

# Operation Guide 3155

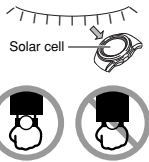
CASIO®

## 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.

### Keep the watch exposed to bright light

#### Bright Light

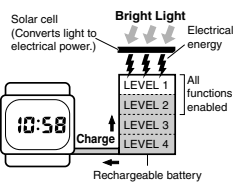


The electricity generated by the solar cell of the watch is stored by a built-in battery. Leaving or using the watch where it is not exposed to light causes the battery to run down. Make sure the watch is exposed to light as much as possible.

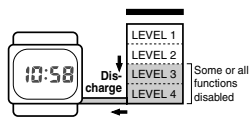
- When you are not wearing the watch on your wrist, position the face so it is pointed at a source of bright light.
- You should try to keep the watch outside of your sleeve as much as possible. Charging is reduced significantly if the face is only partially covered.

- The watch continues to operate, even when it is not exposed to light. Leaving the watch in the dark can cause the battery to run down, which will result in some watch functions to be disabled. If the battery goes dead, you will have to re-configure watch settings after recharging. To ensure normal watch operation, be sure to keep it exposed to light as much as possible.

#### Battery charges in the light.



#### Battery discharges in the dark.



## General Guide

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

### Timekeeping Mode



Press **C**.

### Rally Mode



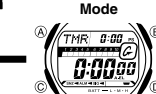
### Recall Mode



### World Time Mode



### Countdown Timer Mode



### Stopwatch Mode



### Alarm Mode



## Radio-controlled Atomic Timekeeping

This watch receives a time calibration signal and updates its time setting accordingly.

- This watch is designed to pick up the time calibration signals transmitted in Germany (Mainflingen), England (Anthorn), the United States (Fort Collins), China (Shangqiu), and Japan (Fukushima, Fukuoka/Saga).

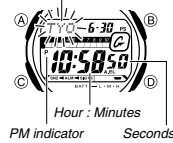
### Current Time Setting

This watch adjusts its time setting automatically in accordance with a time calibration signal. You also can perform a manual procedure to set the time and date, when necessary.

- **The first thing you should do after purchasing this watch is to specify your Home City (the city where you normally will use the watch). For more information, see "To specify your Home City" below.**
- When using the watch outside the areas covered by the time signal transmitters, you will have to adjust the current time setting manually as required. See "Timekeeping" for more information about manual time settings.
- The U.S. time calibration signal can be picked up by the watch while in North America. The term "North America" in this manual refers to the area that consists of Canada, the continental United States, and Mexico.

### To specify your Home City

1. In the Timekeeping Mode, hold down **A** until the city code starts to flash, which indicates the setting screen.
2. Press **D** (east) and **B** (west) to select the city code you want to use as your Home City.
  - LIS, LON : Lisbon, London
  - MAD, PAR, ROM, BER, STO : Madrid, Paris, Rome, Berlin, Stockholm
  - ATH : Athens
  - MOW : Moscow
  - HKG, BJS, TPE : Hong Kong, Beijing, Taipei
  - SEL, TYO : Seoul, Tokyo
  - HNL : Honolulu
  - ANC : Anchorage



- YVR, LAX : Vancouver, Los Angeles
- YEA, DEN : Edmonton, Denver
- MEX, CHI : Mexico City, Chicago
- MIA, YTO, NYC : Miami, Toronto, New York
- YHZ : Halifax
- YYT : St. Johns

3. Press **A** to exit the setting screen.

- Normally, your watch should show the correct time as soon as you select your Home City code. If it does not, it should adjust automatically after the next auto receive operation (in the middle of the night). You also can perform manual receive or you can set the time manually.
- The watch will receive the time calibration signal automatically from the applicable transmitter (in the middle of the night) and update its settings accordingly. For information about the relationship between city codes and transmitters, see "Time Calibration Signal Reception" and "Transmitters".

- The actual level at which some functions are disabled depends on the watch model.
- Frequent display illumination can run down the battery quickly and require charging. The following guidelines give an idea of the charging time required to recover from a single illumination operation.
  - Approximately 5 minutes exposure to bright sunlight coming in through a window
  - Approximately about 8 hours exposure to indoor fluorescent lighting
- **Be sure to read "Power Supply" for important information you need to know when exposing the watch to bright light.**

### If the display of the watch is blank...

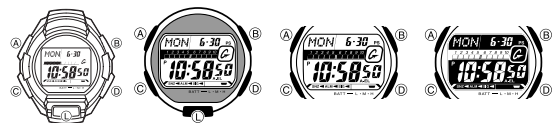
If the display of the watch is blank, it means that the watch's Power Saving function has turned off the display to conserve power.

- See "Power Saving Function" for more information.

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

- 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.

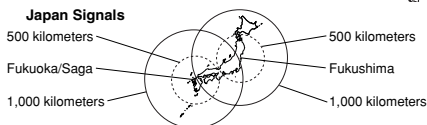
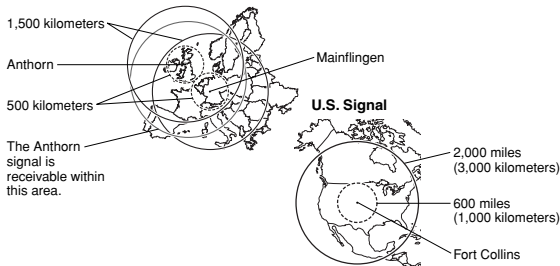


- Signal reception normally is better at night than during the day.
- Time calibration signal reception takes from two to seven minutes, but in some cases it can take as long as 14 minutes. Take care that you do not perform any button operations or move the watch during this time.
- The time calibration signal the watch will attempt to pick up depends on its current Home City code setting as shown below.

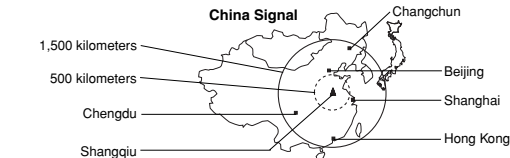
Home City Code	Transmitter	Frequency
LON, PAR, BER, ATH, LIS, MAD, ROM, STO, MOW*	Anthorn (England) Mainflingen (Germany)	60.0 kHz 77.5 kHz
HKG, BJS	Shangqiu City (China)	68.5 kHz
TPE, TYO, SEL	Fukushima (Japan)	40.0 kHz
	Fukuoka/Saga (Japan)	60.0 kHz
HNL*, ANC*, LAX, DEN, CHI, NYC, YVR, YEA, MEX, MIA, YTO, YHZ, YYT	Fort Collins, Colorado (the United States)	60.0 kHz

- \* The areas covered by the HNL, ANC, and MOW city codes are quite far from the time calibration signal transmitters, and so certain conditions may cause problems with signal reception.
- Calibration signal reception is disabled while a countdown timer/target time operation is in progress.

### Approximate Reception Ranges U.K. and German Signals



Signals are receivable in the Taiwan area when reception conditions are good.



- Signal reception may not be possible at the distances noted below during certain times of the year or day. Radio interference may also cause problems with reception. Mainflingen (Germany) or Anthorn (England) transmitters: 500 kilometers (310 miles)  
Fort Collins (United States) transmitter: 600 miles (1,000 kilometers)  
Fukushima or Fukuoka/Saga (Japan) transmitters: 500 kilometers (310 miles)  
Shangqiu (China) transmitter: 1,500 kilometers (910 miles)
- Even when the watch is within the reception range of the transmitter, signal reception will be impossible if the signal is blocked by mountains or other geological formations between the watch and signal source.
- Signal reception is affected by weather, atmospheric conditions, and seasonal changes.
- See the information under "Signal Reception Troubleshooting" if you experience problems with time calibration signal reception.

### About Auto Receive

The watch receives the time calibration signal automatically up to 6 times a day (5 times a day for the Chinese calibration signal). When any auto receive is successful, the remaining auto receive operations are not performed. The reception schedule (calibration times) depends on your currently selected Home City, and whether standard time or Daylight Saving Time is selected for your Home City.

Your Home City		Auto Receive Start Times					
		1	2	3	4	5	6
LON, LIS	Standard Time	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am	Midnight*
	Daylight Saving Time	2:00 am	3:00 am	4:00 am	5:00 am	Midnight*	1:00 am*
PAR, BER, MAD, ROM, STO	Standard Time	2:00 am	3:00 am	4:00 am	5:00 am	Midnight*	1:00 am*
	Daylight Saving Time	3:00 am	4:00 am	5:00 am	Midnight*	1:00 am*	2:00 am*
ATH	Standard Time	3:00 am	4:00 am	5:00 am	Midnight*	1:00 am*	2:00 am*
	Daylight Saving Time	4:00 am	5:00 am	Midnight*	1:00 am*	2:00 am*	3:00 am*
MOW	Standard Time	4:00 am	5:00 am	Midnight*	1:00 am*	2:00 am*	3:00 am*
	Daylight Saving Time	5:00 am	Midnight*	1:00 am*	2:00 am*	3:00 am*	4:00 am*
HKG, BJS	Standard Time	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am	
	Daylight Saving Time	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am	
TYO, TPE, SEL	Standard Time	Midnight	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am
	Daylight Saving Time	Midnight	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am

Your Home City		Auto Receive Start Times					
		1	2	3	4	5	6
HNL, ANC, LAX, DEN, CHI, NYC, YVR, YEA, MEX, MIA, YTO, YHZ, YYT	Standard Time and Daylight Saving Time	Midnight	1:00 am	2:00 am	3:00 am	4:00 am	5:00 am

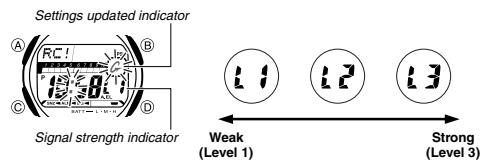
\*Next day

### Note

- When a calibration time is reached, the watch will receive the calibration signal only if it is in either the Timekeeping Mode or World Time Mode. Reception is not performed if a calibration time is reached while you are configuring settings.
- Auto receive of the calibration signal is designed to be performed early in the morning, while you sleep (provided that the Timekeeping Mode time is set correctly). Before going to bed for the night, remove the watch from your wrist, and put it in a location where it can receive the signal easily.
- The watch receives the calibration signal for two to seven minutes everyday when the time in the Timekeeping Mode reaches a calibration time. Do not perform any button operation within seven minutes before or after the calibration times. Doing so can interfere with correct calibration.
- Remember that reception of the calibration signal depends on the current time in the Timekeeping Mode. The receive operation will be performed whenever the display shows any one of the calibration times, regardless of whether or not the displayed time actually is the correct time.

### About the Signal Strength Indicator

The signal strength indicator shows the strength of the calibration signal being received. For best reception, be sure to keep the watch in a location where signal strength is strongest. The signal strength indicator is displayed while an auto or manual receive operation is in progress.



- Even in an area where signal strength is strong, it takes about 10 seconds for signal reception to stabilize enough for the signal strength indicator to indicate signal strength.
- Use the signal strength indicator as a guide for checking signal strength and for finding the best location for the watch during signal receive operations.
- Following reception of the time calibration signal and calibration of the watch's time setting, the settings updated indicator will remain on the display in all modes. The settings updated indicator will not be displayed if signal reception was unsuccessful or after you adjust the current time setting manually.
- The settings updated indicator is displayed only when the watch is able to receive both time and date data successfully. It does not appear when only time data is received.
- The settings updated indicator indicates that at least one of the auto calibration signal receive operations was successful. Note, however, that the settings updated indicator disappears from the display each day when the first auto receive operation of the day is performed.

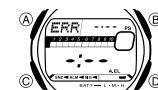
### To perform manual receive

1. Enter the Timekeeping Mode.
2. Hold down (D) for about two seconds until (C) starts to flash on the display.
  - Time calibration signal reception takes from two to seven minutes. Take care that you do not perform any button operations or move the watch during this time.
  - If the receive operation is successful, the reception date and time appear on the display, along with the (E) indicator.
3. After manual receive is complete, press (D) to return to the Timekeeping mode.
  - The watch also will exit the Receive Mode if you do not perform any button operation for about one or two minutes.
  - If the latest reception fails but a previous reception was successful, an indicator (C) will be on the display. The watch will enter the Receive Mode without changing the time setting if you press (D) or if you do not perform any button operation for about one or two minutes.

### Note

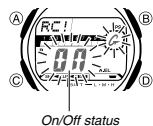
- To interrupt a receive operation and return to the Receive Mode, press (D).

If there was a previously successful reception



If no reception was successful

### To turn auto receive on and off



On/Off status

- In the Timekeeping Mode, press (D) to display the last successful receive time and date screen.
- Hold down (A) until the current auto receive setting (GF or GFF) starts to flash. This is the setting screen.
  - Note that the setting screen will not appear if the currently selected Home City is one that does not support time calibration reception.
- Press (D) to toggle auto receive on (GF) and off (GFF).
- Press (A) to exit the setting screen.
  - For information about city codes that support signal receive, see "To specify your Home City".

### To check the latest signal reception results



- Press (D) to view the last successful receive time and date. Press (D) again to return to the previous screen.

### Signal Reception Troubleshooting

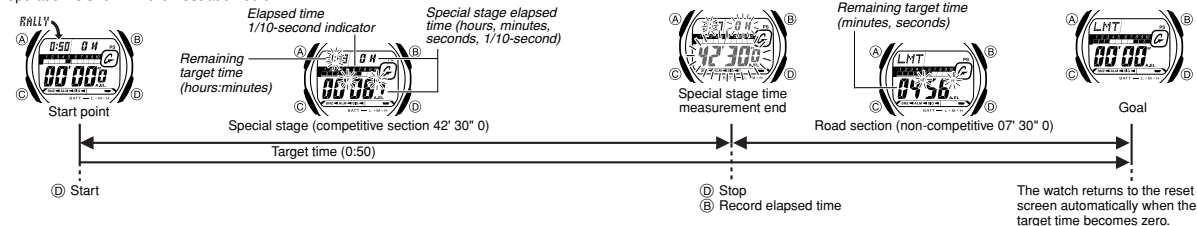
Check the following points whenever you experience problems with signal reception.

Problem	Probable Cause	What you should do
Cannot perform manual receive.	<ul style="list-style-type: none"> <li>The watch is not in the Timekeeping Mode.</li> <li>Your current Home City is not one of the following: LIS, LON, MAD, PAR, ROM, BER, STO, ATH, MOW, HKG, BJS, TPE, SEL, TYO, HNL, ANC, YVR, LAX, YEA, DEN, MEX, CHI, MIA, YTO, NYC, YHZ, or YYT</li> </ul>	<ul style="list-style-type: none"> <li>Enter the Timekeeping Mode and try again.</li> <li>Select LIS, LON, MAD, PAR, ROM, BER, STO, ATH, MOW, HKG, BJS, TPE, SEL, TYO, HNL, ANC, YVR, LAX, YEA, DEN, MEX, CHI, MIA, YTO, NYC, YHZ, or YYT as your Home City.</li> </ul>
Auto receive is turned on, but the settings updated indicator does not appear on the display.	<ul style="list-style-type: none"> <li>You changed the time setting manually.</li> <li>The DST setting was changed manually in the World Time Mode.</li> <li>You pressed a button while signal receive was in progress.</li> <li>Even if receive is successful, the settings updated indicator disappears from the display each day when the first auto receive operation of the day is performed.</li> <li>Time data (hour, minutes, seconds) only was received during the last receive operation. The settings updated indicator appears only when time data and date data (year, month, day) are both received.</li> </ul>	<ul style="list-style-type: none"> <li>Perform manual signal receive or wait until the next auto signal receive operation is performed.</li> <li>Check to make sure the watch is in a location where it can receive the signal.</li> </ul>
Time setting is incorrect following signal reception.	<ul style="list-style-type: none"> <li>If the time is one hour off, the DST setting may be incorrect.</li> <li>The Home City code setting is not correct for the area where you are using the watch.</li> </ul>	<ul style="list-style-type: none"> <li>Change the DST setting to Auto DST.</li> <li>Select the correct Home City code.</li> </ul>

- For further information, see "Important!" under "Time Calibration Signal Reception" and "Radio-controlled Atomic Timekeeping Precautions".

### Rally Mode

The Rally Mode of your watch can be used to measure special stage elapsed time, and to keep track of the goal target time (countdown). The Rally Mode timing operation is shown in the illustration below.



### Special Stage Elapsed Time Measurement

The special stage elapsed time is measured up to 99 hours, 59 minutes, 59.9 seconds. If the time exceeds this, timing reverts to zero and continues from there.

### Before Starting Measurement

LT-05 target time (0:50)



The watch comes with 10 preset target times (link times), which you can use as-is or change to the value you want. You can use the (B) button to select the target time you want while the current target time is reset to its initial value.

- |            |            |
|------------|------------|
| LT-01 0:10 | LT-07 1:30 |
| LT-02 0:20 | LT-08 2:00 |
| LT-03 0:30 | LT-09 3:00 |
| LT-04 0:40 | LT-10 5:00 |
| LT-05 0:50 | OFF        |
| LT-06 1:00 |            |

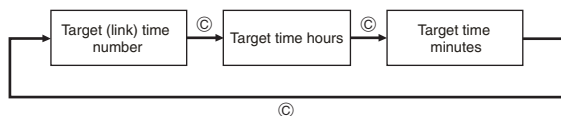
### To change a target time



- While the current target time is reset to its initial value in the Rally Mode, hold down (A) until the display contents start to flash. This is the setting screen.
- Use the (D) (+) and (B) (-) buttons to select the target (link) time you want to change.
- Press the (C) button so the current target time's hour digit starts to flash.

- Use the (D) (+) and (B) (-) buttons to change the hour digit value.
- Press the (C) button to move the flashing to the minute digits.
- Use the (D) (+) and (B) (-) buttons to change the minute digit value.
- After the time is setting you want, press the (A) button to exit the setting screen.

You can set a target time up to 24 hours, in units of one minute.



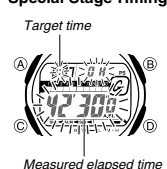
### To start a Rally Mode time measurement



Remaining auto start countdown time (36 seconds indicated here)

- Press the (D) button to start the auto start countdown. Time measurement (special stage) will start when the auto start countdown reaches 00 seconds.
- The watch will beep and display illumination will flash whenever the remaining auto countdown time reaches 50, 40, 30, 20, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 and 0 seconds.
  - You can cancel the auto start countdown at any point and start time measurement (special stage) manually by pressing the (D) button.
  - You can cancel the countdown and return to the countdown start screen by pressing the (B) button while a countdown is in progress.

### Special Stage Timing



This section describes operations you can perform while special stage timing is in progress.

#### To pause the current time on the display

While a special stage timing operation is in progress press the (D) button.

- This will pause the current elapsed time (flashing) on the display for about one or two minutes. Though the time is frozen on the display, the watch continues the special stage timing operation (and count down of the remaining target time) internally.
- While a time is paused on the display, you can record it in memory or reset the timing operation to zero. If you don't do anything, the display will return to the normal elapsed time measurement screen after a few minutes.

#### To record the time paused on the display

While a time is paused on the display (see above), press the (B) button.

- This will save the paused time in memory and display the ongoing special stage timing operation.
- The watch has enough memory to store up to 30 measurement time records. If there are already 30 records in memory, storing a new measurement time causes the oldest record to be deleted automatically to make room for the new one.

#### To reset the timing operation to zero

While a time is paused on the display (see above), hold down the (B) button.

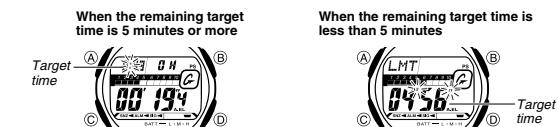
- This will reset the elapsed time operation to zero.

#### To cancel an ongoing elapsed time measurement operation

Hold down the (B) button to reset the elapsed time operation to zero.

#### To change screen contents during elapsed time measurement

Press the (B) button to display the remaining target time. Note that this operation is not available if "OFF" is selected for the target time.



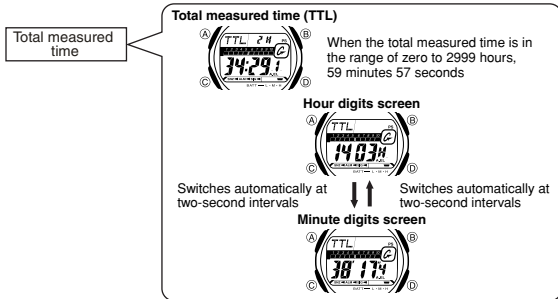
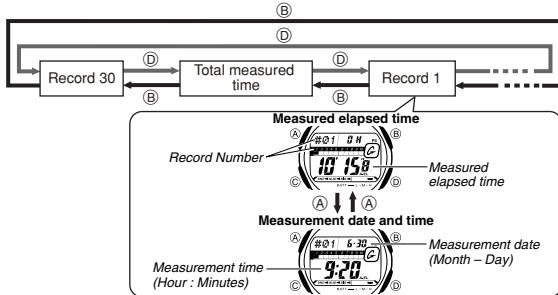
### Remaining Target Time Alert

The watch will beep and display illumination will flash when the remaining target time reaches the following points, 5, 3 and 1 minute, and 30, 10, 5, 4, 3, 2, and 1 second before time up, and at time up.

## Recall Mode

You can use the Recall Mode to view the following data in watch memory.

- Times measured in the Rally Mode
- Total of the measured times currently in memory (TTL)
- You can use the (D) (forward) and (B) (back) buttons to scroll through records as shown below. Holding down either button scrolls the records at high speed.
- Holding down the (A) button while a record is displayed will show the date and time that the measurement was taken.
- To go straight to the total measured time screen, press the (D) and (B) buttons at the same time.
- How the hour digits are displayed changes (to a format that requires two screens) when the total measured time is within the range of 100 hours, 00 minutes and 00 seconds, to 2999 hours, 59 minutes 57 seconds. While the total measured time is displayed in this case, the display will switch automatically between the two screens at two-second intervals.



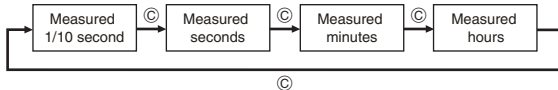
## To correct recorded times

You can use the procedure below to correct times recorded by the watch so they match official race times. The total measured time value also is updated in accordance with the corrected times.



1. Hold down (A) until the display contents start to flash. This is the setting screen.
2. Use the (D) (+) and (B) (-) buttons to change the measured 1/10-second digit.
3. Press the (C) button to move the flashing to the measured seconds.
4. Use the (D) (+) and (B) (-) buttons to change the measured seconds.
5. Press the (C) button to move the flashing to the measured minutes.
6. Use the (D) (+) and (B) (-) buttons to change the measured minutes.
7. Press the (C) button to move the flashing to the measured hours.

8. Use the (D) (+) and (B) (-) buttons to change the measured hours.
  9. After the time is what you want, press the (A) button to exit the setting screen.
- You can change a measured time to a value up to 99 hours, 59 minutes, 59.9 seconds.
  - Holding down the (D) (+) or (B) (-) button will scroll the selected value at high speed.
  - To reset the data to all zeros, press the (D) and (B) buttons at the same time.



## To delete all memory records



You can use the following procedure to clear all of the measurement data records currently stored in watch memory.

1. Use the (D) and (B) button to display the total measurement time screen.
2. Hold down (A) until the display contents start to flash. This is the setting screen.
3. Press the (D) (+) and (B) (-) buttons at the same time to delete the records.
4. Press the (A) button to exit the setting screen.



## World Time



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

- 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.
- Select a city code in the World Time Mode to display the current time in any particular time zone around the globe. See the "UTC Differential/City Code List" for information about the UTC differential settings that are supported.

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

## To view the time in another city

While in the World Time Mode, use the (D) (eastward) and (B) (westward) buttons to scroll through the city codes (time zones). Holding down either button scrolls at high speed.

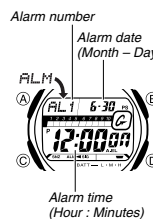
- Pressing the (D) and (B) buttons at the same time will jump to the UTC time zone.

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



1. In the World Time Mode, use (D) and (B) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
  2. Hold down (A) to toggle between Daylight Saving Time (DST indicator displayed) and Standard Time (DST indicator not displayed).
- The DST indicator is shown on the World Time Mode screen while Daylight Saving Time is turned on.
  - Note that changing the Daylight Saving Time for any city code causes the setting to be applied to all city codes, except UTC.

## Alarms



You can set up to five independent multi-function alarms with hour, minutes, month, and day. When an alarm is turned on, the alarm tone sounds when the alarm time is reached. One of the alarms is a snooze alarm, while the other four are one-time alarms.

- You also can turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.
- There are five alarm screens numbered AL1, AL2, AL3, and AL4 for the one-time alarm, a snooze alarm screen indicated by SNZ. 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 (C).

## Alarm Types

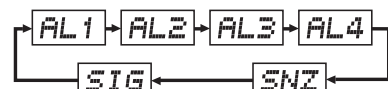
The alarm type is determined by the settings you make, as described below.

- **Daily alarm**  
Set the hour and minutes for the alarm time. This type of setting causes the alarm to sound everyday at the time you set.
- **Date alarm**  
Set the month, day, hour and minutes for the alarm time. This type of setting causes the alarm to sound at the specific time, on the specific date you set.
- **1-Month alarm**  
Set the month, hour and minutes for the alarm time. This type of setting causes the alarm to sound everyday at the time you set, only during the month you set.
- **Monthly alarm**  
Set the day, hour and minutes for the alarm time. This type of setting causes the alarm to sound every month at the time you set, on the day you set.

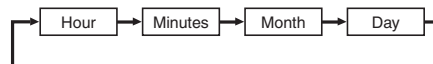
## To set an alarm time



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



- To set a one-time alarm, display an alarm screen AL1, AL2, AL3 and AL4. To set the snooze alarm, display the SNZ screen.
  - The snooze alarm repeats every five minutes.
2. After you select an alarm, hold down (A) until the hour setting of the alarm time starts to flash, which indicates the setting screen.
  3. Press (C) to move the flashing in the sequence shown below to select other settings.



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

Screen	To do this:	Do this:
12:00	Change the hour and minutes	Use (D) (+) and (B) (-). • With the 12-hour format, set the time correctly as a.m. or p.m. (P indicator).
...	Change the month and day	• To set an alarm that does not include a month and/or day, set - for each setting.

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

## Alarm Operation

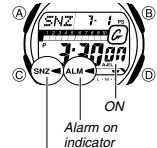
The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the alarm operation is performed a total of seven times, every five minutes, until you turn the alarm off.

- 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.
- 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 SNZ setting screen

### To test the alarm

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

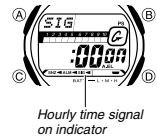
### To turn an alarm on and off



Snooze alarm indicator

1. In the Alarm Mode, use (D) to select an alarm.
2. Press (B) to toggle it on and off.
- Turning on a alarm (AL 1, AL 2, AL 3, AL 4 or SNZ) displays the alarm on indicator (ALM) on its Alarm Mode screen.
- In all modes, the alarm on indicator is shown for any alarm that is currently turned on.
- The alarm on indicator flashes while the alarm is sounding.
- The snooze alarm indicator (SNZ) flashes while the snooze alarm is sounding and during the 5-minute intervals between alarms.

### To turn the Hourly Time Signal on and off



Hourly time signal on indicator

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

## Stopwatch



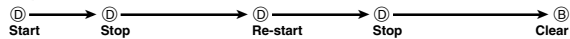
Minutes 1/100 second Seconds

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

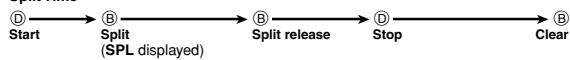
- The display range of the stopwatch is 23 hours, 59 minutes, 59.99 seconds.
- The stopwatch continues to run, restarting from zero after it reaches its limit, until you stop it.
- The stopwatch measurement operation continues even if you exit the Stopwatch Mode.
- Exiting the Stopwatch Mode while a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

### To measure times with the stopwatch

#### Elapsed Time



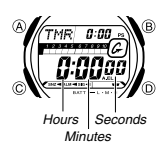
#### Split Time



#### Two Finishes



## Countdown Timer



Hours Seconds Minutes

You can set the countdown timer 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 (C).

### Configuring the Countdown Timer

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

#### Countdown start time

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

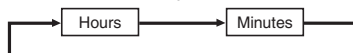
### Countdown End Beeper

The countdown end beeper lets you know when the countdown reaches zero. The beeper stops after about 10 seconds or when you press any button.

### To configure the countdown timer



1. While the countdown start time is on the display in the Countdown Timer Mode, hold down (A) until the current countdown start time starts to flash, which indicates the setting screen.
- If the countdown start time is not displayed, use the procedure under "To use the countdown timer" to display it.
2. Press (C) to move the flashing in the sequence shown below to select other settings.



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

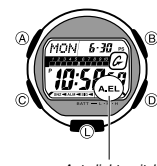
Setting	Screen	Button Operation
Hours, Minutes	0:00	Use (D) (+) and (B) (-) to change the setting.

- To specify a countdown start time of 24 hours, set 0:00.
4. Press (A) to exit the setting screen.

### To use the countdown timer

- Press (D) while in the Countdown Timer Mode to start the countdown timer.
- The countdown timer operation continues even if you exit the Countdown Timer Mode.
  - Press (D) while a countdown operation is in progress to pause it. Press (D) again to resume the countdown.
  - To stop a countdown operation completely, first pause it (by pressing (D)), and then press (B). This returns the countdown time to its starting value.

## Illumination



Auto light switch on indicator

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

- 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 illuminate the display manually

- In any mode, press (L) 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 (L), the illumination will remain on for about 1.5 seconds or 3 seconds, depending on the current illumination duration setting.

### To specify the illumination duration

1. In the Timekeeping Mode, hold down (A) until the display contents start to flash. This is the setting screen.
2. Press the (C) button three times to move the flashing to the seconds.
3. While the seconds are flashing, press (B) to toggle the setting between 1.5 seconds (1.5) and 3 seconds (3).
4. Press (A) 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. Note that this watch features a "Full Auto EL Light," so the auto light switch operates only when available light is below a certain level. It does not turn on the backlight under bright light.

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 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 (L) for about three seconds to toggle the auto light switch on (A.EL displayed) and off (A.EL not displayed).

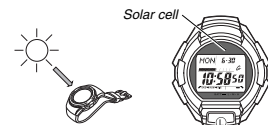
- The auto light switch on indicator (A.EL) is on the display in all modes while the auto light switch is turned on.

## Power Supply

This watch is equipped with a solar cell and a special rechargeable battery (secondary battery) that is charged by the electrical power produced by the solar cell. The illustration shown below shows how you should position the watch for charging.

### Example: Orient the watch so its face is pointing at a light source.

- The illustration shows how to position a watch with a resin band.
- Note that charging efficiency drops when any part of the solar cell is blocked by clothing, etc.
- You should try to keep the watch outside of your sleeve as much as possible. Charging is reduced significantly if the face is covered only partially.

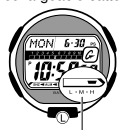


### Important!

- Storing the watch for long periods in an area where there is no light or wearing it in such a way that it is blocked from exposure to light can cause rechargeable battery power to run down. Be sure that the watch is exposed to bright light whenever possible.
- This watch uses a special rechargeable battery to store power produced by the solar cell, so regular battery replacement is not required. However, after very long use, the rechargeable battery may lose its ability to achieve a full charge. If you experience problems getting the special rechargeable battery to charge fully, contact your dealer or CASIO distributor about having it replaced.
- Never try to remove or replace the watch's special battery yourself. Use of the wrong type of battery can damage the watch.
- All data stored in memory is deleted, and the current time and all other settings return to their initial factory defaults whenever battery power drops to Level 5 and when you have the battery replaced.
- Turn on the watch's Power Saving function and keep it in an area normally exposed to bright light when storing it for long periods. This helps to keep the rechargeable battery from going dead.

### Battery Power Indicator and Recover Indicator

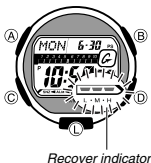
The battery power indicator on the display shows you the current status of the rechargeable battery's power.



Battery power indicator

Level	Battery Power Indicator	Function Status
1		All functions enabled.
2		All functions enabled.
3	 (Charge Soon Alert)	Auto and manual receive, illumination, and beeper disabled.
4		Except for timekeeping and the C (charge) indicator, all functions and display indicators disabled.
5		All functions disabled.

- The flashing **LOW** indicator at Level 3 tells you that battery power is very low, and that exposure to bright light for charging is required as soon as possible.
- At Level 5, all functions are disabled and settings return to their initial factory defaults. Once the battery reaches Level 2 after falling to Level 5, reconfigure the current time, date, and other settings.
- The watch's Home City code setting will change automatically to **TYO** (Tokyo) whenever the battery drops to Level 5. With this Home City code setting, the watch is configured to receive the time calibration signals of Japan. If you are using the watch in North America or Europe, or China you will need to change the Home City code setting to match your location whenever the battery drops to Level 5.
- Display indicators reappear as soon as the battery is charged from Level 5 to Level 2.
- Leaving the watch exposed to direct sunlight or some other very strong light source can cause the battery power indicator to show a reading temporarily that is higher than the actual battery level. The correct battery level should be indicated after a few minutes.



Recover indicator

- Performing illumination, or beeper operations during a short period may cause **LOW** (recover) to appear on the display. Illumination, alarm, countdown timer alarm, and hourly time signal will be disabled until battery power recovers. After some time, battery power will recover and **LOW** (recover) will disappear, indicating that the above functions are enabled again.
- If **LOW** (recover) appears frequently, it probably means that remaining battery power is low. Leave the watch in bright light to allow it to charge.

### Charging Precautions

Certain charging conditions can cause the watch to become very hot. Avoid leaving the watch in the areas described below whenever charging its rechargeable battery. Also note that allowing the watch to become very hot can cause its liquid crystal display to black out. The appearance of the LCD should become normal again when the watch returns to a lower temperature.

#### Warning!

Leaving the watch in bright light to charge its rechargeable battery can cause it to become quite hot. Take care when handling the watch to avoid burn injury. The watch can become particularly hot when exposed to the following conditions for long periods.

- On the dashboard of a car parked in direct sunlight
- Too close to an incandescent lamp
- Under direct sunlight

### Charging Guide

After a full charge, timekeeping remains enabled for up to about seven months. The following table shows the amount of time the watch needs to be exposed to light each day in order to generate enough power for normal daily operations.

Exposure Level (Brightness)	Approximate Exposure Time
Outdoor Sunlight (50,000 lux)	5 minutes
Sunlight Through a Window (10,000 lux)	24 minutes
Daylight Through a Window on a Cloudy Day (5,000 lux)	48 minutes
Indoor Fluorescent Lighting (500 lux)	8 hours

- Since these are the specs, we can include all the technical details.
  - Watch not exposed to light
  - Internal timekeeping
  - Display on 18 hours per day, sleep state 6 hours per day
  - 1 illumination operation (1.5 second) per day
  - 10 seconds of alarm operation per day
  - Measurement of 26 Rally Mode stages per month
  - Approximately 4 minutes of signal reception per day
- Stable operation is promoted by frequent exposure to light.

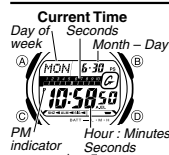
### Recovery Times

The table below shows the amount exposure that is required to take the battery from one level to the next.

Exposure Level (Brightness)	Approximate Exposure Time				
	Level 5	Level 4	Level 3	Level 2	Level 1
Outdoor Sunlight (50,000 lux)		2 hours		26 hours	7 hours
Sunlight Through a Window (10,000 lux)		6 hours		129 hours	36 hours
Daylight Through a Window on a Cloudy Day (5,000 lux)		11 hours		263 hours	73 hours
Indoor Fluorescent Lighting (500 lux)		118 hours		-----	-----

- The above exposure time values are all for reference only. Actual required exposure times depend on lighting conditions.

### Timekeeping



Current Time



Dual Time

Press the **(B)** button to toggle the lower display between the day of the week and date, and the currently selected World Time city and time (Dual Time). Use the Timekeeping Mode to set and view the current time and date.

### Read This Before You Set the Time and Date!

This watch is preset with a number of city codes, each of which represents the time zone where that city is located. When setting the time, it is important that you first select the correct city code for your Home City (the city where you normally use the watch). If your location is not included in the preset city codes, select the preset city code that is in the same time zone as your location.

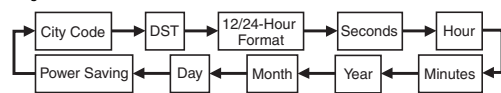
- Note that all of the times for the World Time Mode city codes are displayed in accordance with the time and date settings you configure in the Timekeeping Mode.

### To set the time and date manually



- In the Timekeeping Mode hold down **(A)** until the city code starts to flash, which indicates the setting screen.
- Use **(D)** and **(B)** 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 "UTC Differential/City Code List".
- Press **(C)** to move the flashing in the sequence shown below to select the other setting.



- The following steps explain how to configure timekeeping settings only.
- When the timekeeping setting you want to change is flashing, use **(D)** or **(B)** to change it as described below.

Screen:	To do this:	Do this:
<b>TYO</b>	Change the city code	Use <b>(D)</b> (east) and <b>(B)</b> (west).
<b>OFF</b>	Cycle between Auto DST (AUTO), Daylight Saving Time (DST) and Standard Time (OFF).	Press <b>(D)</b> .
<b>12H</b>	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping	Press <b>(D)</b> .
<b>50</b>	Reset the seconds to <b>00</b>	Press <b>(D)</b> .
<b>10:58</b>	Toggle the display illumination duration between 1.5 and 3 seconds	Press <b>(B)</b> .
<b>10:58</b>	Change the hour and minutes	Use <b>(D)</b> (+) and <b>(B)</b> (-).
<b>20 08 6:30</b>	Change the year, month, or day	
<b>PS 00</b>	Toggle between Power Saving on (PS) and off (OFF)	Press <b>(D)</b> .

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

- Auto DST (AUTO) can be selected only while L IS, LON, MAD, PAR, ROM, BER, STO, ATH, MOU, TPE, SEL, TYO, HNL, ANC, YVR, LAX, YEA, DEN, MEX, CHI, MIA, YTO, NYC, YHZ, or YTT is selected as the Home City code. For more information, see "Daylight Saving Time (DST)" below.
- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.

### 12-hour and 24-hour timekeeping

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

## 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.

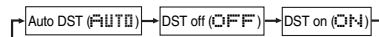
The time calibration signals transmitted from Mainflingen (Germany), Anthorn (England), or Fort Collins (the United States) include both Standard Time and DST data. When the Auto DST setting is turned on, the watch switches between Standard Time and DST (summer time) automatically in accordance with the signals.

- Though the time calibration signal transmitted by the Fukushima and Fukuoka/Saga, Japan transmitters include summer time data, summer time currently is not implemented in Japan (as of 2007).
- The default DST setting is Auto DST (AUTI) whenever you select LIS, LON, MAD, PAR, ROM, BER, STO, ATH, MOW, TYO, ANC, YVR, LAX, YEA, DEN, MEX, CHI, MIA, YTO, NYC, YHZ, or YTT as your Home City code.
- If you experience problems receiving the time calibration signal in your area, it probably is best to switch between Standard Time and Daylight Saving Time (summer time) manually.

### To change the Daylight Saving Time (summer time) setting



1. In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
2. Press (C) and the DST setting screen appears.
3. Use (D) to cycle through the DST settings in the sequence shown below.



- If you change your Home City to one that is within the same transmitter area, the current DST setting will be retained. If you change to a city that is outside your current transmitter area, DST will be turned off automatically.

#### Transmitter area city codes

- TYO, TPE, and EEL
- HKG, BJS
- HNL, ANC, LAX, DEN, CHI, NYC, YVR, YEA, MEX, MIA, YTO, YHZ, and YTT
- LON, PAR, BER, ATH, LIS, MAD, ROM, STO, and MOW
- All other city codes

4. When the setting you want is selected, press (A) to exit the setting screen.
- The DST indicator appears to indicate that Daylight Saving Time is turned on.

## Reference

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

### Graphic Area

The information shown in the graphic area depends on the current mode.

Graphic Area	Mode	Graphic Area
	Timekeeping Mode	Timekeeping Mode seconds
	Rally Mode	Target time number/Measurement time 1/10 seconds during measurement
	Recall Mode	Record number
	World Time Mode	Timekeeping Mode seconds
	Alarm Mode	No indication
	Stopwatch Mode	Stopwatch Mode 1/10 seconds
	CountdownTimer Mode	CountdownTimer Mode seconds

### 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.

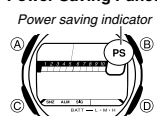
- Even if you turn off the button operation tone, the alarms, the Hourly Time Signal, the countdown alarm, and Rally Mode auto start all operate normally.

### 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 (♫ not displayed) and off (♫ displayed).

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

### Power Saving Function



When turned on, the Power Saving function enters a sleep state automatically whenever the watch is left in an area for a certain period where it is dark. The table below shows how watch functions are affected by the Power Saving function.

Elapsed Time in Dark	Display	Operation
60 to 70 minutes	Blank, with Power Saving indicator (PS) flashing	All functions enabled, except for the display
6 or 7 days	Blank, with Power Saving indicator (PS) not flashing	Auto receive, beeper tone, illumination, and display are disabled.

- Wearing the watch inside the sleeve of clothing can cause it to enter the sleep state.
- The watch will not enter the sleep state between 6:00 AM and 9:59 PM. If the watch is already in the sleep state when 6:00 AM arrives, however, it will remain in the sleep state.

### To recover from the sleep state

Perform any one of the following operations.

- Move the watch to a well-lit area.
- Press any button.
- Angle the watch towards your face for reading.

### To turn Power Saving on and off



1. In the Timekeeping Mode, hold down (A) until the city code starts to flash, which indicates the setting screen.
  2. Press (C) nine times until the Power Saving on/off screen appears.
  3. Press (D) to toggle Power Saving on (PS) and off (PS).
  4. Press (A) to exit the setting screen.
- The Power Saving indicator (PS) is on the display in all modes while Power Saving is turned on.

### Radio-controlled Atomic Timekeeping Precautions

- Strong electrostatic charge can result in the wrong time being set.
- The time calibration signal bounces off the ionosphere. Because of this, such factors as changes in the reflectivity of the ionosphere, as well as movement of the ionosphere to higher altitudes due to seasonal atmospheric changes or the time of day may change the reception range of the signal and make reception temporarily impossible.
- Even if the time calibration signal is received properly, certain conditions can cause the time setting to be off by up to one second.
- The current time setting in accordance with the time calibration signal takes priority over any time settings you make manually.
- The watch is designed to update the date and day of the week automatically for the period January 1, 2000 to December 31, 2099. Setting of the date by the time calibration signal cannot be performed starting from January 1, 2100.
- This watch can receive signals that differentiate between leap years and non-leap years.
- Though this watch is designed to receive both time data (hour, minutes, seconds) and date data (year, month, day), certain signal conditions can limit reception to time data only.
- If you are in an area where proper time calibration signal reception is impossible, the watch keeps time within ±15 seconds a month at normal temperature.
- If you have problems with proper time calibration signal reception or if the time setting is wrong after signal reception, check your current city code, DST (summer time), and auto receive settings.
- The Home City setting reverts to the initial default of TYO (Tokyo) whenever the battery power level drops to Level 5 or when you have the rechargeable battery replaced. If this happens, change the Home City to the setting you want.

### Transmitters

The time calibration signal received by this watch depends on the currently selected Home City code.

- When a U.S. time zone is selected, the watch receives the time calibration signal transmitted from the United States (Fort Collins).
- When a Japanese time zone is selected, the watch receives the time calibration signal transmitted from Japan (Fukuoka and Fukuoka/Saga).
- When a European time zone is selected, the watch receives the time calibration signals transmitted from Germany (Mainflingen) and England (Anthorn).
- When a China time zone is selected, the watch receives the time calibration signals transmitted from China (Shanghai City).
- When your Home City is LIS, LON, MAD, PAR, ROM, BER, STO, ATH, MOW (which can receive both the Anthorn and Mainflingen signals), the watch first tries to pick up the signal it last successfully received. If that fails, it tries the other signal. For the first receive after you select your Home City, the watch tries the nearest signal first (Anthorn for LIS, LON, Mainflingen for MAD, PAR, ROM, BER, STO, ATH, and MOW).

### Auto Return Features

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

### Timekeeping

- Resetting the seconds to 00 while the current count is in the range of 30 to 59 causes the minutes to be increased by 1. In the range of 00 to 29, the seconds are reset to 00 without changing the minutes.
- The year can be set in the range of 2000 to 2099.
- The watch's built-in full automatic calendar makes allowances for different month lengths and leap years. Once you set the date, there should be no reason to change it except after you have the watch's battery replaced.
- 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.

### World Time

- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.

### 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, 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 after a preset amount of time (1.5 or 3 seconds), 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 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.

## UTC Differential/City Code List

City Code	City	UTC Differential
PPG	Pago Pago	-11.0
HNL	Honolulu	-10.0
ANC	Anchorage	-09.0
YVR	Vancouver	
LAX	Los Angeles	-08.0
YEA	Edmonton	
DEN	Denver	-07.0
MEX	Mexico City	
CHI	Chicago	-06.0
MIA	Miami	
YTO	Toronto	-05.0
NYC	New York	
SCL	Santiago	
YHZ	Halifax	-04.0
YYT	St. Johns	-03.5
RIO	Rio De Janeiro	-03.0
RAI	Praia	-01.0
UTC		
LIS	Lisbon	+00.0
LON	London	
MAD	Madrid	
PAR	Paris	
ROM	Rome	+01.0
BER	Berlin	
STO	Stockholm	
ATH	Athens	
CAI	Cairo	+02.0
JRS	Jerusalem	
MOW	Moscow	+03.0
JED	Jeddah	
THR	Tehran	+03.5
DXB	Dubai	+04.0
KBL	Kabul	+04.5
KHI	Karachi	+05.0
DEL	Delhi	+05.5
DAC	Dhaka	+06.0
RGN	Yangon	+06.5
BKK	Bangkok	+07.0
SIN	Singapore	
HKG	Hong Kong	
BJS	Beijing	+08.0
TPE	Taipei	
SEL	Seoul	+09.0
TYO	Tokyo	
ADL	Adelaide	+09.5
GUM	Guam	+10.0
SYD	Sydney	
NOU	Noumea	+11.0
WLG	Wellington	+12.0

- Based on data as of March 2008.
- The rules governing global times (GMT differential and UTC offset) and summer time are determined by each individual country.