



INSTRUCTION MANUAL

CAL. W820 (RWP SERIES)

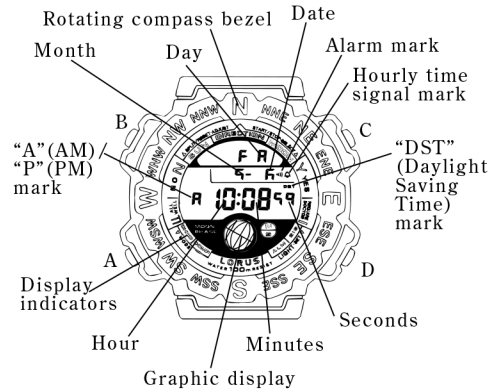
CAUTION

- The compass function
 - The compass function may not work depending on the condition of use such as season, weather or obstacles intercepting view of the sun or moon.
 - For such activities as mountain climbing and orienteering which require very accurate directions, be sure to use a conventional magnetic compass together with this watch for safety's sake.
- The signal function
 - 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.

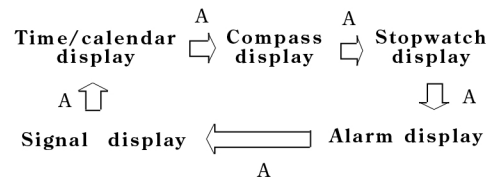
CHARACTERISTICS

- Time/calendar display:**
 - Hour, minutes, seconds, month, date and day of the week.
 - Fully automatic calendar:** Calendar adjusts automatically for odd and even months including February of leap years from the year 1994 up to the end of 2043.
 - Time indication:** Changeover between 12- and 24-hour indications is possible.
 - Daylight saving time:** Daylight saving time can be set.
- Compass:** Indicates 16 directions on the basis of the directions of the sun and moon.
 - Moon phase display with the age of the moon.**
- Stopwatch:** Measures up to 10 hours with 1/100 second readout.
 - Split time measurement**
- Daily alarm:** The alarm can be set to ring on a 24-hour basis.
 - Hourly time signal:** Can be set to ring every hour on the hour with a single beep.
- Signal function:** Four preset Morse code messages can be sent by illuminating light.
- Illuminating light:** The light evenly illuminates the display in the dark.

BUTTONS AND DISPLAYS

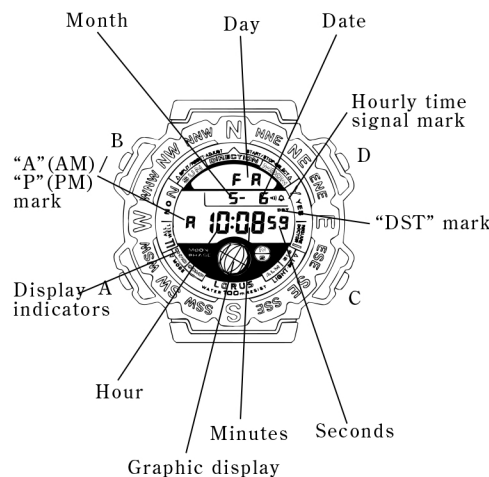


The selection of the displays can be made in the following order with each depression of button "A".



- * The confirmation sound beeps differently when the time/calendar display appears, so that you can easily know the display shown.
- * Even if the stopwatch display is changed over to another while the measurement is in progress, the stopwatch continues counting properly and the flashing stopwatch display indicator appears in the display.

HOW TO SET THE TIME/CALENDAR AND DAYLIGHT SAVING TIME



- Depress button "A" to show the time/calendar display.
- Depress button "B" for 2 to 3 seconds to show the time/calendar setting display. The "DST" mark starts flashing and the flashing "ON" or "OFF" mark is displayed in place of the day.
- Selection of the digits to be adjusted (flashing) is made in the following order by depressing button "C".
 - Daylight saving time Seconds Minutes Hour
 - 12- or 24-hour indication Year Month Date
- Depress button "D" to set the flashing digits. One digit is advanced with each depression of button "D". Digits except seconds move quickly by keeping button "D" depressed.
- After all the adjustments are completed, depress button "B" to return to the time/calendar display.

Seconds Setting

Depress button "D" in accordance with a time signal. The seconds are reset to "00" and start immediately. When the seconds count any number from "30" to "59" and button "D" is depressed, one minute is added and the seconds are reset to "00".

How to Set the Daylight Saving Time

With each depression of button "D", "ON" and "OFF" marks appear alternately. After showing "ON" mark, depress button "C" to select the hour digits, and then depress button "D" to set them one hour ahead of the regular time. "DST" mark remains displayed to indicate that the daylight saving time is shown.

Notes:

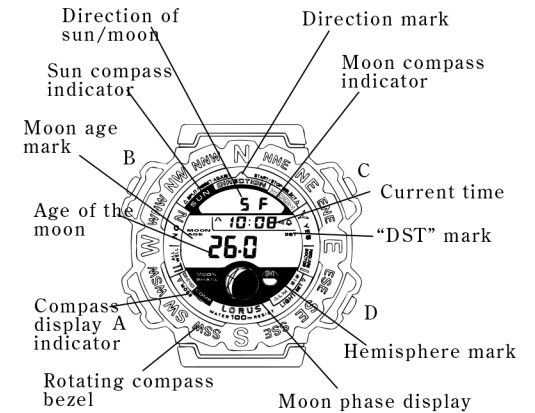
- When setting the hour digits in the 12-hour indication, check that "A" (AM)/"P" (PM) mark is properly set. In the 24-hour indication, there is no indication.
- Once the year, month and date have been set, the day of the week is set automatically.
- If the watch is left untouched in the time/calendar setting display with the digits flashing, it will automatically return to the time/calendar display in 2 to 3 minutes.

HOW TO USE THE COMPASS

CAUTION

- The compass function may not work depending on the condition of use such as season, weather or obstacles intercepting view of the sun or moon.
- For such activities as mountain climbing and orienteering which require very accurate directions, be sure to use a conventional magnetic compass together with this watch for safety's sake.

By setting the hemisphere and longitude of your place, the directions of the sun and moon, the age of the moon and moon phase can be displayed on the basis of the current time. When set according to the directions of the sun and moon, the rotating compass bezel indicates 16 directions.



Compass Data Setting

- Before setting the hemisphere and longitude of your place, check that the current time of your place is set correctly in the time/calendar display. (Please note that if the "ON" mark for the daylight saving time is set, the directions of the sun and moon are calculated inclusive of the one hour advanced from the regular time. If the "ON" mark is shown, therefore, check that the hour digits are advanced one hour.)

- Depress button "A" to show the compass display.
- Depress button "B" for 2 to 3 seconds to show the compass data setting display. The hemisphere mark starts flashing with the "LONG." (longitude) mark displayed.
- Selection of the hemisphere, longitude and the digits to be adjusted (flashing) is made in the following order by depressing button "C".

- Northern or Southern Hemisphere East or west longitude
- Longitude setting (units digit) Longitude setting (tens digit)

- Depress button "D" to set the hemisphere, longitude of your place and the flashing digits. The digits move quickly if the button is kept depressed.
 - * To set the longitude of your place, refer to "TABLE OF LONGITUDES OF CITIES THROUGHOUT THE WORLD" below.
- After all the adjustments are completed, depress button "B" to return to the compass display.
 - * Flashing dots appear in the display immediately after the button is depressed, to indicate that the watch is calculating the direction and the age of the moon.
 - * If the watch is left untouched in the compass data setting display with the digits flashing, it will automatically return to the compass display in 2 to 3 minutes.



- After all the adjustments are completed, depress button "B" to return to the alarm display. The alarm mark and "ON" mark are automatically displayed.

Notes:

- When the time function is displayed in the 24-hour indication, the alarm is also displayed in the 24-hour indication.
- When setting the hour digits in the 12-hour indication, check that "A" (AM)/"P" (PM) mark is properly set.
- 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.

	Alarm engaged
	Alarm disengaged

- The alarm rings at the designated time for 20 seconds and stop. 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.

	Hourly time signal and confirmation sound turned on
	Hourly time signal and confirmation sound turned off

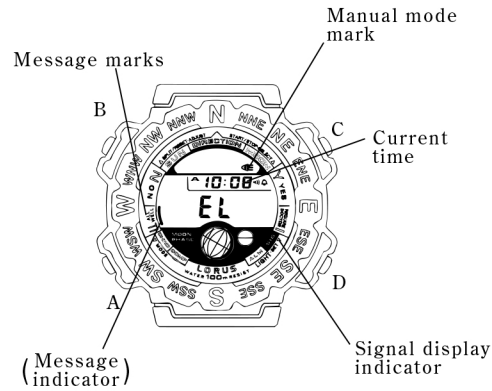
- The alarm can be tested by keeping buttons "C" and "D" depressed in the time/calendar display.
- After the alarm sound is tested, be sure to check turning on/off of the hourly time signal and confirmation sound, as they are turned on and off alternately by depressing button "C".

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.

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.



- Depress button "A" to show the distress signal display.
- Selection of the four preset messages and the manual mode is made in the following order by depressing button "C".

<input type="checkbox"/> "N" <input type="checkbox"/> "Y" <input type="checkbox"/> "I" <input type="checkbox"/> "LL"
(NO) (YES) (REQUIRE (ALL WELL)
(DOCTOR)
<input type="checkbox"/> " " (Manual mode) <input type="checkbox"/> <input type="checkbox"/>
- Depress button "D" to give a desired Morse code message by light.
 - The preset messages are given repeatedly while the button is kept depressed.
 - Once button "D" is depressed, the preset message will be given to the end even if the button is released before it is completed.
 - When the manual mode is selected, the illuminating light is turned on when button "D" is depressed, and is turned off when it is released.

Pattern of Light Illumination (Morse Code)

Message code	Meaning		Pattern of light illumination (Morse code)	Duration of illumination
N	NO	NO (Negative)	- - - - - O -	3.2 seconds
Y	YES	YES (Affirmative)	- - - - - Y E S	3.0 seconds
I	REQUIRE DOCTOR	Seriously injured. Send a doctor.	- - - - - D O C T O R	9.0 seconds
LL	ALL WELL	Everything is going well.	- - - - - W E L L	4.0 seconds
-	MANUAL	-	The display remains illuminated while the button is kept depressed.	-

- *Pattern of light illumination:
- Long duration of illumination
 - Short duration of illumination

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 again.



[All the segments lighting up]

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.

■ LORUS LITE



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 12:00 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”.)

■ CARE OF YOUR LORUS WATCH

• BATTERY



CAUTION

Do not expose the old battery to fire or recharge it. Keep it at a place beyond the reach of children. If a child swallows it, consult a doctor immediately.

• WATER RESISTANT

Condition of use	Accidental contact with water, such as splashes and rain	Swimming and taking a shower	Skin diving	Scuba diving
Indication on the dial/case back				
No indication	NO	NO	NO	NO
WATER RESISTANT	YES	NO	NO	NO
WATER RESISTANT (50 M/5 BAR)*	YES	YES	NO	NO
WATER RESISTANT (100 M/10 BAR or above)*	YES	YES	YES	NO

* If your watch is 200 M/20 BAR, 100 M/10 BAR or 50 M/5 BAR water resistant, it is so indicated on the dial/case back.

- Do not press the buttons or turn the crowns when the watch is wet.
- If the watch is exposed to salt water, rinse it in fresh water and then wipe it thoroughly dry.

Caution:

Leather straps are not water resistant except so indicated, even if the watch head is water resistant.

• ALLERGIC REACTION

Because the case and band touch the skin directly, it is important to clean them regularly. If not, shirt sleeves may be stained and those with delicate skin may develop a rash. Please wear the watch with some play to avoid any possible allergic reaction. If you develop a rash on your wrist, stop wearing and consult a physician.

• MAGNETISM

Your watch will not be affected by magnetism generated by household electric appliances.

• SHOCKS AND VIBRATIONS

Your watch may be worn for normal sports activities, but be careful not to drop it or hit it on hard surfaces.

• TEMPERATURE

Your watch is preadjusted so that constant accuracy may be insured at normal temperature.

■ SERVICE

When your LORUS watch requires repair or servicing, please see the enclosed WARRANTY/GUARANTEEE.