CITIZEN

Setting Instructions for
Movement Caliber C080

Contents (click on a topic)
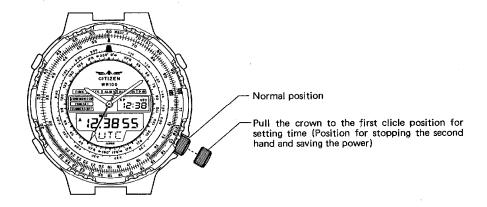
Name of Each Part

Register ring
Mode Mark

Button **M**

Button **S**

UTC mark

Sub time

Main time

Button **R**

Crown

City name

Analog Section

SETTING THE TIME

Normal position

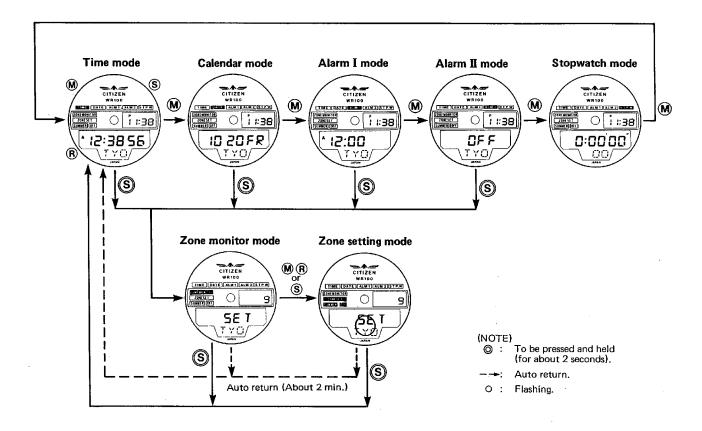Pull the crown to the first clicle position for setting time (Position for stopping the second hand and saving the power)

- The digital and analog sections can be set independently from each other.
- Set the time with the crown pulled by one click, similarly to a common analog watch.
- After the time is set securely return the crown to its normal position.

Setting the Digital Portion

This watch is set to each mode according to the following order.

(Changing the mode)

If the Ⓜ button is pressed in the time, calendar, alarm I, alarm II and stopwatch mode, the watch is set to the next mode.

(Changing to zone monitor mode)

If the Ⓢ button is pressed and held for about two seconds in the time, calendar, alarm I and alarm II mode, the watch is set to the zone monitor mode.

(Changing to zone setting mode)

If the Ⓜ, Ⓡ or Ⓢ button is pressed in the zone monitor mode, the watch is set to the zone setting mode.

* If the Ⓢ button is pressed and held for about two seconds in the zone monitor or zone setting mode, the watch is set to the time mode.

(Auto return)

If the watch is left untouched for more than two minutes in the zone monitor or zone setting mode, the watch is automatically returned to the time mode.
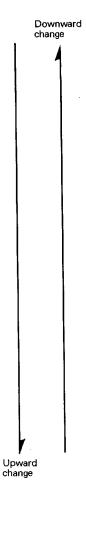
a. HOW TO USE ZONE MONITOR MODE

In this mode, the SET/OFF condition of the normal time and summer time of all the (31) cities can be confirmed. (The setting of each city is indicated for two seconds, then it is automatically changed to that of the next city.) The "next city" means the next city shown in the following table.

Time difference between indicated city and Greenwich

City		Time difference
UTC	(Greenwich)	±0
LON	(London)	
PAR	(Paris)	+1
ROM	(Rome)	
CAI	(Cairo)	+2
IST	(Istanbul)	
MOW	(Moscow)	+3
KWI	(Kuwait)	
DXB	(Dubai)	+4
KHI	(Karachi)	+5
DEL	(New Delhi)	+5.5
DAC	(Dacca)	+6
BKK	(Bangkok)	+7
SIN	(Singapore)	
HKG	(Hong Kong)	+8
PEK	(Peking)	
TYO	(Tokyo)	+9
SYD	(Sydney)	+10
NOU	(Noumea)	+11
AKL	(Oakland)	+12
HNL	(Honolulu)	−10
ANC	(Anchorage)	−9
LAX	(Los Angels)	−8
DEN	(Denver)	−7
CHI	(Chicago)	−6
MEX	(Mexico City)	
NYC	(New York)	−5
YUL	(Montreal)	
CCS	(Caracas)	−4
RIO	(Rio de Janeiro)	−3
BUE	(Buenos Aires)	

Returns from BUE to UTC

b. HOW TO USE ZONE SETTING MODE

In this mode, indication of the normal time and summer time in all the cities can be set.
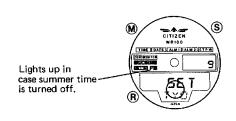
(Change of cities to be indicated)
- If the Ⓢ button is pressed in the zone setting mode, the next city can be selected (Upward change).
- If the Ⓡ button is pressed and held for about two seconds in the zone setting mode, the previous city can be selected (Downward change).

(Setting the summer time)
- Every time the Ⓡ button is pressed in the zone setting mode, the summer time is set and turned off.
  * If the summer time is set, the time of the indicated city is advanced by one hour.
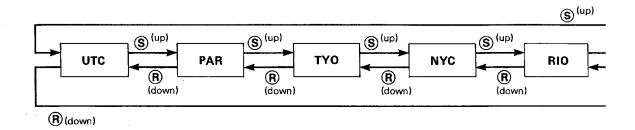
(Selecting the cities to be indicated)
- Every time the Ⓜ button is pressed in the zone setting mode, setting of the indicated cities is changed. The contents of the upward and downward changes are set by this procedure. (Only the set cities are looped and indicated.)

Lights up in case summer time is turned off.

O Flashing

If Ⓢ button is pressed, indicated city is changed to the next upper one.

If Ⓡ button is pressed and held for about two seconds, indicated city is changed quickly to the next lower one.

If Ⓡ button is pressed, the summer time is set or turned off.

If the Ⓜ button is pressed, the indicated city is set or turned off.

Example: Procedure to select and set UTC, PAR, TYO, NYC and RIO and to turn off all other cities.

c. HOW TO USE TIME MODE

In this mode, the times of two cities (main time and sub time) are indicated.
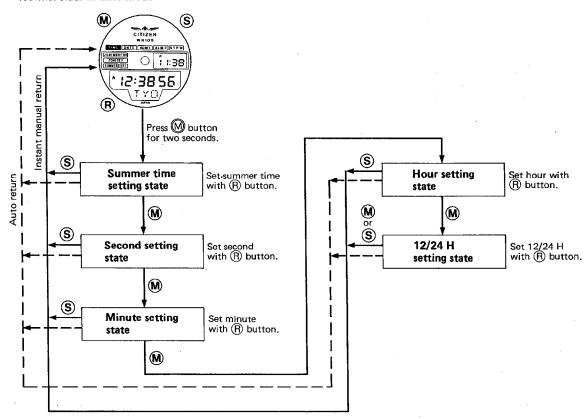
SETTING THE TIME

Select the item to be set by pressing and holding the Ⓜ button for about two seconds, then set it with the Ⓡ button. While the minute or hour is being changed, if the Ⓡ button is pressed for about two seconds, it is changed quickly.

In the normal state,

If Ⓢ button is pressed, next upper city is selected.

If Ⓡ button is pressed, next lower city is selected.

If Ⓢ and Ⓡ buttons are pressed at the same time, main and sub time are interchanged with each other.

Normal state in time mode

(Auto return)

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

(Instant manual return)

If the Ⓢ button is pressed in any setting state, the watch is returned to the normal state.

(Changing the cities to be indicated)

If the Ⓢ button is pressed in the normal state, the next city is indicated (Upward change). If the Ⓡ button is pressed, the previous city is indicated (Downward change). As the indicated city is changed, the main time is automatically changed to the time of the new city.

(Lighting up of UTC mark)

If UTC is selected as the city for the sub time, UTC mark lights up.

(Interchange between main and sub times)

If the Ⓢ and Ⓡ buttons are pressed at the same time in the normal state, the main time and sub time are interchanged with each other.

)W TO USE CALENDAR MODE

mode, the calendar of the main time is indicated.
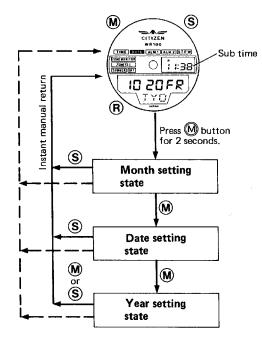
NG THE CALENDAR

ing to the section of setting the time, operate the buttons.

)

 year can be set to 1989 — 2004. It is not necessary to adjust the end of each month in this period. he year is indicated only in the setting state.

n unexisting date is set, the first of the next month will be indicated automatically when the watch t to the normal state.

 day of the week is automatically set after the year, month and date are set.

·mal state in calendar mode

In the normal state,

If Ⓢ button is pressed, next upper city is indicated (and calendar is changed for that city).

If Ⓡ button is pressed, next lower city is indicated (and calendar is changed for that city).

If Ⓢ and Ⓡ buttons are pressed at the same time, main and sub times are interchanged with each other (and calendar is changed for main time).
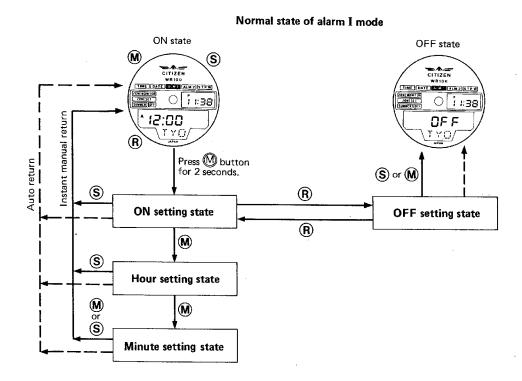
e. HOW TO USE ALARM I MODE (Common to alarm II mode)

SETTING THE ALARM I

Referring to the section of setting the time, operate the buttons.

(Note)
- The 12/24H system is set for the time and calendar modes.
- The alarm sounds for about 20 seconds. It can be stopped by pressing any button.

Normal state of alarm I mode

In the normal state,

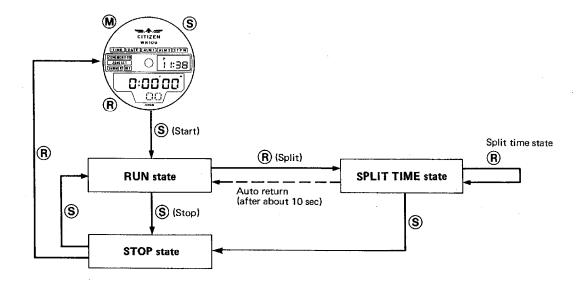If (S) button is pressed,   Next upper city is indicated (and set time of alarm I is changed for that city).

If (R) button is pressed,   Next lower city is indicated (and set time of alarm I is changed for that city).

f. HOW TO USE STOP WATCH MODE

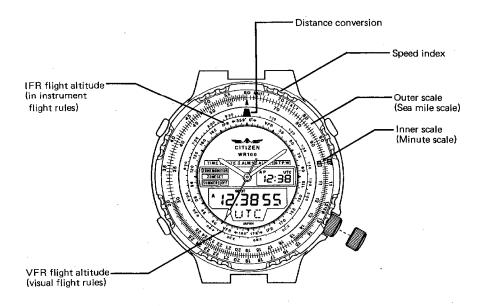Operate this watch as a stopwatch with the Ⓡ and Ⓢ buttons.
(A confirmation sound comes out each time these buttons are pressed.)

- The stopwatch works in 24—hour system (and can measure time from 00 minute, 00 second 10/100 second to 23 hours, 59 minutes, 59 seconds 99/100 seconds). After 23 hours, 59 minutes, 59 seconds 99/100 seconds, the measurement is repeated from 00 minute 00 second 00/100 second.

§3 Calculating Function

USING THE CALCULATION FUNCTION

<Names of scales and marks>

- Distance conversion
- Speed index
- Outer scale (Sea mile scale)
- Inner scale (Minute scale)
- IFR flight altitude (in instrument flight rules)
- VFR flight altitude (visual flight rules)

CALCULATING FUNCTION

When using the calculating function of this watch, observe the following.

● Use the results of the calculation by this watch for reference only.

● The user cannot determine the position of the unit with the scale of this watch.

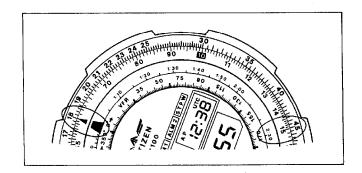### 1. Function of calculating the navigation

1) Calculation of required time

(Example)
How long does it take to fly 450 sea miles at the speed of 180 kt?

(Answer)
Set the 18 point of the outer scale to the SPEED INDEX (▲) of the inner scale, and the point of the inner scale (2:30) corresponding to the 45 of the outer scale is the time required (2 hours and 30 minutes).
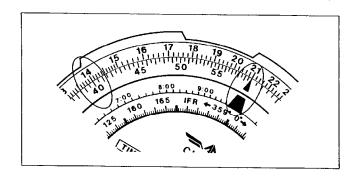
2) Calculation of flight distance

ıle)
is the flight distance when the
s 210 kt and the flight time is 40
s?

ır)
21 point of the outer scale to the
ndex (▲) of the inner scale, and
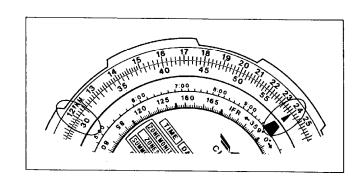(140 sea miles) corresponding to
point of the inner scale is obtained.

3) tion of fuel consumption ratio

ıle)
the fuel consumption ratio when
ght time is 30 minutes and 120
of the fuel is consumed?

ır)
12 point of the outer scale to the
nt of the inner scale, and the 24
lons/hour) point corresponding to
ed index (▲) is obtained.

4) tion of quantity of consumed fuel

ıle)
nuch fuel is consumed when the
nsumption ratio is 250 gallons/h
flight time is 6 hours?

ır)
25 point of the outer scale to the
ndex (▲) of the inner scale, and
(1500 gallons) corresponding to
obtained.

5) tion of how long the airplane can fly

ıle)
ong the airplane can fly when the
nsumption ratio is 220 gallons/h
0 gallons of the fuel can be con-

ır)
22 point of the outer scale to the
ndex (▲) of the inner scale, and
30 point (2 hours and 30 minutes)
onding to the 55 point of the
cale is obtained.

2. General calculation function

1) Multiplication

(Example)
20 x 15 (10g25 + 10g15)
Set the 20 point of the outer scale to the 10 point of the inner scale. Read the 30 point of the outer scale corresponding to the 15 point of the inner scale. Determine the point of the unit and obtain 300.
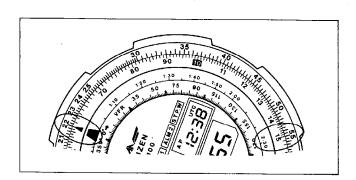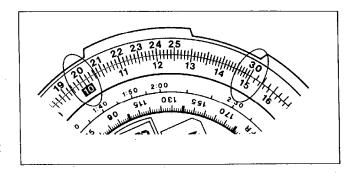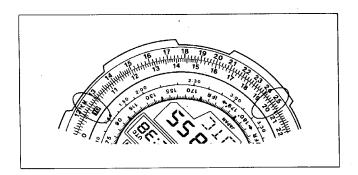
Note that the point of the unit of the result cannot be determined with this scale.

2) Division

(Example)
250 ÷ 20 (10g250 − 10g20)
Set the 25 point of the outer scale to the 20 point of the inner scale. Read the 12.5 point of the outer scale corresponding to the 10 point of the inner scale. Determine the point of the unit and obtain 12.5.

● How to read the flight altitude in VFR (visual flight rules) and IFR (instrument flight rules)

● Flight altitude in VFR (white figures)

When the airplane flies in the direction of 0° − 179°, the flight altitude is 1000 feet x Odd number of 500 feet.
When the airplane flies in the direction of 180° − 359°, the flight altitude is 1000 feet x Even number of 500 feet.
That is, when the airplane flies from Osaka to Tokyo, its flight altitude is increased to 3500 feet, 5500 feet, 7500 feet, ----- in order. When it flies from Osaka to Fukuoka, its flight altitude is increased to 4500 feet, 6500 feet, 8500 feet, -----.

● Flight altitude in IFR (Red figures)

When the airplane flies in the direction of 0° − 179°, the flight altitude is 1000 feet x Odd number feet.
When the airplane flies in the direction of 180° − 359°, the flight altitude is 1000 feet x Even number feet.

* The flight altitudes of the airplanes are determined according to their flying methods and directions as shown above to prevent an in-flight collision.

Caliber No.		C080
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)
Display functions	(Digital section) Time	Main time: (AM/PM) Hour, minute, second, city (Three alphabets) Sub time: (AM/PM) Hour, minute Can be set to 12 or 24-hour system.
	Calendar	Calendar: Month, date, day, city (Three alphabets), fully automatic calendar Sub time: (AM/PM) Hour, minute
	Alarm I	Set time of alarm I: (AM/PM) Hour, minute, city (Three alphabets) Sub time: (AM/PM) Hour, minute
	Alarm II	Set time of alarm II: (AM/PM) Hour, minute, city (Three alphabets) Sub time: (AM/PM) Hour, minute
	Stopwatch	Hour, minute, second, 1/100 second (24-hour system)
	Zone monitor	Confirmation of cities and SET/OFF (31 cities, 22 zones)
	Zone setting	SET/OFF of cities and summer time
Battery	Parts No.	280-44
	Battery	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.