

SEIKO

DUO-DISPLAY QUARTZ
Cal. H449/H448
ALARM CHRONOGRAPH

SEIKO QUARTZ

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SEIKO DUO-DISPLAY QUARTZ ALARM CHRONOGRAPH

Cal. H449, H448

CHARACTERISTICS

- Analogue Display:** H449 - Three hand display (hour, minute and second).
H448 - Two hand display (hour and minute).
- Digital Time Display:** Hour, minute, second and "AM"/"PM" mark displayed only in a 12-hour indication. Can be displayed in a 12 or 24-hour indication.
Note: Although both analogue and digital functions are activated by the same crystal oscillator, each function of the watch operates independently. The operation of any function does not affect the accuracy of any other function.
- Digital Calendar Display:** Date, day of the week and month. Adjusts automatically for odd and even months except February of leap years.
- Digital Alarm Display:** Hour, minute, "AM"/"PM" mark and alarm function marks "A1" and "A2". The alarm can be set to ring at any desired hour and minute. The alarm time will be displayed in the same manner (12 or 24-hour indication) as the digital time display.
- Hourly Time Signal:** The time signal can be set to ring every hour on the hour with a single peep.
- Digital Stopwatch Display:** Minutes, seconds and 1/100 second up to 30 minutes. Then hours, minutes and seconds up to 10 hours.

- Water resistant:** When "WATER RESISTANT" is shown on the back of your watch case, the watch has been water tested to a pressure of 3 atmospheres (30 meters or 100 feet). When "SPORTS 100" is shown on the dial or panel cover and "WATER RESISTANT" is shown on the back of your watch case, the watch has been water tested to a pressure of 10 atmospheres (100 meters or 300 feet).
- Illuminating Light:** Illuminates the display in the dark.
- Battery Life Indicator:** All the digits in the display start flashing when the battery life nears its end.
- Battery:** Use a miniature battery, Maxell SR626W or SEIKO TR026W.

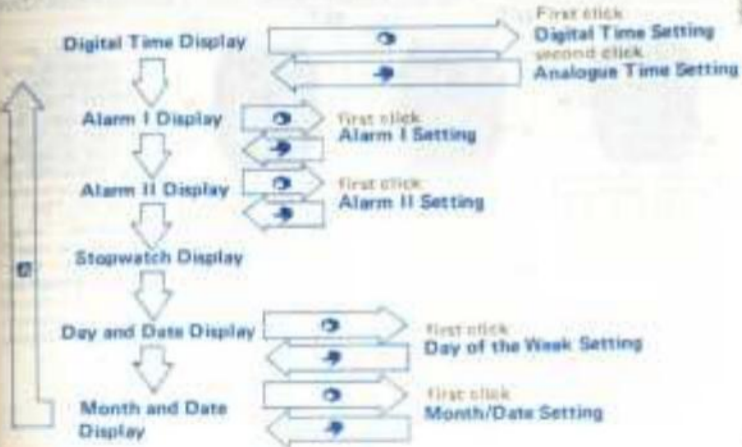
DISPLAY AND BUTTON OPERATION

☐ INDICATES THE DEPRESSION OF BUTTON "A"



Note: Cal. H448 has two hands (hour and minute).

☉ indicates to pull the crown out.
☑ indicates to push the crown in.



Cal. H449 THREE HAND ANALOGUE DISPLAY (HOUR, MINUTE, SECOND) HOW TO SET THE ANALOGUE TIME AND THE SECOND DIGITS PREPARATION → HOUR, MINUTE → SECOND

SET



10:09 05

Depress button "A" until the digital time display is shown. Pull the crown out to the second click when the second hand is at 12 o'clock position and the second hand zone.

SET



10:15 15

Set the hands by turning the crown. When setting the minute hand, advance the minute hand 4 or 5 minutes ahead of the correct time. Then turn the crown clockwise to return the minute hand to the exact time. Depress button "A" to activate the seconds setting.



10:15 00

In accordance with a time signal, push the crown in. The second digits are also reset to "00".

* When the seconds reach any numbers from "31" to "59" and the crown is pushed in, one minute is added and the seconds are immediately reset to "00". However, one minute is not added in the analogue display.

Cal. H448 TWO HAND ANALOGUE DISPLAY (HOUR AND MINUTE) HOW TO SET THE ANALOGUE TIME AND THE SECOND DIGITS PREPARATION → HOUR, MINUTE → SECOND

SET



10:09 05

Depress button "A" until the digital time display is shown. Pull the crown out to the second click.

SET



10:15 15

Set the hands by turning the crown. When setting the minute hand, advance the minute hand 4 or 5 minutes ahead of the correct time. Then turn the crown clockwise to return the minute hand to the exact time. Depress button "A" to activate the seconds setting.



10:15 00

In accordance with a time signal, push the crown in. The second digits are also reset to "00".

* When the seconds count any numbers from "31" to "59" and the crown is pushed in, one minute is added and the seconds are immediately reset to "00". However, one minute is not added in the analogue display.

HOW TO SET THE DIGITAL TIME

PREPARATION → HOUR, MINUTE

SET



10:09 05

In the digital time display pull the crown out to the first click.



8:18 15

Turn the crown clockwise and the hour and minute digits will go back. Turn the crown counterclockwise and the hour and minute digits will advance.



8:18 25

After the digits are adjusted, push the crown in to the normal position.

The digits will advance or go back by one minute when the crown is turned slowly, and they will advance or go back quickly when the crown is turned quickly.

CHANGEOVER BETWEEN 12-HOUR AND 24-HOUR INDICATIONS

In the time display, the hour indication changes between 12-hour and 24-hour indication by pulling the crown out to the first click from the normal position and then pushing it in.

12-HOUR INDICATION



24-HOUR INDICATION



- * "AM"/"PM" mark is not displayed in the 24-hour indication.
- * When the digital time is set in the 24-hour indication, the alarm time will also be set in the 24-hour indication.

HOW TO SET THE DAY OF THE WEEK

PREPARATION → DAY OF THE WEEK
SET



SUN

Depress button "A" to show the day and date. Pull the crown out to the first click. Only the day of the week will be displayed.



MON

Turn the crown clockwise and the day of the week will go back. Turn the crown counter-clockwise and the day of the week will advance.



MON :

After the day of the week is adjusted, push the crown in to the normal position and the date will reappear.

HOW TO SET THE MONTH AND DATE

PREPARATION → MONTH, DATE
SET



1-1

Depress button "A" until the month and date display is shown; pull the crown out to the first click.



3-4

Turn the crown clockwise and month/date will go back. Turn the crown counter-clockwise and the month/date will advance.



3-4

After the month and date are adjusted, push the crown in to the normal position.

HOW TO SET THE ALARM

PREPARATION → HOUR, MINUTE

SET



3:15 AM

Depress button "A" until the A I Alarm display is shown. Pull the crown out to the first click.



7:10 AM

Turn the crown clockwise and the digits will go back. Turn the crown counterclockwise and the digits will advance.



7:10 AM

After setting the desired alarm time, push the crown in.

To activate the alarm II display, depress button "A" twice from the time display and pull the crown out to the first click to set the desired time on A II.

* When the time is set in the 24-hour indication, the alarm time will also be set in the 24-hour indication.

* There are two alarm displays — alarm I and alarm II which can be used separately.

HOW TO ENGAGE OR DISENGAGE THE ALARM



In the alarm I or alarm II display, pulling out and pushing in the crown will engage and disengage the alarm as well as display or extinguish the alarm mark.

Alarm mark	Alarm I	Alarm II
—	Engaged	Engaged
—	Disengaged	Engaged
—	Engaged	Disengaged
—	Disengaged	Disengaged

* When the alarm mark is not displayed, the alarm is not engaged. However, the alarm mark starts flashing when the desired alarm time coincides with the digital time display.

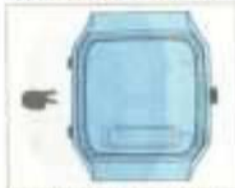
* The alarm I or II mark will start flashing when the respective alarm is ringing.

HOW TO STOP THE ALARM



The alarm will ring for 20 seconds. Depress either button "A" or "B" to stop the alarm. The alarm can be stopped in any display.

ALARM TEST AND HOW TO ENGAGE OR DISENGAGE THE HOURLY TIME SIGNAL



Depress button "A" and "B" at the same time and the alarm will ring. The colon mark will flash and the hourly time signal will be set. Depress buttons "A" and "B" again and the colon mark will stop flashing and the hourly time signal will be disengaged.

ILLUMINATING LIGHT



When button "B" is depressed, the illuminating light is activated in all displays except for the stopwatch display.

Note: The flashing of the light while button "B" is depressed is not a malfunction of the watch. It is to save battery energy.

HOW TO USE THE STOPWATCH

PREPARATION



0' 00 00

Depress button "A" until the stopwatch display is shown.

START



0' 00 00

Depress button "B" when the runner starts running.

STOP



5' 12 19

Depress button "B" when the runner crosses the finish line.

RESET



0' 00 00

Depress button "B" and the display will reset to "0' 00 00".

- * When the measured time exceeds 30 minutes, the display will change from the minute, second and 1/100 second to the hour, minute and second.
- * Since the stopwatch function operates independently of the other functions the stopwatch continues measuring the elapsed time when the other functions are activated.

TO PRESERVE THE QUALITY OF YOUR WATCH

		Water-Resistant	Water-Resistant	Notes
		Water-Resistant (20m)	Water-Resistant (30m)	
		Water-Resistant (50m)	Water-Resistant (100m)	
Considerable amount of water has already entered	I			X
	II			X
	III			X

- As you can see from the previous page, SEIKO water-resistant watches are designed and manufactured to withstand accidental contact with water such as splashes or rain but not swimming or diving. Do not depress any buttons and do not operate the crown when the watch is wet.
- If your watch is a SPORTS 100, it is designed and manufactured for skin diving but it is not suitable for scuba diving. You can depress any buttons but do not operate the crown when the watch is wet. We recommend that you wear the SEIKO Diver's Watch for scuba diving.
- If the watch is exposed to water, rinse it in fresh water and then wipe it thoroughly dry.
- Have your SEIKO watch checked periodically by an AUTHORIZED SEIKO DEALER to be sure that the case, buttons, crown, gasket and crystal seal remain intact.

BATTERY CHANGE

The miniature battery which powers your watch should last approximately three years for Maxell SR926W or SEIKO TR926W. However, because it is inserted at the factory, the actual life of the battery once in your possession may be less than the specified period. The battery needs to be replaced when you see all the digits in the digital display flashing. However, the watch will remain accurate while all the digits are flashing. When replacing the battery, we recommend that you contact an AUTHORIZED SEIKO DEALER.

Note: If use of the light is more frequent than 5 times a day and the alarm is more than 10 seconds a day, the battery life may be less than the specified period.