

PULSAR ANALOGUE QUARTZ WATCH WITH WORLD TIME, ALARM AND CHRONOGRAPH

Cal. N94J

FEATURES

This is a multi-functional watch featuring the world time, alarm and chronograph. The mode changes simply by turning the crown.

■ TIME

Hour and minute hands with an AM/PM indicator.

■ CALENDAR

Date is indicated by date indicator.

■ WORLD TIME

Time of 24 different time zones is displayed in 12-hour indication with a small hand indicating AM/PM.

■ ALARM

The alarm can be set to ring on a 24-hour basis.

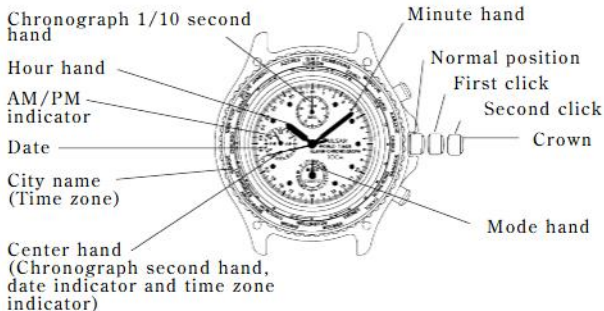
■ CHRONOGRAPH (STOPWATCH)

It can measure up to 12 hours in 1/10 seconds.
Split time measurement is also possible.

MODES AND DISPLAYS

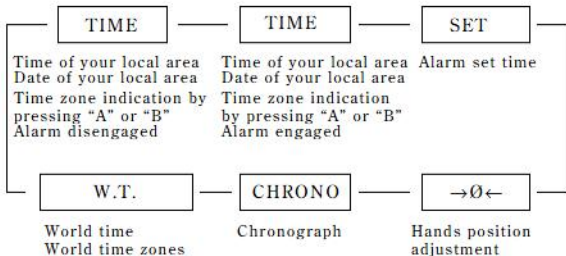
There are two buttons and a crown as indicated in the illustration below.

[“TIME” mode]



The mode changes by turning the crown at normal position clockwise or counterclockwise, and the mode hand indicates the selected mode. The hands move and perform different functions in each mode.

MODE HAND



In each mode the hands perform the following functions.

Mode \ Hand	Hand			Center hand		Chronograph 1/10 sec. hand
	Hour hand	Minute hand	AM/PM indicator		Press button çAè or çBè	
TIME	Current time			Date	Current time zone	N/F
	Hour	Minute	24-hour (AM/PM)			
TIME	Current time			Date	Current time zone	N/F
	Hour	Minute	24-hour (AM/PM)			
SET	Alarm time			Date	N/F	N/F
	Hour	Minute	24-hour (AM/PM)			
→ 7 ←	cDè position (12 o'clock position)					
CHRONO	Chronograph					
	Hour	Minute	Hour	Second		1/10 second
W.T.	World time			Selected time zone		N/F
	Hour	Minute	24-hour (AM/PM)			

N/F: Not functional. Disregard the indication and movement.

Functions of the crown and buttons in each mode

Mode	Crown position						
	Crown	Normal		First click		Second click	
		Buttons	Buttons	Buttons	Buttons	Buttons	Buttons
		ⓐ	ⓑ	ⓐ	ⓑ	ⓐ	ⓑ
TIME	Mode change	* Time zone of current time		Calendar setting		Time setting	
TIME	Mode change	* Time zone of current time		Calendar setting		Time setting	
		** Alarm test					
SET	Mode change	N/F		N/F		Alarm setting	
→ Ⓜ ←	Mode change	N/F		Adjusting chronograph 1/10 sec. hand and center hand		Adjusting hour hand and minute hand	
CHRONO	Mode change	Start	Splite	N/F		N/F	
		Stop	Reset				
W.T.	Mode change	Selecting time zone		N/F		Selecting time zone displayed for TIME (TIME) mode	

N/F : Not functional.

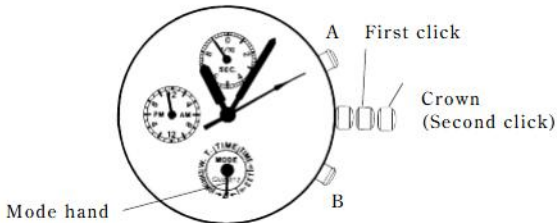
* : When either "A" or "B" is pressed, center hand indicates city (time zone) representing your area.

** : By pressing both "A" and "B" at the same time, the alarm can be tested.

ADJUSTING THE HAND POSITION

Before setting the time or calendar, or after the battery is replaced, be sure to adjust the hand position using “→0←” mode.

- Turn the crown to set the mode hand to “→0←”.
If all the hands do not return to the 12 o'clock position, follow the procedure below.



1. Pull out the crown to the first click.
2. Press "A" or "B" repeatedly but separately to reset the center and chronograph 1/10 second hands, which are mechanically engaged. Both the hands move simultaneously and return to the 12 o'clock position at the same time.
* The hands move quickly if the button is kept pressed.
3. Pull out the crown to the second click.
Press "A" or "B" repeatedly but separately to reset the hour and minute hands and AM/PM indicator, which are mechanically engaged.
All of the three hands return to the 12 o'clock position at the same time.
* The hands move quickly if the button is kept pressed.
4. Push the crown back in to the normal position.

HOW TO SET THE TIME, CALENDAR AND WORLD TIME

The time in the TIME mode advances correspondingly with the time in the WORLD TIME mode. Once the time of a desired time zone is set in the TIME mode, the time of all the 24 time zones covered in the WORLD TIME mode will be set automatically.

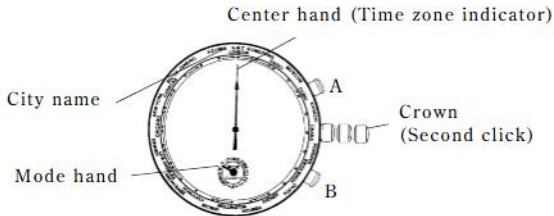
First, select the time zone including your local area in the WORLD TIME mode, and then, set the current time/calendar of your area in the TIME mode.

1. Selection of a time zone representing your local area

- Turn the crown to set the mode hand to "W.T." The hands move and stop.

* The chronograph 1/10 second hand shows demonstration movement.

["W.T." mode]

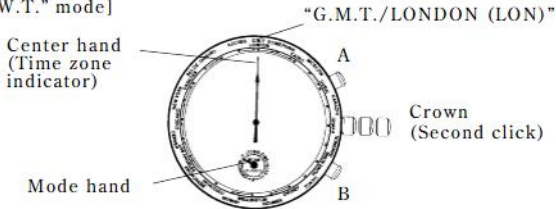


1. Pull out the crown to the second click. The hands move and stop.
 - * The chronograph 1/10 second hand shows demonstration movement.
2. Press "A" or "B" repeatedly but separately to set the center hand to the city on the bezel/dial representing your time zone.
 - * By pressing "A" or "B", the center hand moves clockwise or counterclockwise, respectively.
 - * The center hand moves quickly if the respective button is kept pressed.
 - * With each press of respective button, the chronograph 1/10 second hand shows demonstration movement.

[Example]

If you are in London, set the center hand to "G.M.T./LONDON (LON)".

["W.T." mode]



* If the daylight saving time (summer time) is used in your area, refer to "How to show the daylight saving time (summer time)".

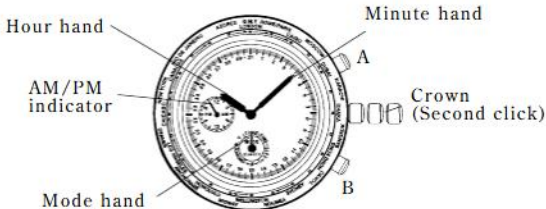
3. Push the crown back in to the normal position. The hands move and stop.

* The chronograph 1/10 second hand shows demonstration movement.

2. Time setting

- Turn the crown to set the mode hand to either “TIME” or “TIME ••)”. The hands move and stop.
 - * The chronograph 1/10 second hand shows demonstration movement.

[“TIME” mode]



1. Pull out the crown to the second click.
2. Press "A" or "B" repeatedly but separately to set the hour and minute hands and AM/PM indicator to the current time of your local area.
 - * With each press of "A" or "B", the minute hand advances or moves back one minute, respectively.
 - * The hour and minute hands and AM/PM indicator move correspondingly with one another.
 - * The hands move quickly if the respective button is kept pressed.
 - * When setting the hour hand, check that the AM/PM indicator is correctly set.

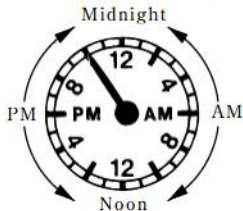
7:15AM



7:15PM (19:15)



[AM/PM indicator]



3. Push the crown back in to the normal position.

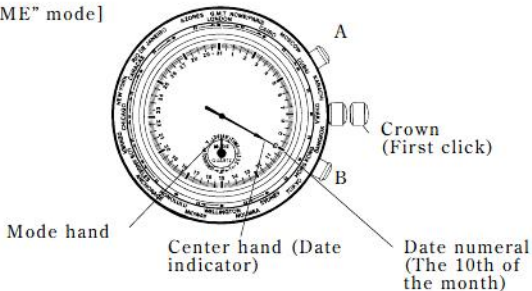
* If you wish to set the calendar immediately after setting the time, skip the step "3" here and go to step "1" of the next section "3. Calendar setting".

3. Calendar setting

* Please note that it is necessary to adjust the calendar at the end of 30-day months and February following the procedure below.

- Turn the crown to set the mode hand to either “TIME” or “TIME

[“TIME” mode]



1. Pull out the crown to the first click.
 - * If you set the calendar immediately after setting the time, you can set the crown to the first click directly from the second click.
2. Press "A" or "B" repeatedly but separately to set the center hand to the current date of your local area.
 - * With each press of "A" or "B", the center hand advances or moves back one day, respectively.
 - * The center hand moves quickly if the respective button is kept pressed.
 - * With each press of respective button, the chronograph 1/10 second hand shows demonstration movement.
3. Push the crown back in to the normal position.
 - * While the crown is kept at the first click, the hands stop moving. When the crown is pushed back to the normal position, the hands start moving to catch up with the current time.

4. Time zone confirmation

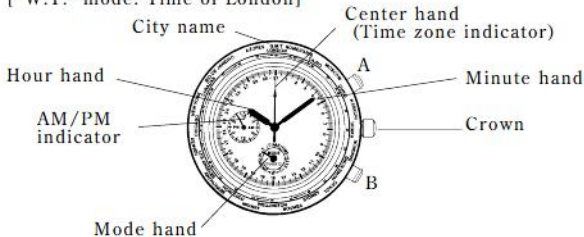
The time zone you have selected can be confirmed by pressing "A" or "B" in "TIME" or "TIME ·))" mode. The center hand points to the city representing your time zone and returns to the current date in a few seconds.

WORLD TIME MODE

The time of 24 different time zones is displayed in 12-hour indication with a small hand indicating AM/PM.

How to show the world time

["W.T." mode: Time of London]



* Make sure that the current time of your local area is set for the TIME mode. If not, follow the procedure in "HOW TO SET THE TIME, CALENDAR AND WORLD TIME".)

1. Turn the crown to set the mode hand to "W.T.". The center hand moves to indicate the city selected previously. The hour and minute hands and AM/PM indicator move to indicate the time of that city.
2. Press "A" or "B" repeatedly but separately to set the center hand to the desired city.
 - * By pressing "A" or "B", the center hand moves clockwise or counterclockwise, respectively.
 - * The center hand moves quickly if the respective button is kept pressed.
 - * With each press of respective button, the chronograph 1/10 second hand shows demonstration movement.
3. The hour and minute hands and AM/PM indicator move to indicate the time of the city you have selected.

How to show the daylight saving time (summer time)

Daylight saving time is a system adopted in some countries to make the best use of the daytime during a certain period in summer. Under this system the time is advanced one hour from the regular time.

Note: The time differences and use of daylight saving time (summer time) may change in some areas or countries when they are so decided by the countries concerned.

- To show the daylight saving time in the WORLD TIME mode:
 1. Turn the crown to set the mode hand to "W.T."
The center hand moves to indicate the city selected previously. The hour and minute hands and AM/PM indicator move to indicate the time of that city.
 2. Press "A" or "B" repeatedly but separately to set the center hand to the desired city. The hour and minute hands and AM/PM indicator move to indicate the time of the city you have selected.
 - * By pressing "A" or "B", the center hand moves clockwise or counterclockwise, respectively.
 - * The center hand moves quickly if the respective button is kept pressed.
 - * With each press of respective button, the chronograph 1/10 second hand shows demonstration movement.
 3. Press "A" to turn the center hand clockwise by one time zone. The hour, minute and AM/PM indicator move to indicate the daylight saving time for the selected time zone.

[Example]

If you wish to know the time of London, where the daylight saving time is used, set the center hand to "ROME/PARIS (ROM/PAR)" instead of "LONDON (LON)".

["W.T." mode]

"G.M.T. LONDON (LON)"

"ROME/PARIS (ROM/PAR)"
(Daylight Saving Time for London)

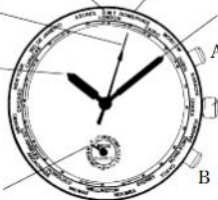
Center hand
(Time zone indicator)

Hour hand

Mode hand

Minute hand

Crown



- To show the daylight saving time for your local area in the TIME mode:

Note: If the time is advanced one hour in the TIME mode to show the daylight saving time, the 24 times in the WORLD TIME mode will all be advanced. To show the daylight saving time in the TIME mode, therefore, be sure to follow the procedure below.

1. Turn the crown to set the mode hand to "W.T."
The center hand moves to indicate the city selected previously. The hour and minute hands and AM/PM indicator move to indicate the time of that city.
2. Pull out the crown to the second click. The center hand moves to indicate the city representing your time zone, and the hour and minute hands and AM/PM indicator indicate the time of your local area set in the TIME mode.
3. Press "A" to turn the center hand clockwise by one time zone. The hour, minute and AM/PM indicator move to indicate the daylight saving time for your time zone.
4. Push the crown back in to the normal position.

5. Turn the crown to set the mode hand to "TIME". The hour and minute hands and AM/PM indicator indicate the daylight saving time for your local area.

[Example]

If you are in London and the daylight saving time is used there, set the center hand to "ROME/PARIS (ROM/PAR)".

["W.T." mode]

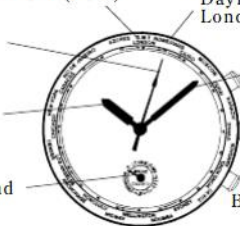
"G.M.T. LONDON (LON)"

"ROME/PARIS(ROM/PAR)"
Daylight Saving Time for
London)

Center hand
(Time zone
indicator)

Hour hand

Mode hand



Minute hand

Crown
(Second click)

A convenient way of using the WORLD TIME mode

The times you have set in the WORLD TIME mode can be transferred to the TIME mode one by one. This function is very useful when you travel to different time zone. The time and date of the city you visit can be shown on the watch without resetting the hands.

Note: If a time is transferred from the WORLD TIME to TIME mode, the time previously set for the TIME mode will be replaced automatically.

1. Turn the crown to set the mode hand to "W.T."
The center hand moves to indicate the city selected previously. The hour and minute hands and AM/PM indicator move to indicate the time of that city.
2. Pull out the crown to the second click.
The center hand moves to indicate the city representing the time zone set for the TIME mode. The hour and minute hands and AM/PM indicator move to indicate the time of the time zone.
3. Press "A" or "B" repeatedly but separately to set the center hand to the city representing the place you visit. The hour and minute hands and AM/PM indicator move to indicate the time of that city.


- * By pressing "A" or "B", the center hand moves clockwise or counterclockwise, respectively.
 - * The center hand moves quickly if the respective button is kept pressed.
 - * With each press of respective button, the chronograph 1/10 second hand shows demonstration movement.
4. Push the crown back in to the normal position. The time of the selected city is transferred from the WORLD TIME to the TIME mode.
The center hand moves to indicate the city selected previously in "W.T." mode.
The hour and minute hands and AM/PM indicator move to indicate the time of that city.
- * While the crown is kept at the second click, the hands stop moving. When the crown is pushed back to the normal position, the hands start moving to catch up with the current time.

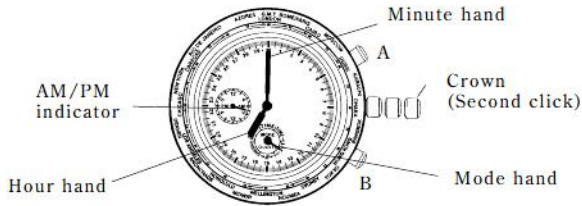
ALARM

The alarm can be set on a 24-hour basis in one-minute increments.

Note: The alarm rings on the basis of the time displayed in the TIME mode.

Alarm setting


- Turn the crown to set the mode hand to “ SET”.
The hour and minute hands and AM/PM indicator move to indicate the alarm time set previously.



The alarm is set to ring at 7:00 AM.

1. Pull out the crown to the second click.
2. Press “A” or “B” repeatedly but separately to set the hour and minute hands and AM/PM indicator.
 - * All of the three hands are mechanically engaged and can be set at the same time.
 - * The hands move quickly if the button is kept pressed.
 - * Please make sure that AM/PM of the alarm time is correctly set.
3. Push the crown back in to the normal position.

Alarm engagement/disengagement

- To engage the alarm, turn the crown to set the mode hand to “TIME 

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CHRONOGRAPH

The chronograph measures in 1/10 seconds, seconds, minutes and hour up to 12 hours.

Chronograph operation

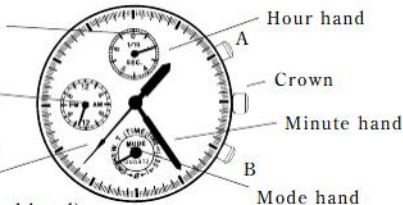
- Turn the crown to set the mode hand to "CHRONO".
The hour, minute, center and chronograph 1/10 second hands return to the 12 o'clock ("0") position.
The AM/PM indicator returns to the 24 o'clock or 12 o'clock position.

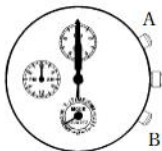
Ex.) Elapsed time measured is 1 hour, 24 minutes and 37.2 seconds:

Chronograph 1/10 second hand

The AM/PM indicator indicates 1 hour if it has been reset to the 12 o'clock position.

Center hand
(Chronograph second hand)





1. Standard measurement

To start : Press "A".
 To stop : Press "A".
 To reset to "0" : Press "B".

2. Accumulated elapsed time measurement

To start : Press "A".
 To stop : Press "A".
 To restart : Press "A".
 To stop : Press "A".
 To reset to "0" : Press "B".

3. Split time measurement

To start : Press "A".
 To measure split time : Press "B".
 To release split time : Press "B".
 To stop : Press "A".
 To reset to "0" : Press "B".

4. Measurement of two competitors

To start : Press "A".

To measure the finish time of the first competitor
: Press "B".

When the second competitor finishes:
Press "A".

To display the finish time of the second
competitor : Press "B".

To reset to "0" : Press "B".

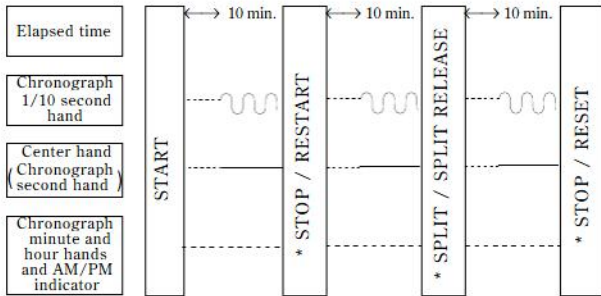
Hands' movement during measurement

In order to save the energy, 10 minutes after the chronograph is started, the center hand stops at the 12 o'clock position, and the chronograph 1/10 second hand shows special swing motion to indicate that the chronograph is in operation.

As well as the first 10 minutes of the measurement, the chronograph 1/10 second and center hands show the normal movement for 10 minutes after each operation such as RESTART, SPLIT RELEASE or returning to "CHRONO" mode.

* However, when "A" or "B" is pressed, the chronograph 1/10 second and center hands advance and show measurement time in 1/10 seconds and seconds.

Ex.)



Normal movement



Swing motion



Stop at the 12 o'clock position

Notes:


- Even if the mode is changed from “CHRONO” to another while the chronograph is running, it continues measurement. However, if “→0←” mode is selected and the crown is pulled out, the measurement is canceled and the hands return to “0” position. If the mode is changed while split time is displayed, the chronograph continues measuring but the split time is released.
- It is possible to start the chronograph while the hands are returning to the 12 o'clock position by selecting “CHRONO” mode, or stopping and resetting the chronograph.
- When measurement exceeds 12 hours, the hands stop at the 12 o'clock position.

NECESSARY OPERATION AFTER BATTERY CHANGE

When the battery is replaced, the time information stored in the built-in IC and the time indicated by the hands do not correspond with each other. Before using the watch, therefore, be sure to adjust the hand position, following the procedure in "ADJUSTING THE HAND POSITION".

RESETTING THE BUILT-IN IC

In case any of the hands should move improperly, follow the procedure below to adjust the hand movement.

1. Turn the crown to set the mode indicator to "TIME".
2. While pressing "A" and "B" simultaneously, turn the crown to change the mode to "TIME  " or "CHRONO".
3. Turn the crown to set the mode indicator to "→0←".
Then adjust the hand position, following the procedure in "ADJUSTING THE HAND POSITION".

TO PRESERVE THE QUALITY OF YOUR WATCH

Your watch contains a highly precise electronic circuit and a crystal oscillator, and to maintain its high accuracy you should not subject it to violent shocks or extreme temperatures.

Your watch is classified into one of the following four groups by the degree of water resistance. Please read the appropriate item below for proper use.

If your watch is water resistant, "WATER RESISTANT" is shown on the back of your watch case. If your watch is 200 m, 100 m or 50 m water resistant, it is so indicated on the dial. If your watch is non-water resistant, there is no such indication.

Water resistant: These watches are designed to withstand accidental contact with water, for example, splashes or rain, but should not be worn while swimming or diving.

Water resistant (50 m/5 BAR): These watches are suitable for swimming and can be worn in the shower, but not for diving. If the watch is exposed to salt water, rinse it in fresh water and then wipe it thoroughly dry.

Do not press any buttons or turn the crown when the watch is wet.

Water resistant (100 m/10 BAR, 200 m/20 BAR): These watches are suitable for swimming or skin diving (without heavy breathing apparatus), but not for scuba diving. If the watch is exposed to salt water, rinse it in fresh water and then wipe it thoroughly dry.

Do not press any buttons or turn the crown when the watch is wet.

Non-water resistant: Care should be taken not to get your watch wet as water may damage the movement.

- Have your Pulsar watch checked by a PULSAR DEALER periodically to be sure that the case, buttons, crown, gasket, crystal seal and push pins remain intact.

BATTERY CHANGE

The miniature battery SEIKO SR927W which powers your watch should last approximately 3 years. However, because the battery is inserted at the factory, its actual life once in your possession may be less than the specified period.