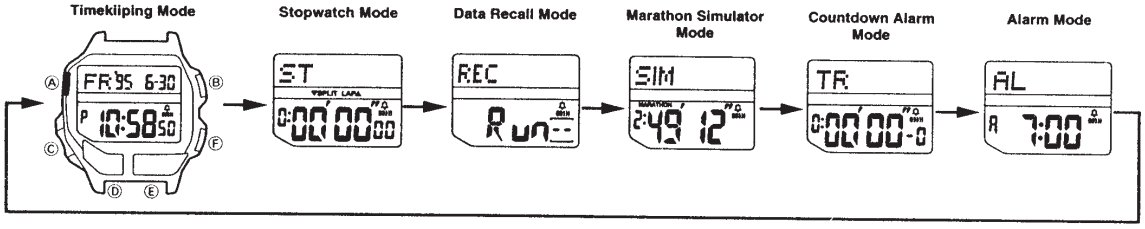
# OPERATION CHART:MODULE QW-1531

## GENERAL GUIDE

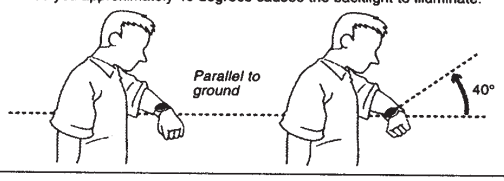
- Press Ⓒ to change from mode to mode.
- The display features an auto backlight that automatically turns on whenever you turn the watch towards your face.



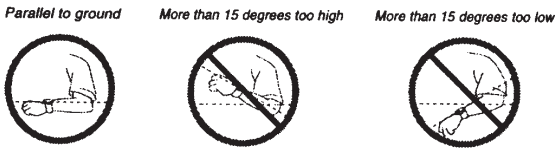

## ABOUT THE AUTO BACKLIGHT FUNCTION

When the auto backlight function is turned on, the backlight automatically turns on for two seconds under the conditions described below. Avoid wearing the watch on the inside of your wrist. Doing so causes the auto backlight to operate when not needed, which shortens battery life.

Moving the watch to a position that is parallel to the ground and then tilting it towards you approximately 40 degrees causes the backlight to illuminate.



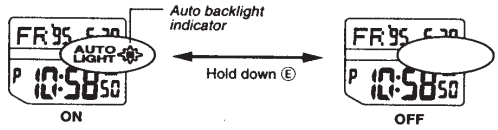

- The backlight may not illuminate if the face of the watch is more than 15 degrees off parallel to the left or right. Make sure that the back of your hand is parallel to the ground.




- Static electricity or magnetic force can interfere with proper operation of the auto backlight function. If the auto backlight does not illuminate, 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 the backlight may not light until about one second or less after turn the face of the watch towards you. This does not necessarily indicate malfunction of the backlight.

**To switch the auto backlight function on and off**

In the Timekeeping Mode, Stopwatch Mode or Countdown Alarm Mode, hold down Ⓔ for one or two seconds to turn the auto backlight function on and off.




- The auto backlight indicator is shown on the display in all modes while the auto backlight function is on.
- In order to protect against running down the battery, the auto backlight function is automatically turned off approximately three hours after you turn it on. Repeat the above procedure to turn the auto backlight function back on if you want.
- Pressing Ⓑ illuminates the display, regardless of the auto backlight's on/off setting, in all modes except for the Data Recall Mode and Marathon Simulator Mode.

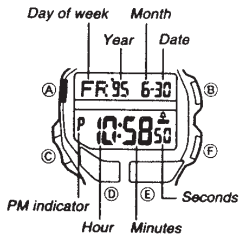
**Caution**

- The backlight of this watch employs an electro-luminescent (EL) light, which loses its illuminating power after very long term use.
- Frequent use of the backligfht shrtens the battery life.
- The watch emits an audible sound whenever the display is illuminated. This is caused because the EL light vibrates slightly when lit. It does not indicate malfunction of the watch.

**Warning!**

- **Never try to read your watch when mountain climbing or hiking in areas that are dark or in areas with poor footing. Doing so is dangerous and can result in serious personal injury.**
- **Never try to read your watch when running on a roadside or in any other location where there might be vehicular or pedestrian traffic. Doing so is dangerous and can result in serious personal injury.**
- **Never try to read your watch when riding on a bicycle or when operating a motorcycle or any other motor vehicle. Doing so is dangerous and can result in a traffic accident and serious personal injury.**
- **When you are wearing the watch, make sure that its auto backlight function is turned off before riding on a bicycle or operating a motorcycle or any other motor vehicle.**
  **Sudden and unintended operation of the auto backlight can create a distraction, which can result in a traffic accident and serious personal injury.**

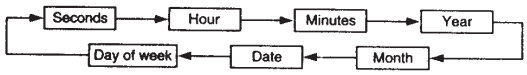
## TIMEKEEPING MODE




- In the Timekeeping Mode, press Ⓕ to switch between the 12-hour and 24-hour formats.
- In the Timekeeping Mode, press Ⓑ to illuminate the display for a few seconds.

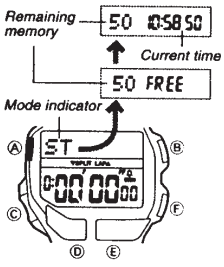
**To set the digital time and date**

1. Press Ⓐ while in the Timekeeping Mode. The seconds digits flash on the display because they are *selected*.
2. Press Ⓒ to change the selection in the following sequence.




3. While the seconds digits are selected (flashing), press Ⓔ to reset the seconds to "00". If you press Ⓔ while the seconds count is in the range of 30 to 59, the seconds are reset to "00" and 1 is added to the minutes. If the seconds count is in the range of 00 to 29, the minutes count is unchanged.
4. While any other digits (besides seconds) are selected (flashing), press Ⓔ to increase the number. While the day of the week is selected, pressing Ⓔ advances to the next day. Holding down Ⓔ changes the current selection at high speed.
   - The date can be set within the range of January 1, 1995 to December 31, 2039.
5. After you set the time and date, press Ⓐ to return to the Timekeeping Mode.
   - If you do not operate any button for a few minutes while a selection is flashing, the flashing stops and the watch goes back to the Timekeeping Mode automatically.

## STOPWATCH MODE




The Stopwatch Mode lets you measure elapsed time, lap times, and split times. You can also store up to 50 lap and split times in memory. The range of the stopwatch is 99 hours, 59 minutes, 59 seconds.
A Target Time function makes it easy for you to maintain a specific pace when running a race. See "About target times" for details.

- In the Stopwatch Mode, press Ⓑ to illuminate the display for four or five seconds.

**Initial display**

Whenever you enter the Stopwatch Mode, the upper display changes as shown in the illustration.

- The current time is the time kept in the Timekeeping Mode.

**To measure elapsed time**

1. Press Ⓓ to start the stopwatch.
2. Press Ⓓ to stop the stopwatch.
   - You can resume the measurement operation by pressing Ⓓ again.
3. Press Ⓔ to clear the stopwatch to all zeros.

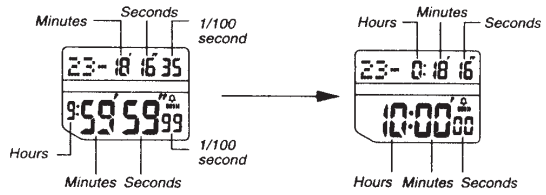
**To measure lap and split times**

1. Press Ⓓ to start the stopwatch.
2. Press Ⓔ to display the timing up to that point. Stopwatch timing continues internally.
   - When you press Ⓔ, the lap time and lap number for the lap whose time you just measured appears for about five or six seconds in the upper part of the display. Next the lap time differential (the difference between the time of the lap you just measured and the time of the previous lap)appears in the upper part of the display for about five seconds.
   - During the period that the upper part of the display shows the lap time and the lap time differential, the lower part of the display shows the split time.
   - After the above, the display automatically switches back to the normal stopwatch (elapsed time) display.
   - Pressing Ⓕ at any time while the lap/split time or the lap time differential is on the display causes the target time differential (the difference between the current lap/split times and preset target times) to appear. See "To view the target time differentials" for details on the target time differential display.
3. You can repeat step 2 as many times as you want.
4. Press Ⓓ to stop the time measurement.
5. Press Ⓔ to clear the stopwatch to all zeros.

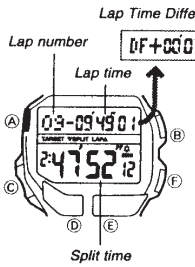
### Measurement display

When you start a timing operation, the upper display automatically switches to show the lap time in place of the current time.

- Whenever the time being measured in the Stopwatch Mode becomes greater than 9 hours, 59 minutes, 59.99 seconds, the display automatically switches as shown in the illustration below.




### Lap/Split display




- The lap time appears in the upper part of the display. You can use this function to time how long it takes to complete a specific portion (such as a single lap) of a race.
- The split time appears in the lower part of the display. You can use this function to time how long it takes to get from the start to a specific point in a race.
- The lap time differential is the difference between the time of the lap you just measured (the time that initially appears in the upper part of the display when you measure a lap/split time) and the time of the previous lap.

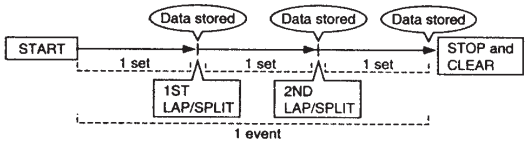
### About the memory function

Whenever you perform a lap/split time operation and whenever you clear the stopwatch display, the measured time is automatically stored into memory along with the measurement day and date.

This watch manages data according to events, which are made up of multiple sets of data. All data stored from the start of the stopwatch operation to the end of the stopwatch operation makes up one event. Within an event, each lap/split operation stores one set of data. The watch can hold up to 50 sets of data in memory.

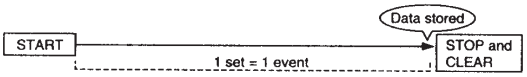
**<Example 1>**

The following operation causes one event, which consists of three sets of data, to be stored into memory.




**<Example 2>**

If you do not perform a lap/split operation, the event is made up of a single set of data.




When memory becomes full (after 50 sets of data are stored), the next storage operation automatically deletes the oldest data currently stored in memory.
Note that data is generally deleted event-by-event, and not set-by-set. This means that if the oldest data stored in memory is an event that consists of three sets of data, the entire event (all three sets of data) is deleted when a new set of data is stored.

The exception to the above rule takes effect when there is only one event, consisting of 50 sets of data, in memory. In that case, the 51st set of data recorded replaces the oldest set of data in memory (which is set number 1 of the 50-set event), without deleting the other sets of data that make up the event.
For details on recalling memory data and how to manually delete data, see "Data Recall Mode".

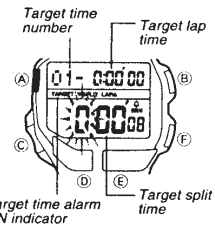
### About target times

You can input up to 10 target split times, which are used to automatically calculate target lap times. The watch beeps twice when the target times are reached, so the runner can tell whether the current pace is slower or faster than planned. The last 9 seconds before the final target times (the goal target times) is reached are counted down by a beeper.

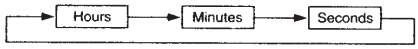
**Note!**

- Operation of target times can be switched on and off.
- Both the lap time and the split time appear on the display when you are inputting target split times. Note, however, that you can only input target split time data in the lower part of the display. Target lap times are calculated automatically based on the target split times you input.
- You can preset target split times in 1-second increments, up to 99 hours, 59 minutes, 59 seconds.

### To set target times




1. While the initial Stopwatch Mode display is shown, press Ⓐ.
   - This causes the Target Time 1 screen to appear, with the hour digit of the target split time flashing in the lower part of the display. The digit is flashing because it is selected.
2. If there are already target times stored in memory, delete them by holding down Ⓑ until the watch emits a long beep.
   - Note that you must delete all of the target times currently stored in memory before setting new ones.
   - Target times cannot be deleted individually.
3. Press Ⓒ to change the selected (flashing) target split time values in the following sequence.

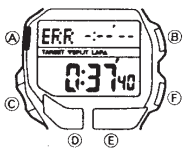



4. While any value is selected (flashing), press Ⓔ to increase it or Ⓓ to decrease it. Holding down either button changes the current selection at high speed.
5. After you preset the target times on the current target time screen, press Ⓕ to advance to the next target time screen.
   - The next target time screen appears with the hour digit of its split time flashing.
6. Press Ⓓ or Ⓔ to copy the target lap time from the previous target time screen.
   - At this time, the target lap time from step 4 appears in the upper part of the display. The lower part of the display shows the split time up to that point (split time from the previous target time screen plus the target lap time in the upper part of the display).
   - Now you can change the split time if you want.
7. Repeat steps 3 through 6 to set up to 10 target split times.
8. After you set as many target times as you like, press Ⓐ to return to the Stopwatch Mode display.
   - If you do not perform any operation while the target time setting display is shown, the watch automatically returns to the normal Stopwatch Mode display.

### About the error (ERR) display

The 10 target times represent your progress as you run an event. This means that each successive target split time must be greater than the last one (i.e. target split time 2 must be greater than target split time 1, target split time 3 must be greater than target split time 2, etc.)

**[Error Display]**



An error display appears whenever you set a target split time that is not greater than the target split time before it.

- Note that the target time alarm does not sound when the target time that produces an error display is reached.

### To correct a target time error

1. While the error message is on the display, press Ⓕ.
   - This causes the target lap/split time causing the error to change to all zeros.
2. Use the same procedures starting from step 6 under "To set target times" to change the target times to valid ones.

### About the OVER display

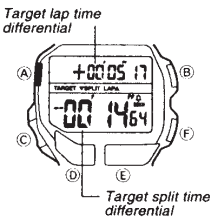
You can input target split times up to 99 hours, 59 minutes, 59 seconds. Whenever you try to preset a target split time that exceeds this, the message "OVER" appears in the lower part of the display for a few seconds when you press Ⓓ or Ⓔ to copy the target lap time from the previous target time screen. Next, the last valid target split time appears on the display, with the target lap time set as zero.

### To check current target time settings

You can check target time settings while the Stopwatch Mode's initial display is shown or while measuring elapsed time in the Stopwatch Mode.

- While the Stopwatch Mode's initial display is shown, press Ⓕ to scroll through target times in target time screen number sequence. The display automatically changes back to the Stopwatch Mode's initial display about four or five seconds after you stop pressing Ⓕ.
- While an elapsed time operation is being performed in the Stopwatch Mode, press Ⓕ to view the target time that is currently being applied to the timing. The display automatically changes back to the elapsed time display about four or five seconds after you stop pressing Ⓕ.

### To view the target time differentials




While the lap/split time or the lap time differential is on the display in the Stopwatch Mode, press Ⓕ to view the lap/split time differentials with the target time that is currently being applied to the timing.

### To switch a target time alarm on and off

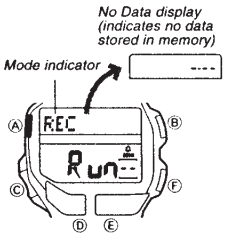
This operation switches all target time alarms on and off. You cannot switch individual target time alarms on and off.

1. While the Stopwatch Mode's initial display is shown, press Ⓐ. The hour digit of Target Time 1 starts to flash in the lower part of the display because it is selected.
2. Press Ⓑ to switch the target time alarms on and off.
   - The indicator "TARGET" shows that the alarms are on.
3. Press Ⓐ to return to the Stopwatch Mode.

### To delete all target times

1. While the Stopwatch Mode's initial display is shown, press Ⓐ. The hour digit of Target Time 1 starts to flash in the lower part of the display because it is selected.
2. Hold down Ⓑ until the watch emits a long beep.
   - This step deletes all the target times. Note that you cannot delete the target times individually.
3. Press Ⓐ to return to the Stopwatch Mode.

## DATA RECALL MODE

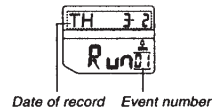



The Data Recall Mode is used to recall and delete data that is stored by Stopwatch Mode operations.

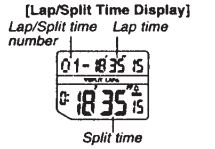
- When memory becomes full, storing new data causes the oldest data in memory to be deleted. Be sure to make a written record of important data to guard against deleting it.

### To recall data from memory

**[Event Number Display]**




**[Lap/Split Time Display]**




1. In the Data Recall Mode, press Ⓕ to scroll through the events, from the newest to the oldest (number 1).
   - Pressing Ⓑ moves backward through the displays.
2. When the event number for the data you want to see is displayed, press Ⓔ to switch to its Lap/Split Time Display. Each press of Ⓔ scrolls the data in lap/split number sequence.
   - Pressing Ⓓ moves backward through the displays.
   - Event numbers are assigned automatically to each event, in sequence with the oldest event being 1, the next oldest 2, etc.

- Whenever data is deleted automatically or manually, event numbers are automatically adjusted so that they are numbered from oldest to newest.

### To manually delete a single event

The following procedure deletes all of the data stored for the event you select. Note that you cannot delete specific data contained in an event.

1. In the Data Recall Mode, recall the event whose data you want to delete.
   - You can use the Event Number Display or the Lap/Split Time Display to recall data. Just make sure that the event you select is the one whose data you want to delete.
2. Hold down Ⓐ and the message "CLR" appears on the display. Keep Ⓐ held down for about two seconds until the watch emits a long beep to indicate that the data of the event you selected is cleared.

**Important!**

- Note that data sets already stored in memory for an event that is still being timed shows up in the Data Recall Mode but it cannot be deleted. Even if stopwatch timing has been stopped, you will not be able to delete the data until the stopwatch display is cleared to all zeros. End the measurement operation in the Stopwatch Mode, clear the stopwatch display to all zeros (by pressing Ⓔ) and then return to the Data Recall Mode to view or delete the data.

### To manually delete all data

The following procedure deletes all of the data stored in memory.

1. In the Data Recall Mode, hold down Ⓐ for about two seconds until the watch emits a long beep.
   - At this time the message "CLR" appears on the display.
2. While "CLR" is on the display, hold down Ⓐ for about one more second.
   - The message "ALL" appears to indicate that all data will be deleted. In about two seconds, the watch beeps again to indicate that all data is deleted.

**Important!**

- The watch will not perform the above procedure if the stopwatch display shows a time other than all zeros. Press Ⓔ to clear the stopwatch display to all zeros before performing the above operation.

## MARATHON SIMULATOR MODE

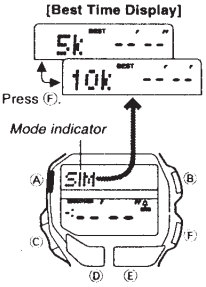
The Marathon Simulator Mode uses your best 10-kilometer or 5-kilometer time to predict your finishing time for a full marathon. This feature helps you set realistic targets for marathon events based upon your past performances.

**Important!**

- The times produced by the Marathon Simulator Mode are based upon statistical data.
- The times produced by the Marathon Simulator Mode are meant to be targets only. Since your best times for 5 kilometers and 10 kilometers are used to calculate the times, the target marathon times should be viewed also as best times. Your ability to attain these targets depends upon race day conditions, your training program, and a number of other variables. Never overexert yourself in an attempt to reach the times calculated by the Marathon Simulator Mode.
- Marathon Simulator Mode displays are based upon statistical data from male runners. The best marathon time for a female runner will normally be somewhat faster than that produced by this mode.
- Always consult with a physician before undertaking any program of rigorous exercise.

### To use the Marathon Simulator Mode

**[Best Time Display]**




1. Press Ⓕ to switch between the 10-kilometer and 5-kilometer Best Time displays.
   - Select the display for the distance that you want to use as the basis for calculations in the Marathon Simulator Mode.
2. In the upper part of the display, select the time that represents your best time for the distance you selected in step 1. The corresponding best marathon time will appear in the bottom part of the display.
   - Press Ⓔ to increase the time in one-second increments or Ⓓ to decrease the time. Holding down either button changes the time at high speed (in 10-second increments in the 10-kilometer display or in 5-second increments in the 5-kilometer display).

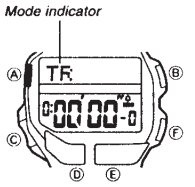
- The 10-kilometer time can be set within the range of 27 minutes to 1 hour, 10 minutes; the 5-kilometer time can be set within the range of 13 minutes to 30 minutes.
- Make sure that you select your most recent time for the distance.

3. After setting the time, hold down Ⓑ until the watch beeps to indicate that the best time is recorded.

### To clear the best time setting

While the Best Time display is shown, hold down Ⓑ until the watch beeps, indicating that the best time setting is deleted.

## COUNTDOWN ALARM MODE




The Countdown Alarm Mode uses two timers (Timer 1 and Timer 2), which countdown in units of a tenth of a second. When the countdown reaches zero, an alarm sounds for about four seconds. You can stop the beeping by pressing any button.

- If you attempt a timer measurement with a countdown time that is 10 seconds or less, the alarm sounds for only one second when zero is reached.
- In the Countdown Alarm Mode, press Ⓑ to illuminate the display for a few seconds.

### About countdown timer measurements

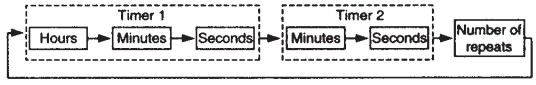
The countdown timers can be used to countdown times individually or sequentially.

- **With individual countdown timing,** you can specify a starting time and the number of repeats for the countdown operation. When the countdown reaches zero, the countdown automatically restarts from the starting time. The countdown operation is repeated for the number of times you specify by the number of repeats. You can use either Timer 1 or Timer 2 for this operation.

- **With sequential countdown timing,** you can specify individual starting times for Timer 1 and Timer 2, along with the number of repeats for the countdown operation. When the countdown of Timer 1 reaches zero, Timer 2 countdown starts. When Timer 2 reaches zero, Timer 1 starts again. This sequence countdown is repeated for the number of times you specify by the number of repeats. This function is useful when timing sporting events that allow for rest periods between halves, quarters, rounds, etc.

### To set the countdown time

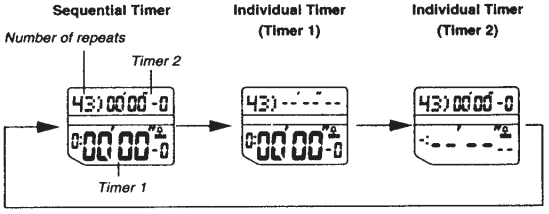
1. Press Ⓐ while in the Countdown Alarm Mode. The hour digit of Timer 1 starts to flash on the display. The hour digit flashes because it is selected.
2. Press Ⓒ to change the selection in the following sequence.




3. Press Ⓔ to increase the selected number or Ⓓ to decrease it. Holding down either button changes the selection at high speed.
   - Timer 1 can be set within the range of zero (0:00'00") to 9 hours 59 minutes 59 seconds. To set the starting value of the countdown time 10 hours, set to 0:00'00".
   - Timer 2 can be set within the range of zero (00'00") to 59 minutes 59 seconds. To set the starting value of the countdown time 60 minutes, set to 00'00".
   - The number of repeats can be set within the range of 1 to 50.
4. After you set the countdown time, press Ⓐ to return to the Countdown Alarm Mode.
   - If you do not operate any button for a few minutes while a selection is flashing, the flashing stops and the watch goes back to the Countdown Alarm Mode automatically.

### To switch between individual and sequential countdowns

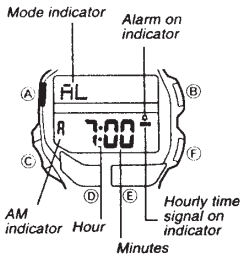
While in the Countdown Alarm Mode, press Ⓕ to switch between countdown methods as illustrated below.



### To use the countdown timer

1. In the Countdown Alarm Mode, select Individual or sequential timer measurement.
2. Press Ⓓ to start the countdown timer.
3. Press Ⓓ again to stop the countdown timer.
   • You can continue countdown timer operation by pressing Ⓓ.
4. Stop the timer and then press Ⓔ to reset the countdown timer to its starting value.

## ALARM MODE




When the Daily Alarm is switched on, the alarm sounds for 20 seconds at the preset time each day. Press any button to stop the alarm after it starts to sound.
When the Hourly Time Signal is switched on, the watch beeps every hour on the hour.
• In the Alarm Mode, press Ⓑ to illuminate the display for a few seconds.

### To set the alarm time

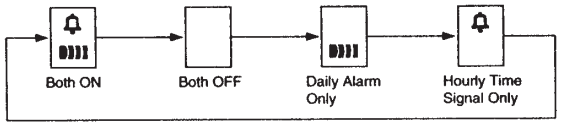
1. Press Ⓐ while in the Alarm Mode. The hour digits flash on the display because they are selected.
   • At this time the Daily Alarm is switched on automatically.
2. Press Ⓒ to change the selection in the following sequence.


3. Press Ⓔ to increase the selected digits. Holding down Ⓔ increases the selection at high speed.
   • The format (12-hour and 24-hour ) of the alarm time matches the format you select for normal timekeeping.
   • When setting the alarm time using the 12-hour format, take care to set the time correctly as morning (A) or afternoon (P).
4. After you set the alarm time, press Ⓐ to return to the Alarm Mode.
   • If you do not operate any button for a few minutes while a selection is flashing, the flashing stops and the watch goes back to the Alarm Mode automatically.

### To switch the Daily Alarm and Hourly Time Signal on and off

Press Ⓔ while in the Alarm Mode to change the status of the Daily Alarm and Hourly Time Signal in the following sequence.

**[ Alarm ON indicator/Hourly Time Signal ON indicator ]**




### To test the alarm

Hold down Ⓓ while in the Alarm Mode to sound the alarm.

## FOR WATCHES WITH A BACK ATTACHMENT

The back attachment is designed to create a space between your wrist and the back of the watch to allow the passage of air.
You can remove the back attachment as shown, if you wish.