

SEIKO

QD-1-8

Printed in Japan

DIGITAL TYPE Cal. 0138
DUAL CHRONOGRAPH

SEIKO QUARTZ

INSTRUCTIONS
INSTRUCCIONES GEBRAUCHSANWEISUNGEN
ISTRUZIONI INSTRUÇÕES 用法説明

SEIKO LC DIGITAL QUARTZ DUAL CHRONOGRAPH

Cal. 0138

INSTRUCTIONS

Your SEIKO LC Digital Quartz Dual Chronograph with its unique command system is a possession that you can be proud of for its superb accuracy, design and features. It is a result of SEIKO's advanced micro miniaturization and micro electronic technologies developed by K. Hattori & Co., Ltd. and its SEIKO industrial group.

Your SEIKO LC Digital Quartz Dual Chronograph is a revolutionary electronic wrist watch with no moving parts, incorporating a quartz crystal oscillator, an integrated circuit and a liquid crystal digital display to indicate the constant time and calendar display functions [day, hour, minute and second (The second is replaced with the date by depressing button "A".)], and two different functions by depressing the crown.

The stopwatch function enables you to measure 1/100 of a second and accumulated time up to 20 hours, and the countdown function enables you to keep track of remaining time. The time set in this function (up to 19 hours and 59 minutes) will successively decrease until it reaches zero. In addition to these features, it contains an electronic circuit which automatically adjusts for even and odd months except February of leap years and an illuminating light which illuminates all the display in the dark.

The exceptional accuracy of your SEIKO LC Digital Quartz Dual Chronograph

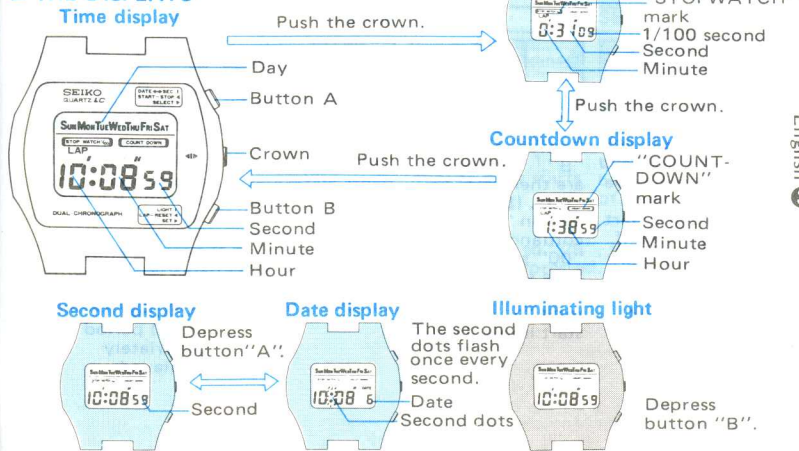
is the result of the highly stable oscillations of the quartz crystal, which is carefully cut to the most exacting specifications and aged to assure the most stable oscillations over a long period of time.
Now SEIKO Quartz watches are changing the world's standard of accuracy.

CHARACTERISTICS

1. Frequency of crystal oscillator: 32,768 Hz (Hz = Hertz—Cycles per second)
2. Time and calendar display: Continuous digital readout in day, hours, minutes and seconds using FEM (Field Effect Mode) of liquid crystal. (Seconds are replaced with the date by depressing button "A".)
3. Stopwatch display: Hours, minutes, seconds and hundredths of second can be measured and accumulated up to 20 hours, with lap time capability.
4. Countdown display: Hours, minutes and seconds can be counted down. The desired amount of time set (up to 19 hours and 59 minutes) will successively decrease until it reaches zero.
5. Battery: Silver oxide battery SEIKO SB-BU or Maxell SR1130W (1 battery . . . Battery life is approximately two years.)
6. Battery life indicator: All the digits of the time and calendar function begin flashing.
7. IC (Integrated Circuit): C-MOS-LSI (Complementary Metal Oxide Silicon-Large Scale Integrated Circuit)
8. Illuminating light: Illuminates all the digital displays in the dark by depressing the light button.

DISPLAY AND BUTTONS

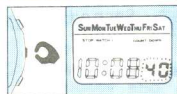
1 HOW TO CHANGE THE DISPLAYS



2 HOW TO SET THE TIME AND CALENDAR

SECOND

SET



Pull the crown out when the time and calendar digits are displayed. The second digits start flashing. (Even if the date digits are displayed, they will automatically change into the second digits and start flashing.)

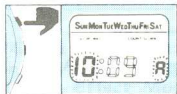
HOUR

SELECT

SET



Depress button "B". The seconds are then reset to "00". (Depress button "B" in accordance with "00" second of a time signal and the seconds are then reset to "00" and start immediately. *)



Depress button "A" and the hour digits and "A" (stands for A.M.) or "P" (stands for P.M.) start flashing.



One digit (hour) is advanced by each depression of button "B". When setting the hours, be sure to check that the hour setting is made with the correct "A" (A.M.) or "P" (P.M.) period appropriately displayed.

Remarks: The illustrations show that the indication of Tuesday, 10:08:40 A.M., October 6 is changed into Monday, 7:30:00 P.M., January 30.

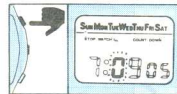
10-MINUTE

SET

1-MINUTE

SELECT

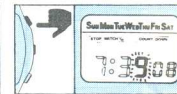
SET



Depress button "A" and the 10-minute digit starts flashing.



One digit (10-minute) is advanced by each depression of button "B".



Depress button "A" and the 1-minute digit starts flashing.



One digit (1-minute) is advanced by each depression of button "B".

(* When the seconds count any numbers from "00" to "29", the seconds are reset to "00" automatically whenever button "B" is depressed. When the seconds count any numbers from "30" to "59" and button "B" is depressed, one minute is added and the seconds are immediately reset to "00".)

MONTH SELECT



Depress button "A" and the month, the date and the day digits are displayed and the month digit starts flashing.

SET



One digit (month) is advanced by each depression of button "B".

DATE SELECT



Depress button "A" and the date digits start flashing.

SET



One digit (date) is advanced by each depression of button "B".

DAY SELECT

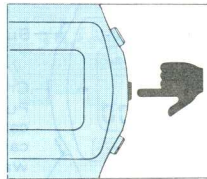


Depress button "A" and the day digits start flashing.

SET



One digit (day) is advanced by each depression of button "B".



After all adjustments are completed, push the crown in to the normal position and the time and calendar digits will be automatically displayed.

Whichever digits are being adjusted, the time and calendar digits are displayed by pushing the crown in to the normal position.

Remarks: Each depression of button "A" selects the digits (flashing twice every second) to be adjusted in the following order.

→ Second → Hour → 10-minute
 ← Day ← Date ← Month ← 1-minute ←

3 HOW TO USE THE STOPWATCH

Stopwatch display



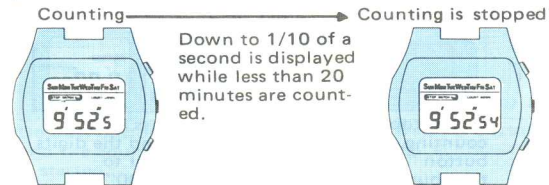
“STOPWATCH” mark square

The stopwatch is not used: It appears but does not flash.

The stopwatch is used: It appears and begins flashing once every second.

The time and calendar digits or the countdown digits are displayed while the stopwatch is used: It appears and begins flashing once every five seconds.

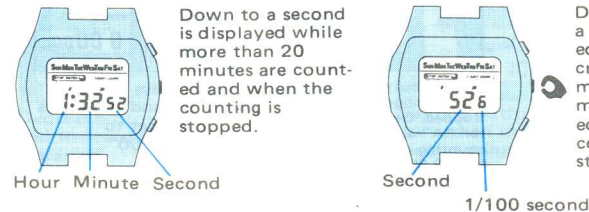
[Counting covers less than 20 minutes]



Down to 1/10 of a second is displayed while less than 20 minutes are counted.

Down to 1/100 of a second is displayed when the counting is stopped within 20 minutes for a lap time measurement or for any other time measurements.

[Counting passes 20 minutes]



Down to a second is displayed while more than 20 minutes are counted and when the counting is stopped.

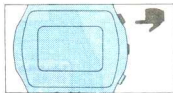
Down to 1/100 of a second is displayed by pulling the crown out while more than 20 minutes are counted or when the counting is stopped.

HOW TO COUNT

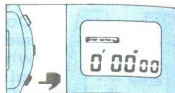
1. PREPARATION



Push the crown when the time and calendar digits are displayed. The time and calendar display is changed into the stopwatch display.

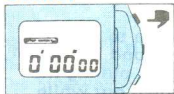


If the stopwatch is counting, depress button "A" and the counting is stopped.

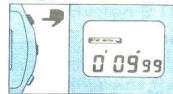


Depress button "B" and the digits are reset to "0'00'00" and counting is ready to be started.

2. ELAPSED TIME MEASUREMENT (STOP/START)

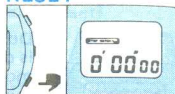


Depress button "A" and the counting is started.



Depress button "A" and the counting is stopped. Depress button "A" again and the counting is restarted from 9.99 seconds to accumulate the time elapsing.

RESET



Depress button "B" and the digits are reset to "0'00'00".

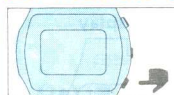
3. LAP TIME MEASUREMENT



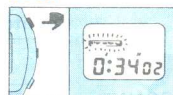
Depress button "A" and the counting is started.



Depress button "B" and the lap time is measured. Though the digits are frozen, the counting continues.

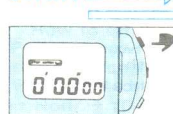


Depress button "B".

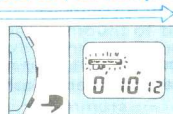


Depress button "A" and the time record is displayed. Pull the crown out when a time record down to 1/100 of a second is required. Depress button "B" and the digits are reset to "0'00'00".

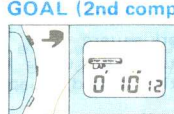
4. CONTINUOUS TIME MEASUREMENT OF TWO COMPETITORS



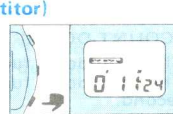
Depress button "A" and the counting is started.



Depress button "B" when the first competitor reaches the goal.



Depress button "A" when the second competitor reaches the goal. The time record for the first competitor is displayed.



Depress button "B" and the time record for the second competitor is displayed. Depress button "B" again and the digits are reset to "0'00'00".

4 HOW TO USE THE COUNTDOWN FUNCTION

Countdown display



"COUNT-DOWN" mark square

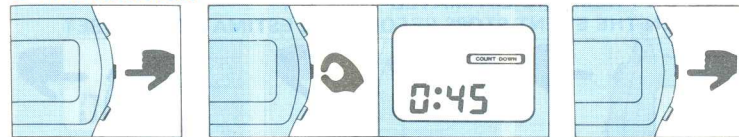
The countdown function is not used: It appears but does not flash.

The countdown function is used: It appears and starts flashing once every second.

The time and calendar digits or the stopwatch digits are displayed while the countdown function is used: It appears and starts flashing once every five seconds.

HOW TO COUNT DOWN

1. PREPARATION



Push the crown twice when the time and calendar digits are displayed. The time and calendar display is changed into the count-down display.

Pull the crown out and set the desired amount of time to be counted down.

After the desired amount of time is set, push the crown in to the normal position.

* How to set the desired amount of time

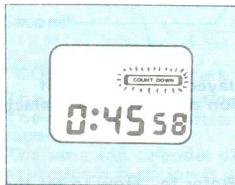
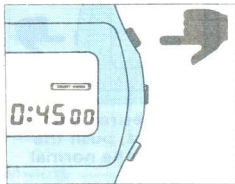
Pull the crown out when the countdown digits are displayed. The hour digit starts flashing. Then depress button "A". Each depression of button "A" selects the digits to be adjusted in the following order.

→ Hour → 10-minute → 1-minute →

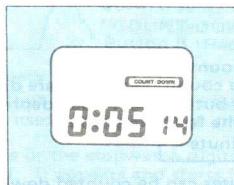
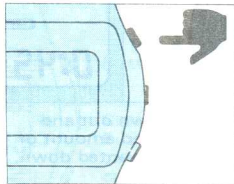
Up to 19 hours and 59 minutes can be counted down. Refer to "How to set the time and calendar" for setting the desired amount of time to be elapsed.

2. HOW TO MEASURE THE TIME ERROR TO OR FROM THE ESTIMATED TIME SET

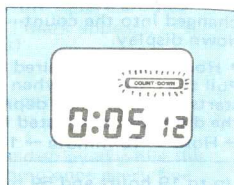
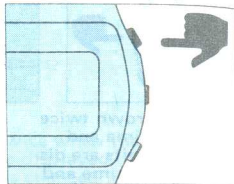
(1) WHEN THE EVENT STOPS BEFORE THE ESTIMATED TIME SET



Depress button "A" and the counting down is started.

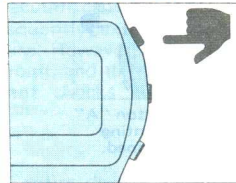
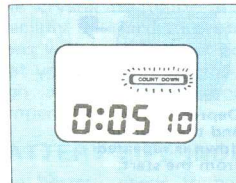


Depress button "A", and the counting down is stopped and the time error is displayed.

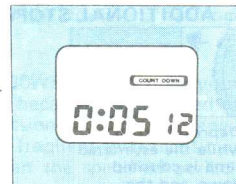


Depress button "A" again and the counting down is restarted.

(2) WHEN THE EVENT STOPS AFTER THE ESTIMATED TIME SET

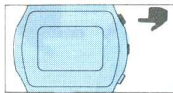


When all the desired amount of time is elapsed, "0:00:00" is displayed in the sweeping digits and the counting up is started.

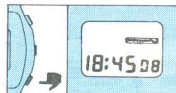


Depress button "A", and the counting up is stopped. The time error is displayed in the sweeping digits.

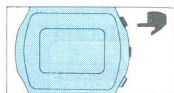
3. HOW TO REPEAT THE COUNTING DOWN FROM THE START



Depress button "A" and the counting down is stopped.

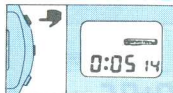


Depress button "B" and the estimated time to be counted down is displayed.

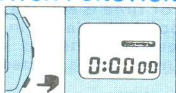


Depress button "A" and the counting down is repeated from the start.

4. ADDITIONAL STOPWATCH FUNCTION

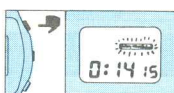


Depress button "A" while the estimated time is counted down and the counting down is stopped.



Depress button "B" twice and the digits are reset to "0:00 00" in the sweeping digits, and counting is ready to start.

Remarks: The desired amount of time previously set is displayed when button "B" is depressed.



Depress button "A" and the counting up is started in the sweeping digits. (Function as an extra-stopwatch with "COUNT-DOWN" mark flashing.)

THE CARE OF YOUR WATCH

The crystal oscillator in your watch is sealed in a vacuum capsule which is specially designed to protect it against vibrations. Consequently, external conditions will have little effect on your watch in general use. However, remember that your watch contains a highly precise electronic circuit, and to maintain its high accuracy, you should not subject it to violent shocks or extreme temperatures.

BATTERY LIFE INDICATOR

The battery needs to be replaced when you see the entire display flashing. However, the watch will remain accurate while the entire display is flashing.

BATTERY CHANGE

The miniature battery (SEIKO SB-BU or Maxell SR1130W) which powers your watch should last approximately two years. However, because it is inserted at the factory, the actual life of the battery in your possession could be shortened to less than two years. Also, if use of the light is more frequent than five times a day, the battery life may be shortened to less than the specified period. When replacing the battery, we recommend that you contact an AUTHORIZED SEIKO DEALER.

Remarks: After replacing the battery, check to see that all digits in each display are properly indicated. If there are any incomplete digits, adjust by following the "Setting procedures" for each display.

TO PRESERVE THE WATER RESISTANT QUALITY OF YOUR WATCH

Please check to see if "WATER RESISTANT" is shown on the back of your watch case. If your watch is water resistant, please follow the instructions below.

- **Do not loosen the battery hatch unnecessarily.**
- Do not operate the buttons or the crown when the watch is wet or in water.
- If the watch is used in water, or if it becomes wet, wipe it thoroughly dry.
- If it is exposed to sea water, rinse it in fresh water and then wipe it dry.
- Have your SEIKO watch checked by an AUTHORIZED SEIKO DEALER periodically to be sure that the case, battery hatch, crown, button and crystal seal remain intact.

SEIKO QUARTZ A AFFICHAGE PERMANENT NUMERIQUE A CRISTAUX LIQUIDES AVEC DOUBLE CHRONOGRAPHE

Cal. 0138

INSTRUCTIONS

Vous êtes l'heureux possesseur d'une montre SEIKO Quartz, à affichage permanent, cristaux liquides. Comportant un double chronographe et munie d'un système de commande unique, vous pouvez en être fier pour sa précision, sa forme et ses caractéristiques extraordinaires, dont le résultat est le fruit de la microminiaturisation et des technologies micro-électroniques avancées de SEIKO développées par K. Hattori & Co., Ltd. et son groupe industriel SEIKO. Cette montre à affichage numérique est une réalisation révolutionnaire de l'électronique, sans aucune pièce mobile, comportant un oscillateur à cristal de quartz, un circuit intégré et un affichage numérique à cristaux liquides de façon à indiquer les fonctions d'affichage constant de l'heure et du calendrier (jour, heures, minutes et secondes—Les secondes sont remplacées par la date en poussant sur le bouton "A"), et deux différentes fonctions en poussant sur le remontoir.