

# 取扱説明書 INSTRUCTION

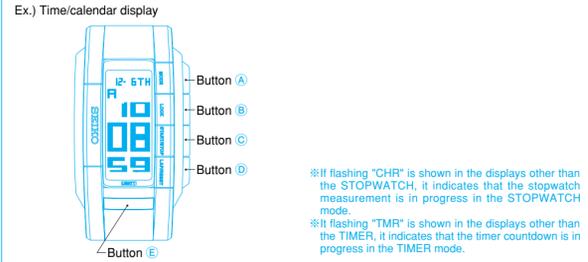
## W444

このたびはセイコー-W444をお買いあげいただきありがとうございます。ご使用前にこの取扱説明書をよくお読みの上、正しく愛用くださいますようお願い申し上げます。なお、この取扱説明書はお手もとに保存し必要に応じてご覧ください。

### FEATURES

- This watch features an illuminating light using an electroluminescent panel for easy viewing in the dark. In the alarm function, the watch signals the designated time once a day with a beeping sound and the flashing illuminating light. It also has a stopwatch function that stores up to 8 lap times in memory, and a timer function that either a preset or an adjustable timer. While the stopwatch or timer is counting, the elapsed time is signaled with a beep and/or illuminating light when the button operation confirmation sound and/or auto illumination are/is turned on.
- 1. Time/calendar
  - Month, date, day of the week, hour, minutes and seconds are displayed. (Year is displayed only in the time/calendar setting display.)
  - Calendar adjusts automatically for odd and even months including February of leap years from the year 1995 up to the end of 2044.
- 2. Stopwatch
  - The stopwatch measures up to 9 hours 59 minutes 59 seconds in 1/100 second increments.
  - Up to 8 lap times can be stored in memory.
  - By turning on the button operation confirmation sound, a beep sounds every minute to signal the lapse of time.
- 3. Memory recall
  - Data obtained in the stopwatch function can be recalled.
- 4. Timer
  - Four different lengths of time (3, 5, 10 and 15 minutes) have been preset for the preset timer. Besides, the watch is equipped with an adjustable timer that can be set for up to 9 hours and 59 minutes in one-minute increments.
  - By turning on the button operation confirmation sound, a beep sounds every minute to signal the lapse of time.
- 5. Daily alarm
  - The alarm can be set to ring on a 24-hour basis. At the designated time, the display is illuminated as the alarm rings.
  - The alarm can be engaged and disengaged alternately with a press of a button.
- [Auto illumination function]
  - The display is illuminated for 2 seconds with each press of any of the buttons except when the digits are flashing.
- [Auto signal function]
  - While the stopwatch or timer is counting, the display is illuminated every minute to signal the lapse of time by turning on the auto illumination function. In the stopwatch function, the auto illumination function is activated for the first 19 minutes. In the adjustable timer function, it is activated for the last 19 minutes of the countdown. If the countdown is repeated more than 10 times, it will be turned off automatically.
- [Illuminating light (Electroluminescent panel)]
  - By pressing a button in the time/calendar, stopwatch, timer or alarm display, the display panel is illuminated for 3 seconds.
  - Certain materials emit light when voltage passes through them. This phenomenon, known as "electroluminescence", is used to illuminate the display.
  - \*The luminance level of the electroluminescent panel decreases gradually over time. (For details, refer to "Notes on the electroluminescent panel".)

### BUTTONS AND DISPLAYS



●With each press of button "A", the display changes over in the following order.

Time/calendar display → Stopwatch display -CHR- → Timer display -TMR- → Alarm display -ALM-

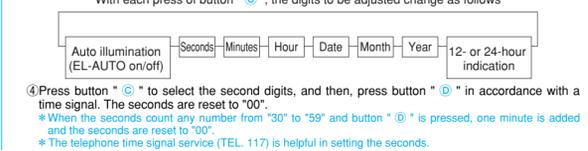
※If flashing "CHR" is shown in the displays other than the STOPWATCH, it indicates that the stopwatch measurement is in progress in the STOPWATCH mode.

※If flashing "TMR" is shown in the displays other than the TIMER, it indicates that the timer countdown is in progress in the TIMER mode.

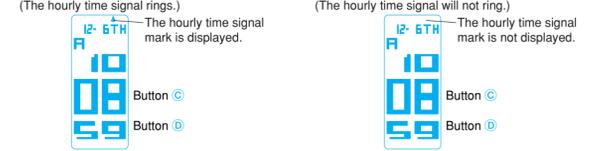
### METHOD OF OPERATION

#### 1. HOW TO SET THE TIME/CALENDAR

- Button operations
  - Press button "A" to show the time/calendar display.
- How to set the Time/Calendar.
  - Press button "A" to show the time/calendar display.
  - Press button "B" for 2 to 3 seconds to show the time/calendar setting display. "EL-AUTO" is displayed together with flashing "on" mark. With each press of button "D", the "EL-AUTO on" and "EL-AUTO off" marks appear alternately.
  - With each press of button "C", the selection of the digits to be adjusted (flashing) can be made.
  - Once the year, month and date have been set, the day of the week is set automatically.

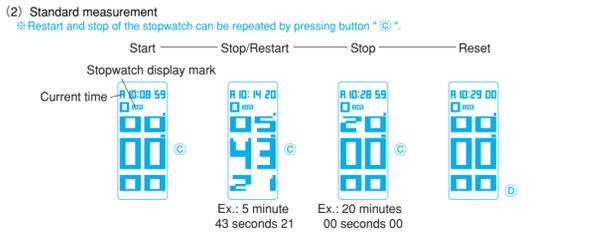
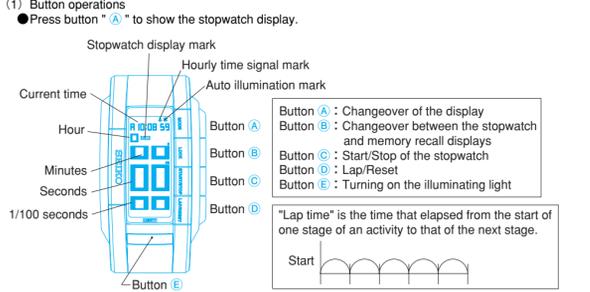


- Press button "B" to set the digits to be adjusted (flashing), and then, press button "D" to set the digits. With each press, one digit is advanced (except when setting auto illumination, seconds or 12- or 24-hour indication).
  - The digits move quickly by keeping button "D" pressed.
- After all the adjustments are completed, press button "B" to return to the time/calendar display. If the watch is left untouched in the time/calendar setting display with the digits flashing, it will automatically return to the time/calendar display in 2 to 3 minutes.
  - The calendar adjusts automatically for odd and even months including February of leap years from the year 1997 to 2046.
  - While in the time/calendar setting display, the display as shown below will appear if both buttons "C" and "D" are pressed at the same time. This is not a malfunction. Press button "A", "B", "C", "D", "C", "D" or "E" to return to the time/calendar display, and then, set the time/calendar again following the steps above starting from (1).
- Alarm test, engagement/disengagement of the hourly time signal and turning on/off of the confirmation sound or button operation.
  - With each press of button "E" in the time/calendar display, the hourly time signal is engaged and disengaged, and the confirmation sound for the button operation is turned on and off alternately. By keeping buttons "C" and "D" pressed at the same time in the time/calendar display, the alarm sound can be tested.

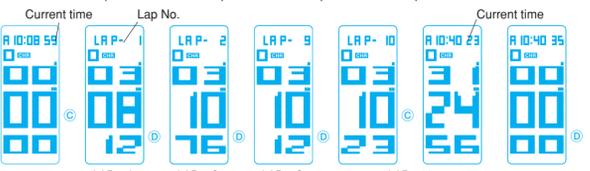


#### 2. HOW TO USE THE STOPWATCH

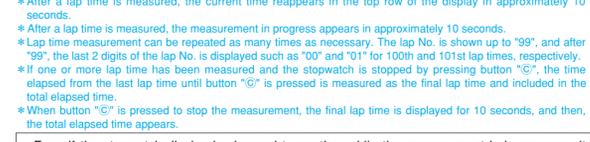
- The stopwatch measures up to 9 hours 59 minutes 59 seconds in 1/100 second increments.
- Up to 8 lap times can be stored in memory.
- The lap number counts up to "99". After "99", the number is displayed in two digits such as "00" for 100, "01" for 101, and so on.
- By turning on the button operation confirmation sound, a beep sounds every minute to signal the lapse of time.
- By turning on both the button operation confirmation sound and auto illumination function, a beep sounds and the display is illuminated every minute to signal the lapse of time for the first 19 minutes. (The beep sounds every minute after the first 19 minutes.) (For turning on/off the auto illumination function, see "HOW TO SET THE TIME/CALENDAR".)



- Standard measurement
  - Restart and stop of the stopwatch can be repeated by pressing button "C".

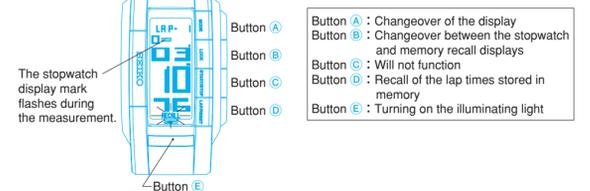


- Lap time measurement
  - The lap number counts up to "99", and up to 8 lap times can be automatically stored in memory.
  - Ex.) When 10 lap timers was measured:



- After a lap time is measured, the current time reappears in the top row of the display in approximately 10 seconds.
- After a lap time is measured, the measurement in progress appears in approximately 10 seconds.
- Lap time measurement can be repeated as many times as necessary. The lap No. is shown up to "99", and after "99", the last 2 digits of the lap No. is displayed such as "00" and "01" for 100th and 101st lap times, respectively.
- If one or more lap time has been measured and the stopwatch is stopped by pressing button "C", the time elapsed from the last lap time until button "C" is pressed is measured as the final lap time and included in the total elapsed time.
- When button "C" is pressed to stop the measurement, the final lap time is displayed for 10 seconds, and then, the total elapsed time appears.

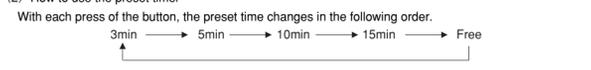
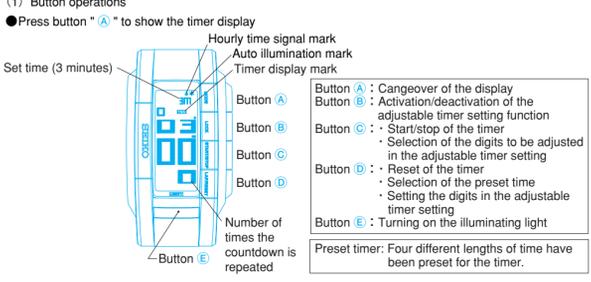
- How to use the memory recall function
  - Data obtained in the stopwatch display can be recalled either during or after the measurement.
  - Even if the digits are reset to "00" in the stopwatch measurement, stored data is not erased and can be recalled unless a new measurement is started.
  - Up lap 8 lap times are automatically stored in memory and can be recalled following the procedure below.



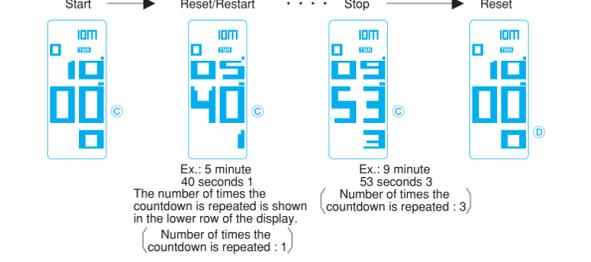
- Memory recall after measurement
  - Press button "B" to show the memory recall display.
  - The oldest measurement stored in memory will be displayed.
  - Ex.) If more than 8 lap times are have been measured: With each press of button "D", the stored data are recalled successively in the following order. (1) → (2) → (3) . . . → (6) → (7) → (8)
- Memory recall during measurement
  - Press button "B" to show the memory recall display.
  - The newest measurement stored in memory will be displayed.
  - When more than 8 lap times have been measured, lap 8 will be displayed.
  - Ex.) If lap 8 is the newest measurement: With each press of button "D", the stored data are recalled successively in the following order. (8) → (1) → (2) . . . → (5) → (6) → (7)

#### 3. HOW TO USE THE TIMER

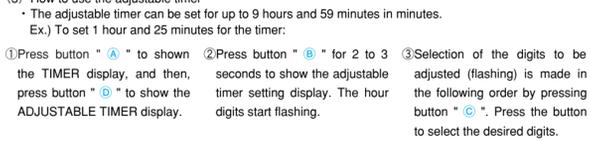
- Four different lengths of time (3, 5, 10 and 15 minutes) have been preset for the preset timer. Besides, the watch is equipped with an adjustable timer that can be set for up to 9 hours and 59 minutes in one-minute increments.
- After the set time is up, the timer counts down the preset time repeatedly. After the timer is used, therefore, be sure to reset it as the battery energy is consumed enormously to shorten the battery life.
- By turning on the button operation confirmation sound, a beep sounds every minute to signal the lapse of time.
- By turning on both the button operation confirmation sound and auto illumination function, a beep sounds and the display is illuminated every minute to signal the lapse of time for the last 19 minutes of the countdown. If the countdown is repeated more than 10 times, however, the display will not be illuminated. (The beep sounds every minute all during the countdown even if the countdown is repeated more than 10 times.)



- Button operations
  - Press button "A" to show the timer display.



- Example: To set 10 minutes for the timer
  - Press button "A" to show the TIMER display.
  - Press button "D" to select "10 minutes".
  - Press button "C" to start/stop the timer. To reset the timer, press button "D".



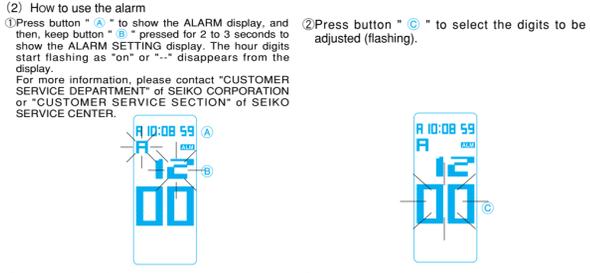
- How to use the adjustable timer
  - The adjustable timer can be set for up to 9 hours and 59 minutes in minutes.
  - Ex.) To set 1 hour and 25 minutes for the timer:

- Press button "A" to show the TIMER display, and then, press button "D" to show the ADJUSTABLE TIMER display.
- Press button "B" for 2 to 3 seconds to show the adjustable timer setting display. The hour digits start flashing.
- Selection of the digits to be adjusted (flashing) is made in the following order by pressing button "C". Press the button to select the desired digits.
- Press button "D" to set the digits. One digit is advanced with each press of the button.
- After all the adjustments are completed, press button "B" to return to the timer display. If the watch is left untouched in the adjustable timer setting display with the digits flashing, it will automatically return to the timer display in 2 to 3 minutes.



#### 4. HOW TO USE THE ALARM

- The alarm can be set to ring on a 24-hour basis. At the designated time, the display is illuminated as the alarm rings.
  - The alarm can be engaged and disengaged as you require.
- Button operations
    - Press button "A" to show the alarm display.



- How to use the alarm
  - Press button "A" to show the ALARM display, and then, keep button "B" pressed for 2 to 3 seconds to show the ALARM SETTING display. The hour digits start flashing as "on" or "--" disappears from the display.
  - For more information, please contact "CUSTOMER SERVICE DEPARTMENT" OF SEIKO CORPORATION or "CUSTOMER SERVICE SECTION" OF SEIKO SERVICE CENTER.



- The digits move quickly by keeping button "D" pressed.
- When setting the hour digits in the 12-hour indication, check that "A"/"AM"/"P"/"PM" mark is properly set.
- When the time function is displayed in the 24-hour indication, the alarm is also displayed in the 24-hour indication.

- Engagement/disengagement of the alarm
    - With each press of button "C" in the alarm display, the alarm is engaged and disengaged alternately.
- (The alarm rings.) The alarm mark is displayed.
- (The alarm will not ring.) The alarm mark is not displayed.
- To stop the alarm
    - The alarm rings at the designated time for 20 seconds and stop. To stop it manually, press button "A", "B", "C", "D", "E".
    - The alarm can be stopped manually in any mode by pressing a button.

### SPECIFICATIONS

- Frequency of crystal oscillator ... 32,768 Hz (Hz = Hertz ... Cycles per second)
  - Loss/gain ... Average monthly rate: ±20 seconds (in temperatures of between 5°C and 35°C on your wrist)
  - Operational temperature range ... -10°C ~ +50°C
  - Desirable temperature range ... 0°C ~ +50°C
  - Display medium ... Nematic Liquid Crystal, FEM (Field Effect Mode)
  - Battery ... Lithium battery SB-T14, 1 piece
  - Battery life ... Approx. 2 years
  - Battery life indicator
  - IC (Integrated Circuit) ... C-MOS-LSI, 1 piece
- \*The above specifications are subject to change without prior notice, for product improvement.

### TROUBLE SHOOTING

Phenomenon	Possible cause	Remedies
The watch has stopped operating.	All the electrical energy stored in the secondary battery has been used up.	Take it to the retailer from whom it was purchased.
The watch gains/losses time.	• The watch has been left in extremely high or low temperature for a long time. • You dropped the watch, hit it against a hard surface or wore it while playing active sports. • The watch was exposed to strong vibrations.	• This condition will be corrected when the watch temperature returns to normal. • Set the time again, before using the watch. • This condition will not be corrected. Have the watch checked by the retailer from whom the watch was purchased.
The display continues to appear and disappear alternately.	The electrical energy stored in the secondary battery has been reduced to an extremely low level.	Take it to the retailer from whom it was purchased.
Blur in the display persists.	Small amount of water has got inside the watch due to deterioration of the gasket, etc.	Consult the retailer from whom the watch was purchased.

※For the troubles other than cited above, consult the retailer from whom your watch was purchased.

### REMARKS ON AFTER-SALES SERVICING

- If the watch requires service, take it to the retailer from whom the watch was purchased. If the trouble occurs within the guarantee period, submit the certificate of guarantee together with the watch.
- For repair after the guarantee period or for any other information regarding the watch, contact the retailer from whom the watch was purchased or the "CUSTOMER SERVICE DEPARTMENT" OF SEIKO CORPORATION.
- Guarantee coverage is spelled out in the certificate of guarantee. Please read it carefully and keep the certificate for ready reference.

### TO PRESERVE THE QUALITY OF YOUR WATCH

Indication for water resistance by indication on the dial	Degree of water resistance	Condition of use				Caution
		Disposal and manufacture of watches intended to be worn in shallow water	Suitable for swimming and other aquatic sports as well as for water skiing, scuba diving, water skiing and fishing	Suitable for shallow diving/under a heavy breathing apparatus	Caution during diving	
a: No indication	No water resistance	×	×	×	×	
b: "No indication"	Water resistance (3 bar)	○	○	×	×	
c: "No indication"	Water resistance (5 bar)	○	○	×	×	
d: "WATER RESIST" or "WATER RESIST 1 BAR"	Water resistance (10 bar)	○	○	○	×	
e: "WATER RESIST 2 BAR"	Water resistance (20 bar)	○	○	○	×	

- WARNING
  - If your watch is 3 bar water resistant, do not use it in water.
  - If your watch is 5 bar water resistant, do not use it in any type of diving including skin diving.
  - If your watch is 10 or 20 bar water resistant, do not use it in saturation diving or scuba diving.

- CAUTION
  - CARE OF YOUR WATCH
    - The case and bracelet touch the skin directly just as underwear. If they are left dirty, the edge of a sleeve may be stained with rust of those who have a delicate skin may have a rash.
    - After removing the watch from your wrist, wipe perspiration or moisture with a soft cloth. This will prevent the watch from being soiled, adding to the life of the gasket.
  - LEATHER BAND
    - When removing moisture from a leather band, do not rub the band with the cloth as this may discolor it or reduce its gloss. Be sure to blot up the moisture using a soft dry cloth.
  - METAL BRACELET
    - Clean the watch bracelet with a soft toothbrush dipped in water or soapy water. If your watch is not water-resistant, be careful not to get the case wet when cleaning.
  - SOFT PLASTIC BRACELET
    - If your watch has a semitransparent urethane band, which is easily discolored, special care should be taken to keep it clean. Depending on the condition of use, the semitransparent band may be discolored after several months of use.
  - If your watch is not water-resistant, be careful not to get wet with water or sweat. When it gets wet with water or sweat, wipe it thoroughly dry with a hygroscopic cloth.
  - If your watch is 5, 10 or 20 bar water resistant, rinse it in a bowl of fresh water after used in seawater. Do not use chemicals to wash it.

- CAUTION
  - RASH AND ALLERGY
    - Adjust the bracelet or band so that there will be a little clearance between the bracelet or band and your wrist to avoid accumulation of perspiration.
    - If you are constitutionally predisposed to rash, the band may cause you to develop a rash or an itch depending on your physical condition.
    - The possible causes of the rash are as follows:
      - Allergy to metals or leathers
      - Rust, dust or perspiration on the watch or band
      - If you develop any skin reactions, take off the watch and consult a doctor immediately.

- PRECAUTIONS ON WEARING YOUR WATCH
  - When clasping and unclasping the band, you may damage your nail, depending on the type of clasp used with the band.
  - When the watch is clasped, do not let it rub against the skin or other parts of the body, as you may be injured by the force of the fact that you wear the watch.
  - When you make contact with children, especially with infants, they may get injured or develop a rash caused by allergy.

- CAUTION
  - If your watch is of the fob or pendant type, the strap or chain attached to the watch may damage your clothes, or injure the hand, neck, or other parts of your body.

- PLACES TO KEEP YOUR WATCH
  - If the watch is left at temperature below 0°C or above +50°C for a long time it may function improperly or stop operating.
  - This watch is so adjusted that it will maintain stable time accuracy in normal temperatures (5°C ~ 35°C).
  - It will lose or gain slightly, but it will regain high time accuracy when it returns to normal temperature.
  - Do not leave the watch in a place where it is subjected to strong magnetism or static electricity.
  - Do not leave the watch where there are strong vibrations.
  - Do not leave the watch in a dusty place.
  - Do not expose the watch to gases or chemicals. (Ex. Organic solvents such as benzene and thinner, gasoline, nail polish, cosmetic spray, detergent, adhesives, mercury, and iodine antiseptic solution.)
  - Do not leave the watch in a hot spring, and do not keep it in a drawer holding insecticides inside.
  - PERIODIC CHECK
    - We suggest that you have your watch checked by the retailer from whom the watch was purchased every 2 or 3 years or when the battery is replaced for oil condition, battery electrolyte leakage or damage due to water or sweat. After checking the watch, adjustment and repair may be required.
  - When replacing the parts or battery, please specify "SEIKO GENUINE PARTS". If an old battery is kept in the watch for a long time, electrolyte leakage from the battery may damage the module.
  - Be sure to have the gasket and push-pin replaced with new ones by the retailer from whom the watch was purchased when checking the watch or the battery is replaced.

### REMARKS ON THE BATTERY

- Battery life indicator
  - This watch has a battery life indicator function that signals you when the battery needs to be replaced with a new one.
  - The watch is equipped with a battery life indicator that enables you to know when the battery needs to be replaced. When the battery nears its end, all the digits start flashing.
  - In that case, immediately have it replaced with a new one by the retailer from whom the watch was purchased.
- Notes on the battery
  - Battery life
    - When a new normal battery is installed, this watch operates for approximately two years.
  - ※However, if the stopwatch is used for more than 10 hours a day, the timer for more than 10 hours a day, the alarm more than once a day, the illuminating light more than 3 times a day, the auto illumination more than 30 times a week and/or the confirmation sound more than 24 times a day, the battery life may be less than the specified period.
- Monitor battery
  - The battery in your watch may run down in less than two years after the date of purchase, as it is a monitor battery which is inserted at the factory to check the function and performance of the watch.
  - Battery change
    - For battery replacement, be sure to have the battery replaced with a new one at the retailer from whom the watch was purchased and request the battery for exclusive use with the SEIKO watches.
    - The old battery is left in the water for a long time, a malfunction may be caused due to battery leakage, etc. Have it replaced with a new one as soon as possible.

- 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 the child swallows it, consult a doctor immediately as it will adversely affect the health of the child.

- CAUTION
  - Never short-circuit, tamper with or heat the battery, or never expose it to fire as it may explode, generate and intense heat or catch fire.
  - The battery is not rechargeable. Never attempt to recharge it, as this may cause battery leakage or damage to the battery.
  - Damage to the battery
    - When the watch is left in the temperatures outside the normal temperature range (+5°C ~ +35°C) for a long time, battery leakage and shorter battery life may result, the liquid crystal panel may become dim, and the duration for which the illuminating light is kept turned on may be shortened.

### NECESSARY PROCEDURE AFTER THE BATTERY CHANGE (RESETTING THE IC)

- After the battery is replaced with a new one, or abnormal display (broken digits, etc.) appears, follow the procedure below. The built-in IC will be reset and the watch will resume normal operation.
- How to reset the battery
  - After the battery is replaced with a new one, be sure to keep buttons "A", "B", "C", "D", "E" and "F" pressed at the same time for 2 to 3 seconds. "A 12:00:00 WE 1-1" will be displayed. Before using the watch, adjust the following display in the order below by referring to the corresponding sections of this instruction manual.
    - Time/calendar
    - Alarm time

### NOTE ON THE ELECTROLUMINESCENT PANEL (FOR ILLUMINATING LIGHT)

The electroluminescent panel for illumination of the display loses its luminance as the battery voltage gets lowered. Also, its luminance level decreases gradually with use.

※After 120 hours of use, the luminance level decreases by about half. When the illuminating light becomes dim, replace the battery with a new one. If the illuminating light remains dim after the battery is replaced, have the electroluminescent panel replaced with a new one by the retailer from whom the watch was purchased. It will be replaced at cost.

### REMARKS ON REPLACEMENT PARTS

- SEIKO makes it policy to usually keep a stock of spare parts for its watches for 7 years. In principle, your watch can be reconditioned within this period if used normally. (Replacement parts are those which are essential to maintaining the functional integrity of the watch.)
- The number of years that a watch is considered repairable may vary greatly depending on the conditions under which it was used, and normal accuracy may not be achieved in some cases. We recommend, therefore, that you consult the retailer from whom the watch was purchased when having them repair your watch.
- The case, dial, hands glass and bracelet, or parts thereof may be replaced with substitutes if the originals are not available.
- For more information, please contact "CUSTOMER SERVICE DEPARTMENT" OF SEIKO CORPORATION.

