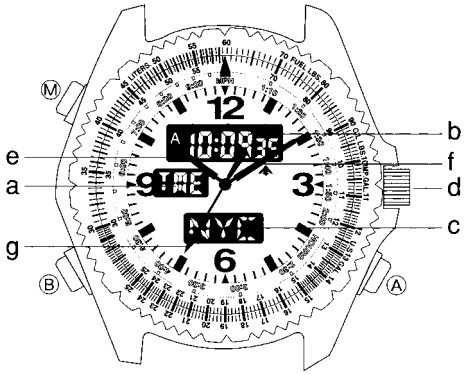
CITIZEN QUARTZ
Wingman VI

Model No. YQ8✻✻✻
Cal. No. C460

• INSTRUCTION MANUAL

CTZ-B6908



Design may differ with model.

Please refer to the diagram above when reading this instruction manual

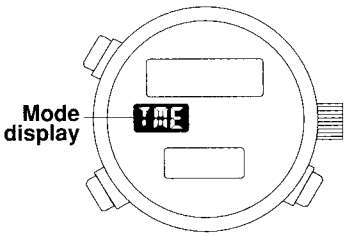
1. Features
This watch allows you to display the time in 30 cities and UTC (universal time coordinated) time worldwide by a simple button operation. The watch is also equipped with an internal EL (electroluminescence) lamp function that allows you to read display even in the dark.

2. Name of Parts
Please refer to the watch diagram above.

Name		Time Mode	Calendar Mode	Alarm 1/2 Mode	Chronograph Mode	Timer Mode	Zone Setting Mode
Ⓐ:Button Ⓐ	Press once	EL lamp turns on		ON/OFF switch	Sart/stop	Start/stop	EL lamp turns on
	Press for 2 seconds or more			Alarm sound monitor	—	—	
Ⓑ:Button Ⓑ	Press once	Switch the displayed city	Switch the displayed city	Switch the displayed city	Split/reset	Set time adjustment	Switch the displayed city
	Press for 2 seconds or more	To time adjustment mode	To calendar adjustment mode	To alarm setting mode	—	Set time quick adjustment	To zone setting mode
Ⓜ:Button Ⓜ	Press	To <CAL> mode	To <AL1> mode	To <CHR> mode	To <TMR> mode	To <SET> mode	To <TME> mode
a : Mode display		TME	CAL	AL1/AL2	CHR	TMR	SET
b : Digital display [1]		Hours, minutes, seconds	Month, date	Hours, minutes or OFF	Minutes, seconds, 1/100 seconds	Remaining time (Minutes, seconds)	Hours, minutes, seconds
c : Digital display [2]		City name	Day or name of cities	City name	Hours	Set time (minutes)	City name
d : Crown		Used for analog time setting					
e : Hour hand		Always time (hours) display					
f : Minute hand		Always time (minutes) display					
g : Second hand		Always time (seconds) display					

3. Switching Modes (Functions)

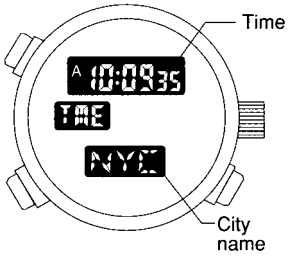
In addition to the time mode, this watch has six other modes (functions): Calendar, Alarm 1, Alarm 2, Chronograph, Timer and Zone Setting. Each press of the Ⓜ button switches the mode in the following sequence.



Display	Mode
TME	Time
CAL	Calender
AL1	Alarm 1
AL2	Alarm 2
CHR	Chronograph
TMR	Timer
SET	Zone Setting

* If the watch is left in the Alarm 1, Alarm 2, or Zone Setting mode for approximately 2 minutes, it automatically returns to the time mode <TME>.

4. Displaying the Time and Calendar of Cities Worldwide



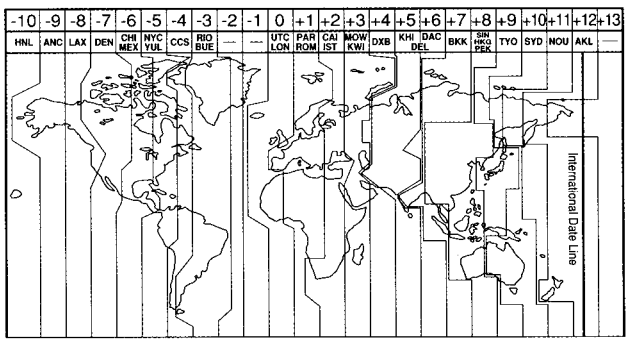
1. Press the Ⓜ button to select the <TME> mode or <CAL> mode.
2. Each time the Ⓜ button is pressed, a city's name and its time (calendar) are displayed sequentially. Cities can be displayed in the order No. 2 → 3...31 → 1 → 2 (eg., LON → UTC → BUE...PAR → LON).

To switch to the opposite display sequence, press the Ⓐ button and the Ⓑ button simultaneously.

The Time Difference Between the Cities and UTC Time

No.	Indication	City	Time differnce	Summer-time	No.	Indication	City	Time differnce	Summer-time
1	UTC	Universal time coordinated	±0	–	17	TYO	Tokyo	+9	×
2	LON	London	±0	○	18	SYD	Sydney	+10	○
3	PAR	Paris	+1	○	19	NOU	Nouméa	+11	×
4	ROM	Rome	+1	○	20	AKL	Auckland	+12	○
5	CAI	Cairo	+2	○	21	HNL	Honolulu	-10	×
6	IST	Istanbul	+2	○	22	ANC	Anchorage	-9	○
7	MOW	Moscow	+3	○	23	LAX	Los Angeles	-8	○
8	KWI	Kuwait	+3	×	24	DEN	Denver	-7	○
9	DXB	Dubai	+4	×	25	CHI	Chicago	-6	○
10	KHI	Karachi	+5	×	26	MEX	Mexico City	-6	×
11	DEL	New Delhi	+5.5	×	27	NYC	New York	-5	○
12	DAC	Dacca	+6	×	28	YUL	Montreal	-5	○
13	BKK	Bangkok	+7	×	29	CCS	Caracas	-4	×
14	SIN	Singapore	+8	×	30	RIO	Río de Janeiro	-3	○
15	HKG	Hong Kong	+8	×	31	BUE	Buenos Aires	-3	×
16	PEK	Beijing	+8	×					

As of 1997



* Cities (regions) with summertime are indicated by the O symbol, and cities (regions)with no summertime system are indicated by the X symbol.
* Please note that time difference and summertime for cities are subject to change.

5. EL Illumination Function

<What is EL?>

Electroluminescence is a physical phenomenon whereby electrical voltage is directly converted into light in a thin film solid. This watch utilises an EL panel for the illuminating function

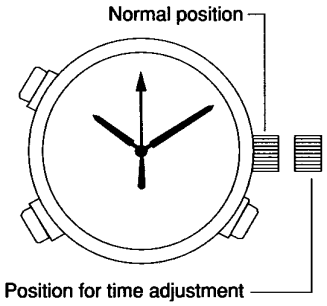
<How to Light the Illumination>

The EL illumination comes on in the following situations.

1. When the Ⓐ button is pressed during the normal <TME> mode, <CAL> mode, or <SET> mode displays.
2. During split time display or stop in the <CHR> mode.

6. Setting the Analog Time

In the case of watches where the crown is a screw type, perform the operation after loosening the screw. Make sure to tighten the screw firmly when the operation has been completed.

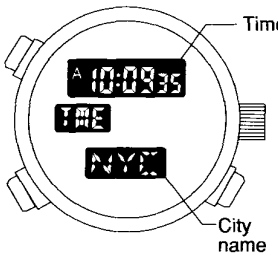


1. When the second hand comes to the 0-second position, pull the crown out to the position for time adjustment.
2. Turn the crown to align with the correct time.
3. Return the crown to its normal position.

7. Setting the Digital Time <TME>

When the time is set for one of the 30 cities and UTC (Universal time coordinated) time, the time is automatically set for the cities.

<Normal time display>



What is summertime?
Summertime or "Daylight Saving Time: DST" has been inaugurated in many countries in order to efficiently utilise daylight by advancing the clock a certain amount of time, in relation to the normal time, during the summer. (This watch advances the time by 1 hour.)

1. Press the Ⓜ button to select the <TME> mode.
2. Press the Ⓑ button to display the city whose time you want to adjust.
3. Press and hold the Ⓑ button for 2 seconds or more. "S.T. (Summertime abbreviation)" and "ON" or "OFF" flashes. Press the Ⓐ button to select summertime (ON) or (OFF) for the city.
4. Each time the Ⓑ button is pressed, the flashing figures change in this sequence [Summertime Seconds → Minutes → Hour → 12 hours/24 hours] sequence. Make the figures that you want to adjust flash.

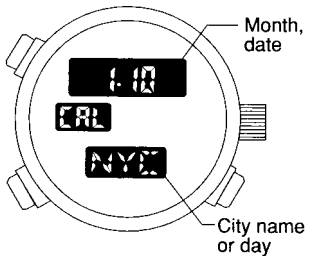
5. Press the Ⓐ button to adjust. (The flashing figures can be adjusted.)
   If the Ⓐ button is kept pressed, the setting changes quickly.
6. Press the Ⓜ button to return to the normal time display.

* When running in the 12-hour system, pay attention to the morning (A) and the afternoon (P) indicators.
* The set mode (flashing display) will automatically revert to the normal display if left for two minutes with no input.
* Summertime can be set for any city. The Summertime setting is interlocked with all modes so that the <AL1>, <AL2> and <SET> modes of a city for which Summertime is selected, will also indicate the time according to the Summertime.

8. Using the Calendar <CAL>

Adjusting the calendar for one of the 30 cities and UTC time will automatically adjust for the remaining cities.

<Normal calendar display>



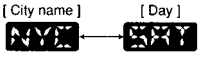
<Adjusting the Calendar>

1. Press the Ⓜ button to move to the <CAL> mode.
2. Press the Ⓑ button to display the city whose calendar you want to adjust.
3. Press and hold the Ⓑ button for 2 seconds or more, the “month” starts flashing.
   Press the Ⓐ button to adjust the “month”. (The flashing figures can be adjusted.)
4. Each time the Ⓑ button is pressed, the flashing figures change in this sequence [Month → Day → Year]. Make the item that you want to adjust flash.
5. Press the Ⓐ button covers adjust. (If the Ⓐ button is kept pressed, the setting changes quickly.)
6. Press the Ⓜ button to return to the normal calendar display.

* The calendar covers the years 1995 thru 2099.
* The automatic calendar eliminates any need to adjust the watch at the end of the month or for leap years.
* The day is automatically adjusted when the month, date and year are adjusted.
* The calendar adjustment mode (flashing display) will automatically return to the normal display if left for about two minutes with no input.
* If a non existing date (e.g. February 30) is set, the date will automatically reset to the first of the next month once display returns to normal.

<Changing the Display>

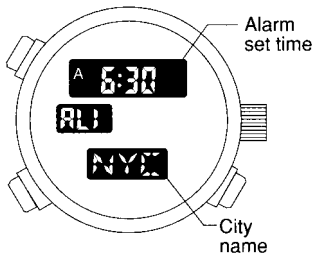
Press the Ⓑ button for more than 2 seconds to switch between city display and day display.



9. Using the Alarm <AL-1/AL-2>

Setting and operation of the Alarm 1 and Alarm 2 are the same, only the sound of the alarm is different. Once you turn the alarm on, it will sound for 20 seconds at the same time each day.

<Normal alarm display>



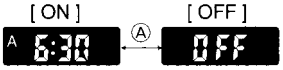
<Setting the Alarm>

1. Press the Ⓜ button to select the <AL1> or <AL2> mode.
2. Press the Ⓑ button to display the time of the city for which you want to set the alarm.
3. Press and hold the Ⓑ button for 2 seconds or more, the “hour” display will start flashing. The flashing item can be adjusted. Press the Ⓐ button to adjust the “hour”. (If the Ⓐ button is kept pressed, the setting changes quickly.)
4. Press the Ⓑ button while the “hour” is flashing to make the “minute” display flash instead. Press the Ⓐ button to adjust.
5. Press the Ⓜ button to return to the normal alarm display.

* While in the alarm mode you can sound the alarm continuously for as long as you keep the Ⓐ button pressed (Alarm sound monitor function)
* When you are using the 12-hour system, the alarm time will also run according to the 12-hour system. Watch the AM/PM indicator to confirm that you have made the setting you want.
* The alarm mode will automatically return to the normal display if left for about two minutes with no input.

<Switching the Alarm Function On and Off>

Press the Ⓐ button while in the alarm mode to switch the alarm between on and off.



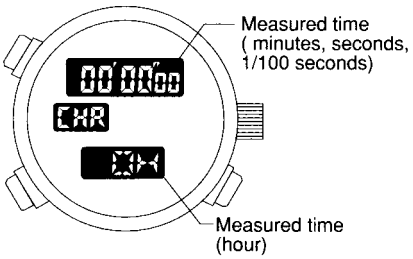
<How to Stop the Alarm Sound>

Press any button to stop the alarm while sounding.

10. Using the Chronograph <CHR>

This chronograph measures times of up to 23 hours 59 minutes 59 seconds and 99/100 seconds in units of 1/100 second. On reaching 24 hours of elapsed time, it resets to zero (0:00’00”) and stops. It can also measure split times (intermediate elapsed times).

<Chronograph reset display>

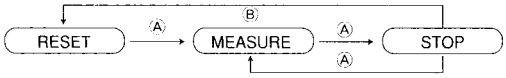


• About the confirmation sound

A confirmation sound will be heard when the chronograph is started, stopped, and at the time of split and reset operators.

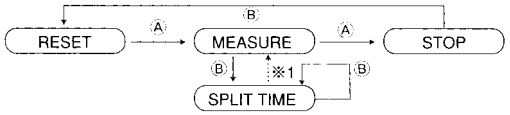
<Accumulative Time Measurement>

1. Each time the Ⓐ button is pressed, the chronograph is switched between start and stop.
2. Press the Ⓑ button to reset while the chronograph is stopped.



<Split Time Measurement>

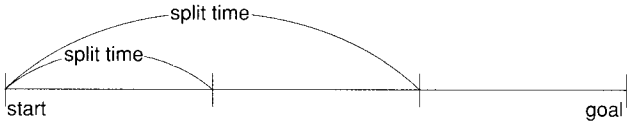
1. Each time the Ⓐ button is pressed between start and stop.
2. Press the Ⓑ button while the chronograph is measuring to display the split time for about ten seconds. (The “SPL” indicator will flash while the split time is displayed.)
   Each time the Ⓑ button is pressed, the newest split time is displayed.
3. Press the Ⓑ button to reset while the chronograph is stopped.



※ 1 : After 10 seconds, automatically returns to the measuring display.

<Switching the Mode During Chronograph Measuring>

Even if the Ⓑ button is pressed and the mode is switched while the chronograph is measuring, the measurement will continue. When you return to the <CHR> mode, the measured time is again displayed.

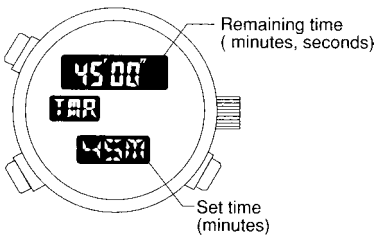


What is split time: Intermediate elapsed times from the start.

11. Using the Timer <TMR>

You can set the timer of a whole minute up to 99 in one minute increments. At “time up” (when the set time has elapsed), the time-up alarm sound for five seconds and the watch returns to the timer set time.

<Timer set display>

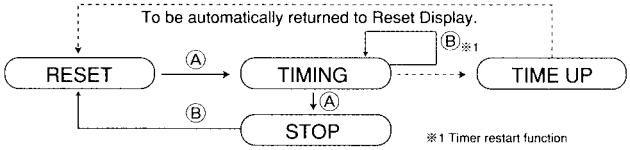


<How to Set the Timer>

1. Press the Ⓜ button to move to the <TMR> mode.
2. Each time you press the Ⓑ button, the set time will increase by one minute. (If the Ⓑ button is kept pressed, the setting changes quickly.)

<How to Use the Timer>

1. Each time the Ⓐ button is pressed, the timer is switched between start and stop.
2. Press the Ⓑ button to revert to set time while the timer is stopped.



If you press the Ⓑ button while the timer is running, the time is reset to the set time and the timer is automatically restarted. (Timer restart function)

• About the confirmation sound

While in the timer mode, a confirmation sound will be heard when the timer is started, stopped, and restart operations.

<Switching the Mode During Timer Running>

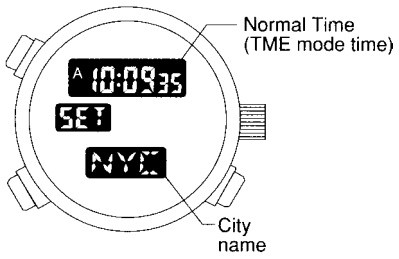
Even if the Ⓑ button is pressed, and the mode is changed while the timer is running, the timer countdown will continue. When you return to the <TMR> mode, the countdown time is again displayed.

12. Using the Zone Setting <SET>

In the zone setting mode, you can select the cities that you want to display from among the 30 cities and the UTC time that this watch is capable of displaying, and you can set Summertime for each of these cities.

This allows you to easily recall and display only the cities that have been set (to ON) in any mode.

<Normal zone setting display>



<How to Zone Settings>

1. Press the Ⓜ button to move to the <SET> mode.
2. Press the Ⓑ button to recall the city that you want to set.
3. When the Ⓑ button is pressed for more than 2 seconds, the “ON” or “OFF” and the “City name” will flash.
   Press the Ⓑ button to select whether the city should be displayed (ON) or not (OFF).
4. When the Ⓑ button is pressed while the “city name” and “ON” or “OFF” are flashing, the ‘‘S.T. (Summertime symbol)’’ and ‘‘PM’’ or ‘‘OFF’’ will start flashing. Press the Ⓑ button to select whether Summertime should be set (ON) or cancelled (OFF).

* To set other cities, press the Ⓑ button again to move to the adjustment mode for the next city. Follow the same procedure in sequence to set each of the desired cities.

5. When all the desired cities have been set, press the Ⓑ button again to return to the normal zone setting display.

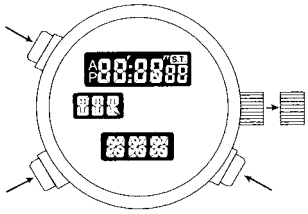
* The zone setting adjustment mode (flashing display) will automatically return to the normal display if left for more than two minutes with no input.

13. When These Problems Occur...
<The Watch Shows Abnormal Display>
When the battery life is close to expiring, the display or functions may become abnormal.
When these problems occur, replace the battery as soon as possible.
In rare cases, a strong impact, etc. may cause the display or functions to become abnormal (no display, alarm sounds incessantly, etc). In this case, perform the All-Reset operation by referring to “14. All-Reset Operation”.

<Following Battery Replacement>
After the battery has been replaced, perform the All-Reset operation by referring to “14. All-Reset Operation”.

14. All-Reset Operation

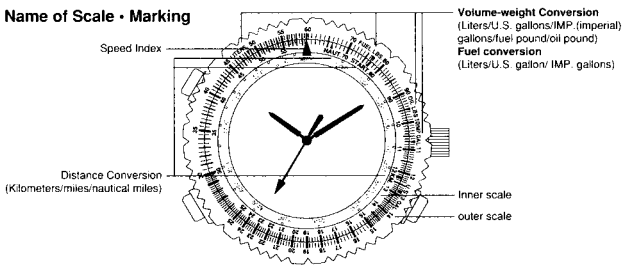
1. Pull the crown out.
2. Press the three buttons Ⓐ, Ⓑ and Ⓜ simultaneously. (While pressed, there will be no display.)
3. Release the buttons. (All the display segments will appear.)
4. Push the crown in. (At this point, a monitor sound is heard.)



This completes the all-reset operation. Set each mode correctly before using the watch.

15. How to Handle the Calculating Functions Some are not equipped with this function depending on the model.

Note the points below when using this function.
- Use the calculating functions of this watch as a guideline only.
- This scale cannot be used for position of the decimal point.



A. Navigational calculation

1. Time required
Example Obtain the time required for the flight of an aircraft at 180 knots for 450 nautical miles.
Answer Align “18” on the outer scale with the SPEED INDEX (▲) on the inner scale. Then, “45” on the outer scale corresponds to “2:30” on the inner scale (time scale). Thus, the time required for the flight is 2 hours and 30 minutes.

2. Knots (air speed)
Example Obtain the knots (air speed) for 240 nautical miles with a flight time of 1 hour and 20 minutes.
Answer Align “24” on the outer scale with “1:20” on the inner scale (time scale).
Then, SPEED INDEX (▲) on the inner scale corresponds to “18” on the outer scale. Thus, the air speed for the flight is 180 knots.

3. Flight distance
Example Obtain the air distance when the air speed is 210 knots and the flight time is 40 minutes.
Answer Align “21” on the outer scale with the SPEED INDEX (▲) on the inner scale.
Then, “40” on the inner scale corresponds to “14” on the outer scale. Thus, the air distance of the flight is 140 nautical miles.

4. Rate of fuel consumption
Example Obtain the rate of fuel consumption (gallons/hour) when the flight time is 30 minutes and the fuel consumption is 120 gallons.
Answer Align “12” on the outer scale with “30” on the inner scale. Then, the SPEED INDEX (▲) on the inner scale corresponds to “24” on the outer scale. Thus, the fuel consumption is 240 gallons per hour.

5. Fuel consumption
Example Obtain the fuel consumption required for a flight when the fuel consumption is 250 gallons per hour and the flight time is 6 hours.
Answer Align “25” on the outer scale with the SPEED INDEX (▲) on the inner scale.
Then, “6:00” on the inner scale (time scale) corresponds to “15” on the outer scale. Thus, the fuel consumption is 1,500 gallons.

6. Estimated flight time
Example Obtain the estimated flight time when the fuel consumption is 220 gallons per hour and the aircraft has 550 gallons of fuel.
Answer Align “22” on the outer scale with the SPEED INDEX (▲) on the inner scale.
Then, “55” on the outer scale corresponds to “2:30” on the inner scale (Time Scale). Thus, the estimated flight time is 2 hours and 30 minutes.

7. Difference in altitude

The difference in altitude can be obtained from the descent rate and the descent time.

Example Obtain the difference in altitude when the aircraft continues descending for 23 minutes at a rate of 250 feet per minute.

Answer Align “25” on the outer scale with “10” on the inner scale. Then, “23” on the inner scale corresponds to “57.5” on the outer scale. Thus, the difference in altitude is 5,750 feet.

8. Rate of climb (or descent)

The rate of climb or descent can be obtained from the time required to reach an altitude.

Example Obtain the rate of climb when the aircraft reaches an altitude of 7,500 feet after climbing for 16 minutes.

Answer Align “75” on the outer scale with “16” on the inner scale.Then, “10” on the inner scale corresponds to “47” on the outer scale. Thus, the rate of climb is 470 feet per minute.

9. Time of climb (or descent)

The time required for climb can be obtained from the altitude to be reached and the rate of climb (or descent).

Example Obtain the time of climb when an aircraft is to climb to 6,300 feet at the rate of 550 feet per minute.

Answer Align “55” on the outer scale with “10” on the inner scale.Then, “63” on the outer scale corresponds to “11.5” on the inner scale. Thus, the time of climb is 11 minutes and 30 seconds.

10. Conversion

Example Convert 30 statute miles into nautical miles and kilometres.

Answer Align “30” on the outer scale with STAT (▲) on the inner scale.Then, NAUT (▲) on the inner scale corresponds to “26” nautical miles on the outer scale, and km(s) on the inner scale corresponds to “48.2” km on the outer scale.

11. Fuel Conversion

Example Convert 16.8 US gallons into litres.

Answer Align “16.8” on the inner scale with U.S GAL (▲) on the outer scale.Then, LITRES (▲) on the outer scale corresponds to “63.5” litres on the inner scale. (1 U.S. gallon = 3.78541 litres)

The same method can be applied to the conversions of U.S. gallons → IMP. gallons / litres → U.S gallons / litres → IMP. gallons / IMP. gallons → U.S gallons / IMP. gallons to litres.

12. Volume – weight conversions (fuel pounds to U.S. gallons, U.K gallons and litres)

Example Convert 13.1 fuel pounds into U.S gallons, IMP. (imperial) gallons and litres.
(1 fuel pound = 0.167 U.S gallon = 0.139 IMP. gallon = 0.632 litres.

Answer Align “13.4” on the inner scale with FUEL LBS (▲) on the outer scale.Then, U.S. GAL (▲) on the outer scale corresponds to “21.8(2.18 U.S. gallons)” on the inner scale. Then IMP. GAL (▲) on the outer scale corresponds to “18. 2 (1.82 IMP. gallons)” on the inner scale, and LITRES. (▲) on the outer scale corresponds to “82.7 (8.17 litres)” on the inner scale.

The same method can be applied to the conversions of U.S gallons → fuel pound, IMP. gallons, litres / IMP. gallons → fuel pound, U.S. gallons, litres / litres → fuel pound, IMP. gallons, U.S. gallons.

13. Volume – weight conversions (oil pounds to U.S. gallons, U.K gallons and litres)

Example Convert 16.4 oil pounds into U.S gallons, IMP. (imperial) gallons and litres.
(1 oil pound = 0.133 U.S gallon = 0.111 IMP. gallon = 0.503 litres.

Answer Align “16.4” on the inner scale with U.S GAL (▲) on the outer scale.Then, U.S. GAL (▲) on the outer scale corresponds to “21.8 (2.18 U.S. gallons)” on the inner scale. Then IMP. GAL (▲) on the outer scale corresponds to “18.2 (1.82 IMP. gallons)” on the inner scale, and LITRES. (▲) on the outer scale corresponds to “82.7 (8.17 litres)” on the inner scale.

The same method can be applied to the conversions of U.S gallons → oil pound, IMP. gallons, litres / IMP. gallons → fuel pound, U.S. gallons, litres / litres → fuel pound, IMP. gallons, U.S. gallons.

B. General Calculation Functions

1. Multiplication

Example 20 x 15

Answer Align “20” on the outer scale with “10” on the inner scale. Then, “15” on the inner scale corresponds to “30” on the outer scale. Take into account the position of the decimal point and add one zero to obtain 300. Note that with the scales of this watch, the position of the decimal point cannot be obtained.

2. Division

Example 250 / 20

Answer Align “25” on the outer scale with “20” on the inner scale. Then, “10” on the inner scale corresponds to “12.5” on the outer scale. Take into account the position of the decimal point to obtain 12.5.

3. Proportion

Example 30/20 = 60/x

Answer Align “30” on the outer scale with “20” on the inner scale. Then, “60” on the outer scale corresponds to “40” on the inner scale. At this point, the proportion for every value on the inner and outer scales is 30:20.

16. Precautions

The unit “bar” is roughly equal to 1 atmosphere

Indication		Specifications	Examples of use				
							
Dial	Case (Case back)		Minor exposure to water (washing face, rain, etc.)	moderate exposure to water (washing, kitchen, work swimming, etc.)	Marine sports (skin diving)	Scuba diving (with air tank)	Operation of the crown with moisture visible
No indication	WATER RESIST(ANT)	Water-resistant to 3 atmospheres	OK	NO	NO	NO	NO
WATER RESIST 5 bar or no indication	WATER RESIST(ANT) 5 bar	Water-resistant to 5 atmospheres	OK	OK	NO	NO	NO
WATER RESIST 10/20 bar or no indication	WATER RESIST(ANT) 10/20 bar	Water-resistant to 10/20 atmospheres	OK	OK	OK	NO	NO

CAUTION: Water-resistance performance

There are several types of water-resistant watches, as shown in the following table. For correct use within the design limits of the watch, confirm the level of water-resistance of your watch, as indicated on the dial and case, and consult the table. The unit “bar” is roughly equal to 1 atmosphere.

- Water-resistance for daily use (to 3 atmospheres): This type of watch is water-resistant to minor exposure to water. For example, you may wear the watch while washing your face; however, it is not designed for use under water.
- Upgraded water-resistance for daily use (to 5 atmospheres): This type of watch is water-resistant to moderate exposure to water. You may wear the watch while swimming; however, it is not designed for use while skin diving.
- Upgraded water-resistance for daily use (to 10/20 atmospheres): This type of watch may be used for skin diving; however, it is not designed for scuba or saturated diving using helium gas.

CAUTION

- Be sure to use the watch with the crown pressed in (normal position). If your watch has a screw-type crown, be sure to tighten the crown completely.
- Do NOT operate the crown with wet fingers or when the watch is wet. Water may enter the watch and compromise water-resistance.
- If the watch is used in seawater, rinse with fresh water afterward and wipe with a dry cloth.
- If moisture has entered the watch, or if the inside of the crystal is fogged up and does not become clear in a day, immediately take the watch to your dealer or Citizen Service Centre for repair. Leaving the watch in such a state will allow corrosion to form inside.
- If seawater enters the watch, place the watch in a box or plastic bag and immediately take it in for repair. Otherwise, pressure inside the watch will increase, and parts (crystal, crown, buttons, etc.) may come off.

CAUTION: Keep your watch clean

- Leaving dust and dirt deposited between the case and the crown may result in difficulty in pulling the crown out. Rotate the crown while in its normal position, from time to time, to loosen dust and dirt and then brush it off.
- Dust and dirt tend to be deposited in gaps in the back of the case or band. Deposited dust and dirt may cause corrosion and soil your clothing. Clean the watch occasionally.

Cleaning the Watch

- Use a soft cloth to wipe off dirt, perspiration and water from the case and crystal.
- Use a soft, dry cloth to wipe off perspiration and dirt from the leather band.
- To clean a metal, plastic, or rubber watchband, wash away dirt with mild soap and water. Use a soft brush to remove dust and dirt jammed in the gaps in the metal band. If your watch is not water-resistant, take it to your dealer.

NOTE: Avoid using solvents (thinner, benzine, etc.), as they may mar the finish.

WARNING: Handling of the battery

- Keep the battery out of the reach of small children. If a child swallows the battery, contact a physician immediately.

CAUTION: Replacing the battery

- For replacement of the battery, take your watch to your dealer or Citizen Service Centre.
- Replace the battery as soon as possible if the service life of the battery has expired. Leaving a depleted battery in the watch may result in leakage, which can damage the watch severely.

CAUTION: Operating environment

- Use the watch within the operating-temperature range specified in the instruction manual.
  Using the watch where temperatures are outside the specified range, may result in deterioration of functions or even stoppage of the watch.
- Do NOT use the watch in places where it is exposed to high temperature, such as in a sauna.
  Doing so may result in a skin burn.
- Do NOT leave the watch in a place where it is exposed to high temperatures, such as the glove compartment or dash-board of a car.
  Doing so may result in deterioration of the watch, such as deformation of plastic parts.
- Do NOT place the watch close to a magnet.
  Timekeeping will become inaccurate if you place the watch close to magnetic health equipment such as a magnetic necklace or a magnetic latch of a refrigerator door or handbag clasp or the earphone of a mobile phone. If this has occurred move the watch away from the magnet and reset the time.
- Do NOT place the watch close to household appliances that generate static electricity.
  Timekeeping may become inaccurate if the watch is exposed to strong static electricity, such as is emitted from a TV screen.
- Do NOT subject the watch to a strong shock such as dropping it onto a hard floor.
- Avoid using the watch in an environment where it may be exposed to chemicals or corrosive gases.
  If solvents, such as thinner and benzine, or substances containing such solvents come in contact with the watch, discolouration, melting, cracking, etc. may result. If the watch comes in contact with mercury used in thermometers, the case, band or other parts may become discoloured.

17. SPECIFICATIONS

1. Caliber No. C460
2. Type: Combination (Analog + Digital) quartz watch
3. Accuracy: Within ±20 sec/month (at normal temperature of +5°C/41°F to +35°C/95°F)
4. Operations Temperature Range:
0°C/32°F to +55°C/131°F
5. Functions:
- Time: Hours, minutes, city name, summertime switch function
- Calendar: Month, date, day, city name
- Alarm1/Alarm2
- Chronograph: 24-hour measurement (1/100 second units), split time measurement
- Timer: 99 minutes system (1 minute unit)
- Zone setting

6. Additional Functions: EL lamp function
7. Applicable Battery: No.280-44, battery code: SR927W
8. Battery Life: Approx. 2 years (Conditions: 40-second alarm sound/day, 5-second timer time up sound/day, 3-second EL lamp function/day)

- A new battery should be able to support stable accuracy for about 2 years when used under normal circumstances (conditions described above). However, battery life will differ with the conditions of the use of the alarm, chronograph, EL lamp, etc.

- Specifications are subject to change without notice.

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.

See instruction book for further information

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.