

# PULSAR

## CAL. VK68 CHRONOGRAPH

### TIME/CALENDAR

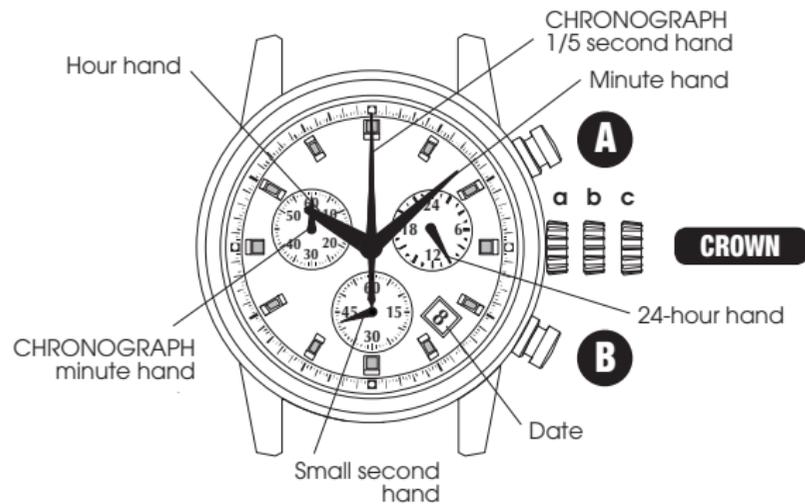
- Hour and minute hands with small second and 24-hour hands
- Date displayed in numerals

### CHRONOGRAPH

- Measures up to 60 minutes in 1/5 second increment

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

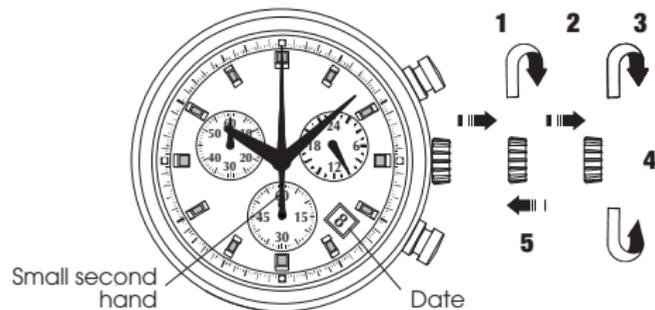
- 1 Push Crown back in to normal position.
- 2 Turn Crown clockwise while pressing it lightly until tight.



English

3

## TIME/CALENDAR SETTING



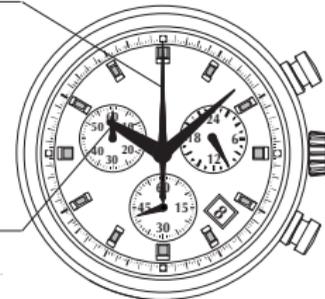
### CROWN

- 1 Pull out to first click, and turn clockwise until the previous day's date appears.
- 2 Pull out to second click when Small 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.

## CHRONOGRAPH

CHRONOGRAPH  
1/5 second hand

CHRONOGRAPH  
minute hand



**A** Start / Stop / Restart

**B** Reset

- The chronograph can measure up to 60 minutes in 1/5 second increments.
- After 60 minutes, the chronograph will stop counting.
- Before using the chronograph, be sure to check that the crown is set at the normal position and that the CHRONOGRAPH hands are reset to the "0" position.

**Standard measurement****Accumulated elapsed time measurement**

\* If the CHRONOGRAPH hands are incorrectly positioned, follow the procedure below to reset the hands to the "0" position.

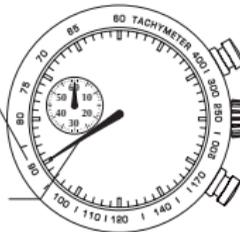
**TACHYMETER**

[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"

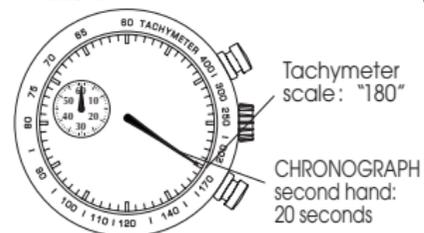
on tachymeter scale:

"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

Ex. 1



"180" (tachymeter scale figure) x  
1 job = **180 jobs/hour**

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

### TIME SETTING

- If the crown is pulled out to the second click while the chronograph is counting, the CHRONOGRAPH hands will continue to move. This is not a malfunction.
- 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.

### 24-hour setting

- The 24-hour hand moves correspondingly with the hour hand.
- When setting the hour hand, check that the 24-hour hand is correctly set.

### CALENDAR SETTING

- It is necessary to adjust the date on the first day after a 30-day month and February.
- Do not set the date between 9:00 p.m. and 3:00 a.m., as this will cause a malfunction.

### CHRONOGRAPH

- Restart and stop of the chronograph can be repeated as many times as necessary by pressing button A.

## BATTERY CHANGE

**3  
Years**

**Battery life : Approx. 3 years**  
**Battery : SEIKO SR936SW**

- *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.*

### **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)\*



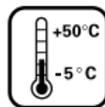
If "WATER RESISTANT 10 BAR", "WATER RESISTANT 15 BAR" or "WATER RESISTANT 20 BAR" is inscribed on the case back, your watch is designed and manufactured to withstand up to 10 bar/15 bar/20 bar and is suitable for taking a bath, shallow diving, but not for scuba diving. We recommend that you wear a PULSAR 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.
  - 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.

**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.