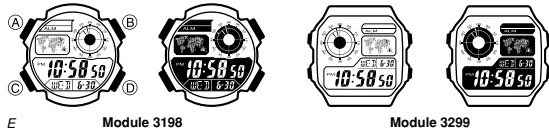


Operation Guide 3198/3299

About This Manual

- The operational procedures for Modules 3198 and 3299 are identical. All of the illustrations in this manual show Module 3198.
- 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.



E

Module 3198

Module 3299

E-1

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Procedure Lookup

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

- To toggle the Timekeeping Mode time between DST and Standard Time E-12
- To turn on illumination E-15
- To view the time for another city code E-16
- To toggle a city code time between Standard Time and Daylight Saving Time E-17
- To change your Home Time city to the current World Time city E-18
- To set an alarm time E-20
- To test the alarm E-22

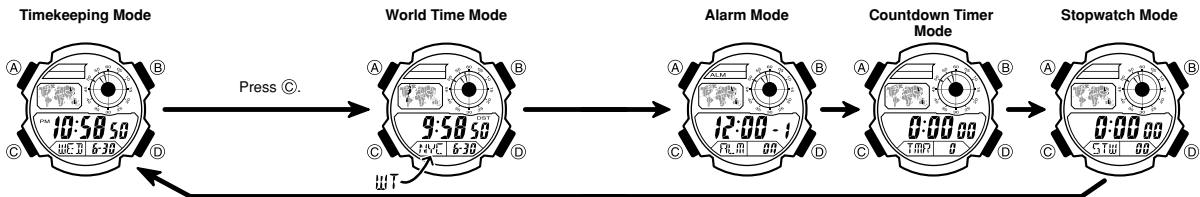
- To turn an alarm on and off E-23
- To turn the Hourly Time Signal on and off E-24
- To configure the countdown timer E-26
- To use the countdown timer E-27
- To measure times with the stopwatch E-29
- To turn the button operation tone on and off E-32
- To turn off Auto Display E-35
- To turn on Auto Display E-35

E-2

E-3

General Guide

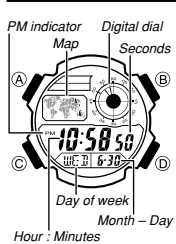
- Press (C) to change from mode to mode.
- In any mode (except when a setting screen is on the display), press (B) to illuminate the display.



E-4

E-5

Timekeeping



The Timekeeping Mode's Multi Time feature gives you quick and easy access to the current time and date in four different cities, numbered from T-1 (Time 1) through T-4 (Time 4). T-1 is your Home City Time, and T-2, T-3, and T-4 are Local Times. Local Times are kept in synchronization with your Home City Time (T-1).

- The digital dial at the top of the screen indicates the current Home City Time (T-1). For details on reading the map and digital dial, see "Map and Digital Dial" (page E-30).

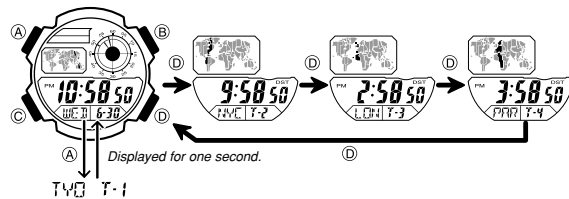
E-6

- While the Home City Time (T-1) screen is displayed, pressing (A) will switch the day of the week / month-day indication to the currently selected Home City code and the T-1 indicator for about one second.
- You can change the current time setting for your Home City Time (T-1) only.
- For Local Times (T-2, T-3, T-4), you only can change the city code and DST setting.

E-8

Switching Between Time Screens

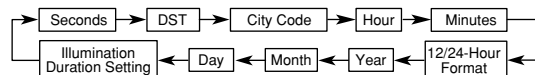
Each press of (D) cycles the time screens in the sequence shown below.



E-7

Changing the Current Home City Time and Date Settings

- Use (D) to display the current Home City Time (T-1) screen.
- Hold down (A) until the seconds start to flash, which indicates the setting screen.
- Press (C) to move the flashing in the sequence shown below to select other settings.



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

E-9

Screen	To do this:	Do this:
50	Reset the seconds to ##.	Press D .
DST 0 FF	Toggle between Daylight Saving Time (##) and Standard Time (g ff).	Press D .
TY	Change the city code.	Use D (east) and B (west).
10:50	Change the hour or minutes.	Use D (+) and B (-).
12H	Toggle between 12-hour (12H) and 24-hour (24H) timekeeping.	Press D .
20 10	Change the year.	Use D (+) and B (-).
6-30	Change the month or day.	Use D (+) and B (-).
1 L.T	Toggle the setting between 1.5 seconds (1) and 3 seconds (3).	Press D .

• See "Daylight Saving Time (DST)" on page E-11 for details about DST setting.

E-10

E-11

To toggle the Timekeeping Mode time between DST and Standard Time

1. Use **D** to display the current Home City Time (T-1) screen.
 2. Hold down **A** until the seconds start to flash, which indicates the setting screen.
 3. Press **C** to display the DST setting screen.
 4. Press **D** to toggle between Daylight Saving Time (## displayed) and Standard Time (g ff displayed).
 5. Press **A** to exit the setting screen.
- The **DST** indicator appears on the Timekeeping screen to indicate that Daylight Saving Time is turned on.



E-12

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

- 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.

12/24-Hour Format

- With the 12-hour format, the **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.

Changing the City Setting of a Local Time

You can select any one of the city codes in the table at the back of this manual as a Local Time city.

1. Display the Local Time whose city setting you want to change, and then hold down **A** for about two seconds until the current city code starts to flash.
2. Use **D** (east) and **B** (west) to select the city code you want.
3. Press **C** to display the DST setting screen.
4. Press **D** to toggle between Daylight Saving Time (## displayed) and Standard Time (g ff displayed).
5. After the settings are the way you want, press **A**.

E-13

Changing Your Home City Time

Use the following procedure to change your current Home City Time to any one of the three Local Times.

1. In the Timekeeping Mode, press **D** to display the Local Time which you want to make your Home City Time.
 2. Press **A** and **B** at the same time.
- This makes the Local Time you selected in step 1 your new Home City Time.

Illumination

An LED (light-emitting diode) illuminate the display for easy reading in the dark.

Illumination Precautions

- The illumination provided by the light may be hard to see when viewed under direct sunlight.
- Illumination automatically turns off whenever an alarm sounds.
- Frequent use of illumination runs down the battery.

E-14

E-15

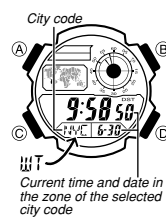
World Time

World Time shows the current time in 48 cities (31 time zones) around the world.

- All of the operations in this section are performed in the World Time Mode, which you enter by pressing **C** (page E-4).

To view the time for another city code

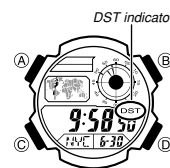
- In the World Time Mode, press **D** to scroll eastwardly through city codes.
- For full information about city codes, see the "City Code Table" at the back of this manual.
 - If the current time for a city is wrong, check your Timekeeping Mode time and time zone settings and make the necessary changes.



E-16

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

1. In the World Time Mode, use **D** (east) to display the city code (time zone) whose Standard Time/Daylight Saving Time setting you want to change.
 2. Hold down **A** for about one second to toggle Daylight Saving Time (DST displayed) and Standard Time (DST not displayed).
- The **DST** indicator is on the display whenever you display a city code for which Daylight Saving Time is turned on.
 - Note that the DST/Standard Time setting affects only the currently displayed city code. Other city codes are not affected.
 - Note that you cannot switch between Standard Time and Daylight Saving Time while UTC is selected as the city code.



E-17

To change your Home Time city to the current World Time city

1. In the World Time Mode, use **D** to display the city you want to make your new Home Time city.
 2. Press **A** and **B** at the same time.
- This makes the World Time city you selected in step 1 your new Home Time city.

E-18

Alarms

Alarm indicator



Alarm number
Alarm time
(Hour : Minutes)

Your watch has a total of five alarms, each of which you can configure as a daily alarm or one-time alarm.

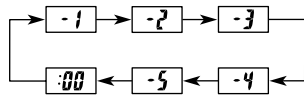
- **Daily Alarm:** Sounds at the preset time each day.
 - **One-time Alarm:** Sounds once at the preset time and then is disabled automatically.
- You can also turn on an Hourly Time Signal that causes the watch to beep twice every hour on the hour.
- All of the operations in this section are performed in the Alarm Mode, which you enter by pressing **C** (page E-5).
 - Alarms operate in coordination with the current Home City Time.

E-19

To set an alarm time



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



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.

- This operation turns on the One-time Alarm automatically.

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. (PM indicator).
1-00/00	Toggle between One-time Alarm and Daily Alarm.	Press (D). One-time Alarm on: 1-00 Daily Alarm on: 00

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

E-20

E-21

Alarm Operation

The alarm tone sounds at the preset time for 10 seconds, regardless of the mode the watch is in.

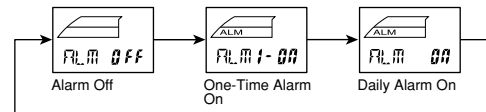
- Alarm and Hourly Time Signal operations are performed in accordance with the Timekeeping Mode time.
- To stop the alarm tone after it starts to sound, press any button.

To test the alarm

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

To turn an alarm on and off

1. In the Alarm Mode, use (D) to select an alarm.
2. Press (A) to cycle through the alarm settings as shown below.

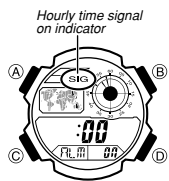


- In all modes, the alarm on indicator is shown for the alarm that is currently turned on.
- The alarm on indicator flashes while the alarm is sounding.

E-22

E-23

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.
2. Press (A) 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.

Countdown Timer



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

- All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (C) (page E-5).

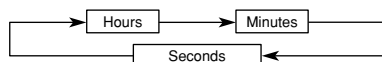
E-24

E-25

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.
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 the flashing item.

- To specify a countdown start time of 24 hours, set 0:00:00.

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

To use the countdown timer



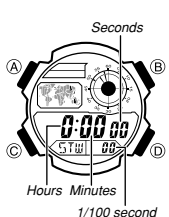
Press (D) while in the Countdown Timer Mode to start the countdown timer.

- When the end of the countdown is reached, the alarm sounds for ten seconds or until you stop it by pressing any button. The countdown time is reset to its starting value automatically when the alarm sounds.
- 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 (A). This returns the countdown time to its starting value.

E-26

E-27

Stopwatch



Seconds

Hours Minutes
1/100 second

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) (page E-5).

To measure times with the stopwatch



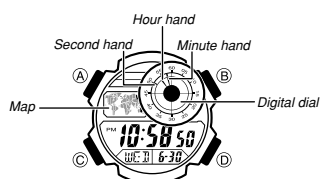
E-28

E-29

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.

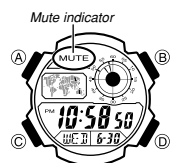
Map and Digital Dial



E-30

- Map: In the Timekeeping and World Time modes, the map shows the zone where the currently displayed digital time is from. In the Alarm, Timer, and Stopwatch modes, it shows the zone of the currently selected Home City Time (T-1).
- Digital dial: In all modes, segments indicate the current Home City Time (T-1) hour, minute, and second.

Button Operation Tone



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

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

E-31

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 (the MUTE indicator not displayed) and off (the MUTE indicator displayed).

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

Auto Return Features

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

E-32

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 World Time 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.

E-33

World Time

- The seconds count of the World Time is synchronized with the seconds count of the Timekeeping Mode.
- All World Time Mode times are calculated from the current Home City Time in the Timekeeping Mode using UTC time offset values.
- The UTC offset is a value that indicates the time difference between a reference point in Greenwich, England and the time zone where a city is located.
- The letters "UTC" is the abbreviation for "Coordinated Universal Time", which is the world-wide scientific standard of timekeeping. It is based upon carefully maintained atomic (cesium) clocks that keep time accurately to within microseconds. Leap seconds are added or subtracted as necessary to keep UTC in sync with the Earth's rotation.

E-34

Auto Display

Auto Display continually changes the contents of the digital display.

To turn off Auto Display

Press any button to turn off Auto Display. This returns to the Timekeeping Mode.

To turn on Auto Display

In the Timekeeping Mode (page E-4), hold down (D) for about three seconds until the watch beeps.

Note

- Auto Display cannot be performed while a setting screen is on the display.

E-35

Specifications

Accuracy at normal temperature: ±30 seconds a month

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: Multi Time (one Home City Time and three Local Times); Daylight Saving Time (summer time)/Standard Time

World Time: 48 cities (31 time zones) and Coordinated Universal Time

Other: Standard Time/Daylight Saving Time (summer time); Home Time City/World Time City swapping

Alarms: 5 alarms (One-time or Daily), Hourly Time Signal

Countdown Timer

Measuring unit: 1/10 second

Input range: 1 second to 24 hours (1-second increments, 1-minute increments and 1-hour increments)

E-36

Stopwatch

Measuring unit: 1/100 second

Measuring capacity: 23:59' 59.99"

Measuring modes: Elapsed time, split time, two finishes

Illumination: LED (light-emitting diode); Selectable illumination duration

Other: Button operation tone on/off; Auto Display function

Battery: One lithium battery (Type: CR2025)

Approximately 10 years on type CR2025; 10 seconds of alarm operation, 1.5 seconds of illumination per day

E-37



City Code Table



L-1

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
DEA	Denver	-7
MEX	Mexico City	-6
CHI	Chicago	-6
NYC	New York	-5
SCL	Santiago	-4
YHZ	Halifax	-4
YYT	St. Johns	-3.5
RIO	Rio De Janeiro	-3
FEN	Fernando de Noronha	-2
RAI	Praia	-1
UTC		0

City Code	City	UTC offset/ GMT Differential
LIS	Lisbon	0
LON	London	0
MAD	Madrid	0
PAR	Paris	0
ROM	Rome	+1
BER	Berlin	+1
STO	Stockholm	+1
ATH	Athens	+2
CAI	Cairo	+2
JRS	Jerusalem	+2
MOW	Moscow	+3
JED	Jeddah	+3.5
THR	Tehran	+3.5
DXB	Dubai	+4
KBL	Kabul	+4.5
KHI	Karachi	+5
DEL	Delhi	+5.5

City Code	City	UTC offset/ GMT Differential
KTM	Kathmandu	+5.75
DAC	Dhaka	+6
RGN	Yangon	+6.5
BKK	Bangkok	+7
SIN	Singapore	+7
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

- Based on data as of December 2010.
- The rules governing global times (UTC offset and GMT differential) and summer time are determined by each individual country.