## Operation Guide 2943

About This Manual


General Guide
General Guide

- Press (D) to change from mode to mode.


Timekeeping

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

| To change this setting | Perform this button operation |
| :---: | :---: |
| Seconds | Press (E) to reset to $\mathbf{1 6}$ [ |
| DST | Press (E) to toggle between Standard Time (WFF) and Daylight Saving Time (Wl). |
| Hour, Minutes, Year, Month, Day | Use (E) (+) and (B) (-) to change the setting. |

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

- See "Daylight Saving Time (DST)" for details about the DST setting.
- For information about specifying how long the display of the watch remains
illuminated, see "To specify the illumination duration.
- The day of the week is displayed automatically in accordance with the date (year, month, and day) settings.
Daylight Saving Time (DST)
Daylight Saving Time (summer time) advances the time setting by one hour from Standard Time. Remember that not all countries or even local areas use Daylight Saving Time.

To toggle the Timekeeping Mode digital time between DST and Standard Time 1. In the Timekeeping Mode, hold down (A) until the seconds start to flash, which indicates the setting screen.

2. Press (D) once and the DST setting screen appears.
3. Press (E) to toggle between Daylight Saving 3. Press (E) to toggle between Daylight Saving Time (ind .
4. The DST indicator appears screen
DST indicator that Daylight Saving Time is turned on

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

- With the 12-hour format, the $\mathbf{P}$ (PM) indicator appears on the display for times in the range of noon to 11:59 p.m. and no indicator appears for times in the range of midnight to 11:59 a.m.
With the 24-hour format, times are displayed in the range of $0: 00$ to $23: 59$, without - The 12-hour/
applied in all modes.

Vibration Alert
When Vibration Alert is turned on, the watch vibrates instead of sounding a beeper.
This lets you use the watch without disturbing others with beeping sounds.

- Vibration Alert can be used to replace alarm sounds.
- For information about selecting the alert type, see "To switch between vibration alert and beeper alert" below.
- For information about countdown timer alerts, see "Countdown Timer"
- For information about the daily alarm and hourly time signal alerts, see "Alarms".
- performed. This is due to vibration of the metal band, and does not indicate malfunction of the watch.

To switch between vibration alert and beeper alert
Vibration alert on in the Timekeeping Mode, hold down (E) for about two indicator $\quad$ seconds to toggle between vibration alert (VIBRATION displayed in all modes) and beeper alert (VIBRATION


## Telememo

The Telememo Mode lets you store up to 30 records, each containing name and telephone number data. Records are automatically sorted based on the characters of the name. You can recall records by scrolling through them on the display.


- See "Sort Table" for details on how the watch sorts records.
- All of the operations in this section are performed in the Telememo Mode, which you enter by pressing (D).
To create a new Telememo record


4. When the character you want is at the cursor position, press (D) to move the cursor to the right.
5. Repeat steps 3 and 4 as required to input all of the characters of the name. - You can input up to eight characters for the name.
6. After you input the name, press (D) as many times as necessary to move the cursor to the number area.

- When the cursor is located at the eighth space of the name area, moving the cursor to the right causes it to jump to the first digit of the number. When the cursor is at the 12th digit of the number, moving it to the right (by pressing (D))
causes it to jump to the first character in the name.


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7. In the number area, use (E) and (B) to cycle through numbers and symbols (hyphen, space) at the cursor position. The characters cycle in the sequence shown below.

8. When the character you want is at the cursor position, press (D) to move the cursor to the right.
9. Repeat steps 7 and 8 as required to input all of the digits of the phone number - You can input up to 12 digits for the number.
10. Press (A) to store your data and return to the Telememo record screen (without the cursor).

- The name can show only three characters at a time, so longer text scrolls continuously from right to left. The last character of the name is the one with the symbol.
The number can display up to six digits at a time. For longer numbers, the display will alternate between the first six digits and the last six digits at two-second are displayed, while a left arrow ( 4 ) on the left side indicates the last six digits.
To recall Telememo records
In the Telememo Mode, use (E) (+) and (B) (-) to scroll through Telememo records as shown below.


To edit a Telememo record

1. In the Telememo Mode, use (E) (+) and (B) ( - ) to scroll through the records and display the one you want to edit.
2. Hold down (A) until the flashing cursor appears on the display.
3. Use (C) to move the flashing to the character you want to change
4. Use (E) (+) and (B) ( - ) to change the character.
5. After making the changes that you want, press (A) to store them and return to the Telememo record screen.
To delete a Telememo record
6. In the Telememo Mode, use (E) (+) and (B) (-) to scroll through the records and display the one you want to delete
7. Hold down (A) until the flashing cursor appears on the display
8. Hold down (E) and (B) at the same time until the watch beeps and CLEAR stops flashing on the display.

- The message CLEAR appears, which indicates that the record is being deleted After the record is deleted, the cursor appears on the display, ready for input. 4. Input data or press (A) to return to the Telememo record screen.


## World Time

Timekeeping Mode time | The World Time Mode shows you the current time in 28 |
| :--- |
| cities (29 time zones) around the world. |
| - The time settings of the Timekeeping Mode and the |
| World Time Mode are independent from each other, so |

lou must make separate settings for each.

- Whenever you change the time setting for any city in the
World Time Mode, the settings of all other cities are
changed accordingly.
All or the operations in this section are performed in the
World Time Mode, which you enter by pressing (D).

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

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

To toggle a city code time between Standard Time and Daylight Saving Time 1. In the World Time Mode, use (B) and (E) to display the
city code (time zone) whose Standard Time/Daylight Hold down (o to toggle Daylight Saving
 Hold down (C) to toggle Daylight Saving Time (DST
indicator displayed) and Standard Time (DST indicator displayed) and Standard Time (DST indicator

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

To set the current time in the World Time Mode

( ${ }^{\text {E }}$ and (B) to select the
city code whose time you want to set.
2. After you select a city code, hold down (A) until the hour setting of the World time starts to flash, which indicates
U. Use (D) to move the
minute setting the flashing between the hour and minute settings.
4. When the setting you want to change is flashing, use (E) $(+)$ and (B) $(-)$ to change - When setting the world time using the 12 -hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (P indicator).
5. Press (A) to exit the setting screen.

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


## Countdown Timer

Timekeeping Mode time

he countdown timer can be set within a range of one minute to 60 minutes. The currently selected alert operation (beeper or vibration) is performed when the end of the countdown is reached. The countdown timer has two modes: auto-repeat and elapsed time. A progress alert (beeper or vibration) signals the progress of the valuable tool for timing the start of a yacht race. - You can select either beeper alert or vibration alert for the alarm. The explanations in this section are based on the beeper alert, unless stated otherwise. All of the operations in this section are performed in the Countdown Timer Mode, which you enter by pressing (D).

Configuring Countdown Timer Settings
The following are the settings you should configure before actually using the countdown timer.
Countdown start time and reset time
Timer mode (auto-repeat, elapsed time)

- See "To configure countdown timer settings" for information about setting up the timer.
Reset Time
You can set a "reset time," which is a kind of alternate countdown start time. After you set a reset time, you can recall it with the press of a button any time a countdown operation is in progress.
Timer Mode
The countdown timer gives you a choice of two modes: auto-repeat and elapsed time Auto-repeat
Auto-repeat automatically restarts the countdown from the countdown start time whenever zero is reached.
- Auto-repeat mode is best when timing the starts of match races.
- Even if you start a countdown operation from the reset time, the countdown
automatically restarts from the countdown start time whenever it reaches zero.
- Auto repeat timing repeats up to seven times.


## Elapsed Time

When the end of the countdown is reached in the elapsed time mod
automatically switches to an elapsed time measurement operation
-The elapsed time mode is best when timing the speed of yachts during ocean races The elapsed time operation is performed in one-second increments up to 99 hours, 9 minutes, 59 seconds.

## Countdown Timer Alert Operations

While a countdown is in progress, the watch performs various different alert operations, so you can keep informed of the countdown status, without looking at the watch display. The following explains each of the countdown timer alert operations.
Countdown End Alert
The following countdown alert operations are performed for each of the final ten seconds of the countdown, and when the countdown reaches zero.

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

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


## Progress Alert

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

## Reset Time Alert

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

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


## Reset Period Progress Alert

The reset period is the portion of the countdown between the reset time and zero During the reset period, the watch performs an alert operation at the top of each minute, and at the point 30 seconds before the end of the countdown is reached. Each reset period progress alert operation consists of four short beeps or two vibrations, depending on the type of alert that is selected.
Countdown Timer Examples
Countdown start time: 10 minutes; Reset time: 5 minutes; Timer mode: Auto-repeat


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


To configure countdown timer settings

1. While the countdown start time is on the display in the Countdown Timer Mode, hold down (A) until the
 countdown start time setting starts to flash, which indicates the setting screen
not displayed, use the use the countdown timer" to display it. below to select other settings.


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

| Setting | Screen | Button Operations |
| :---: | :---: | :---: |
| Start Time |  | Use (E) (+) and (B) ( - ) to change the setting. <br> - You can set a start time in the range of 1 to 60 minutes in 1-minute increments. |
| Reset Time | $\begin{aligned} & \text { FsT/ } \\ & =50 " \end{aligned}$ | Use (E) $(+)$ and (B) $(-)$ to change the setting. <br> - You can set a reset time in the range of 1 to 5 minutes in 1-minute increments. |
| Timer Mode | $\frac{111}{-\frac{11}{111}}$ | Press (E) to toggle between the auto-repeat mode ( and the elapsed time mode ( $->$ ). <br> - An auto-repeat indicator (AUTO RPT) appears when the auto-repeat mode is selected. |

4. Press (A) to exit the setting screen

- The reset time setting must be less than the countdown start time setting.

To use the countdown timer
(A) (D) (B)

| To do this: | Do this: |
| :--- | :--- |
| Stop the countdown operation | Press ©. |
| Resume a stopped countdown operation | Press © again. |
| Display the countdown start time | While the countdown is <br> stopped, press ©B. |
| Stop the countdown operation and display the reset time | Press (B). |
| Start the countdown from the displayed reset time | Press ©C. |

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

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

## Alarms

Timekeeping
Mode time

(Hour: Minutes)
To set an alarm time


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

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

恠 12 -hour format, take care to set the time correctly as a.m. (no indicator) or p.m. (P indicator).

## Alarm Operation

The alert operation (beep or vibration) is performed at the preset time for about 10 seconds, regardless of the mode the watch is in. In the case of the snooze alarm, the the alarm off.

- Pressing any button stops the alert operation.
- Performing any one of the following operations during a 5-minute interval between snooze alarms cancels the current snooze alarm operation.

Displaying the Timekeeping Mode setting screen
To test the alarm
In the Alarm Mode, hold down (E) to perform the currently selected Alarm Mode alert operation.

To turn an alarm on and off


1. In the Alarm Mode, use (E) and
2. Press (C) to toggle it on and off.

- Turning on a one-time alarm ( HL I, fL $\mathrm{F}, \mathrm{FL} \mathrm{E}$ ) displays the alarm on indicator on its Alarm Mode screen. Turning on the snooze alarm ( $=\mathbb{I Z}$ ) displays the alarm on indicator and the snooze alarm indicator on its Alarm Mode screen.
- In all modes, the alarm on indicator is displayed for any
alarm that is currently turned on. When the snooze alarm that is currently turned on. When the snooze alarm is on, the snooze alarm indicator is displayed in all modes.
The alarm on indicator flashes while an alert operation is being performed.
intervals be alarm indicator flashes during the 5-minute intervals between alarms.
To turn the Hourly Time Signal on and off
(A) (B)

Stopwatch


To measure times with the stopwatch
Elapsed Time


Illumination

|  | The watch has an EL (electro-luminescent) panel that causes the entire display to glow for easy reading in the dark. The watch's auto light switch automatically illuminates the display when you angle the watch towards your face. <br> - The auto light switch must be turned on (indicated by the auto light switch on indicator) for it to operate. <br> - See "lllumination Precautions" for other important information about using illumination. <br> To turn on illumination manually <br> In any mode, press (L) to illuminate the display. <br> - You can specify 1.5 seconds or 3 seconds as the illumination duration. See "To specify the illumination duration" for more information. <br> - The above operation turns on illumination regardless of the current auto light switch setting. |
| :---: | :---: |

About the Auto Light Switch
Turning on the auto light switch causes illumination to turn on, whenever you position your wrist as described below in any mode.
Moving the watch to a position that is parallel to the ground and then tilting it towards you at more than 40 degrees causes illumination to turn on. - Wear the watch on the outside of your wrist.


More than $40^{\circ}$

## 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 no startle or distract others around you.
When you are wearing the watch, make sure that its auto light switch is turned vicle Sudden and unintend distraction, which can result in a traffic accident and serious personal injury


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To turn the auto light switch on and off
To turn the auto light switch on and off
In any mode, hold down (L) for about two seconds to toggle the auto light switch on (AUTO EL displayed) and off (AUTO EL not displayed)

- In order to protect against runnning down the battery, the auto light switch will turn off automatically approximately six hours after you turn it on. Repeat the above
procedure to turn the auto light switch back on if you want.
- The auto light switch on indicator (AUTO EL) is on the display in all modes while the auto light switch is turned on.
To specify the illumination duration
(A)

1. In the Timekeeping Mode, hold down (A) until the
seconds start to flash, which indicates the setting
s.30

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

## Auto Return Feature

If you leave a screen with flashing digits on the display for two or three minutes withou performing any operation, the watch automatically saves any settings you have made up to that point and exits the setting screen.

## Scrolling

The (B) and (E) 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 scrol operation scrolls through the data at high speed.

## Timekeeping

- Resetting the seconds to $\mathbf{4 E}$ 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 $\mathbf{T f}$ without changing the minutes
- With the 12 -hour format, the $\mathbf{P}(\mathrm{PM})$ indicator appears on the display for times in the range of noon to 11:59 p.m. and no indicator appears for times in the range of
midnight to 11:59 a.m.
- With the 24 -hour format, times are displayed in the range of 0:00 to $23: 59$, without any indicator.
- The year can be set in the range of 2000 to 2039
- The watch's built-in full automatic calendar makes allowances for different month
lengths and leap years. Once you set the date, there should be no reason to change
it except after you have the watch's battery replaced.
Illumination Precautions
- The electro-luminescent panel that provides illumination loses power after very long use.
- Illumination may be hard to see when viewed under direct sunlight.
- The watch may emit an audible sound whenever the display is illuminated. This is malfunction.
- Illumination automatically turns off whenever an alarm operation (beep and vibration) is performed.
- Frequent use of illumination runs down the battery.

Auto light switch precautions

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

- Illumination may not turn on if the face of the watch is more than 15 degrees above or below parallel. Make sure that the back of your hand is parallel to the ground.
Illumination turns off after the preset illumination
duration (see "To specify the illumination duration"), even if you keep the watch pointed towards your face.

Static electricity or magnetic force can interfere with proper operation of the auto light switch. If illumination does not turn on, try moving the watch back to the starting position (parallel with the ground) and then tilt it back towards you again. If this does not work, drop
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 and switch, and does not indicate a problem with the watch

Sort Table

| 1 | (space) | 10 | I. | 19 | $\cdots$ | 28 | \% | 37 | $\cdots$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | $\cdots$ | 11 | . 7 | 20 | $\cdots$ | 29 | 1 | 38 | ..... |
| 3 | : | 12 | $\because$ | 21 | $\square$ | 30 | $\cdots$ | 39 | * |
| 4 | $\cdots$ | 13 | !... | 22 | !... | 31 | $\cdots$ | 40 | : |
| 5 | \% | 14 | 1 | 23 | 4 | 32 | 4 | 41 | $\because$ |
| 6 | $\cdots$ | 15 | ! | 24 | 1 | 33 |  |  |  |
| 7 | $\cdots$ | 16 | $\cdots$ | 25 | $\because$ | 34 | $\cdots$ |  |  |
| 8 | $\cdots$ | 17 | $\cdots$ | 26 | $\because$ | 35 | $\because$ |  |  |
| 9 | ! | 18 | \% | 27 | $\cdots$ | 36 | $\cdots$ |  |  |

City Code Table

| City | City |  | Other major cities in same time zone |
| :---: | :---: | :---: | :---: |
| PPG | Pago Pago | -11.0 |  |
| HNL | Honolulu | -10.0 | Papeete |
| ANC | Anchorage | -09.0 | Nome |
| LAX | Los Angeles | -08.0 | San Francisco, Las Vegas, Vancouver, Seattle/Tacoma, Dawson City |
| DEN | Denver | -07.0 | El Paso, Edmonton |
| CHI | Chicago | -06.0 | Houston, Dallas/Fort Worth, New Orleans, Mexico City, Winnipeg |
| NYC | New York | -05.0 | Montreal, Detroit, Miami, Boston, Panama City, Havana, Lima, Bogota |
| CCS | Caracas | -04.0 | La Paz, Santiago, Port Of Spain |
| RIO | Rio De Janeiro | -03.0 | Sao Paulo, Buenos Aires, Brasilia, Montevideo |
| --- |  | -02.0 |  |
| --- |  | -01.0 | Praia |
| GMT |  | +00.0 | Dublin, Lisbon, Casablanca, Dakar, Abidjan |
| LON | London | +00.0 |  |
| PAR | Paris | +01.0 | Milan, Rome, Madrid, Amsterdam, Algiers, Hamburg, Berlin, Frankfurt, Vienna, Stockholm |
| CAl | Cairo |  | Helsinki, Istanbul, Beirut, Damascus, |
| JRS | Jerusalem | +02.0 | Cape Town, Athens |
| JED | Jeddah | +03.0 | Kuwait, Riyadh, Aden, Addis Ababa, Nairobi, Moscow |
| THR | Tehran | +03.5 | Shiraz |
| DXB | Dubai | +04.0 | Abu Dhabi, Muscat |
| KBL | Kabul | +04.5 |  |
| KHI | Karachi | +05.0 | Male |
| DEL | Delhi | +05.5 | Mumbai, Kolkata |
| DAC | Dhaka | +06.0 | Colombo |
| RGN | Yangon | +06.5 |  |
| BKK | Bangkok | +07.0 | Jakarta, Phnom Penh, Hanoi, Vientiane |
| HKG | Hong Kong | +08.0 | Singapore, Kuala Lumpur, Beijing, Taipei, Manila, Perth, Ulaanbaatar |
| TYO | Tokyo | +09.0 | Seoul, Pyongyang |
| ADL | Adelaide | +09.5 | Darwin |
| SYD | Sydney | +10.0 | Melbourne, Guam, Rabaul |
| NOU | Noumea | +11.0 | Port Vila |
| WLG | Wellington | +12.0 | Christchurch, Nadi, Nauru Island |

- Based on data as of June 2004

