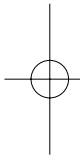


PULSAR

**CAL. V657, VD57
CHRONOGRAPH**



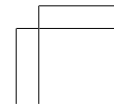
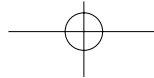
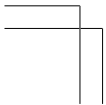
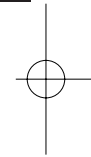
TIME/CALENDAR

- Hour, minute and second hands
- Date displayed in numerals

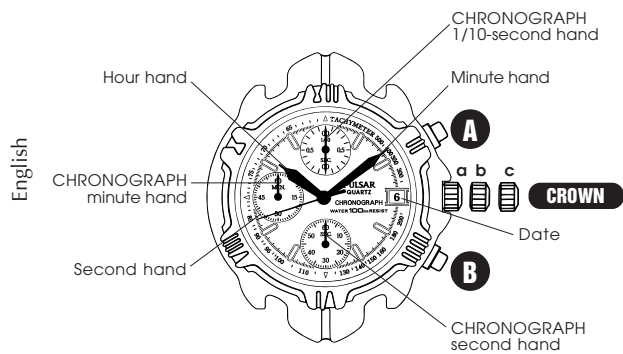
CHRONOGRAPH

- Measures up to 60 minutes in 1/10 second increments.
- Split time measurement

ENGLISH



DISPLAY AND CROWN/BUTTONS



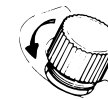
2 a: Normal position b: First click c: Second click

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.



English

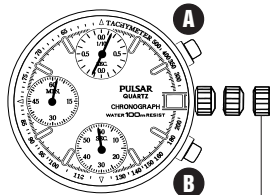
3

ADJUSTING CHRONOGRAPH HAND POSITION

- Before setting the time, be sure to check that the CHRONOGRAPH hands are in "0" position when the chronograph is reset. (For resetting the chronograph, see "CHRONOGRAPH" on page 6)

* If any of the CHRONOGRAPH hands do not return to "0" position, follow the procedure below to reset the hands.

English



CROWN

CROWN

Pull out to second click.

A

Press repeatedly to reset CHRONOGRAPH 1/10-second hand to "0" position.

B

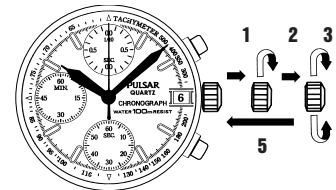
Press repeatedly to reset CHRONOGRAPH second and minute hands to "0" position.

CROWN

Push back in to normal position.

4

TIME/CALENDAR SETTING



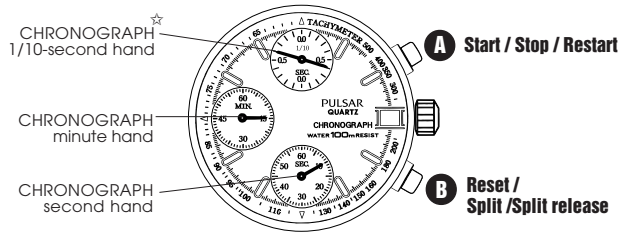
CROWN

- 1 Pull out to first click, and turn clockwise until the previous day's date appears.
- 2 Pull out to second click when Second hand is at the 12 o'clock position.
- 3 Turn clockwise until the desired date appears.
- 4 Turn to set Hour and Minute hands.
- 5 Push back in to normal position in accordance with a time signal.

English

5

CHRONOGRAPH



Ex.: 15 minutes and 10.6 seconds

☆ After the measurement exceeds 1 minute, the CHRONOGRAPH 1/10-second hand stays at "0" position. When the measurement is stopped, it will move to indicate the elapsed 1/10 seconds.

TACHYMETER

[for models with tachymeter scale on the dial]

To measure the hourly average speed of a vehicle

Ex. 1

Tachymeter scale: "90"

CHRONOGRAPH second hand: 40 seconds

"90" (tachymeter scale figure) x
1 (km or mile) = 90 km/h or mph

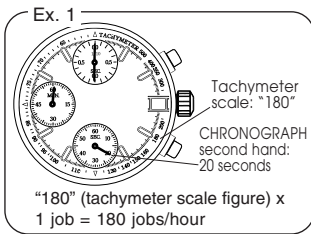
- 1 Use the stopwatch to determine how many seconds it takes to go 1 km or 1 mile.
- 2 Locate the second marker on the main dial that corresponds to the measured seconds, and the tachymeter scale it indicates gives the average speed per hour.

Tachymeter scale can be used only when the time required is less than 60 seconds.

Ex. 2: If the measuring distance is extended to 2 km or miles or shortened to 0.5 km or miles and CHRONOGRAPH second hand indicates "90" on

tachymeter scale:
 "90" (tachymeter scale figure) x 2 (km or mile) = 180 km/h or mph
 "90" (tachymeter scale figure) x 0.5 (km or mile) = 45 km/h or mph

To measure the hourly rate of operation



- 1 Use the stopwatch to measure the time required to complete 1 job.
- ▼
- 2 Locate the second marker on the main dial that corresponds to the measured seconds, and the tachymeter scale it indicates gives the average number of jobs accomplished per hour.

Ex. 2: If 15 jobs are completed in 20 seconds:
 "180" (tachymeter scale figure) x 15 jobs = 2700 jobs/hour

NOTES ON OPERATING THE WATCH

ADJUSTING CHRONOGRAPH HAND POSITION

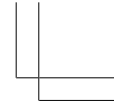
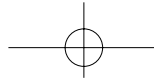
- The "0" position of the CHRONOGRAPH 1/10-second hand differs depending on the models.
** Some models have the "0" position of the CHRONOGRAPH 1/10-second hand at 3 and 9 o'clock sides of the small dial. In that case, check if the hand is level with its both ends pointing to those "0" positions.*
- The CHRONOGRAPH minute hand moves correspondingly with the CHRONOGRAPH second hand.
- The hands move quickly if the respective buttons are kept pressed.

TIME/CALENDAR SETTING

- Do not set the date between 9:00 p.m. and 1:00 a.m. Otherwise, the date may not change properly.
- 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.
** Turn the hands past the 12 o'clock marker to determine whether the watch is set for the A.M. or P.M. period. If the date changes, the time is set for the A.M. period. If not, the time is set for the P.M. period.*
- When setting the minute hand, first advance it 4 to 5 minute ahead of the desired time and then turn it back to the exact minute.

English

English



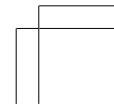
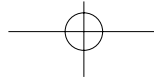
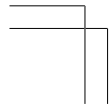
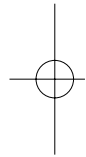
- While the crown is at the second click, do not press the buttons. Otherwise, the CHRONOGRAPH hands will move. To reset them to "0" position, see "ADJUSTING CHRONOGRAPH HAND POSITION" on page 4.

CHRONOGRAPH

- While the chronograph is counting, do not pull out the crown to set the time. Otherwise, the chronograph operation cannot be made.
- The CHRONOGRAPH 1/10-second scale and hand differ in design and shape depending on the models.

* Some models have the CHRONOGRAPH 1/10-second scale graduated on the upper half of the small dial and the hand which is so designed that both ends can indicate the elapsed 1/10 second. In that case, read the marker on the scale where either end of the hand points to.

English



BATTERY CHANGE

2
Years

Battery life : Approx. 2 years

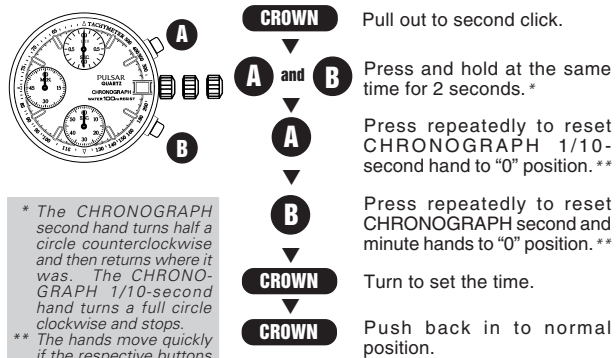
Battery : SEIKO SR920SW

- If the chronograph is used for more than 60 minutes 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.
- We recommend that you contact an AUTHORIZED PULSAR DEALER for battery replacement.

English

● Necessary procedure after battery change

After the battery is replaced with a new one, or in case any of the hands should move improperly, follow the procedure below to reset the hands to "0" position.



* The CHRONOGRAPH second hand turns half a circle counterclockwise and then returns where it was. The CHRONOGRAPH 1/10-second hand turns a full circle clockwise and stops.

** The hands move quickly if the respective buttons are kept pressed.

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.

- * 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.

English

14

English

15

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.

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.

MAGNETISM



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

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.