## PULSAR

## CAL. 7T62 ALARM \& 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


## SINGLE-TIME ALARM

- Rings only once at a designated time within the coming 12 hours.


## DISPLAY AND CROWN/BUTITONS



## 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.

## SETIING THE TIME AND AD USTING THE STOPWATCH HAND POSITION

- This watch is so designed that the following are all made with the crown at the second click position:

1) main time setting
2) alarm hand adjustment
3) 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. If needed, 3) should also be adjusted then.

## CROWN

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

## 1) MAIN TIME SETTING



## 2) ALARM HAND ADJ USTMENT

- Set the ALARM hands to the time the main time hands indicate.


B Press repeatedly to set ALARM hands to the time indicated by the main time hands.

* ALARM hands move quickly if button B is kept pressed.


## 3) STOPWATCH HAND POSITION ADJ USTMENT

- 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.

* STOPWATCH minute hand turns a full circle.


B Press repeatedly to set STOPWATCH minute hand to the " 0 " position.

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

A
Press for 2 seconds.

* STOPWATCH 1/5-second hand turns a full circle.

B Press repeatedly to set STOPWATCH $1 / 5$-second hand to the "0" position.

* The hand moves quickly if button $B$ is kept pressed.
- ALARM and STOPWATCH hands can be readjusted in the following order by pressing button A for 2 seconds.


## $\frac{5}{0}$ $\stackrel{5}{4}$


$\binom{$ Advance }{12 hours. }$\quad\binom{$ Turns a }{ full circle. }

STOPWATCH 1/5-second hand
( $\left.\begin{array}{l}\text { Turns a } \\ \text { full circle. }\end{array}\right)$

* After all the adjustments are completed, check that the main time and alarm hands indicate the same 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 main time.



## 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 60 minutes in $1 / 5$-second increments.
- After 60 minutes, it will start counting again from " 0 " repeatedly up to 12 hours.


## $\frac{-5}{-5}$ $\stackrel{5}{40}$



- 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


## SINGLE-TIME ALARM

- The alarm can be set to ring only once at a designated time within the coming 12 hours.
- The alarm time can be set in one minute increments.


## ALARM TIME SETTING

- Before using the alarm, check that the ALARM hands are adjusted to the current time. (See "SETTING THE TIME AND ADJUSTING THE STOPWATCH HAND POSITION")


Pull out to first click.

Press repeatedly to set the desired alarm time.

* ALARM hands move quickly if button $B$ is kept pressed.

Push back in to normal position.

## * The alarm is automatically engaged.

## HOW TO STOP THE ALARM

- At the designated time the alarm rings for 20 seconds, and it is automatically disengaged as it stops. To stop it manually, press button A or B.


## HOW TO CANCEL THE ALARM TIME YOU HAVE SET



Pull out to first click.

Press and hold until ALARM hands stop and indicate the current time.

Push back in to normal position.

## TACHYMETER

[for models with tachymeter scale on the dial]

## To measure the hourly average speed of a vehicle



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.
" 90 " (tachymeter scale figure) $x$ 1 (km or mile) $=\mathbf{9 0} \mathbf{k m} / \mathrm{h}$ or $\mathbf{~ m p h ~}$

Tachymeter scale can be used only when the time required is less than 60 seconds.
Ex. 2: If the measuring distance is extended to $\mathbf{2} \mathbf{~ k m}$ or miles or shortened to 0.5 km or miles and STOPWATCH second hand indicates " 90 " on tachymeter scale:

## To measure the hourly rate of operation

[ Ex. 1]


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.
" 180 " (tachymeter scale figure) x
1 job = $\mathbf{1 8 0}$ jobs/hour

## Ex. 2: If $\mathbf{1 5}$ jobs are completed in $\mathbf{2 0}$ seconds:

" 180 " (tachymeter scale figure) $\times 15$ jobs $=2700$ jobs/hour

## NOTES ON OPERATING THE WATCH

## SETTING THE TIME AND ADJ USTING 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".
- If the alarm has been set and the crown is pulled out to the second click, the ALARM hands will turn to indicate the current time.


## [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. Otherwise, the date may not change properly.
- Do not press button $B$ when the crown is at the first click position, as this will move the ALARM hands.


## 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.


## SINGLE-TIME ALARM

- The single-time alarm cannot be set for a time more than 12 hours ahead of the current time. While you keep button B pressed to advance the ALARM hands quickly, they stop when they indicate the current time and the alarm is disengaged. In that case, release button B, and then, press and hold the button again to set the ALARM hands to the desired time.
- While the crown is at the normal position, the ALARM hands indicate the current time when the alarm is disengaged and the designated alarm time when it is engaged.
- While the stopwatch is measuring, the alarm rings differently than usual. However, this is not a malfunction.
- While the alarm is ringing, pressing button A or B will only stop the alarm, and no stopwatch operation can be made.
- To correct the alarm time you have set, follow the procedure described in "ALARM TIME SETTING".


## BATIERY CHANGE

## 3 Battery life : Approx. 3 years <br> Years Battery : SEIKO SR927W

- If the stopwatch is used for more than 2 hours a day and/or the alarm rings for more than 20 seconds 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 alarm 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.

* While the small second hand is moving at two-second intervals, the alarm will not ring even if it is engaged. This is not a malfunction.
* The watch remains accurate while the small second hand is moving at two-second intervals.


## A. 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.


## A. 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 manu- factured 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 $10 \mathrm{bar} / 15 \mathrm{bar} / 20 \mathrm{bar}$ 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 $5^{\circ}$ C and $35^{\circ} \mathrm{C}\left(41^{\circ} \mathrm{F}\right.$ and $95^{\circ} \mathrm{F}$ ).
Temperatures over $60^{\circ} \mathrm{C}\left(140^{\circ} \mathrm{F}\right)$ may cause battery leakage or shorten
the battery life. Do not leave your watch in very low temperatures below $-10^{\circ} \mathrm{C}\left(+14^{\circ} \mathrm{F}\right)$ 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

## 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.

