

# PULSAR

## CAL. 7T92 & YM92 CHRONOGRAPH

### TIME/CALENDAR

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

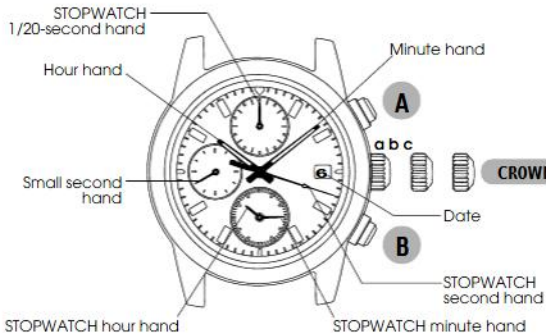
### STOPWATCH

- Measures up to 12 hours in 1/20 second increments.
- Split time measurement

ENGLISH

# DISPLAY AND CROWN/BUTTONS

English



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.



## SETTING THE TIME AND ADJUSTING THE STOPWATCH HAND POSITION

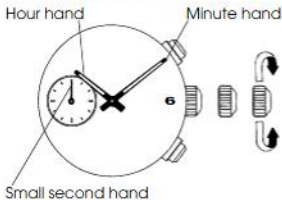
- This watch is so designed that:
  - 1) time setting and
  - 2) stopwatch hand position adjustment

are both made with the crown at the second click position. Once the crown is pulled out to the second click, be sure to make the above adjustments at the same time.

### **CROWN**

Pull out to second click when the second hand is at the 12 o'clock position.

## 1) TIME SETTING



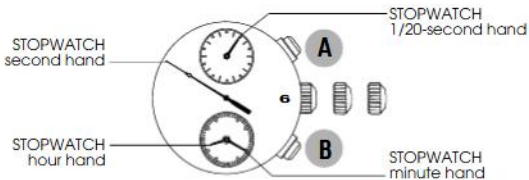
### CROWN

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 if necessary.*

## 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.



**A** Press for 2 seconds to select the STOPWATCH hand(s) to be adjusted.

- Selection of the hand(s) to be adjusted can be made in the following order by pressing button A for 2 seconds.

STOPWATCH 1/20-second hand → STOPWATCH second hand → STOPWATCH hour and minute hands

\* The selected hand(s) turn(s) a full circle.



**B**

Press repeatedly to set the selected STOPWATCH hand(s) to the "0" position.

*\* The hand(s) move(s) quickly if button B is kept pressed.*

*\* After all the adjustments are completed, check that the hour and minute hands for time display indicate the current time.*



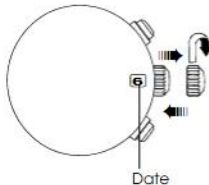
**CROWN**

Push back in to normal position in accordance with a time signal.

## SETTING THE DATE

- Before setting the date, be sure to set the time.

English

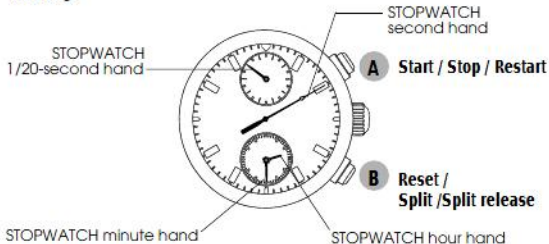


### CROWN

- 1 Pull out to first click.
- 2 Turn clockwise until the desired date appears.
- 3 Push back in to normal position.

# STOPWATCH

- The stopwatch can measure up to 12 hours in 1/20-second increments.
- When the measurement reaches 12 hours, the stopwatch automatically stops counting.



**Ex.: 2 hours, 30 minutes and 10.85 seconds**

**Movement of the STOPWATCH 1/20-second hand**

- After the stopwatch is started, the STOPWATCH 1/20-second hand moves for about 10 minutes and automatically stops at the "0" position.
  - When the measurement is stopped or split time is measured, it moves to indicate the elapsed 1/20 seconds.
  - After the stopwatch is restarted or split time is released, the STOPWATCH 1/20-second hand moves for about 10 minutes and stops automatically.
  - In the same manner, if the stopwatch is stopped and restarted repeatedly or split time is measured and released repeatedly, the STOPWATCH 1/20-second hand moves for about 10 minutes and stops automatically.
- 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".*

### Split time measurement



### Measurement of two competitors



# TACHYMETER

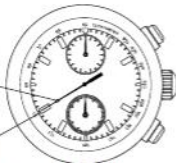
[for models with tachymeter scale on the dial]

## To measure the hourly average speed of a vehicle

### [ Ex. 1 ]

STOPWATCH  
second hand:  
40 seconds

Tachymeter  
scale: "90"



"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 Tachymeter scale indicated by STOPWATCH second hand gives the average speed per hour.

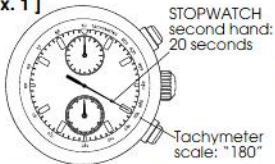
*Tachymeter scale can be used only when the time required is less than 60 seconds.*

**Ex. 2: If the measuring distance is extended to 2 km or miles or shortened to 0.5 km or miles and STOPWATCH 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 Tachymeter scale indicated by STOPWATCH second hand 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

### SETTING THE TIME AND ADJUSTING THE STOPWATCH HAND POSITION

- When the stopwatch is or has been measuring or is stopped, if the crown is pulled out to the second click, it will automatically reset the STOPWATCH hands to "0".

#### [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. Otherwise, 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 CHANGE

**3**

**Years**

**Battery life : Approx. 3 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.*
- *We recommend that you contact an AUTHORIZED PULSAR DEALER for battery replacement.*
- *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.

- \* 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.

## 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.

