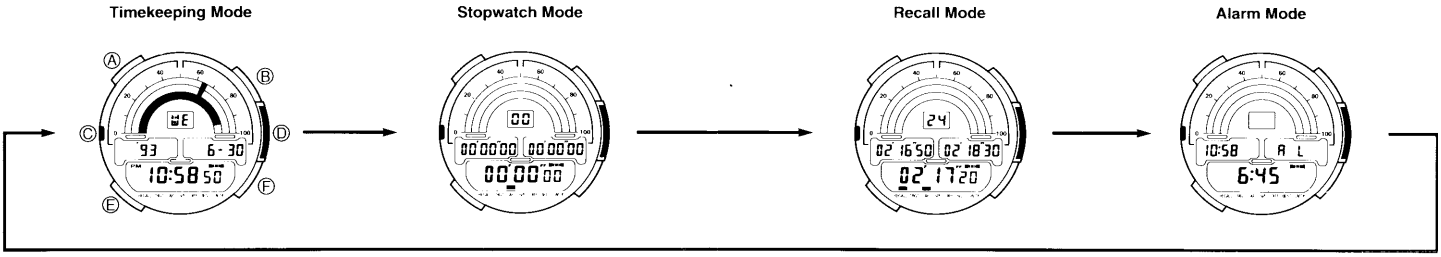
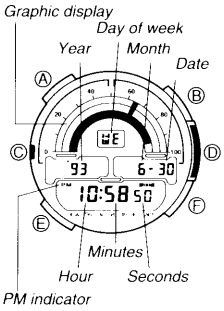
OPERATION CHART: MODULE QW-999

GENERAL GUIDE

- Press Ⓔ to change from mode to mode.



TIMEKEEPING MODE



- In the Timekeeping Mode, the graphic display indicates the counting of seconds and minutes.
- In the Timekeeping Mode, press Ⓕ to switch between the 12-hour and 24-hour formats.
- In the Timekeeping Mode, hold down Ⓑ to view the Stopwatch Mode display. The Stopwatch Mode remains displayed until you release Ⓑ.

To set the time and date

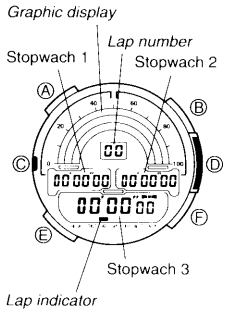
1. Press Ⓒ while in the Timekeeping Mode. The seconds digits flash on the display because they are *selected*.
2. Press Ⓔ to change the selection in the following sequence.

Seconds → Hour → Minutes → Year → Month → Date → Day of week

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 or Ⓑ to decrease it. While the day of the week is selected, pressing Ⓕ advances to the next day and Ⓑ goes to the previous day. Holding down either button changes the current selection at high speed.
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.
- The date can be set within the range of January 1, 1990 to December 31, 2029.

STOPWATCH MODE



The Stopwatch Mode has three stopwatches (Stopwatch 1, 2, and 3), which can be used to measure elapsed time, cumulative elapsed time, lap times, and three finishes. The range of the stopwatches is 99 hours, 59 minutes, 59.99 seconds. The Stopwatch Mode also includes 60 lap time memories, plus a host of other useful functions.

- You can use the lap time function to time how long it takes to complete a specific portion (such as a single lap) of a race.

Note

Whenever the time being measured in the Stopwatch Mode becomes greater than 59 minutes 59.99 seconds, the display automatically switches from minutes, seconds, and 1/100 of a second (00'00"00) to hours, minutes, and seconds (0:00' 00").

To measure elapsed time

You can measure elapsed time using Stopwatch 1, Stopwatch 2, or all three stopwatches at the same time.

1. Press Ⓑ to start Stopwatch 1.
- To start Stopwatch 2, press Ⓕ.
- To start all three stopwatches at the same time, press Ⓓ.
2. Press Ⓒ to stop the stopwatch operation.
3. Press Ⓒ again to clear the stopwatch to all zeros.

To measure cumulative elapsed time

You can measure cumulative elapsed time using Stopwatch 1 or Stopwatch 2.

1. Press Ⓑ to start Stopwatch 1.
- To start Stopwatch 2, press Ⓕ.
2. Press Ⓒ to stop the stopwatch operation.
3. Press Ⓑ (if you are using Stopwatch 1) or Ⓕ (if you are using Stopwatch 2) to resume the timing from the time shown on the display.
- You can repeat steps 2 and 3 as many times as you like.
4. Stop the stopwatch and then press Ⓒ to clear the stopwatch to all zeros.

To time first, second, and third place finishers

1. Press Ⓓ to start the three stopwatches.
2. When the first finisher crosses the line, press Ⓑ to record the time on Stopwatch 1.
3. When the second finisher crosses the line, press Ⓕ to record the time on Stopwatch 2.
4. When the third finisher crosses the line, press Ⓓ to record the time on Stopwatch 3.
5. Press Ⓒ to stop operation of all three stopwatches.
6. Press Ⓒ again to clear the stopwatches to all zeros.
7. Press Ⓔ to enter the Recall Mode and display the first, second, and third place times.

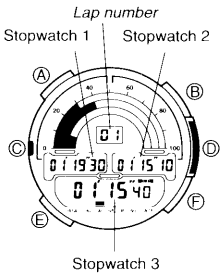
About lap time measurements

Each of the three stopwatches in the Stopwatch Mode can be used to measure lap times. You can either start all of the stopwatches at the same time (synchro start) or individually (single start). The stop and clear operations are applied to all three stopwatches at the same time. After you measure the final lap time for Stopwatch 1, 2, and 3, you should then perform the stop operation to stop all three stopwatches.

Notes

- Before you start all three stopwatches at the same time, make sure that the displays for all three stopwatches show zeros. If they don't, press Ⓒ to clear all of the stopwatches.
- If you want to start stopwatches individually, be sure to start Stopwatch 1 or Stopwatch 2 before starting Stopwatch 3. Stopwatch 3 will not start unless another stopwatch is already in operation.
- To register a lap time after the stopwatches are started, use Ⓑ for Stopwatch 1, Ⓕ for Stopwatch 2, and Ⓓ for Stopwatch 3.

To measure lap times using synchro start



1. Press Ⓓ to start the three stopwatches.
2. To record the time of the first lap, press one of the buttons used to register a lap time: Ⓑ for Stopwatch 1, Ⓕ for Stopwatch 2, or Ⓓ for Stopwatch 3.
- At this time, the measured lap time and lap number remains on the corresponding display for about nine seconds. After nine seconds, the display changes to show the timing of the next lap.
3. Repeat step 2 for subsequent laps.
- Each time you press a button to record a lap time, that time is stored in lap time memory.
- The lap number shown on the display is the greatest lap number among the three stopwatches. If Stopwatch 1 is timing lap 2, Stopwatch 2 is timing lap 7, and Stopwatch 3 is timing lap 4 for example, the lap number display shows 7.
- Whenever you press any of the buttons that records a lap time, the corresponding lap number is shown on the display for about 9 seconds.
4. Press Ⓒ to stop the three stopwatches.
5. Press Ⓒ again to clear the stopwatches to all zeros.

To measure lap times using single start

1. Press Ⓑ to start Stopwatch 1.
2. Press Ⓕ to start Stopwatch 2.
3. Press Ⓓ to start Stopwatch 3.
4. To record the time of the first lap, press one of the buttons used to register a lap time: Ⓑ for Stopwatch 1, Ⓕ for Stopwatch 2, or Ⓓ for Stopwatch 3.
- At this time, the measured lap time remains on the corresponding stopwatch's display and the lap number appears on the lap number display for about nine seconds. After nine seconds, the stopwatch display changes to show the timing of the next lap, and the lap number changes to show the high lap being timed by any of the stopwatches.
5. Repeat step 4 for subsequent laps.
- Each time you press a button to record a lap time, that time is stored in lap time memory.
6. Press Ⓒ to stop the three stopwatches.
7. Press Ⓒ again to clear the stopwatches to all zeros.

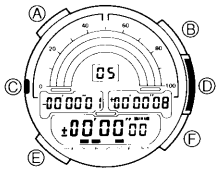
About lap time memory
Each time you record a lap in the Stopwatch Mode, the reading is stored in memory. You can store a total of 60 lap times* (total of Stopwatch 1, Stopwatch 2, and Stopwatch 3) in memory. In addition, the best lap time and the stop time (the time shown when you stop) are also stored for each stopwatch.
If memory is full when you record a lap time, the oldest lap time stored is deleted to make room for the new one. Lap times are kept in memory until you clear the stopwatches to all zeros, and then start a new time measurement (elapsed time, lap times, etc.).
For details on recalling the lap times, see Recall Mode.

* This means, for example that you could store 20 times each for Stopwatches 1, 2, and 3, or you could store times in any combination up to a total of 60.

About target lap times
Once you set target lap times, you can then calculate the differential between the targets and the time of the last lap measured (see "To calculate the differential from the target lap times" below). A beeper sounds when the time of a just completed lap is less than the corresponding target lap time (see "About the target lap time beeper").

- You can set target lap times in the Recall Mode (see "To set target lap times").

To calculate the differential from the target lap times

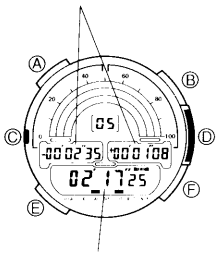


1. Set target lap times.
2. Perform lap time measurements.
3. At any point during the lap time measurement or after you finish lap time measurement, hold down Ⓐ to display the differential between the target time and the measured lap time.

- The display shows the differential between the target time and last lap measured for each of the three stopwatches. The Stopwatch 1 display shows the differential between the Stopwatch 1 target and the Stopwatch 1 lap time, and the Stopwatch 2 display shows the differential between the Stopwatch 2 target and the Stopwatch 2 lap time.

To calculate the differential from the lap time of Stopwatch 3
If the Stopwatch 1 or Stopwatch 2 target lap time is set to 0:00'00"00, the corresponding display (Stopwatch 1 or Stopwatch 2) shows the differential between the last lap measured by the stopwatch and the last lap measured by Stopwatch 3. In this case, the Stopwatch 3 display shows the Stopwatch 3 lap time. If a target lap time (other than 0:00'00"00) is set for Stopwatch 3, the Stopwatch 3 display shows the differential between the measured time and target time.

Difference from the lap time of Stopwatch 3



Last lap measured by Stopwatch 3

1. Set the target lap time for Stopwatch 1 or Stopwatch 2 to 0:00'00"00.
2. Perform lap time measurements.
3. At any point during the lap time measurement or after you finish lap time measurement, hold down Ⓐ to display the differential between the last lap measured, and the last lap measured by Stopwatch 3.

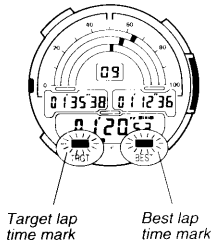
- If timing of the first lap is in progress by Stopwatch 3 when you perform the above operation, the time differential display shows "--".

Notes about time differentials
- The symbol "–" before a time differential indicates a time that was faster than the time it is being compared to, while "+" indicates a slower time. The symbol "+" indicates no differential.
- If there is no time to compare the last lap time with, the displays show "--" in place of time differentials.
- Time differentials can be displayed within the range –99:59'99".99 to +99:59'99".99. Differentials outside this range produce an error display (indicated by the message "Error").

About the best lap time beeper
If a lap time you store into memory is better than all of the other times previously stored in memory, the watch beeps and a mark flashes above the "BEST" indicator.

About the target lap time beeper
If a lap time you store into memory for a stopwatch is within the preset target lap time for that stopwatch, the watch beeps and a mark flashes above the "TRGT" indicator.

Notes about the best lap time and target lap time beepers



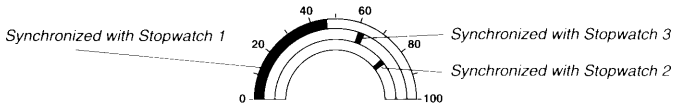
Target lap time mark *Best lap time mark*

- Both of the beeper functions operate for each of the stopwatches.
- You can switch both of the beeper functions on and off. For details, see "To switch the best lap and target lap time beepers on and off".
- Neither of the beeper functions operate for the stop time recorded.
- The best lap time beeper operates only for lap times that are less than 100 hours.
- The target lap time beeper does not operate if you set the target time to 0:00'00"00.

About the lap time beeper
During lap time measurement, the watch beeps 15 seconds before the current lap time reaches the target lap time of that stopwatch (when a target lap time is preset) or the time of the last lap time stored in memory by that stopwatch (when the target lap time is set to 0:00'00"00).

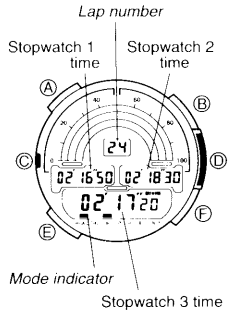
- The lap time beeper operates individually for each stopwatch.
- The lap time beeper operates only for lap times that are less than 100 hours.

About the graphic display
The graphic display indicates the operation of each of the stopwatches. During lap time measurement, the watch compares current lap time with the target lap time of each stopwatch (when target lap times are already set) or the time of the last lap time stored in memory by that stopwatch (when the target lap time is set to 0:00'00"00), and it indicates the differential is within the range of 0% to 200%.
If the differential is greater than 200%, the graph shows current stopwatch operation in 1-second units.



In the above illustration, Stopwatch 1 has already exceeded the range of the graphic display. The display for Stopwatch 2 indicates that current timing is 80% or 180% of the target lap time or last lap time. The display for Stopwatch 3 indicates that current timing is 60% or 160% of the target lap time or last lap time.

RECALL MODE

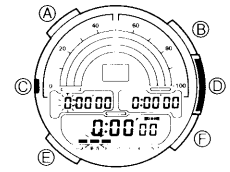


Use the Recall Mode to recall times stored in memory, to set target lap times, to set the lap distance, and to display the calculated speed.

To recall data from memory
1. Whenever you enter the Recall Mode, the display shows the time for earliest lap time (the lap time with the lowest lap number).
2. Press Ⓕ to scroll forward through the lap times and Ⓑ to scroll back.

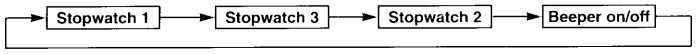
- When "--" appears in place of the lap number, the time shown is for the stop time (the time that was on the display when you pressed Ⓒ to stop the stopwatch operation). When there is nothing at all shown for the lap number, it means that the time is a best lap time.

To set target lap times

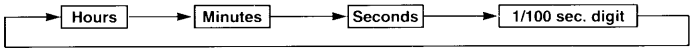


You can set separate target lap times for Stopwatch 1, 2, and 3.

1. In the Recall Mode, press Ⓒ. The hours digit of stopwatch 1 starts to flash on the display because it is *selected*.
2. Press Ⓓ and the display changes in the sequence shown below. Each of the displays appear with the hours digits flashing (because they are selected).



3. Select the stopwatch whose target time you want to set.
4. Press Ⓔ to change the selection in the following sequence.

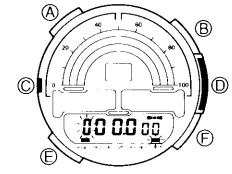


5. While any number is selected (flashing), press Ⓕ to increase it or Ⓑ to decrease it. Holding down either button changes the current selection at high speed.

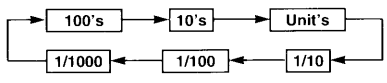
- Press Ⓑ and Ⓕ at the same time to clear the target lap time to 0:00'00"00.
- The maximum target lap time setting is 99 hours, 59 minutes, 59.99 seconds.

6. After you set the target lap times, press Ⓒ twice to return to the Recall Mode.

To set the lap distance
Once you set a lap distance, you can then display the speed that a lap was run, based on the lap time. You can set one lap distance, which is used by Stopwatch 1, 2, and 3. Note that the following explanation applies to both kilometers and miles, and no adjustment is necessary to switch between the two distance units.



1. In the Recall Mode, press Ⓒ.
2. Press Ⓒ again and the 100's digit starts to flash on the display because it is *selected*.
3. Use Ⓔ to move the flashing selection to the right.



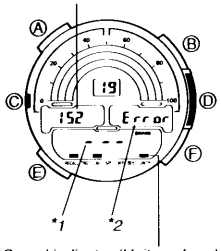
4. While any number is selected (flashing), press Ⓕ to increase it or Ⓑ to decrease it. Holding down either button changes the current selection at high speed.

- Press Ⓑ and Ⓕ at the same time to clear the lap distance to 000.000.
- The maximum lap distance setting is 999.999.

5. After you set the lap distance, press Ⓒ to return to the Recall Mode.

To display the lap speed

Lap speed for Stopwatch 1



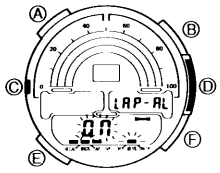
Speed indicator (Unit per hour)

1. Set the lap distance in the Recall Mode.
2. Perform lap time measurements in the Stopwatch Mode.
3. Recall the lap time from memory in the Recall Mode.
4. To display the calculated lap speed, hold down Ⓓ.

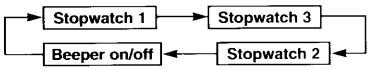
*1 The speed display shows "---" if you have not measured a lap time.

*2 The message "Error" appears on the speed indicator display whenever the speed exceeds the limit of 999 miles/kilometers per hour, or whenever the lap time exceeds the limit of 99:59'59.99".

To switch the best lap and target lap time beepers on and off



1. In the Recall Mode, press Ⓒ. The hours digit of the Stopwatch 1 starts to flash on the display because it is *selected*.
2. Press Ⓓ and the display changes in the sequence shown below. Each of the displays appear with the hours digits flashing (because they are selected).



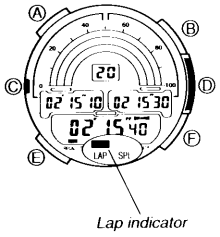
3. Select Beeper on/off.
4. Press Ⓑ or Ⓕ to switch the beepers on (indicated by On on the display) and off (indicated by OFF on the display).
- Note the above setting does not affect the lap time beeper.
5. After you switch the beepers on or off, press Ⓒ twice to return to the Recall Mode.

About split times

Whenever you store a lap time in the Stopwatch Mode, the watch also automatically stores a split time.* Generally, only the lap time is shown on the display, but you can use the procedure described below to switch the display to show the split time. You can recall split times in the Recall Mode, or while a time differential display is shown (which changes this display to show split time differentials). Split time differentials can be used to check the differential in time between Stopwatch 3 and Stopwatch 1 (or Stopwatch 2) after a number of laps.

* You can use split time to time how long it takes to get from the start to a specific point in a race.

To switch between lap and split time display

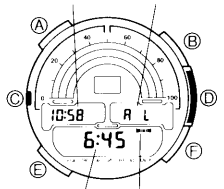


Lap indicator

In the Recall Mode, press Ⓐ to switch between lap (a mark lits above "LAP" indicator) and split (a mark lits above "SPL" indicator).

ALARM MODE

Current time *Mode indicator*



Alarm time *Alarm on indicator*

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.

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.

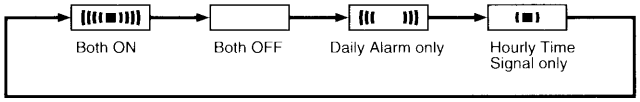


3. Press Ⓕ to increase the selected digits and Ⓑ to decrease them. Holding down either button changes the selection at high speed.
- The format (12-hour and 24-hour) of the alarm time matches the format you select for normal timekeeping.
- When setting the alarm time using the 12-hour format, take care to set the time correctly as morning or afternoon (PM).
4. After you set the alarm time, press Ⓒ to return to the Alarm Mode.

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]



To test the alarm

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