1. Time/calendar display:
   - Fully automatic calendar: from year 1994 to the end of 2043.
   - Daylight saving time: marked by “DST”.
   - Month, day of the week, and date.
   - AM/PM indication.

2. Compass:
   - Measures up to 10 hours.
   - Arrow displays direction.
   - Noisy signals are not displayed.
   - Transmitter is not designed for such use.

3. Signal function:
   - Message can be sent by illuminating light.
   - Do not use as a distress signal.

4. Daily alarm:
   - Set to ring on the hour.
   - A single beep.

5. Split time measurement:
   - 100 second readout.

How to Set the Daylight Saving Time:
- When the daylight saving time is set, the directions of the sun and moon are calculated automatically.
- The “ON” mark is shown for the daylight saving time.

How to Set the Compass:
- Use a conventional magnetic compass.
- Be sure to use a conventional magnetic compass.

Characteristics:
- Time/calendar display:
  - Hour, minutes, seconds.
  - Month, date.
- Time changeover:
  - 12-hour indication.
- Compass:
  - Current time.
  - Direction.
  - Moon phase.
- Signal function:
  - Message can be sent by illuminating light.
  - Do not use as a distress signal.

Buttons and Displays:
- Time/calendar display:
  - Time indication:
    - Changeover between 12-hour and 24-hour indications.
  - Hourly time signal:
  - Split time measurement:
- Compass:
  - Direction.
  - Moon phase.
- Signal display:
  - Alarm display:
  - Confirmation sound.
- How to Set the Time/Calendar and Daylight Saving Time:
  - Setting the hour digits in the 12-hour indication:
  - Setting the date:
  - Selection of the digits to be adjusted:
  - One digit is advanced with each depression of button “D”.
- How to Use the Compass:
  - Compass function:
  - Direction.
  - Moon phase.
- Compass Data Setting:
  - Hemisphere:
  - Longitude:
  - North or South:
  - Time in 2 to 3 minutes.

Instruction Manual
- CAL. W820 (RWP SERIES)
How to Use the Rotating Compass Bezel

1. Depress button "C" to select the sun or moon compass depending on whether you can see the sun or the moon in the sky.
2. While keeping the dial level, point the direction mark at the 12 o'clock position to the direction of the sun or moon.
3. Turn the rotating bezel so that the direction name on the bezel corresponding to the direction name shown in the uppermost row of the display aligns with the direction mark.
4. The direction names on the rotating compass bezel indicate the respective directions.

Notes:
1. The rotating compass bezel can be used only when you have a view of the sun or the moon.
2. Unless the time/calendar and the daylight saving time are set properly, the direction of the sun or moon will not be displayed properly.
3. Before using the compass, check that the proper hemisphere is selected.
4. In the areas between the tropics of Cancer and Capricorn, the sun may rise directly overhead, making it difficult to find the directions. In those areas, use the compass function together with a conventional magnetic compass.
5. Before using the moon or sun compass, be sure to set the longitude of your place. Otherwise, the directions and moon phase may not be displayed properly.
6. If you travel or move to a place at a different longitude, reset the longitude on your watch.

Table of Longitudes of Cities Throughout the World
(The longitudes are shown in degrees by rounding off the minutes.)

<table>
<thead>
<tr>
<th>Name of city</th>
<th>Longitude</th>
<th>Name of city</th>
<th>Longitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchorage</td>
<td>156° W</td>
<td>Dublin</td>
<td>6° W</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>118° W</td>
<td>Mexico City</td>
<td>97° W</td>
</tr>
<tr>
<td>San Francisco</td>
<td>122° W</td>
<td>Paris</td>
<td>2° E</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>115° W</td>
<td>Milan</td>
<td>9° E</td>
</tr>
<tr>
<td>Vancouver</td>
<td>123° W</td>
<td>Rome</td>
<td>12° E</td>
</tr>
<tr>
<td>Seattle</td>
<td>122° W</td>
<td>Montevideo</td>
<td>51° W</td>
</tr>
<tr>
<td>Denver</td>
<td>105° W</td>
<td>Amman</td>
<td>5° E</td>
</tr>
<tr>
<td>Phoenix</td>
<td>116° W</td>
<td>Hambourg</td>
<td>10° E</td>
</tr>
<tr>
<td>Edmonton</td>
<td>114° W</td>
<td>Stockholm</td>
<td>16° E</td>
</tr>
<tr>
<td>Chicago</td>
<td>88° W</td>
<td>Frankfurt</td>
<td>9° E</td>
</tr>
<tr>
<td>Houston</td>
<td>95° W</td>
<td>Vienna</td>
<td>15° E</td>
</tr>
<tr>
<td>Dallas</td>
<td>97° W</td>
<td>Athens</td>
<td>24° E</td>
</tr>
<tr>
<td>New Orleans</td>
<td>90° W</td>
<td>Helsinki</td>
<td>22° E</td>
</tr>
<tr>
<td>New York</td>
<td>74° W</td>
<td>Perth</td>
<td>116° E</td>
</tr>
<tr>
<td>Montreal</td>
<td>74° W</td>
<td>Tokyo</td>
<td>140° E</td>
</tr>
<tr>
<td>Detroit</td>
<td>83° W</td>
<td>Sydney</td>
<td>151° E</td>
</tr>
<tr>
<td>Miami</td>
<td>80° W</td>
<td>Melbourne</td>
<td>143° E</td>
</tr>
<tr>
<td>Boston</td>
<td>72° W</td>
<td>Wellington</td>
<td>175° E</td>
</tr>
<tr>
<td>Santiago</td>
<td>71° W</td>
<td>Christchurch</td>
<td>173° E</td>
</tr>
<tr>
<td>Houston Area</td>
<td>158° W</td>
<td>Lima</td>
<td>18° E</td>
</tr>
<tr>
<td>Asunci</td>
<td>25° W</td>
<td>Johannesburg</td>
<td>28° E</td>
</tr>
<tr>
<td>London</td>
<td>0° W</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

HOW TO USE THE STOPWATCH

1. Depress button "A" to show the stopwatch display.
2. Depress button "B" for 2 to 3 seconds to show the alarm setting display. The alarm mark and "ON"/"OFF" mark disappear and the hour digits (and "A"/"P" mark) start flashing.
3. Depress button "C" to select the digits to be adjusted (flashing).
4. Depress button "D" to set the digits. One digit is advanced with each depression of the button. The digits move quickly by keeping the button depressed.

Stopwatch Operation

• The stopwatch can measure up to 10 hours in 1/100 seconds.
• Even if the stopwatch is changed to another function, however, be sure to reset it as the battery energy is consumed enormously to shorten the battery life.
• While the stopwatch is measuring, the graphic display turns on and off repeatedly.

Table of Longitudes of Cities Throughout the World

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z
5. After all the adjustments are completed, depress button “D” to return to the alarm display. The alarm mark and “ON” mark are automatically displayed.

Notes:
1. When the time function is displayed in the 24-hour indication, the alarm is also displayed in the 24-hour indication.
2. When setting the hour digits in the 12-hour indication, check that “A” (AM) and “P” (PM) mark is properly set.
3. If the watch is untouched in the alarm setting display with the digits flashing, it will automatically return to the alarm display in 2 to 3 minutes.

Engagement/Disengagement of the Alarm
- With each depression of button “C” in the alarm display, the alarm is engaged and disengaged alternately.
- The alarm rings at the designated time for 20 seconds and stops. To stop it manually, depress button “A”, “B”, “C” or “D”.

Turning on/off of the Hourly Time Signal and Confirmation Sound; and Alarm Test
- With each depression of button “C” in the time/calendar display, the hourly time signal and confirmation sound for the button operation are turned on and off alternately.
- The alarm can be tested by keeping buttons “C” and “D” depressed in the time/calendar display.
- With a press of a button, 4 preset Morse code messages can be given by light automatically. Messages can also be given manually by turning on and off the illuminating light.

With a press of a button, 4 preset Morse code messages can be given by light automatically. Messages can also be given manually by turning on and off the illuminating light.

Pattern of Light Illumination (Morse Code)

<table>
<thead>
<tr>
<th>Message code</th>
<th>Meaning</th>
<th>Pattern of light illumination (Morse code)</th>
<th>Duration of light illumination</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>All Well</td>
<td>[All the segments lighting up]</td>
<td>4.0 seconds</td>
</tr>
<tr>
<td>YI</td>
<td>Require</td>
<td>i’ll do my best</td>
<td>3.2 seconds</td>
</tr>
<tr>
<td>YD</td>
<td>Doctor</td>
<td>doctor</td>
<td>9.0 seconds</td>
</tr>
<tr>
<td>YN</td>
<td>Require, doctor</td>
<td>require</td>
<td>3.0 seconds</td>
</tr>
</tbody>
</table>

NOTE ON UNUSUAL DISPLAY
While in the time/calendar setting display, the display as shown below will appear if both buttons “C” and “D” are depressed at the same time. This is not a malfunction. Depress button “A”, “B”, “C” or “D” to return to the time/calendar display, and then set the time/calendar display again.

■LUMIBRITE WATCH
[dial, hands, buttons, case, bezel, straps, etc.]

- If your watch is a LORUS LUMIBRITE watch, it has following features.

LORUS LUMIBRITE watches absorb and store light energy from natural and artificial light sources and emit light in the dark. They are made of environmentally friendly material, and therefore, are harmless to human beings and the environment.

- With a full charge, LORUS LUMIBRITE watches glow in the dark hours longer than conventional luminous watches of this type. If exposed to a light of more than 500 lux (i.e., the brightness of a typical office) for approximately 10 minutes, or direct sunlight for 2 minutes, for example, they will glow for 3 to 5 hours.

- Since LORUS LUMIBRITE watches emit the light they store, the brightness will decrease gradually over time. The length of time they will glow may also differ slightly depending on such factors as the brightness of and distance from the light source used to charge the watch.

■HOW TO USE THE SIGNAL FUNCTION

**CAUTION**
Do not use the watch as a distress signal transmitter as it is not designed for such purpose. The signal light emitted from the watch may not be perceived depending on such factors as distance to the target and angle of the watch face.
While button “D” is kept depressed in the time/calendar, compass, stopwatch or alarm display, the electroluminescent light evenly illuminates the display for easy viewing in the dark.

Notes:
1. LORUS LITE watches work with one battery. When the electroluminescent light begins to lose its luminance, this is an indication that the battery is depleted. We recommend that you change the battery before the watch itself stops.
2. If the electroluminescent light is used continuously for a long time, the battery life may be less than the specified period.

BATTERY CHANGE
The miniature lithium battery SEIKO CR2025, SONY CR2025 or Matsushita CR2025, which powers your watch should last approximately 2 years. However, because it is inserted at the factory, the actual life of the battery once in your possession may be less than 2 years. Be sure to replace the battery to prevent any possible malfunction as soon as it runs down. To replace the battery we recommend taking the watch to a local watch repair shop.

Notes:
1. If the alarm is used for more than 20 seconds a day, the confirmation sound more than 50 times a day, the distress signal for more than 15 seconds a day, the illuminating light 3 times a day and/or the stopwatch for 10 hours a day, the battery life may be less than the specified period.
2. After the battery is replaced with a new one, be sure to depress buttons “A”, “B”, “C” and “D” at the same time for 2 to 3 seconds. The display becomes blank, and when the buttons are released, the time/calendar of “A 12:00oo SA 1-1” is displayed. Then, set the desired, time/calendar, compass data and alarm time. (See “HOW TO SET THE TIME/CALENDAR AND DAYLIGHT SAVING TIME”, “Compass Data Setting” and “HOW TO SET THE ALARM”.)