

# Cal. H023

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You are now the proud owner of a SEIKO Duo-Display Watch Cal. H023. For best results, please read the instructions in this booklet carefully before using your SEIKO Duo-Display Watch. Please keep this manual handy for ready reference.

Vous voici l'heureux propriétaire d'une montre double affichage SEIKO Cal. H023. Pour en obtenir d'excellentes performances, veuillez lire attentivement les explications suivantes avant d'utiliser la montre et conserver cette brochure pour toute référence ultérieure.

Usted es ahora un honrado poseedor del reloj SEIKO de indicación doble Cal. H023. Para obtener de él óptimos resultados, lea las instrucciones de este panfleto con cuidado antes del uso de su reloj SEIKO de indicación doble. Guarde este manual para pronta referencia.

Sie sind nun stolzer Besitzer einer SEIKO Zwei-Anzeige-Uhr Kal. H023. Bevor Sie nun Ihr SEIKO Zwei-Anzeige-Uhr in Gebrauch nehmen, lesen Sie bitte die Anleitungen in diesem Heftchen sorgfältig durch, damit Sie die Uhr optimal nutzen können. Verwahren Sie dieses Heftchen, um sich jederzeit wieder informieren zu können.

Siete ora in possesso di un orologio SEIKO a doppio quadrante Cal. H023. Per ottenerne i migliori risultati, leggete attentamente le istruzioni contenute in questo manuale prima di iniziare ad utilizzare l'orologio. Conservate poi il manuale per ogni eventuale futuro riferimento.

Você pode sentir-se orgulhoso de possuir um Relógio SEIKO Duo-Display Cal. H023. Para obter os melhores resultados, leia atentamente as instruções contidas neste opúsculo antes de usar o seu Relógio SEIKO Duo-Display. Conserve este manual para consultas futuras.

閣下現在擁有一隻精工牌，機件編號為H023的雙顯示石英精密鬧鐘，定會覺得自豪。為了能夠獲得它的最佳效果起見，務請仔細閱讀小冊子中的各項說明。並請將手冊妥加保存，以備隨時參考。

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# SEIKO DUO-DISPLAY QUARTZ

## Cal. H023

### FEATURES



#### **TIME/CALENDAR**

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- Fully automatic calendar
- Daylight saving time display



#### **WORLD TIME**

---

- Time & date of 28 cities (on page 15)
- Time transfer function



#### **ALARM**

---

- World time alarm function



#### **STOPWATCH**

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- Measures up to 100 hours in 1/1000 second increments
- Lap time measurement



#### **SCROLL WINDOW**

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- Scroll display of city names

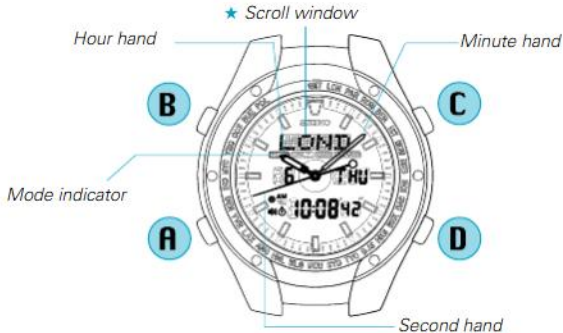


#### **BATTERY LIFE INDICATOR**

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## BUTTONS & DISPLAY

There are four buttons as indicated in the illustration below.  
[TIME/CALENDAR mode]



- ★ : City name scrolls from right to left in TIME/CALENDAR SETTING display and WORLDTIME and ALARM modes.

## MODE CHANGE

- A** Press repeatedly to select mode. The mode name scrolls from right to left in the scroll window.



- \*: The flashing STOPWATCH indicator in any display mode shows that the stopwatch is counting.



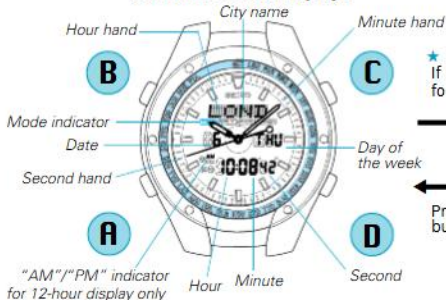
- \*: When the hourly time signal/confirmation sound for button operation is switched on, a beep sounds with each press of Button A. As a reference aide, the beep sounds in a different tone when the mode changes over to the TIME/CALENDAR mode.

## TIME/CALENDAR MODE

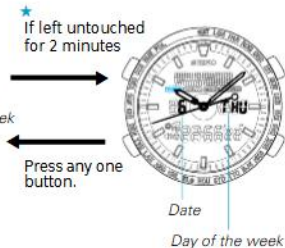
- The calendar adjusts automatically for odd and even months including February of leap years from 2001 up to 2050.

**A** Press to show TIME/CALENDAR mode.

**[Time & Calendar Display]**



**[Day & Date Display]**



- ★ : If the watch is left untouched for 2 minutes when Day & Date Display is selected, the digital time and city name disappear and only the day and date are shown. To show the digital time and city name, press any one of the four buttons.

## TIME/CALENDAR SETTING

- Set the digital time first before setting the analogue time, as the second hand is governed by the digital time.
- Once the time and calendar of your area are set in the TIME/CALENDAR mode, the time and calendar of the other 28 cities covered in the WORLD TIME mode will be automatically set.



**B**

Press for 2 to 3 seconds to show TIME/CALENDAR SETTING display.



**D**

\* Second hand points at the city previously selected, and the name of the city scrolls in the scroll window while the other digital display windows become blank.



Press to select the city representing your area.

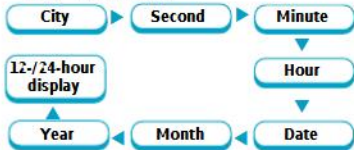
## Digital time/calendar setting



## Analogue time setting



**C** Press to select an item (flashing) to be adjusted. With each press of the button, a flashing item changes over in the following order  
(See \*1 on page 22)



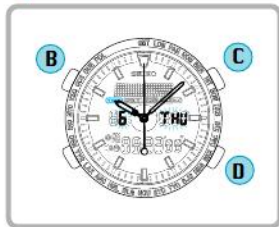
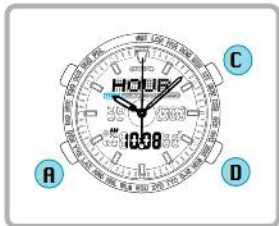
**D** Press to adjust the selected item.  
(See \*2 on page 22)

## \* Seconds setting

By pressing the button, the seconds are reset to "00" and start counting immediately.

**C** Press to show "SEC-SET-00".

**D** Press to reset Second hand to point to the 12 o'clock position.

**C**

Press to show "HOUR-SET".

**A**

OR

**D**

Press repeatedly to set Hour and Minute hands to match the digital time.

*(See \*3 on page 22)***C**

Press for the display selection.

**D**

Press to select the desired display.

\* [Day &amp; Date Display] or [Time &amp; Calendar Display] can be alternatively selected.

**B**Press to return to TIME/CALENDAR mode. *(See \*4 on page 22)*

## ENGAGEMENT/DISENGAGEMENT OF HOURLY TIME SIGNAL AND TURNING ON/OFF OF CONFIRMATION SOUND FOR BUTTON OPERATION



C

C

With each press in TIME/CALENDAR mode, the hourly time signal and confirmation sound for button operation are alternately switched on and off. (See \*5 on page 22)

Hourly time signal indicator  
(displayed when hourly time signal and confirmation sound are switched on)

## HOW TO SET THE DAYLIGHT SAVING TIME (SUMMER TIME)

- If the daylight saving time is in effect, press Button D for 2 to 3 seconds to display the daylight saving time. To show the standard time, press Button D again for 2 to 3 seconds. (See \*6 on page 22)

- \* The daylight saving time indicator appears, and both the digital and analogue time are advanced by one hour from the standard time.
- \* Daylight saving time can be set for each city except Greenwich.

### [Daylight saving time]



D

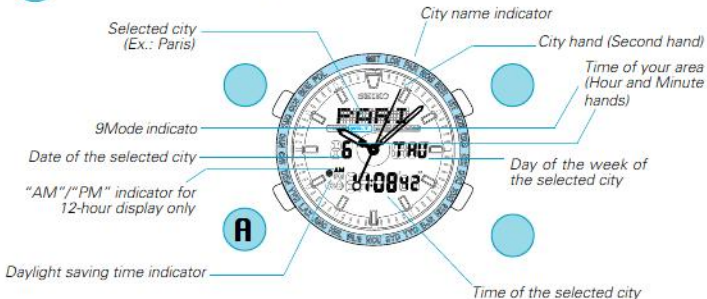
Daylight saving time indicator

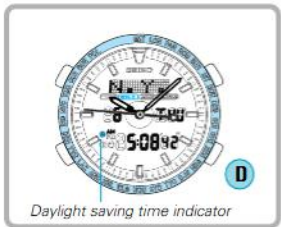
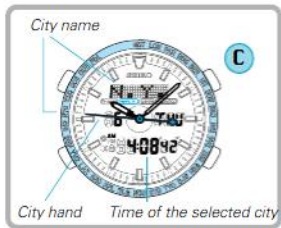
## WORLD TIME MODE

- Digital display : City name, time, date and day of the week of the city selected from the 28 cities in different time zones throughout the world that are shown on the bezel.
- Analogue display : Hour and Minute hands --- time of your area (Home Time)  
City (Second) hand --- selected city on the bezel (World Time City)

**A**

Press to show WORLD TIME mode.



**C**

Press to set City (Second) hand to point at the name of the city on the bezel whose time/calendar you wish to know.

\* The name of the selected city scrolls from right to left in the scroll window, and then the first 4 letters of the city name remain displayed.

Time of the selected city is displayed in the digital display window while Hour and Minute hands show the time of your area (Home Time).

**D**

Press for 2 to 3 seconds to set daylight saving time, if it is in effect in the selected city.

\* The daylight saving time indicator appears, and the digital time advances one hour from the standard time. To return to the standard time display, press button D again for 2 to 3 seconds.

\* Daylight saving time can be set independently for each city except Greenwich.

## TIME TRANSFER FUNCTION

- The time displayed in the TIME/CALENDAR mode can easily be replaced with the time of the city selected in the WORLD TIME mode.

**C** Press to set City (Second) hand to point at the desired city.



**B** Press for 2 seconds to transfer the time of the city selected in WORLD TIME mode to TIME/CALENDAR mode.

Ex.: Time of New York is transferred to TIME/CALENDAR mode:

In WORLD TIME mode

**B**



In TIME/CALENDAR mode



\* A beep sounds and the Hour and Minute hands automatically turn to indicate the transferred time. The mode returns to TIME/CALENDAR mode with the transferred city name shown in the scroll window.

## TIME DIFFERENCES

GMT = Greenwich Mean Time

GMT ± (hours)	Marking on the bezel/dial	Name of city or area	GMT ± (hours)	Marking on the bezel/dial	Name of city or area
0	GMT	Greenwich	+10	SYD	Sydney*
0	LON	London*	+11	NOU	Nouméa
+1	PAR	Paris*	+12	WLG	Wellington*
+1	ROM	Rome*	-10	HNL	Honolulu
+1	BER	Berlin*	-9	ANC	Anchorage*
+2	IST	Istanbul*	-8	LAX	Los Angeles*
+3	MOW	Moscow*	-8	YVR	Vancouver*
+4	DXB	Dubai	-7	DEN	Denver*
+5	KHI	Karachi	-6	CHI	Chicago*
+6	DAC	Dacca	-5	NYC	New York*
+7	BKK	Bangkok	-5	YMQ	Montreal*
+8	HKG	Hong Kong	-4	CCS	Caracas
+8	BJS	Beijing	-3	BUE	Buenos Aires
+9	TYO	Tokyo	-1	PDL	Azores*

\* The cities marked with "\*" use daylight saving time (summer time). See \*7 on page 22

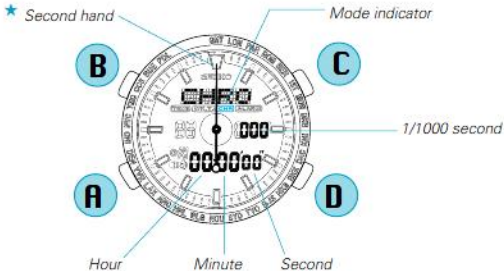
\* If you live in a time zone not covered in the list above, not all the functions are available. In such cases, please consult the nearest SEIKO Service Center as listed in the SEIKO Worldwide Guarantee and Instructions.

## STOPWATCH MODE

- Stopwatch measures up to 100 hours in 1/1000-second increments.

(See \*8 on page 23)

- A** Press to show STOPWATCH mode.



- ★ : While the stopwatch is counting, the Second hand indicates the elapsed time in 1-second increments and the graphic display scrolls from left to right in the scroll window. (Hour and Minute hands indicate the current time)

## STOPWATCH OPERATION

- Before using the stopwatch, reset the digital counter to read "00:00'00"000" by pressing Button D.



### 1 Standard measurement

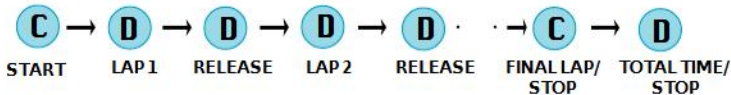


### 2 Accumulated elapsed time measurement



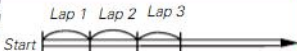
\* Stop and restart of stopwatch can be repeated as many times as required by pressing **Button C**.

### 3 Lap time measurement

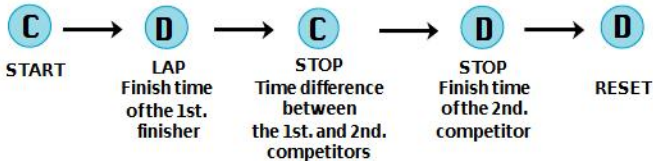


- \* Timing and release of lap times can be repeated as many times as required by pressing **Button D**.
- \* When **Button C** is pressed at the end of timing, the final lap time is displayed.

"Lap time" refers to an elapsed time required to cover a given circuit or segment of a whole race.



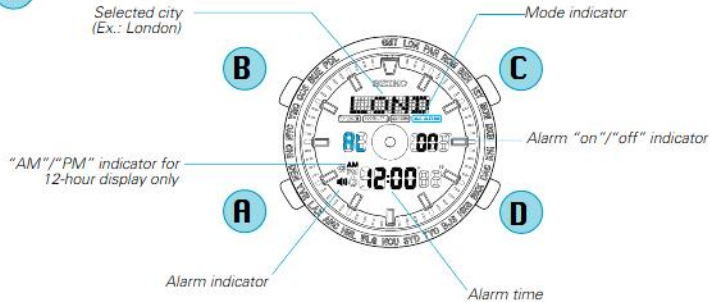
### 4 Timing of two competitors



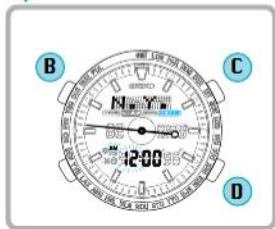
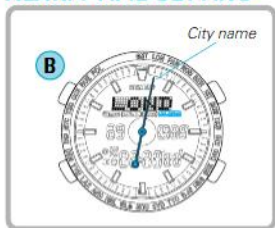
## ALARM MODE

- World time alarm : The alarm can be set to ring on the basis of the time (standard time or daylight saving time) of a desired city without any time difference adjustment.

- A** Press to show ALARM mode.



## ALARM TIME SETTING



B

Press for 2 to 3 seconds to show ALARM SETTING display.

\* The name of the city previously selected scrolls in the scroll window while the other digital display windows become blank.

D

Press to select the city for which you wish to set the alarm.

C

Press to select an item (flashing) to be adjusted. With each press of the button, a flashing item changes over in the following order:



D

Press to adjust the selected item.  
(See \*9 on page 23)

B

Press to return to ALARM mode.  
(See \*10 on page 23)

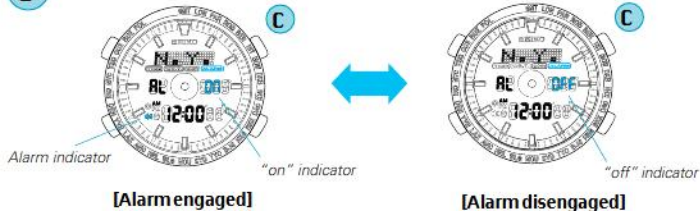
\* "on" and the alarm mark are displayed and the alarm is automatically engaged.

## ALARM ENGAGEMENT/DISENGAGEMENT

**A** Press to show ALARM mode.



**C** With each press, alarm is alternately engaged and disengaged.



\* The alarm sounds at the designated time for 20 seconds. To stop it manually, press any one of the four buttons.

## ALARM TEST

Press and hold Buttons C and D at the same time in the TIME/CALENDAR mode.

## NOTES ON OPERATING THE WATCH

- \*1 • The day of the week is automatically set once the year, month and date are set.
  - When the time is set in the 24-hour display, the world time and alarm time will also be shown in the 24-hour display.
- \*2 • The digits, other than seconds and "12H"/"24H", advance quickly if **Button D** is kept pressed.
  - When the seconds read any number between "30" and "59" and **Button D** is pressed, one minute is added.
  - When setting the hours in the 12-hour display, check that AM/PM is properly set. An AM indicator in the morning, or a PM indicator from the afternoon is shown when the 12-hour display is selected. In the 24-hour display, there is no such indicator.
- \*3 The hands move counterclockwise by pressing **Button A** and clockwise by pressing **Button D**. They move quickly if the respective buttons are kept pressed.
- \*4 If the watch is left untouched in the TIME/CALENDAR SETTING display with an item flashing, it will automatically return to the TIME/CALENDAR mode in 2 to 3 minutes.
- \*5 The hourly time signal will not ring while alarm is sounding.
- \*6 Daylight saving time is a system adopted by some countries to make the best use of daylight during a certain period in summer. Under this system the time is advanced an hour.
- \*7 The use of daylight saving time may change in some areas or countries when it is so decided by the countries concerned.

\*8 Remarks on stopwatch function:

- After 100 hours of counting, the stopwatch will automatically be reset to "00:00'00"000".
  - Even while the stopwatch is counting, the display can be changed from STOPWATCH to another by pressing **Button A**.
  - \* The mode indicator for the STOPWATCH mode flashes to indicate that the stopwatch is counting. After the stopwatch is used, however, be sure to stop it by pressing **Button C** as this will help to preserve the battery life.
- \*9
- The digits advance quickly if **Button D** is kept pressed.
  - When the time in the TIME/CALENDAR mode is set in the 24-hour display, the alarm time will also be shown in the 24-hour display.
  - When setting the hours in the 12-hour display, check that AM/PM is properly set.
- \*10 If the watch is left untouched in the ALARM SETTING display with an item flashing, it will automatically return to the ALARM mode in 2 to 3 minutes.

☆☆ **When all indicators light** ☆☆

If all indicators of the display light while in the TIME/CALENDAR mode, it is not a malfunction. This happens if Button C and D are pressed at the same time during time setting. In such a case, press any one of the four buttons to return to the TIME/CALENDAR mode.



## BATTERY LIFE INDICATOR

- When the battery life indicator scrolls in the scroll window, replace the battery with a new one as soon as possible. Otherwise, the watch will stop operating in 2 to 3 days. We suggest that you have the battery replaced by a SEIKO DEALER.



Battery life indicator

\* Even after the battery life indicator appears, time accuracy is not affected.

## BATTERY CHANGE



The miniature battery which powers your watch should last approximately **2 years**. However, because the battery is inserted at the factory to check the function and performance of the watch, its actual life once in your possession may be less than the specified period. When the battery expires, be sure to replace it as soon as possible to prevent any malfunction. For battery replacement, we recommend that you contact an AUTHORIZED SEIKO DEALER and request **SEIKO SR1130W** battery.

\* The battery life may be less than 2 years if:

- the alarm is used for longer than 20 seconds a day,
- the stopwatch is used for longer than 3 minutes a day,
- city selection is made more than 5 times a day,
- the confirmation sound is used more than 10 times a day, and/or
- the time transfer function is used more than once a day.

## NECESSARY PROCEDURES AFTER CHANGING THE BATTERY

- \* After the battery is replaced with a new one, or in case an abnormal display (Broken numerals or letters etc.) appear, follow the procedures below to reset the IC.



- \* All digital indicators are reset to show "GREE", "1", "MON" and "AM 12:00 00" in the TIME/CALENDAR mode.

**Press and hold the four buttons for 2 to 3 seconds at the same time.**



All digital indicators disappear at once and the display shown at left appears when the buttons are released.



**Set the analogue time and digital time/calendar.**

*(See "TIME/CALENDAR SETTING" on page 8)*

- \* Selected cities in TIME/CALENDAR, WORLD TIME, and ALARM modes are all reset to "GREENWICH" by pressing the four buttons.

**WARNING**

- Do not remove the battery from the watch.
- If it is necessary to take out the battery, keep it out of the reach of children. If a child swallows it, consult a doctor immediately.
- Never short-circuit, tamper with or heat the battery, and never expose it to fire. The battery may burst, become very hot or catch fire.

**CAUTION**

- The battery is not rechargeable. Never attempt to recharge it, as this may cause battery leakage or damage to the battery.

# TO PRESERVE THE QUALITY OF YOUR WATCH

## ■ WATER RESISTANCE

Indication on case back	Condition of use Degree of water resistance*	Accidental contact with water such as rain and splashes	Swimming, yachting and taking a shower	Taking a bath and shallow diving	Scuba diving** and saturation diving
No indication	<b>Non-water resistant</b>	No	No	No	No
WATER RESISTANT	<b>3 bar</b>	Yes	No	No	No
WATER RESISTANT 5 BAR	<b>5 bar</b>	Yes	Yes	No	No
WATER RESISTANT 10/15/20 BAR	<b>10/15/20 bar</b>	Yes	Yes	Yes	No

## ● Non-water resistant



- If the watch becomes wet, have it checked by an AUTHORIZED SEIKO DEALER or SERVICE CENTER.

## ● Water resistant 5/10/15/20 bar



- Do not operate the buttons when the watch is wet or in water. If used in sea water, rinse the watch in fresh water and dry it completely.



- When taking a shower with a water resistant 5 bar watch, or taking a bath with a water resistant

10, 15 or 20 bar watch, be sure to observe the following:

- \* Do not operate the buttons when the watch is wet with soapy water or shampoo.
- \* If the watch is left in warm water, a slight time loss or gain may be caused. This condition, however, will be corrected when the watch returns to normal temperature.

\* Pressure in bar is a test pressure and should not be considered as corresponding to actual diving depth since swimming movement tends to increase the pressure at a given depth. Care should also be taken on diving into water.

\*\* We recommend that you wear a SEIKO Diver's Watch for scuba diving.

## ■ TEMPERATURES



Your watch works with stable accuracy within a temperature range of 5°C and 35°C (41°F and 95°F).

Temperatures over 60°C (140°F) or below -10°C (+14°F) may cause a slight time loss or gain or battery leakage or shorten the battery life.

However, the above conditions will be corrected when the watch returns to normal temperature.

## ■ SHOCKS & VIBRATION



Be careful not to drop your watch or hit it against hard surfaces.

## ■ MAGNETISM



The analogue unit of your watch will be adversely affected by strong magnetism, though the digital unit will not be affected. Keep the watch away from close contact with magnetic objects.

## ■ CHEMICALS



Be careful not to expose the watch to solvents, mercury, cosmetic spray, detergents, adhesives or paints. Otherwise, the case, bracelet, etc. may become discolored, deteriorated or damaged.

## ■ CARE OF CASE AND BRACELET



To prevent possible rusting of the case and bracelet, wipe them periodically with a soft dry cloth.

## ■ PERIODIC CHECK



It is recommended that the watch be checked once every 2 to 3 years. Have your watch checked by an AUTHORIZED SEIKO DEALER or SERVICE CENTER to ensure that the case, buttons, gasket and crystal seal remain intact.

## ■ PRECAUTION REGARDING CASE BACK PROTECTIVE FILM



If your watch has a protective film and/or a sticker on the case back, be sure to peel them off before using your watch.

## ■ STATIC ELECTRICITY



The IC (Integrated Circuit) used in your watch will be affected by static electricity which may disturb the display. Keep the watch away from close contact with objects such as TV screens which emit strong static electricity.

## ■ LIQUID CRYSTAL PANEL



The normal life expectancy for a liquid crystal panel is approximately 7 years. After that it may decrease in contrast, becoming difficult to read. Please contact your **AUTHORIZED SEIKO DEALER** or **SERVICE CENTER** if you wish to have a new panel fitted (guaranteed one year).

## SPECIFICATIONS

- |   |                                       |   |
|---|---------------------------------------|---|
| 1 | Frequency of crystal oscillator ..... | 32,768 Hz (Hz = Hertz ... Cycles per second)  |
| 2 | Loss/gain (monthly rate) .....        | Less than 15 seconds at normal temperature range (5° C ~ 35° C) (41° F ~ 95° F)   |
| 3 | Operational temperature range .....   | -10° C ~ +60° C (14° F ~ 140° F)  |
|   | Desirable temperature range of use .  | 0° C ~ +50° C (32° F ~ 122° F)  |
| 4 | Driving system .....                  | Step motor, 2 pieces  |
| 5 | Analogue display system               |   |
|   | Time .....                            | Three hands (hour, minute and second hands)   |
| 6 | Digital display system                |   |
|   | TIME/CALENDAR mode .....              | City, date, day of the week, hour, minute and second<br>"AM"/"PM" in the 12-hour display<br>Mode indicator<br>(Alarm, hourly time signal and daylight saving time indicators) |
|   | WORLD TIME mode .....                 | City, date, day of the week, hour, minute, second<br>"AM"/"PM" in the 12-hour display<br>Mode indicator<br>(Alarm, hourly time signal and daylight saving time indicators)    |

STOPWATCH mode .....	Hour , minute, second and 1/1000 seconds Mode indicator (Alarm, hourly time signal and daylight saving time indicators)
ALARM mode .....	World time alarm, Alarm time (hour and minute) and city "AM"/"PM" in the 12-hour display Mode indicator and "on"/"off" (Alarm, hourly time signal and daylight saving time indicators)
7 Digital display medium .....	Nematic Liquid Crystal, FEM (Field Effect Mode)
8 Battery .....	SEIKO SR1130W, 1 piece
9 Battery life indicator .....	Battery life indicator appears in the scroll window when the battery life nears its end.
10 IC (Integrated Circuit) .....	C-MOS-LSI, 1 piece

\* The specifications may be subject to periodic changes without prior notice due to product improvements.

