

CITIZEN®

Setting Instructions for Movement Caliber C070

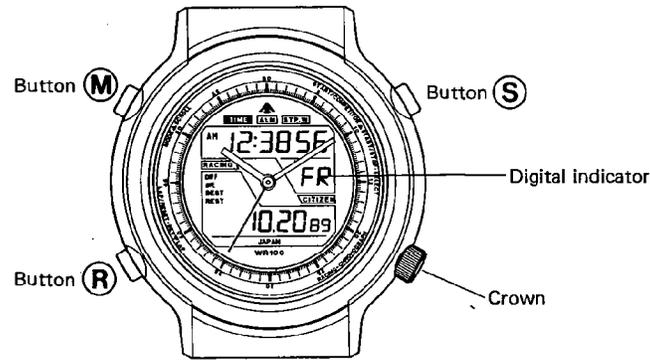
Contents (click on a topic)

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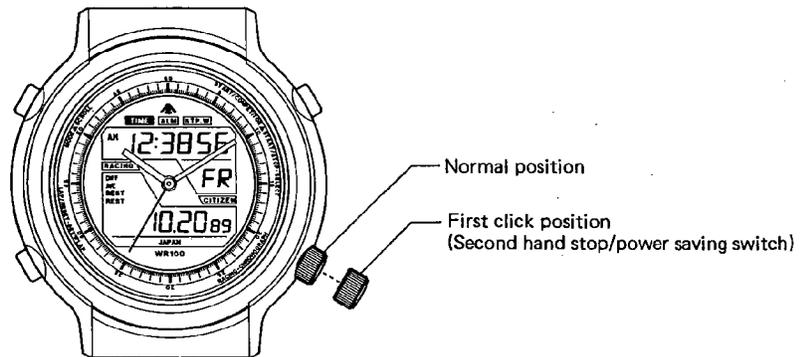




Name of Each Part



Analog Section Setting the Time



- Since the digital section and analog section can be independently set, this watch can be used as a dual-time watch.
- Set the time similarly to a common analog watch with the crown pulled to the first click position.
- After the time is set, securely return the crown to its normal position.

§2 Digital Section

(Large modes)

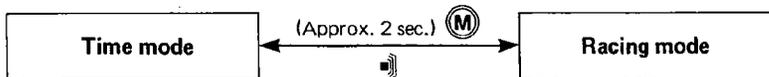
The digital section has two large modes; the time mode and racing mode. Each large mode has several small modes. For the detail, see the section of the change of indication.





(Changeover between large modes (Time mode and racing mode))

The time mode and the racing mode can be changed to each other by pressing and holding the (M) button (for about two seconds).

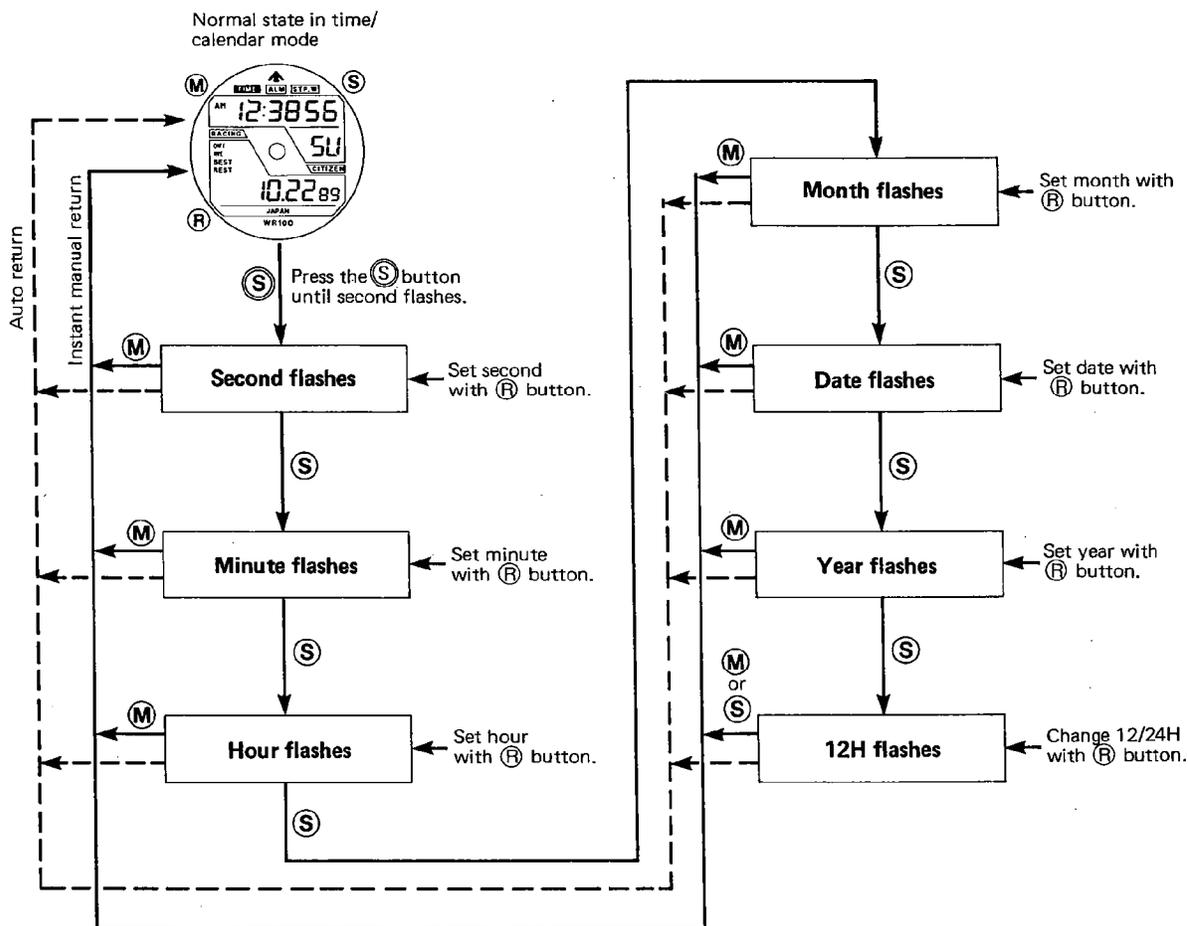


Confirmation beep

1. Small Modes of Time Mode

a. SETTING THE TIME AND CALENDAR

Call the item to be set by pressing the (S) button, and set it with the (R) button. If the (R) button is pressed and held in the setting (flashing) state, the indicated item is changed quickly (except setting of second and change of 12/24 hour systems).



(Auto return)

If the watch is left in the setting state for about two minutes, the watch is automatically returned to the normal state.

(Instant manual return)

The watch can be returned to the normal state in the time/calendar mode from any setting state by pressing the (M) button.





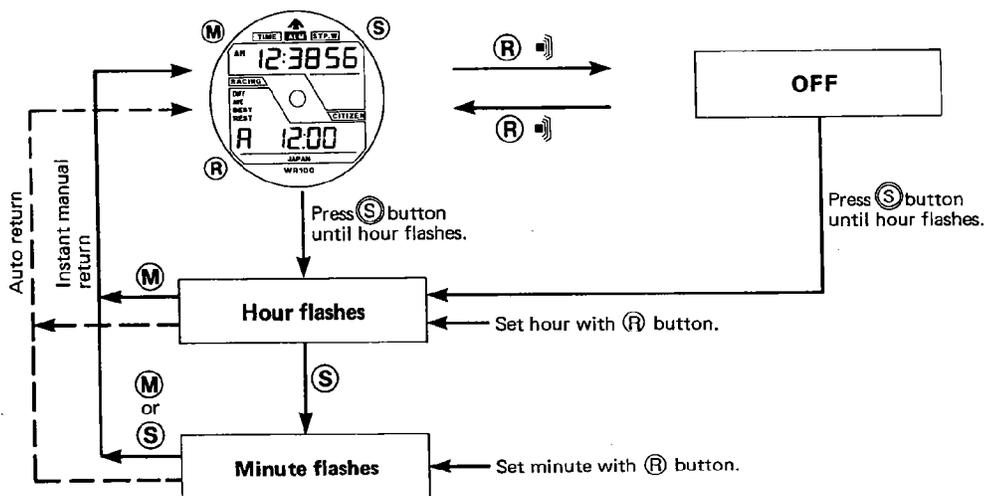
(Other precautions)

- If the second is set during the period of 30 – 59 seconds, the minute goes forward by one minute.
- If an unexisting date is set, the watch automatically indicates the first of the next month when it is returned to the normal state.
Example: Feb. 31 → Mar. 01
- The year can be set to 1989 – 2004. If it is set to any year in this period, the calendar does not need to be corrected.
- The day of the week is automatically set when the year, month and date are set.

b. HOW TO USE ALARM

- The alarm is turned on and off and the confirmation sound comes out every time the (R) button is pressed in the alarm mode.
Call the item to be set by pressing the (S) button, and change it by pressing the (R) button. If the (R) button is pressed and held in the setting (flashing) state, the indicated item is changed quickly.
- The 12/24 hour systems is interlocked with the time/calendar mode.
- If the watch is left in the setting state for about two minutes, the watch is automatically returned to the normal state (Auto return).
- The watch can be returned to the normal state in the time/calendar mode from any setting state by pressing the (M) button (Instant manual return).
- The alarm sounds for about 20 seconds. It can be stopped by pressing any button.

Normal state in alarm mode





(Indication of stored five shortest lap times)

If the watch is reset and the $\text{\textcircled{R}}$ button is pressed, the shortest lap time memory appears and which turn that lap time was recorded in are indicated. Every time the $\text{\textcircled{R}}$ button is pressed, the lap times are indicated from the next shortest one. This data is deleted when the stopwatch mode is started again.

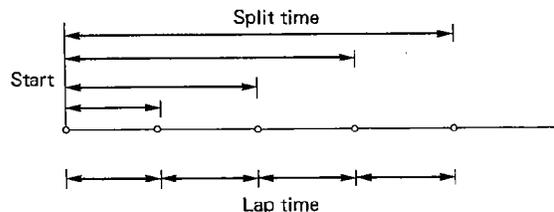
(Auto return from indication mode of five shortest lap times)

If the watch is left unoperated for about 10 seconds in the indication mode of the five shortest lap times, it is reset.

(Lap time and split time)

Lap time: Time required to cover one interval

Split time: Time required to cover distance from start point



2. Small Modes of Racing Mode

- Change to racing mode

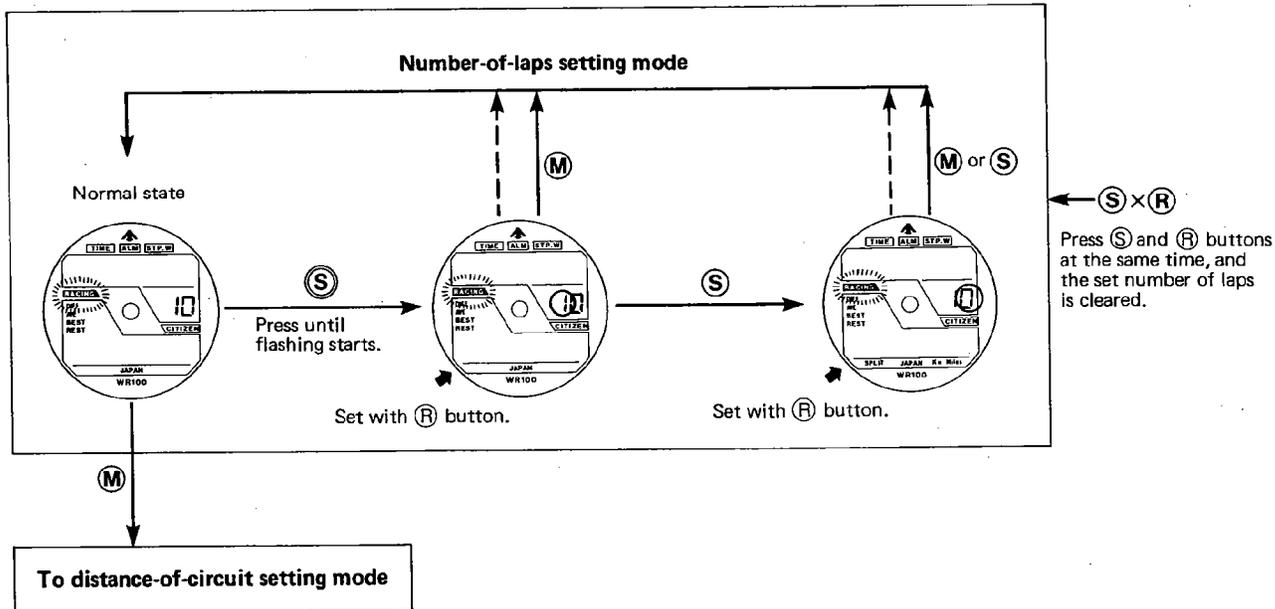
If the $\text{\textcircled{M}}$ button is pressed for about two seconds in the time mode (Time/Calendar mode, alarm mode and stopwatch mode), the watch is changed to the number-of-laps setting mode in the racing mode. (However, it cannot be changed from the setting mode).

- In this mode, if the number of laps to be covered and the distance of the circuit are set in advance, the information necessary to each race can be indicated.

Example: In case of a race to cover 10 laps of a 5-km circuit

a. ■ Setting of number of laps to be covered

Note: : Flashing mark
: Item to be changed
: Auto return





- Setting of distance (by either km or mile)
Call the item to be changed with the (S) button and set the distance of the circuit with the (R) button. If the (R) button is pressed and held in the setting (flashing) state, the distance of the circuit can be changed quickly.
Note: If the distance of the circuit is set to 0, the watch indicates a bar when the speed is called in the chronograph run mode.
- Clearing of set value
Only the (S) and (R) buttons are pressed at the same time, the set distance of the circuit is cleared. The set value is kept, even if the watch is changed to another mode.

Common remarks on number-of-laps setting mode and distance-of-circuit setting

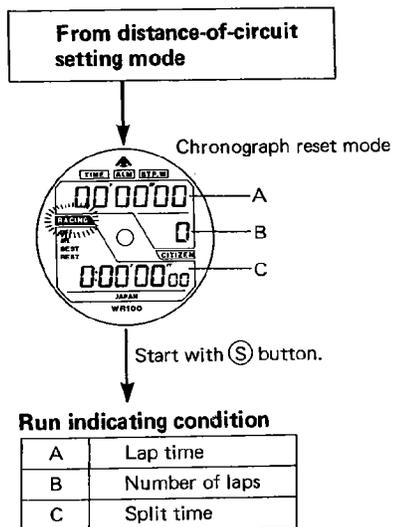
- Instant manual return
If the (M) button is pressed in any setting state, the watch is forcibly returned to the normal state of the setting mode of each mode.
- Auto return
If the watch is left in the setting state for about two minutes, the watch is automatically returned to the normal state of the number-of-laps setting mode.

c. ■ Measurement and indication of race data

Necessary information to the race can be indicated in the chronograph run mode and stop mode.

- If the (M) button is pressed in the distance-of-circuit setting mode, the watch is set to the chronograph reset mode.
- If the (M) button is pressed again in the chronograph reset mode, the watch is returned to the number-of-laps setting mode.

– Start operation –



- If the (S) button is pressed in the chronograph reset mode, the watch starts chronograph measurement.



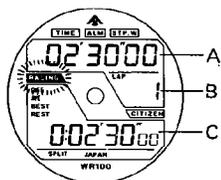


MEASURING RANGE

- Lap time: 00 minute 00 second 00/100 second to 59 minutes 59 seconds 99/100 seconds (Repeated)
- Number of laps: 0 to 199 (Repeated)
- Split time: 0 hour 00 minute 00 seconds 00/100 second to 99 hours 59 minutes 59 seconds 99/100 second (Repeated)
- * Operations stop when the number of laps set is completed

(Lap time measurement and indication)

If the $\text{\textcircled{R}}$ button is pressed in the RUN indication mode, the lap time is indicated. (The watch is returned to the Run indication mode after the lap time is indicated for 15 seconds.)



• Indicated items

- Indicator A: Lap time
- Indicator B: Number of laps (measured after start)
- Indicator C: Split time

If the $\text{\textcircled{R}}$ button is pressed while the lap time is indicated, a new lap time is indicated and the number of laps is increased.

Calling the data during race

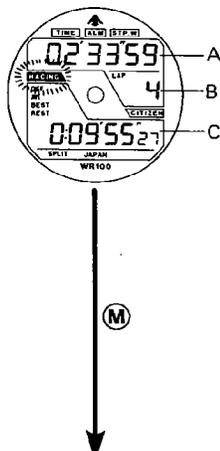
(When the racer is running the fifth lap in the race to cover 10 laps of a 5-km circuit)

Precautions

- Data cannot be called during a race when the lap time is not being measured (when indicator B indicates 0).
- About 15 seconds after a data is called during a race, the watch is automatically returned to the RUN indication mode (by auto return function). To check that data again, press the $\text{\textcircled{M}}$ button again to call it.

(Indication of latest lap time)

If the $\text{\textcircled{M}}$ button is pressed in the run indication state, the latest lap time is indicated. In this mode, the previous lap time and split time can be checked.



• Indicated items

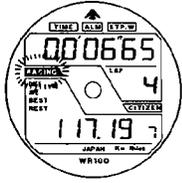
- Indicator A: Latest lap time (Forth lap time)
- Indicator B: Latest number of laps covered (4)
- Indicator C: Latest split time (Time up to fourth lap)





(Indication of lap time difference)

If the (M) button is pressed in the lap time indication state or the latest lap time indication state, the lap time difference is indicated. In this mode, the latest lap time can be compared with the previous one.



- **Indicated items**

Indicator A: Lap time difference (between third and fourth lap times)

Indicator B: Number of laps (4)

Indicator C: Lap speed (Bar is indicated when speed exceeds 1000 km/h)

(Indication of average lap time)

If the (M) button is pressed in the lap time difference indication state, the average lap time is indicated. In this case, the average of the fourth, third, second, and first lap times is indicated.



- **Indicated items**

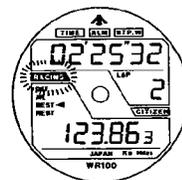
Indicator A: Average lap time (Bar is indicated when lap time exceeds 60 minutes)

Indicator B: Number of laps (4)

Indicator C: Average speed (Bar is indicated when bar is indicated as average lap time)

(Indication of shortest lap time)

If the (M) button is pressed in the average lap time indication state, the shortest lap time is indicated. In this mode, the shortest lap time can be checked.



- **Indicated items**

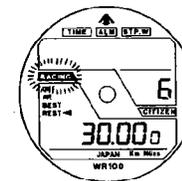
Indicator A: Shortest lap time

Indicator B: Turn in which highest speed (shortest lap) was recorded

Indicator C: Highest lap speed (Speed at shortest lap time)

(Indication of number of laps to be covered further)

If the (M) button is pressed in the shortest lap time indication state, the number of laps to be covered further is indicated. In this mode, the number of laps and distance to be covered further can be checked.



- **Indicated items**

Indicator A: Nothing is indicated.

Indicator B: Number of laps to be covered further

Indicator C: Distance to be covered further

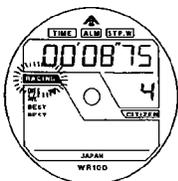




(Indication of difference between two racers)

(See the next section "Measurement of difference between two racers")

If the **(M)** button is pressed while the number of the laps to be covered further is indicated, the difference between two racers is indicated. In this mode, the time difference from a rival can be checked.



● Indicated items

- Indicator A: Difference in split time (Indicated only when difference between two racers is measured)
- Indicator B: Number of laps (4)
- Indicator C: Nothing is indicated.

(Changing to run indication state)

If the **(M)** button is pressed while the difference between two racers is indicated, the watch is set to the run indication state.

(Auto return)

If the watch is left unoperated for about 15 seconds in any mode of the latest lap time indication, lap time difference indication, average lap time indication, shortest lap time indication, indication of number of laps to be covered further, and indication between two racers, the watch is returned to the run indication state.

Measurement of difference between two racers

If the **(S)** button is pressed in the chronograph run mode (to measure the difference of split time between two racers), the split time at this time is stored, and the time difference from a rival can be checked.

Example 1: Measurement of split time difference from a following racer

Press the **(R)** button when your car passes the measurement point, and press the **(S)** button when the rival passes the measuring point. The time difference between the two racers at the measuring point can be indicated by the above explained operation to indicate difference between two racers.

Example 2: Measurement of split time difference from a preceding racer

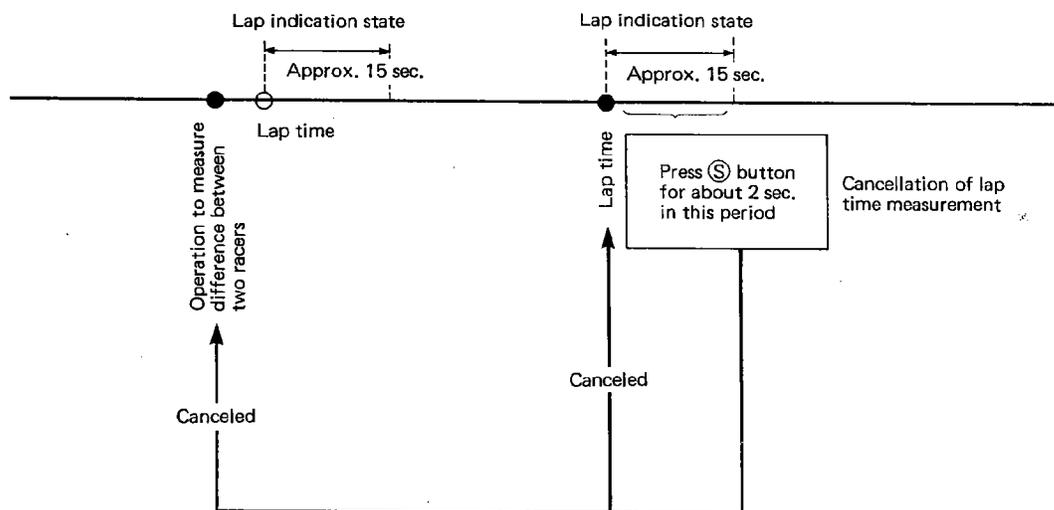
Press the **(S)** button when the rival passes the measurement point, and press the **(R)** button when your car passes the measuring point. In this case, a minus mark is added to the a time difference between them.





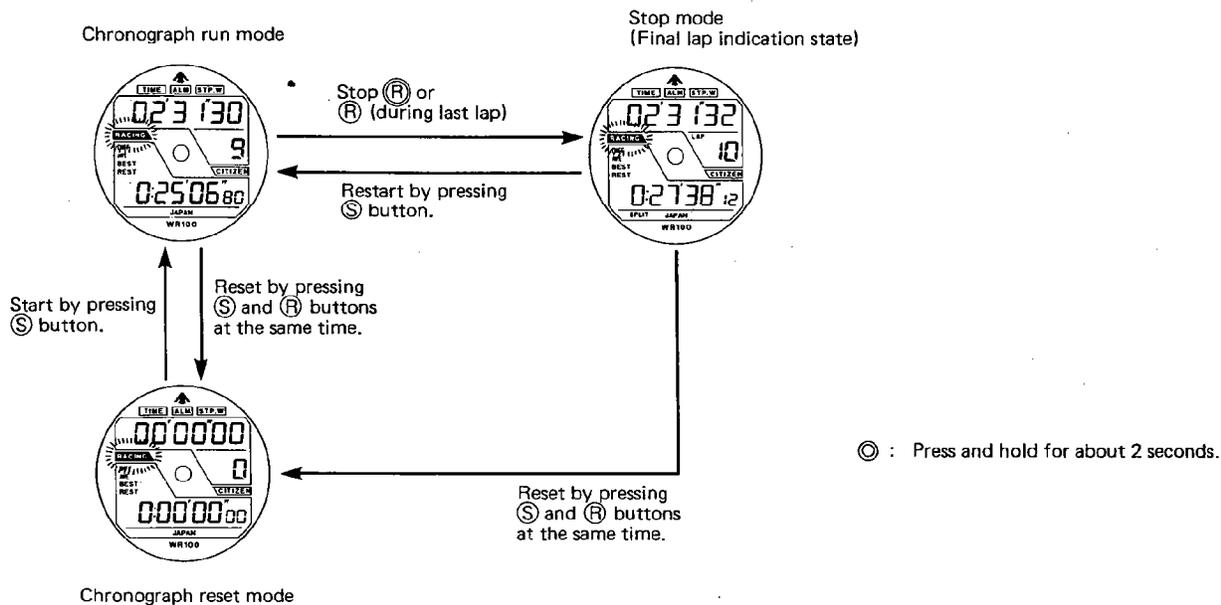
Cancellation of lap time measurement

If the lap time measurement is started by mistake, press and hold the **(S)** button for about two seconds while the lap time is indicated (for about 15 seconds), and the latest lap time is canceled, then the watch is returned to the RUN indication state and the number of the laps is returned to the previous time. At the same time, the previous operation of difference between two racers is canceled.





d. – Goal operation –



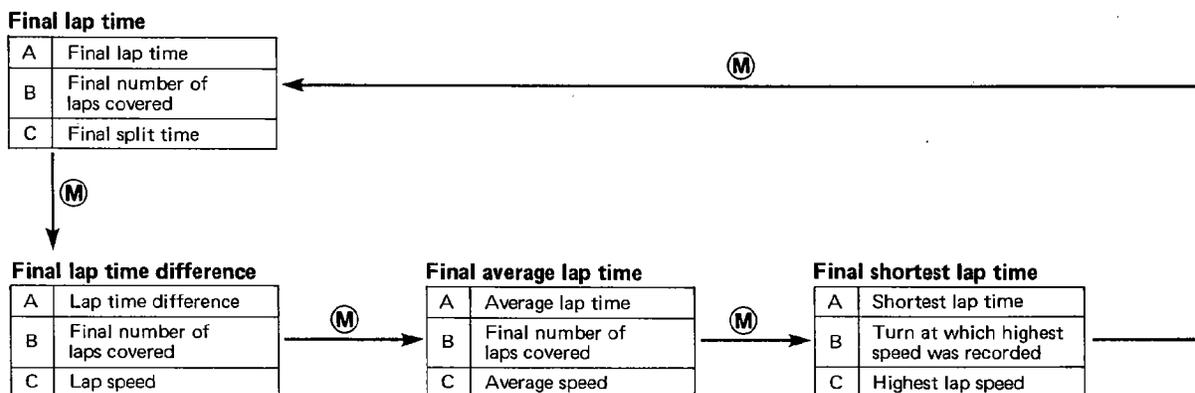
(Stop mode)

When the set number of laps is covered in the chronograph run mode, if the lap time is measured by pressing the **(R)** button, the watch is set to the stop mode (for indication of final lap time). Even if the set number of laps has not been covered, if the **(R)** button is pressed for about two seconds, the watch is set to the stop mode.

If the watch is set to the stop mode, the lap time, split time and number of laps covered at this time are used as the final data.

(Calling the record in stop mode)

If the watch is set to the stop mode, the final lap time is indicated. In this condition, the following items are indicated repeatedly in order every time the **(M)** button is pressed.



(Restart operation)

If the (S) button is pressed in the stop mode, the watch is restarted, and it starts the measurement.

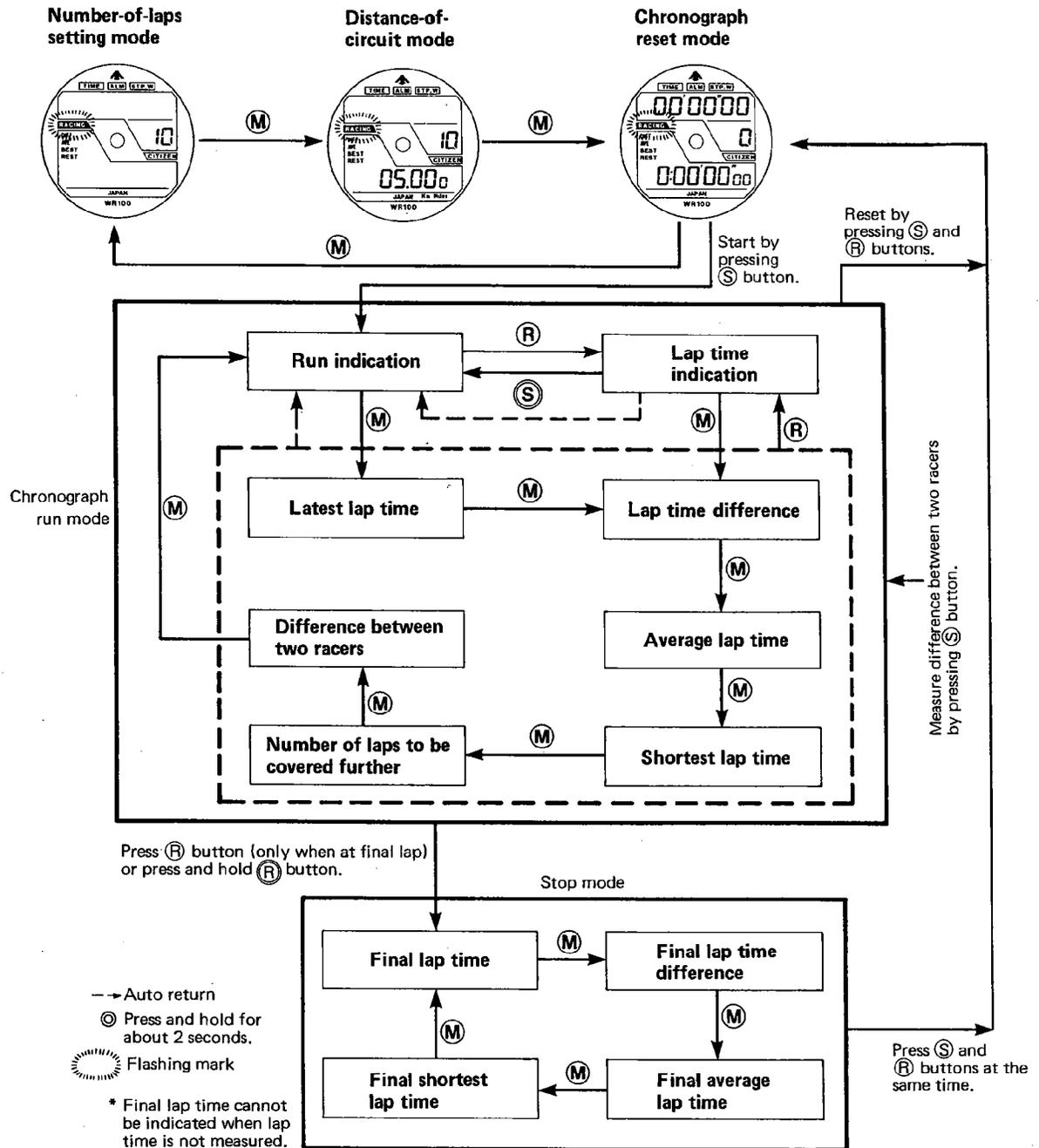
(Resetting operation)

If the (S) and (R) buttons are pressed at the same time in the chronograph run mode or stop mode, the measured data are reset.

* The values set in the setting mode (number of laps and distance of circuit) are maintained.

e. ■ Flow of operation in racing mode

The above operation is summarized below.



Caliber No.	C070	
Type	Combination watch	
Module size (mm)	26.0 x 27.4 Thickness: 4.9	
Accuracy (at normal temperature)	±20 sec./month	
Oscillation	32,768 Hz	
Display method	Digital section: FE nematic LC (Liquid Crystal) Analog section: Three hands	
Integrated circuit	C/MOS-LSI (2 units)	
Effective temperature range	0°C ~ +55°C (32°F ~ 131°F)	
Converter	Step motor	
Adjustment of time rate	Trimmer condenser	
Measurement of time rate	2 seconds (Analog section)	
Additional functions of digital section	(Watch mode) Time/Calendar	(Time and Calendar are indicated simultaneously.) Time: Hour, minute and second (AM/PM) Calendar: Month, date, day, year (1989 ~ 2004), Fully automatic calendar (Current time and Alarm set time are indicated simultaneously.)
	Alarm	Hour, minute (AM/PM)
	Stopwatch	(Lap time and Split time are indicated simultaneously.) Lap time: Minute, second, 1/100 second (Repeated every 60 minutes) Split time: Hour, minute, second, 1/100 second (Repeated every 100 hours) (Indication of number of laps. (Repeated 199 times.) Measurement unit: 1/100 second, best five laps memory
	(Racing mode) Setting of number of laps	0 ~ 199 laps
	Setting of distance of circuit	0 ~ 99.999 (km) (by unit of 0.001 km)
Additional functions of digital section	(Chronograph run mode) Latest lap time	Latest lap time, number of laps up to now, latest split time
	Lap time difference	Lap time difference, number of laps up to now, speed (Speed higher than 1000 km/h is indicated by bar)
	Average lap time	Average lap time (Lap time longer than 60 minutes is indicated by bar), number of laps up to now, average speed
	Highest lap time	Highest lap time, number of lap at which highest lap was recorded, highest average speed
	Rest of number of laps	Rest of number of laps, rest of distance
Battery	Difference between two racers	Split time difference, number of laps
	(Lap mode) Final lap	Final lap time, final number of laps, final split time
	Final lap time difference	Lap time difference, final number of laps, average speed
	Final average lap time	Average lap time, final number of laps, average speed
	Final highest lap time	Highest lap time, number of lap at which highest lap time was recorded, highest speed.
Part No.	280-44	
Battery code	SR927W	
Nominal voltage	1.55 V	
Nominal capacity	55 mAH	
Lifetime	Approx. 2 years	
Current consumption	3.1 μA max.	
Coil resistance	2.2 kΩ ~ 2.6 kΩ	

* The above specifications are subject to change.

* After a new battery is installed, the watch keeps its accuracy for about two years in case the watch is used under normal condition. However, the lifetime of the battery depends on the frequency of use of the alarm.



PRECAUTIONS ABOUT CARE AND HANDLING OF WATCHES

CITIZEN®

TEMPERATURE CARE

Avoid temperature extremes. Exposing your watch to high temperatures, such as placing it on the dashboard of a vehicle or use in a hot tub, may cause the watch to malfunction, shorten battery life or damage certain components. Leaving the watch in extreme cold temperatures may cause irregular timekeeping until the watch returns to normal operating temperature.

SHOCK-RESISTANT

The watch may be worn while playing golf or other activities, but avoid severe shocks such as dropping it on a hard surface.

MAGNETIC-RESISTANT

No problem should occur from using the watch around ordinary household electric appliances such as TV sets or stereos. Keep away from magnets.

CHEMICAL/GAS RESISTANT

Do not expose the watch to chemicals or gases for long periods.

WATCH CLEANING

Stains, waterspots and accumulated dirt on the case, crystal or band should be removed with a soft cloth to prevent damage and premature wear.

HANDLING OF WATER-RESISTANT WATCHES

Although water-resistant watches are warranted, steps should be taken to avoid damage that may result from accidents or mishandling:

- Do not operate the crown or push-button in the water or while the watch is wet. Tighten screw lock crown completely.
- Should the watch become immersed in water, dry it off right away. If the watch comes in contact with salt water, be sure to rinse it thoroughly in warm fresh water to remove any trace of salt.
- If a watch is wet from cleaning or by accident, never store it in a closed container. It should be dried immediately or taken to a watchmaker or jeweler if moisture is inside the case to prevent damage from rust.
- Vital components necessary to resist the entrance of moisture deteriorate with time and use. Gaskets, crowns and other materials should be replaced every year or two to ensure

that water resistant quality remains at factory specifications.

CARE FOR METAL BRACELETS

To extend the life and maintain the good appearance of the metal watch bracelet, the following recommendations are given:

- Be aware that since the watch and bracelet is worn next to the skin, it collects dust and perspiration and becomes soiled if not cleaned regularly. This is particularly true of the inner parts of the links or mesh of the bracelet.
- Soil and rust, when present in a bracelet, are dissolved by perspiration and can cause staining of cuffs and irritation of the skin in some instances.
- Heavy perspiration should be wiped off the watch and bracelet with a soft dry cloth. The bracelet should be cleaned occasionally by using an old toothbrush and warm soapy water after which the soap is thoroughly rinsed with clear water and the bracelet dried completely. The foregoing manner of cleaning should not be done if the watch is not water-resistant but should instead be done by your jeweler.

CARE FOR STRAPS

LEATHER

- Heavy perspiration, if not removed from a leather strap, can wash out the natural oils and cause the leather to become dry and deteriorate. Any moisture should be blotted with a soft dry cloth or paper towel and the strap allowed to dry naturally.
- Salt residue and soil can be removed from the leather by cleaning with a dampened soft cloth and mild soap or saddle soap.
- Occasionally, the inside surface of the strap should be cleaned by using a soft cloth dampened with alcohol.
- The strap should always be worn a little loosely (one finger space between wrist and strap) to allow air to circulate thus causing any moisture to evaporate.

RUBBER

- Rubber straps should be washed frequently with mild soap and warm water using a soft brush.
- Thorough cleaning, using the same method, should especially be done after use in salt water.
- Solvents, oils, perspiration, tanning lotion and salt can cause rubber to deteriorate if not removed.

Marking on the Dial	Marking on the Caseback	 Face washing, splashes, sweat, raindrops, etc.	 Swimming	 Skin diving (diving without air tanks)	 Scuba diving (diving with air tanks)	Water-resistant characteristics
NONE	NONE	NO	NO	NO	NO	Non water-resistant watch and must be kept away from water.
NONE	WATER RESIST	OK	NO	NO	NO	An ordinary water-resistant watch and can withstand splashes, sweat, rain-drops and etc. for daily life use.
WR100M WR10bar WR150M	WATER RESIST	OK	OK	OK	NO	For frequent use with water. It is not specially designed for scuba diving.
WR200M	WATER RESIST	OK	OK	OK	OK	For skin and scuba diving. Usable up to the respective indicated depths.





Water Resistance

The water-resistant quality of our timepieces is offered in varying degrees depending on the model. This ranges from non-water resistant models to those suitable for SCUBA diving. Water resistance of our timepieces is measured in BAR or Barometric Pressure. Each BAR of pressure is equal to 14.5 pounds per square inch of pressure.

Water resistance is measured when the watch is at a static, or motionless state. As the watch is moved in water, such as from the motion of swimming, pressure is added from velocity. While you may be swimming in a pool at surface level, the watch may be experiencing forces equal to that of 100 feet of water pressure (3 BAR). Diving into a pool can cause forces on the watch to exceed those pressures. As such, you should always allow a margin of safety when exposing your watch to moisture. Never "push the limit" of the degree of water resistance of your timepiece.

A primary factor to keep in mind about water resistance is that periodic maintenance is needed to maintain original factory specifications for water resistance. When a watch is new, it meets specifications for water resistance as indicated on the case back. However, as the watch ages, the gaskets that seal the watch become dry and brittle, diminishing its water resistant quality. Exposure to environments such as chlorinated pools, salt water or soaps from showering can accelerate drying of the gaskets. We recommend that the gaskets be changed at least every 18 to 24 months to maintain the water resistant quality of your timepiece. If the watch is frequently exposed to chlorinated pools, soaps salt water, etc., we recommend that the gaskets be changed on a yearly basis.

From time to time, you may notice condensation that appears then goes away after a short period of time. This is a normal occurrence and happens primarily from sudden temperature changes. When there are sudden temperature changes such as entering a cool building from the hot out of doors, or jumping into pool on a hot day the watch may fog. Conversely, if you go to the cold outdoors from a warm building, fogging may occur. As long as the fogging clears in a short period of time, there is no need for concern.

Be sure the crown is completely pushed in prior to any contact with moisture. If your model is equipped with a screw down crown, be sure it is properly seated against the case. Do not operate the crown or any push button when the watch is wet as this may allow the entrance of moisture. . If at anytime, you notice moisture in your timepiece that does not clear in a short period of time, you should send your timepiece as soon as possible to the nearest Authorized Service Center for inspection.

You can determine the level of water resistance of our watches from the markings on your case-back. Additionally, models that are water resistant to 100 or 200 meters have an indication on the dial as well. The case-backs and dials are normally marked as follows:

The case back has no indication of water resistance

This indicates the watch is a non water-resistant model and is not designed for contact with moisture at all. Caution should be exercised to avoid any contact with moisture, such as when washing your hands or from a rainstorm.

"Water Resist"

This watch is designed to withstand water from accidental splashing, such as from washing your hands or rain. Any submersion into water may result in the entrance of moisture.

"Water Resist 10BAR" or "W.R. 10BAR", Dial marked "WR100"

This watch is designed to withstand water pressure up to 333 feet. This includes water exposure from accidental splashing and rain, but also from showering, swimming in a pool and snorkeling. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

"Water Resist 20BAR" or "W.R. 20BAR", Dial marked "WR200"

This watch is designed to withstand water pressure up to 666 feet. This includes all exposure to water up to and including recreational SCUBA diving. Be sure to rinse the watch with fresh water after exposure to a chlorinated pool, salt water, soaps, etc. After rinsing with fresh water, be sure to dry the exterior with a soft cloth.

Special Note about Jacuzzis and Hot Tubs

The various components used in the manufacture and assembly of your watch expand at various rates. This results in a loss of the sealing capabilities of gaskets, which may allow moisture to enter. In addition, heat from these sources can cause deformation of certain materials leading to mechanical failures. For these reasons, you should remove your watch before entering a hot tub or Jacuzzi.

