



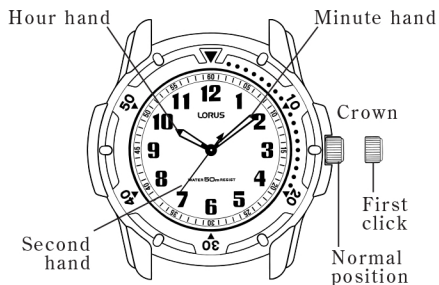
## INSTRUCTION MANUAL

CAL. V851 (RZS SERIES)

### ■ CHARACTERISTICS

- Powered by light energy:** The solar cell installed converts light energy into electrical energy, and stores it in the rechargeable battery.
- No need for battery replacement:** The watch is provided with a rechargeable solar cell instead of the conventional silver oxide battery.
- Large volume rechargeable battery:** When the watch is fully charged, it will keep operating for approximately 50 days.
- Energy depletion forewarning function:** When the energy stored in the rechargeable battery is reduced to an extremely small amount, the second hand starts moving at 2-second intervals.
- Quick-start function:** Even when the watch completely stops operating, it will start operating immediately once exposed to light.

### ■ DISPLAY AND CROWN OPERATION



**Crown :** Setting the time at the first click.

### ■ HOW TO CHARGE AND START THE WATCH

Before using the watch, be sure to charge the rechargeable battery sufficiently by exposing the watch to light.



- Expose the watch to sunlight or strong artificial light of more than 1,000 lux (for example, two 15-watt fluorescent lights with a distance of 70 cm between the watch and the light source). It will start operating immediately with the second hand moving at 2-second intervals.  
\* While the second hand is moving at 2-second intervals, the energy stored in the rechargeable battery is not sufficient. If the watch is turned away from the light, the watch will stop operating.
- Keep the watch exposed to the light

until the second hand moves at 1-second intervals.

- Charge the rechargeable battery sufficiently, and then set the time and put on the watch.

\* See "■ GUIDELINE OF CHARGING TIME" below.

### Caution:

While charging the watch, make sure that the watch temperature does not exceed 50° C.

- When the watch is fully charged, it will keep operating for approximately 50 days.
- We recommend that the watch be recharged daily for about 3 hours.

### ■ HOW TO SET THE TIME



- Pull out the crown to the first click when the second hand is at the 12 o'clock position. The second hand will stop on the spot.
- Turn the crown clockwise or counterclockwise to set the hour and minute hands to the desired time.  
\* When setting the minute hand, first advance it 4 to 5 minutes ahead of the desired time and then turn it back to the exact minute.
- Push the crown back in to the normal position in accordance with a time signal.

### ■ GUIDELINE OF CHARGING TIME

The charging time required varies depending on the intensity of light.

Illumination (lux)	Light source	Environment	Time required (approx.)		
			A	B	C
500	60-watt incandescent light	Distance of 60 cm (2 ft.)	8 hours	220 hours	4 hours
700	Fluorescent light	Office, overhead	6 hours	160 hours	2.5 hours
1,000	15-watt fluorescent light x 2	Distance of 70 cm (2 ft. 4 in.)	4 hours	120 hours	2 hours
5,000	15-watt fluorescent light x 2	Distance of 12 cm (4 in.)	40 minutes	30 hours	20 minutes
10,000	Fluorescent light	Distance of 3 cm (1 in.)	20 minutes	16 hours	10 minutes
10,000	Sun	Cloudy, outdoors	20 minutes	16 hours	10 minutes
100,000	Sun	Sunny, direct sunlight	2 minutes	12 hours	2 minutes

A : for normal movement of second hand

B : for full charge

C : to maintain 1-day usage

#### Notes:

1. The above table provides only a general guideline and the actual charging time required may differ depending on the model.
2. We recommend that you charge the watch daily to some degree to make up for any energy loss, rather than after the watch is completely stopped.
3. When charging the watch, do not place it too close to a photoflash light, spotlight, incandescent light or other light sources as the watch temperature will become extremely high, causing damage to the watch mechanism. (Fluorescent lights are the proper artificial light source for charging the watch)

#### ■ ENERGY DEPLETION FOREWARNING FUNCTION

When the energy stored in the rechargeable battery is reduced to an extremely small amount, the second hand starts moving at 2-second intervals instead of the normal 1-second intervals.

##### • To prevent the energy depletion:

- Wear the watch in such a manner that it is not covered by the cuff of the clothes.
- When the watch is not in use, leave it in a bright place as long as possible.
- Before leaving the watch in a dark place at night, charge it sufficiently.

##### • When the second hand starts moving at 2-second intervals:

- Recharge the watch as soon as possible by exposing it to light. (See "■ HOW TO CHARGE AND START THE WATCH")
- \* If the energy depletion forewarning function is activated, the watch will stop operating in about 1 day.

#### ■ RECHARGEABLE BATTERY

- Titanium-lithium ion secondary battery

##### Note:

Unlike conventional quartz watches, the watch does not use a silver oxide battery, thus eliminating the need for battery replacement.

#### ■ LUMIBRITE WATCH

(dial, hands, buttons, case, bezel, strap, 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, they will glow for 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.

#### ■ CARE OF YOUR LORUS WATCH

##### • WATER RESISTANT

Condition of use Indication on the dial/ case back	Accidental contact with water, such as splashes and rain	Swimming and taking a shower	Skin diving	Scuba diving
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 turn the crown 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/GUARANTEE.