# Operation Guide 5299

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.

Warning!
- The measurement functions built into this watch are not intended for taking measurements that require professional or industrial precision. Values produced by this watch should be considered as reasonable representations only.
- The 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.
- Note that CASIO COMPUTER CO., LTD. assumes no responsibility for any damage or loss suffered by you or any third party arising through the use of this product or its malfunction.

About This Manual

Type A   **Type B**
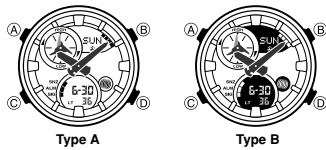
- Depending on the model of your watch, display text appears either as dark figures on a light background (Type A) or light figures on a dark background (Type B). All sample displays in this manual are shown using dark figures on a light background.
- Button operations are indicated using the letters 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.

Contents

Procedure Lookup

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

General Guide

- Press C to change from mode to mode.
- To return to the Timekeeping Mode from any other mode, hold down C for about three seconds.
- In any mode (except a setting mode), press B to illuminate the display.

Thermometer Mode (page E-16)
Timekeeping Mode
Tide/Moon Data Mode (page E-23)
Stopwatch Mode (page E-34)
Countdown Timer Mode (page E-37)
Alarm Mode (page E-44)
World Time Mode (page E-40)
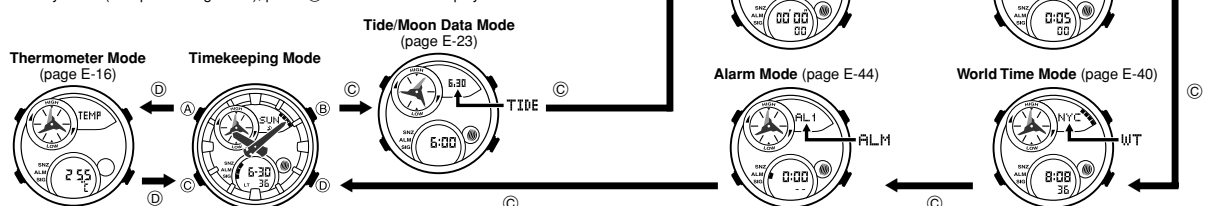
Timekeeping

You can adjust the Home city date and time in the Timekeeping Mode.
• Pressing Ⓐ in the Timekeeping Mode will toggle the lower display between the screens shown below.

Home City Date

Day of the week

Date *Seconds*

Home City Time

Day of the week

PM indicator *Seconds*
Hour : Minutes

To set the time and date

City code

1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until **SET** appears on the lower display. This is the setting mode.
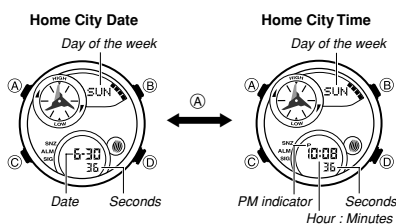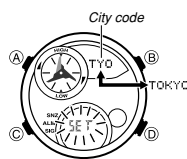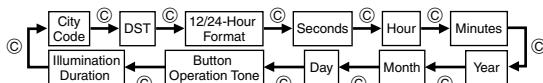   • Note that keeping Ⓐ depressed too long (for about five seconds) will cause a different type of setting mode to be entered (page E-53).
2. Use Ⓓ and Ⓑ to select the city code you want.
   • Make sure you select your Home City code before changing any other setting.
   • For full information on city codes, see the "City Code Table" at the back of this manual.

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

City Code → DST → 12/24-Hour Format → Seconds → Hour → Minutes
Illumination Duration ← Button Operation Tone ← Day ← Month ← Year

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

Screen:	To do this:	Do this:
TYO:TOKYO	Change the city code	Use Ⓓ (east) and Ⓑ (west).
OFF	Toggle the DST setting between Daylight Saving Time (ON) and Standard Time (OFF).	Press Ⓓ.

| Screen:	To do this:	Do this:
12H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press Ⓓ.
36	Reset the seconds to 00	Press Ⓓ.
P 10:08	Change the hour and minutes	Use Ⓓ (+) and Ⓑ (−).
2013 6-30	Change the year, month, or day	
MUTE	Toggle the button operation tone between KEY♪ (on) and MUTE (off)	Press Ⓓ.
1	Toggle the display illumination duration between 1.5 seconds (1) and three seconds (3)	Press Ⓓ.

5. Press Ⓐ to exit the setting mode.
• 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 change the Daylight Saving Time (summer time) setting

1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until **SET** appears on the display.
   • Note that keeping Ⓐ depressed too long (for about five seconds) will cause a different type of setting mode to be entered (page E-53).
2. Press Ⓒ. This will display the DST setting screen.
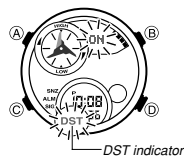
DST indicator

3. Use Ⓓ to toggle the DST setting on and off.

DST off (OFF) ⇄ DST on (ON)
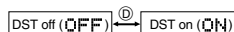
• The default DST setting is OFF (OFF).
4. When the setting you want is selected, press Ⓐ to exit the setting mode.
• The DST indicator appears to indicate that Daylight Saving Time is turned on.

12-hour and 24-hour timekeeping

• With the 12-hour format, the PM indicator (**P**) appears on the lower 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 the PM indicator (**P**).
• The 12-hour/24-hour timekeeping format you select in the Timekeeping Mode is applied in all other modes.

Thermometer

This watch uses a temperature sensor to take temperature readings.

To take a temperature reading

1. In the Timekeeping Mode, press Ⓓ to enter the Thermometer Mode and start a temperature reading operation.
   • The first temperature reading will take about three seconds. After that, readings are taken at two-second intervals for the first two minutes, and then at two-minute intervals after that.
   • The displayed temperature will be updated with each reading.
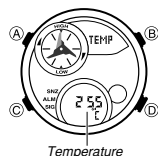
Temperature

2. To stop the temperature reading operation, press Ⓓ to return to the Timekeeping Mode.
• The watch will stop taking temperature readings and return to the Timekeeping Mode automatically if you do not perform any operation for about one or two hours.

Temperature

• Temperature is displayed in units of 0.1°C (or 0.2°F).
• The displayed temperature value changes to **- - -** °C (or °F) if a measured temperature falls outside the range of −10.0°C to 60.0°C (14.0°F to 140.0°F). The temperature value will reappear as soon as the measured temperature is within the allowable range.

Display Units

You can select either Celsius (°C) or Fahrenheit (°F) for the displayed temperature value. See "To specify the temperature unit" (page E-21) for more information.

Temperature Sensor Calibration

The watch's temperature sensor is calibrated at the factory and normally requires no further adjustment. If you notice serious errors in the temperature readings produced by the watch, you can calibrate the sensor to correct the errors.

Important!
• Incorrectly calibrating the temperature sensor can result in incorrect readings. Carefully read the following before doing anything.
  – Compare the readings produced by the watch with those of another reliable and accurate thermometer.
  – If adjustment is required, remove the watch from your wrist and wait for 20 or 30 minutes to give the temperature of the watch time to stabilize.

To calibrate the temperature sensor

1. Enter the Thermometer Mode, which will start a temperature reading operation and display the results (page E-16).
2. Hold down Ⓐ for about two seconds.
   • Holding down Ⓐ will initially cause **Hold** to appear on the screen. Keep Ⓐ depressed until **Hold** disappears.
   • This will cause the temperature reading operation to re-start, and display the sensor calibration screen shown in the illustration nearby.
3. Use Ⓓ (+) and Ⓑ (−) to change the displayed calibration by 0.1°C (0.2°F) steps.
   • To return the currently flashing value to its initial factory default setting, press Ⓓ and Ⓑ at the same time. **OFF** will appear in place of the flashing temperature value for about two seconds, followed by the initial default value.
4. Press Ⓐ to return to the Thermometer Mode screen and take temperature readings.

Thermometer Precautions
- Temperature measurements are affected by your body temperature (while you are wearing the watch), direct sunlight, and moisture. To achieve a more accurate temperature measurement, remove the watch from your wrist, place it in a well ventilated location out of direct sunlight, and wipe all moisture from the case. It takes approximately 20 to 30 minutes for the case of the watch to reach the actual surrounding temperature.

Specifying Temperature Unit
Use the procedure below to specify the temperature unit to be used in the Thermometer Mode.
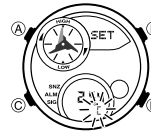
Important!
When **TOKYO** is selected as the Home City, the temperature unit is set automatically to Celsius (**°C**). These settings cannot be changed.

To specify the temperature unit
1. While the temperature sensor calibration screen is displayed (page E-19), press Ⓒ to toggle between the temperature units as shown in the nearby illustration.
2. Press Ⓓ to toggle the temperature unit between **°C** (Celsius) and **°F** (Fahrenheit).
3. After the setting is the way you want, press Ⓐ to exit the setting screen.

Temperature Reading Precautions
When taking temperature readings, it is best to remove the watch from your wrist in order to eliminate the effects of body heat. Remove the watch from your wrist and allow it to hang freely from your bag or in another location where it is not exposed to direct sunlight.

Tide and Moon Data
You can use the watch to check the current tide, Moon phase, and Moon age in your area.
- Basic calculations to determine this data is performed based on your current Home City setting (page E-11). You can also check the tide and Moon data in another location by temporarily selecting the applicable city as your Home City.
- Note that the tide and Moon data calculated by this watch are approximate and are intended as general information only. Never try to use it for marine navigation or any other purposes requiring accurate measurements.

To view current tide and Moon data

Moon phase indicator (pages E-28, E-32)

Tide Graph
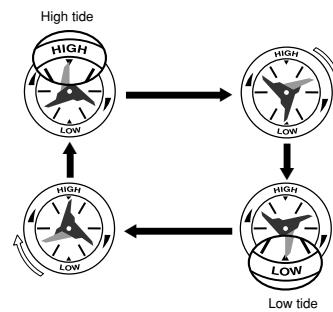The tide is indicated as shown on the next page.

The current tide[1] and Moon phase[2] are displayed in the Timekeeping Mode (page E-8).
[1] Shows the tide for the displayed date and time.
[2] Shows the Moon phase for the displayed date. The Moon phase shows the phase at noon of the displayed date. The current time does not affect the displayed Moon phase.
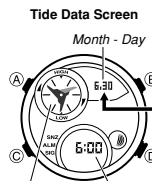
High tide

Low tide

Viewing Tide and Moon Data for a Particular Date and Time
In the Tide/Moon Data Mode (page E-8), you can view the tide and moon phase for a particular date and time. You can also view the applicable moon age in this mode (which is not shown in the Timekeeping Mode).
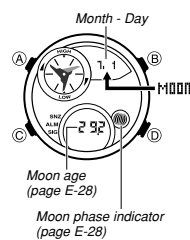
Tide Data Screen

Month - Day

Tide Graph (page E-25)   *Time*

1. Entering the Tide/Moon Data Mode displays the Tide Data Screen and indicates the tide for the current date at 6:00 a.m.
   - You can check the tide for another date by performing steps 3 through 5 below before performing step 2. You cannot change the date while the Tide Data Screen is displayed.
2. Use Ⓓ to change the time setting.
   - Each press of Ⓓ advances the time by one hour and calculates tide data for that time. Holding down Ⓓ for about two seconds scrolls at high speed.

Moon Data Screen

Month - Day

Moon age (page E-28)

Moon phase indicator (page E-28)

3. Press Ⓐ to display the Moon Data Screen.
   - This will display the Moon phase and Moon age for the current date.
4. Use Ⓓ to change the date setting.
   - Each press of Ⓓ advances the date by one day and calculates tide data for that date. Holding down Ⓓ for about two seconds scrolls at high speed.
   - You can select any date between January 1, 2000 and December 31, 2099.
5. Press Ⓐ again to return to the Tide Data Screen.

Note
- The margin of error for the Moon age is ±1 day.
- If the data is not displayed correctly, check the Timekeeping Mode date, time, and Home City settings. If the data is still not displayed correctly, see "Adjusting the High Tide Time" (page E-30) and "Reversing the Displayed Moon Phase" (page E-32).

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

Moon Phase Indicator	Type A (page E-2)							
	Type B (page E-2)							
Moon Age	28.7-29.8 0.0-0.9	1.0-2.7	2.8-4.6	4.7-6.4	6.5-8.3	8.4-10.1	10.2-12.0	12.1-13.8
Moon Phase	New Moon				First Quarter (Waxing)			

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

Moon Phase Indicator	Type A (page E-2)							
	Type B (page E-2)							
Moon Age	13.9-15.7	15.8-17.5	17.6-19.4	19.5-21.2	21.3-23.1	23.2-24.9	25.0-26.8	26.9-28.6
Moon Phase	Full Moon				Last Quarter (Waning)			

Adjusting the High Tide Time

Use the following procedure to adjust the high tide time within a particular date. You can find out high tide information for your area from a tide table, the Internet, or your local newspaper.

To adjust the high tide time

Hour

Minute

1. In the Tide/Moon Data Mode, press Ⓐ to display the Moon Data Screen (page E-27).
2. Press Ⓓ to scroll the date until one whose high tide time you want to change is displayed.
3. Hold down Ⓐ until the hour digits start to flash.
4. Press Ⓓ (+) and Ⓑ (–) to change the hour setting.
5. When the hour is the setting you want, press Ⓒ.
   • This will cause the minute digits to flash.
6. Press Ⓓ (+) and Ⓑ (–) to change the minute setting.
7. When the minute setting is the way you want, press Ⓐ to exit the adjustment screen and return to the Tide/Moon Data Mode screen.
• Pressing Ⓓ and Ⓑ at the same time while the time adjustment screen is displayed (steps 4 through 7 above) will return the high tide time to its initial factory default setting.
• The high tide time setting is affected by the DST (summer time) setting of the Timekeeping Mode.

• On some days, there are two high tides. With this watch, you can adjust the first high tide time only. The second high tide time for that day is adjusted automatically based on the first high tide time.

Reversing the Displayed Moon Phase

The left-right (east-west) appearance of the Moon depends on whether the Moon is north of you (northerly view) or south of you (southerly view) as you view it.
You can use the procedure below to reverse the displayed Moon phase so it matches the actual appearance of the Moon where you are located.
• To determine the viewing direction of the Moon, use a compass to take a direction reading of the Moon at its meridian passage.

To reverse the displayed Moon phase
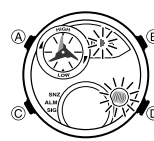
1. In the Tide/Moon Data Mode, hold down Ⓐ until the hour digits start to flash.
2. Press Ⓒ twice.
   • This will cause the Moon phase indicator to flash. This is the indicator switching screen.
3. Press Ⓓ to toggle the Moon phase indicator between the southerly view (indicated by N↓S) and northerly view (indicated by N↑S).
   • Northerly view: Moon is north of you.
   • Southerly view: Moon is south of you.
4. When the Moon phase indicator setting is the way you want, press Ⓐ to exit the switching screen and return to the Tide/Moon Data Mode screen.
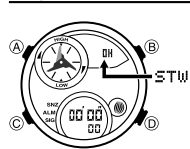
Stopwatch

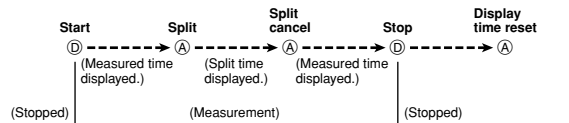You can use the stopwatch to measure elapsed time and split times.
• The digital display range of the stopwatch is 999 hours, 59 minutes, 59.99 seconds. The stopwatch continues to run until you stop it. If it reaches the above limit, it will restart the time measurement from zero.
• The stopwatch operation continues even if you exit the Stopwatch Mode.
• All of the operations in this section are performed in the Stopwatch Mode, which you enter by pressing Ⓒ (page E-9).
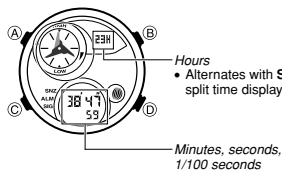
Elapsed Time Measurement

In the Stopwatch Mode, press Ⓓ to start and stop elapsed time measurement.
• Pressing Ⓐ while elapsed time measurement is in progress will display the current split time.

Start	**Split**	**Split cancel**	**Stop**	**Display time reset**
Ⓓ	Ⓐ	Ⓐ	Ⓓ	Ⓐ
(Measured time displayed.)	(Split time displayed.)	(Measured time displayed.)		
(Stopped)	(Measurement)		(Stopped)	

Measured time or split time

Hours
• Alternates with **SPL** during split time display.

Minutes, seconds, 1/100 seconds

• Pressing Ⓓ without resetting the displayed time will restart elapsed time measurement from where it was last stopped (cumulative elapsed time measurement).
• An ongoing elapsed time measurement operation continues even if you exit the Stopwatch Mode.
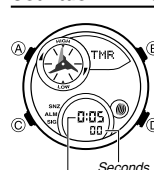
Countdown Timer

You can set the countdown timer start time within a range of one minute 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 Ⓒ (page E-9).
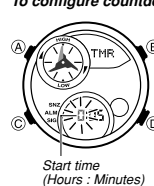
Seconds

*Start time (Hours : Minutes)*

To use the countdown timer

Press Ⓓ while in the Countdown Timer Mode to start the countdown timer.
• When the end of the countdown is reached, the alarm will sound for 10 seconds or until you stop it by pressing any button.
• The countdown time is reset to its starting value automatically after the alarm stops.
• Press Ⓓ while a countdown operation is in progress to pause it.
  Press Ⓓ again to resume the countdown.
• To stop a countdown timer operation completely, first pause it (by pressing Ⓓ), and then press Ⓐ. This returns the countdown time to its starting value.

To configure countdown start time settings

Start time (Hours : Minutes)

1. While the countdown start time is on the display in the Countdown Timer Mode, hold down Ⓐ for about two seconds until the hour setting of the countdown start time starts to flash. This is the setting mode.
   • Holding down Ⓐ will initially cause **Hold** to appear on the screen. Keep Ⓐ depressed until **Hold** disappears.
   • If the countdown start time is not displayed, use the procedure under "To use the countdown timer" (page E-38) to display it.
2. Press Ⓒ to move the flashing in the sequence shown below, and select the setting you want to change.

Start Time (Hours)	Ⓒ	Start Time (Minutes)

Ⓒ

3. Press Ⓐ to exit the setting mode.

World Time

WT
NYC : NEW YORK
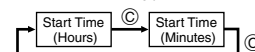
Currently selected World Time City
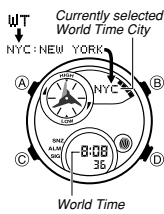
World Time

World Time digitally displays the current time in one of 48 cities (29 time zones) around the world. A simple operation swaps your Home City with the currently selected World Time City.
• The times kept in the World Time Mode are synchronized with the time being kept in the Timekeeping Mode. If you feel that there is an error in any World Time Mode time, check to make sure you have the correct city selected as your Home City. Also check to make sure that the current time as shown in the Timekeeping Mode is correct.
• Times in the World Time Mode are based on UTC offsets. See the "City Code Table" at the back of this manual for information about the UTC offsets that are supported.

• All of the operations in this section are performed in the World Time Mode, which you enter by pressing Ⓒ (page E-9).

E-40

To view the current time in another time zone

In the World Time Mode, use Ⓓ to scroll through available city codes (time zones). Holding down the button scrolls at high speed.
• The lower display shows the current time in the World Time City.
• To select the UTC time zone (Differential 0), press Ⓑ and Ⓓ at the same time.
• When the city code (time zone) you want is selected, you can press Ⓐ to display the date. After about one second, the watch will resume regular timekeeping for the currently selected city.

Seconds
Hour : Minutes
One second
Date
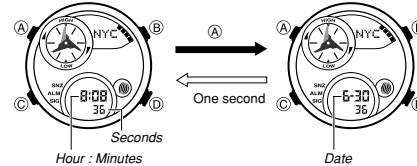
E-41

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

1. In the World Time Mode, press Ⓓ to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
2. Hold down Ⓐ for about two seconds to toggle between Daylight Saving Time (**DST** indicator displayed) and Standard Time (**DST** indicator not displayed).
• Holding down Ⓐ will initially cause **Hold** to appear on the screen. Keep Ⓐ depressed until **Hold** disappears.
• The **DST** indicator is shown in the lower display while Daylight Saving Time is turned on.
• You can turn on DST individually for each city code, except UTC.
• Turning on DST for the city code that is currently selected as your Home City will turn on DST for normal timekeeping.

DST indicator
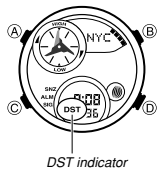
E-42

### Swapping your Home City and World Time City

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

To swap your Home City and World Time City

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

E-43

Alarms

ALM

Alarm time
(Hour : Minutes)
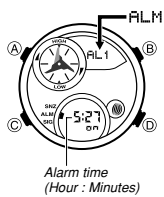
When an alarm is turned on, the alarm tone will sound when its alarm time is reached. One of the alarms is a snooze alarm, while the other four are daily alarms. You also can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.
• The snooze alarm screen is indicated by 5NZ, while the other alarm screens are numbered AL1 through AL4. The Hourly Time Signal screen is indicated by SIG.
• All of the operations in this section are performed in the Alarm Mode, which you enter by pressing Ⓒ (page E-9).

E-44

To set an alarm time

OFF
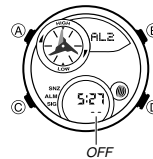
1. In the Alarm Mode, use Ⓓ to scroll through the alarm screens until the one whose time you want to set is displayed.

AL1 → AL2 → AL3 → AL4 → SNZ
SIG

• To set an alarm time, display the applicable alarm screen (AL1 through AL4, or SNZ).
• SIG is the hourly time signal setting (page E-48).
• The snooze alarm operation repeats every five minutes.

2. After you select an alarm, hold down Ⓐ for about two seconds until the hour setting of the alarm time starts to flash. This is the setting mode.
• Holding down Ⓐ will initially cause **Hold** to appear on the screen. Keep Ⓐ depressed until **Hold** disappears.
• This operation turns on the alarm automatically.
3. Press Ⓒ to move the flashing between the hour and minute settings.

E-45

4. While a setting is flashing, use Ⓓ (+) and Ⓑ (–) to change it.
5. Press Ⓐ to exit the setting mode.

Alarm Operation

The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, or until you turn the alarm off (page E-47).
• Alarm and Hourly Time Signal operations are performed in accordance with the current time in your Home City, as kept in the Timekeeping Mode.
• To stop the alarm tone after it starts to sound, press any button.
• Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.
  Displaying the Timekeeping Mode setting screen (page E-11)
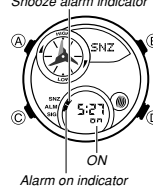 *Displaying the SNZ setting screen (page E-45)*

To test the alarm

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

E-46

To turn an alarm on and off

Snooze alarm indicator

ON
Alarm on indicator

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

E-47

To turn the Hourly Time Signal on and off
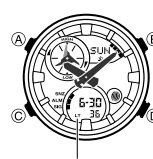

SIG

ON
Hourly Time Signal
on indicator

1. In the Alarm Mode, use Ⓓ to select the Hourly Time Signal (SIG) (page E-45).
2. Press Ⓐ to toggle it on and off.
• The Hourly Time Signal on indicator is shown on the display in all modes while this function is turned on.

E-48
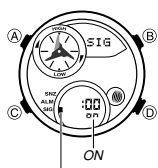
Illumination

Auto light switch
indicator

An LED (light-emitting diode) illuminates the face of the watch for easy reading in the dark. The watch's auto light switch turns on illumination automatically when you angle the watch towards your face.
• The auto light switch must be turned on (indicated by the auto light switch indicator) for it to operate.
• See "Illumination Precautions" (page E-59) for other important information about using illumination.

To illuminate the display manually

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

E-49

CASIO

To specify the illumination duration
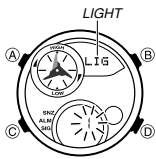
LIGHT

1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until **SET** appears on the display.
   • Note that keeping Ⓐ depressed too long (for about five seconds) will cause a different type of setting mode to be entered (page E-53).
2. Press Ⓒ ten times to display the current illumination duration ¦ or ∃.
3. Press Ⓓ to toggle the setting between ¦ (1.5 seconds) and ∃ (three seconds).
4. Press Ⓐ to exit the setting screen.

About the Auto Light Switch

Turning on the auto light switch causes illumination to turn on, whenever you position your wrist as described below in any mode.

Moving the watch to a position that is parallel to the ground and then tilting it towards you more than 40 degrees causes illumination to turn on.
• Wear the watch on the outside of your wrist.

Parallel to ground
More than 40°

Warning!

• **Always make sure you are in a safe place whenever you are reading the display of the watch using the auto light switch. Be especially careful when running or engaged in any other activity that can result in accident or injury. Also take care that sudden illumination by the auto light switch does not startle or distract others around you.**
• **When you are wearing the watch, make sure that its auto light switch is turned off before riding a bicycle or operating a motorcycle or any other motor vehicle. Sudden and unintended operation of the auto light switch can create a distraction, which can result in a traffic accident and serious personal injury.**

To turn the auto light switch on and off

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

Hand Home Position Correction

The Tide Graph, and the hour and minute hands of the watch can be thrown off by exposure to strong magnetism or impact. If this happens, you can correct their home positions as required.
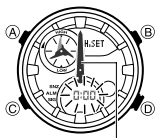
To adjust home positions
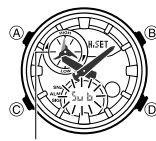
Correct Tide Graph position

1. In the Timekeeping Mode, hold down Ⓐ for about five seconds until **H-SET** (H¦SET) appears in the upper display and **Sub** (Sᵤ b) appears in the lower display.
2. Check the position of the Tide Graph.
   • The Tide Graph is in the correct home position if it is indicating **HIGH** (12 o'clock position). If it is not correct, use the Ⓓ (+) and Ⓑ (−) buttons to adjust it.
   • After confirming that the Tide Graph is in its correct home position, press Ⓒ.

Correct hour and minute hand positions

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

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.

Button Operation Tone

Mute indicator

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, alarms, the Hourly Time Signal, and other beepers all operate normally.

To turn the button operation tone on and off

1. In the Timekeeping Mode, hold down Ⓐ for about two seconds until **SET** appears on the display.
   • Note that keeping Ⓐ depressed too long (for about five seconds) will cause a different type of setting mode to be entered (page E-53).
2. Press Ⓒ nine times until the current button operation tone setting (**KEY**♪ or **MUTE**) appears.
3. Press Ⓓ to toggle the setting between **KEY**♪ (tone on) and **MUTE** (tone off).
4. Press Ⓐ to exit the setting screen.
   • The mute indicator is displayed in all modes when the button operation tone is turned off.

Auto Return Features

• If you leave the watch with a flashing setting on the display for two or three minutes without performing any operation, the watch will exit the setting mode automatically.
• The watch will automatically return to the Timekeeping Mode if you do not perform any button operation for a particular amount of time in each mode.

Mode Name	Approximate Elapsed Time
Tide/Moon Data, Alarm	2 to 3 minutes
Thermometer	1 to 2 hours

High-Speed Movement

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

Initial Screens

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

Timekeeping

• Resetting the seconds to ⌴⌴ 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 ⌴⌴ without changing the minutes.
• The year can be set in the range of 2000 to 2099.
• The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except when battery has replaced.
• The current time for all city codes in the Timekeeping Mode and World Time Mode is calculated in accordance with the Coordinated Universal Time (UTC) for each city, based on your Home City time setting.

Illumination Precautions

• Illumination may be difficult to see when viewed under direct sunlight.
• Illumination turns off automatically whenever an alarm sounds.
• Illumination turns off automatically depends on the current illumination duration setting.
• 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.

More than 15 degrees too high
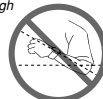
• Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
• Illumination turns off in about 1.5 seconds or 3 seconds, even if you keep the watch pointed towards your face.

CASIO

- Static electricity or magnetic force can interfere with proper operation of the auto light switch. If illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back toward you again. If this does not work, drop your arm all the way down so it hangs at your side, and then bring it back up again.
- Under certain conditions, illumination may not turn on until about one second after you turn the face of the watch towards you. This does not necessarily indicate malfunction of the auto light switch.
- You may notice a very faint clicking sound coming from the watch when it is shaken back and forth. This sound is caused by mechanical operation of the auto light switch, and does not indicate a problem with the watch.

Specifications

Accuracy at normal temperature: ± 15 seconds a month
Digital Timekeeping: Hour, minutes, seconds, p.m. (PM), month, day, day of the week
  Time format: 12-hour and 24-hour
  Calendar system: Full Auto-calendar pre-programmed from the year 2000 to 2099
  Other: Home City code (can be assigned one of 48 city codes); Standard Time / Daylight Saving Time (summer time)
Analog Timekeeping: Hour, minutes (hand moves every 20 seconds)
Thermometer:
  Measurement and display range: −10.0 to 60.0°C (or 14.0 to 140.0°F)
  Display unit: 0.1°C (or 0.2°F)
  Measurement intervals: 2 seconds for the first 2 minutes, 2 minutes thereafter
  Other: Calibration; Manual measurement (button operation)
Temperature Sensor Precision:
  ±2°C (±3.6°F) in range of −10°C to 60°C (14.0°F to 140.0°F)
Tide/Moon Data: Moon phase indicator for specific date; Moon age; Tide for specific date and time
  Other: High tide time adjustment; Moon phase reversal

Stopwatch:
  Measuring unit: 1/100 second
  Measuring capacity: 999:59'59.99"
  Measuring modes: Elapsed time, Split time
Countdown Timer:
  Measuring unit: 1 second
  Input range: 1 minute to 24 hours (1-minute increments)
World Time: 48 cities (29 time zones)
  Other: Daylight Saving Time/Standard Time, Home City/World Time City Swapping
**Alarms:** 5 daily alarms (with 1 snooze alarm), Hourly Time Signal
Illumination: LED (light-emitting diode), Auto Light Switch; Selectable illumination duration
Other: Button operation tone on/off

Battery : Two silver oxide batteries (Type: SR927W)
  Approximate Battery Life: 3 years on type SR927W
  (ten seconds of alarm operation per day, one illumination operation (1.5 seconds) per day)
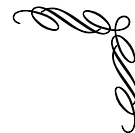
City Code Table

City Code Table

City Code	City	UTC Offset/ GMT Differential
PPG	Pago Pago	−11
HNL	Honolulu	−10
ANC	Anchorage	−9
YVR	Vancouver	−8
LAX	Los Angeles	−8
YEA	Edmonton	−7
DEN	Denver	−7
MEX	Mexico City	−6
CHI	Chicago	−6
NYC	New York	−5
SCL	Santiago	−4
YHZ	Halifax	−4
YYT	St. Johns	−3.5

City Code	City	UTC Offset/ GMT Differential
RIO	Rio De Janeiro	−3
FEN	Fernando de Noronha	−2
RAI	Praia	−1
UTC		
LIS	Lisbon	0
LON	London	0
MAD	Madrid	+1
PAR	Paris	+1
ROM	Rome	+1
BER	Berlin	+1
STO	Stockholm	+1
ATH	Athens	+2
CAI	Cairo	+2
JRS	Jerusalem	+2

City Code	City	UTC Offset/ GMT Differential
MOW*	Moscow	+3
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

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

* The above is current as of June 2012. This watch does not reflect the change in the Moscow (MOW) time offset to +4. Because of this, you should leave the summer time setting turned on (which advances the time by one hour) for Moscow (MOW).

- This table shows the city codes of this watch.
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.