PULSAR
CAL. YM91
CHRONOGRAPH

**TIME/CALENDAR**
- Hour, minute and small second hands
- Date displayed in numerals

**STOPWATCH**
- Measures up to 60 minutes in 1/5 second increments.
- Split time measurement
DISPLAY AND CROWN/BUTTONS

STOPWATCH minute hand
Hour hand
Small second hand
STOPWATCH 1/5-second hand
Minute hand
Date

a: Normal position    b: First click    c: Second click
SCREW DOWN CROWN
[for models with screw down crown]

Unlocking the crown
1. Turn Crown counterclockwise until you no longer feel the threads turning.
2. Crown can be pulled out.

Locking the crown
1. Push Crown back in to normal position.
2. Turn Crown clockwise while pressing it lightly until tight.
This watch is so designed that the following are all made with the crown at the second click position:

1) main time setting
2) stopwatch hand position adjustment

Once the crown is pulled out to the second click, be sure to check and adjust 1) and 2) at the same time.

CROWN Pull out to second click when the small second hand is at the 12 o’clock position.
1) MAIN TIME SETTING

Hour hand
Minute hand
Small second hand

CROWN
Turn to set the hour and minute hands.

* It is recommended that the hands be set to the time a few minutes ahead of the current time, taking into consideration the time required to adjust the STOPWATCH hand position.

2) STOPWATCH HAND POSITION ADJUSTMENT

- If the STOPWATCH hands are not in the “0” position, follow the procedure below to set them to the “0” position.
Press for 2 seconds.

* STOPWATCH minute hand turns a full circle.

Press repeatedly to set STOPWATCH minute hand to the “0” position.

* The hand moves quickly if button B is kept pressed.

Press for 2 seconds.

* STOPWATCH 1/5-second hand turns a full circle.
Press repeatedly to set STOP-WATCH 1/5-second hand to the “0” position.

* The hand moves quickly if button B is kept pressed.

Push back in to normal position in accordance with a time signal.
Before setting the date, be sure to set the main time.

1. Pull out to first click.
2. Turn clockwise until the desired date appears.
3. Push back in to normal position.
The stopwatch can measure up to 60 minutes in 1/5-second increments. After 60 minutes, it will start counting again from “0” repeatedly up to 12 hours.

Before using the stopwatch, be sure to check that the crown is set at the normal position and that the STOPWATCH hands are reset to the “0” position.

* If the STOPWATCH hands do not return to the “0” position when the stopwatch is reset to “0”, follow the procedure in “SETTING THE TIME AND ADJUSTING THE STOPWATCH HAND POSITION”.

A Start / Stop / Restart

B Reset / Split / Split release
**Standard measurement**

A → A → B
START → STOP → RESET

**Accumulated elapsed time measurement**

A → A → A → → A → A → B
START → STOP → RESTART → STOP → RESET

**Split time measurement**

A → B → B → → B → A → B
START → SPLIT → SPLIT RELEASE → STOP → RESET

**Measurement of two competitors**

A → B → A → B → B
START → FINISH TIME OF 1ST COMPETITOR → 2ND COMPETITOR FINishes → FINISH TIME OF 2ND COMPETITOR → RESET
NOTES ON OPERATING THE WATCH

SETTING THE TIME AND ADJUSTING THE STOPWATCH HAND POSITION
- When the stopwatch is or has been measuring, if the crown is pulled out to the second click, it will automatically reset the STOPWATCH hands to “0”.

[MAIN TIME SETTING]
- When setting the hour hand, be sure to check that AM/PM is correctly set. The watch is so designed that the date changes once in 24 hours.
- 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.

SETTING THE DATE
- It is necessary to adjust the date at the end of February and 30-day months.
- Do not set the date between 9:00 p.m. and 1:00 a.m., as the date may not change properly.

STOPWATCH
- Restart and stop of the stopwatch can be repeated by pressing button A.
- Measurement and release of split time can be repeated by pressing button B.
Battery life : Approx. 5 years
Battery : SEIKO SR927SW

If the stopwatch is used for more than 2 hours a day, the battery life may be less than the specified period.
As 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.
After the battery is replaced with a new one, set the time/calendar and adjust the stopwatch hand position.

Battery life indicator
When the battery nears its end, the small second hand moves at two-second intervals instead of normal one-second intervals. In that case, have the battery replaced with a new one as soon as possible.

* The watch remains accurate while the small second hand is moving at two-second intervals.
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

● Non-water resistant
   If “WATER RESISTANT” is not inscribed on the case back, your watch is not water resistant, and care should be taken not to get it wet as water may damage the movement. If the watch becomes wet, we suggest that you have it checked by an AUTHORIZED PULSAR DEALER or SERVICE CENTER.

● Water resistance (3 bar)
   If “WATER RESISTANT” is inscribed on the case back, your watch is designed and manufactured to withstand up to 3 bar, such as accidental contact with splashes of water or rain, but it is not designed for swimming or diving.

● Water resistance (5 bar)*
   If “WATER RESISTANT 5 BAR” is inscribed on the case back, your watch is designed and manufactured to withstand up to 5 bar and is suitable for swimming, yachting and taking a shower.

● Water resistance (10 bar/15 bar/20 bar)*
   If “WATER RESISTANT 10 BAR”, “WATER RESISTANT 15 BAR” or “WATER RESISTANT 20 BAR” is inscribed on the case back, your watch is designed and manufactured to withstand up to 10 bar/15 bar/20 bar and is suitable for taking a bath, shallow diving, but not for scuba diving. We recommend that you wear a PULSAR Diver’s watch for scuba diving.

● If “WATER RESISTANT” is inscribed on the case back, your watch is designed and manufactured to withstand up to 3 bar, such as accidental contact with splashes of water or rain, but it is not designed for swimming or diving.
* Before using the water resistance 5, 10, 15 or 20 bar watch in water, be sure the crown is pushed in completely. Do not operate the crown 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 the water resistance 5 bar watch, or taking a bath with the water resistance 10, 15 or 20 bar watch, be sure to observe the following:
  • Do not operate the crown 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.

NOTE:
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.

**TEMPERATURES**

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

Temperatures over 50°C (122°F) may cause battery leakage or shorten the battery life. Do not leave your watch in very low temperatures below −5°C (+23°F) for a long time since the cold may cause a slight time loss or gain. However, the above conditions will be corrected when the watch returns to normal temperature.
MAGNETISM

Your watch will be adversely affected by strong magnetism. Keep it away from close contact with magnetic objects.

SHOCKS & VIBRATION

Light activities will not affect your watch, but be careful not to drop your watch or hit it against hard surfaces, as this may cause damage.

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 caused by dust, moisture and perspiration, 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 PULSAR DEALER or SERVICE CENTER to ensure that the case, crown, 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.