00
Casablanca	+0.0	+1.0	8°W	1:30
Christmas Island	+14.0	+15.0 (★)	158°W	4:00
Dakar	+0.0	+1.0	17°W	7:40
Gold Coast	+10.0	+11.0	154°E	8:30
Great Barrier Reef, Cairns	+10.0	+11.0	146°E	9:40
Guam	+10.0	+11.0	145°E	7:40
Hamburg	+1.0	+2.0	10°E	4:50
Hong Kong	+8.0	+9.0	114°E	9:10

★This watch does not support a GMT differential of +15.0.

Site	GMT Differential		Longitude	Lunitidal Interval
	Standard Time	DST/ Summer Time		
Honolulu	–10.0	–9.0	158°W	3:40
Jakarta	+7.0	+8.0	107°E	0:00
Jeddah	+3.0	+4.0	39°E	6:30
Karachi	+5.0	+6.0	67°E	10:10
Kona, Hawaii	–10.0	–9.0	156°W	4:00
Lima	–5.0	–4.0	77°W	5:20
Lisbon	+0.0	+1.0	9°W	2:00
London	+0.0	+1.0	0°E	1:10
Los Angeles	–8.0	–7.0	118°W	9:20
Maldives	+5.0	+6.0	74°E	0:10
Manila	+8.0	+9.0	121°E	10:30
Mauritius	+4.0	+5.0	57°E	0:50
Melbourne	+10.0	+11.0	145°E	2:10
Miami	–5.0	–4.0	80°W	7:30
Noumea	+11.0	+12.0	166°E	8:30
Pago Pago	–11.0	–10.0	171°W	6:40
Palau	+9.0	+10.0	135°E	7:30
Panama City	–5.0	–4.0	80°W	3:00
Papeete	–10.0	–9.0	150°W	0:10
Rio De Janeiro	–3.0	–2.0	43°W	3:10
Seattle	–8.0	–7.0	122°W	4:20
Shanghai	+8.0	+9.0	121°E	1:20
Singapore	+8.0	+9.0	104°E	10:20
Sydney	+10.0	+11.0	151°E	8:40
Tokyo	+9.0	+10.0	140°E	5:20
Vancouver	–8.0	–7.0	123°W	5:10
Wellington	+12.0	+13.0	175°E	4:50

•*Based on data as of 2003.*