

SEIKO

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DIGITAL TYPE Cal. M159
CHRONOGRAPH

SEIKO QUARTZ

INSTRUCTIONS

INSTRUCCIONES GEBRAUCHSANWEISUNGEN

ISTRUZIONI

INSTRUÇÕES

用法説明

*Bought new
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SEIKO DIGITAL QUARTZ LC (Liquid Crystal) CHRONOGRAPH

Cal. M159

INSTRUCTIONS

Your SEIKO Digital Quartz LC Chronograph with its unique 2-way change-over system is a possession that you can be proud of for its superb accuracy, design and features. It is the result of SEIKO's advanced micro miniaturization and micro electronic technologies developed by K. Hattori & Co., Ltd. and its SEIKO industrial group.

The SEIKO Digital Quartz LC Chronograph is a revolutionary electronic wrist watch with no moving parts. It incorporates a quartz crystal oscillator, an integrated circuit and a liquid crystal digital display to indicate the day of the week, the date, and the time in hours, minutes and seconds. It also features a stopwatch device which can measure $1/10$ of a second and accumulated time up to 20 hours.

In addition to these features, it enables you to perform LAP time measurement by which intermediate elapsed time can be measured. The most complete electronic system ever developed by SEIKO controls this truly revolutionary watch.

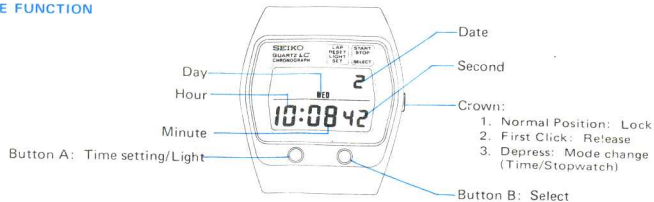
The exceptional accuracy of your SEIKO Digital Quartz LC Chronograph is the result of the highly stable oscillations of the quartz crystal, which is carefully cut to the most exacting specifications and aged to assure the most stable oscillations over a long period of time.

Now SEIKO Quartz watches are changing the world's standard of accuracy.

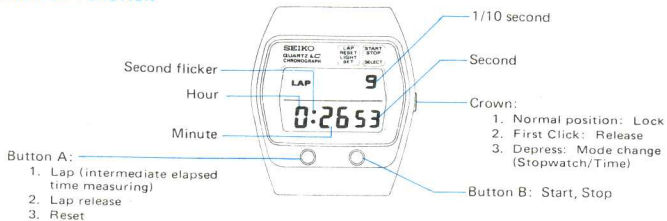
CHARACTERISTICS

1. Frequency of crystal oscillator 32,768 Hz (Hz = Hertz—Cycle per second)
2. Time display Continuous digital read-out in days, dates, hours, minutes and seconds using FEM (Field Effect Mode) of liquid crystal
3. Stopwatch display Hours, minutes, seconds, 1/10 second and LAP time up to 20 hours using FEM (Field Effect Mode) of liquid crystal (After 20 hours, measurement starts again from "0" second automatically.)
4. Battery SEIKO SB-BU Silver oxide battery (1 piece . . . Battery life is approximately two years.)
5. IC (Integrated Circuit) . . . C-MOS-LSI (Complementary Metal Oxide Silicon-Large Scale Integrated Circuit)
6. Illuminating light Illuminates the digital display in the dark by depressing the light button (Button "A").

TIME FUNCTION



STOPWATCH FUNCTION



HOW TO USE YOUR SEIKO DIGITAL QUARTZ LC CHRONOGRAPH

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The newly developed 2-way changeover system has made it possible to indicate either the time display or the stopwatch display by simply depressing the crown.

The time display and the stopwatch display can be used independently and the time can be read by depressing the crown even during the use of the stopwatch.

HOW TO SET THE TIME AND CALENDAR

The setting is made in the order of the Second, Minute, Hour, Date, Month (for date adjustment only) and Day.

1. TO SET THE SECOND DIGITS

First, pull the crown out to set the time.

The second digits will start flashing. This indicates that the seconds are ready to be adjusted.

Depress button "A" in accordance with "00" second of a time signal and the seconds are then reset to "00" and start immediately.

NOTE: When the seconds count any numbers from "00" to "29", the seconds are reset to "00" automatically whenever button "A" is depressed.

When the seconds count any numbers from "30" to "59" and button "A" is depressed, one minute is added and the seconds immediately return to "00"

2. TO SET THE MINUTE DIGITS

While the second digits are still flashing, depress button "B" and the minute digits will start flashing. This indicates that the minute digits are ready to be adjusted. Now one minute is advanced by each depression of button "A". The minute digits are adjusted independently from the hour digits. During adjustment, the hour digits do not advance, although the minute digits may pass the "59" minutes.

3. TO SET THE HOUR DIGITS

While the minute digits are still flashing, depress button "B" again and the hour digits and AM/PM indication will start flashing. One hour is advanced by each depression of button "A". The hour digits are adjusted independently from the date digits.

During adjustment, the date digits do not advance although the hour digits may pass 12 midnight.

While setting the hours, be sure that the time setting is made with the A.M. or P.M. period appropriately displayed. This will insure the calendar changing at midnight.

4. TO SET THE DATE DIGITS

While the hour digits are still flashing, depress button "B" again and the time digits are automatically changed to the calendar digits, and the date digits will start flashing. One date is advanced by each depression of button "A".

5. TO SET THE MONTH DIGITS FOR THE DATE ADJUSTMENT

When the time digits are changed to the calendar digits for adjustment, the month digits are displayed in the lower right corner.

While the date digits are still flashing, depress button "B" again. The month digits will start flashing. One month is advanced by each depression of button "A". After the month digits are adjusted, the integrated circuit will automatically adjust the digits for even and odd months, although the month digits are not a constant display feature.

6. TO SET THE DAY OF THE WEEK

While the month digits are still flashing, depress button "B" again. The day indication will start flashing.

Now, the day indication can be moved to the next day by each depression of button "A". The day setting is made independently from the date. Be sure to push the crown in after the time and calendar setting is completed. This will lock the setting mechanism.

HOW TO USE AS A STOPWATCH

When the watch is indicating the time, depress the crown and the time display will be changed instantly to the stopwatch display.

The buttons "A" and "B" then function as stopwatch operation buttons. (See figure, Page 4)

Be sure to start the stopwatch device from its reset position. (All digits must indicate "0".)

NOTE: To return all digits to "0", push button "B" to display "Stop". Push button "A" once if "Stop" is only indicated. Push button "A" twice if "Lap Stop" is indicated. This will return all digits to "0".

1. TO MEASURE ELAPSED TIME

Push button (B) Start



Push button (B) Stop



Push button (A) Reset (return to "0")



2. TO MEASURE ACCUMULATED TIME

Push button (B) Start



Push button (B) Stop



Push button (B) Start (The digit display will start from the time recorded at the stop operation.)



Push button (B) Stop



Push button (A) Reset (return to "0")

3. TO MEASURE LAP TIME

Push button (B) Start



Push button (A) LAP



Push button (A) LAP release (The time measurement will start after the elapsed time is accumulated from the preceding stop.)



Push button (B) Stop



Push button (A) Reset (return to "0")

NOTE: Depressing the crown during the stopwatch operation will change the display to show the time and calendar and depressing the crown again will change the display to again indicate the time being measured by the stopwatch function. Using one function does not stop you from checking the other function, as each of them functions independently.

When the stopwatch device is used for a long time on a wrist, the crown should be depressed to indicate the time, and should be depressed again when the time measurement is required. This will prevent you from accidentally pushing button "A" or "B" and upsetting the stopwatch measurement.

HOW TO USE THE LIGHT

Button "A" serves both for setting the time and the calendar. It also activates the illuminating light. Depress button "A" when the crown is in the normal position. This will illuminate the time display in the dark.

This watch is designed so that the battery will last approximately two years even if the light button is used five times a day. If use of the light button is more frequent than five times a day, the battery life may be shortened to less than two years.

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 CHANGE

The miniature battery (SEIKO SB-BU) which powers your watch may last approximately two years.

When replacing the battery, we recommend to contact an AUTHORIZED SEIKO DEALER.

NOTE: Incomplete digital figures may be indicated on the display panel after battery replacement.

This is not a malfunction, and the digital figures should be corrected according to the following procedures:

1. Depress button "A" to correct all digital figures in the watch display.
2. Then, change to the stopwatch operation and reset all digits to "0" (Reset position).

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. When your watch is water resistant, please follow the instructions below.

- **Do not loosen the battery hatch unnecessarily.**
- Do not operate the crown and button when the watch is wet or in water.
- If the watch is used in water, or if it is 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 CHRONOGRAPHE

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INSTRUCTIONS

Possesseur d'un chronographe à affichage permanent numérique SEIKO à cristaux liquides de quartz muni de son système unique de commutation à deux voies, vous pouvez en être fier pour sa précision, sa forme et ses caractéristiques superbes dont le résultat est le fruit de la micro-minituration et des technologies micro-électroniques avancées de SEIKO développées par K. Hattori & Co., Ltd. et son groupe industriel SEIKO.

C'est un chronographe électronique révolutionnaire sans aucune pièce mobile. Il comporte un oscillateur à cristal de quartz, un circuit intégré et un affichage numérique à cristaux liquides indiquant le jour de la semaine, la date et le temps en heures, en minutes et en secondes. Il est également muni d'un dispositif de chronomètre permettant de mesurer un dixième de seconde et le temps accumulé jusqu'à 20 heures.