## CITIZEN QUARTZ <br> WINGMAN V

Model No. JQ2XXX/ CaI. No. C420

## CTZ-E6793



- Some models with different design are available

When reading this instruction manual please keep the watch diagram folded out and in view. Symbols used in the sections on operating instructions refer to the symbols indicated in this diagram.

Thank you for purchasing a CITIZEN QUARTZ WATCH. To ensure correct use, please read these instructions carefully. Please ensure that the Citizen International Guarantee Card is included for your possible claim.

## 1. FEATURES

Using the Zone Set Function, this watch shows the local time of 31 major cities of the world by simple operation of a button.
It also has the Electroluminesence Display which is visible in the darkness.

## 3. SETTING THE ANALOG TIME DISPLAY



1. Pull out the crown and stop the seconds hand.
2. Turn the crown and set the hands to the correct time.
3. Press back the crown to finalise the setting and start the watch.

How to adjust the watch to the correct time. Stop the seconds hand at the " 0 " position. Move the minutes hand to a few minutes past the time you want to set, then move it back to the correct time. Press the crown back synchronising to the correct time.
4. MODE SELECTION OF THE DIGITAL DISPLAY This watch offers the following 7 functions beside the Time; Calendar, Alarm-1, Alarm-2, Chronograph, Timer, Zone Set and UTC (Greenwich Time) Monitor. The watch can be set to those modes in the above order by pressing the M button.


| Display | Function |
| :---: | :--- |
| TME | Time |
| CAL | Calendar |
| AL-1 | Alarm-1 |
| AL-2 | Alarm-2 |
| CHR | Chronograph (Stopwatch) |
| TMR | Timer |
| SET | Zone Set |
| UTC | UTC (Greenwich Time) |

- The Auto-return to the Time mode will be activated when the watch is left in the Alarm-1, Alarm-2, or Zone Set mode for more than 2 minutes without any operation.


## 2. PARTS NAME AND FUNCTION

| Parts name | Time mode | Calendar mode | Alarm 1/2 mode | Chronograph mode | Timer mode | Zone set mode | UTC mode |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quto Press once | EL illuminated |  | Switching ON/OFF | Start/stop |  | EL illuminated |  |
| Press 2secs. |  |  | Alarm sound monitor |  |  |  |  |
| Bbution Press once | City name change |  |  | Split'reset | - | City name change |  |
| Press 2secs. | Time adjustment | Calendar adjustment | Alarm set | -- | Timer set | Zone set |  |
| (19) button Press | Changes to the next mode |  |  | Changes to the next mode |  |  |  |
| A: Mode display | TME | CAL | AL-1/AL-2 | CHR | TMR | SET | UTC |
| B: Digital display-1 | Hours, Minutes, Sec. | Month,Date,Day | Hours,Minutes, ON/OF | Hours, Minutes, Sec. | Remaining time | Hours, Minutes, Sec. | Hours, Minutes, Sec. |
| C: Digital display-2 | City name |  |  | 1/1000 sec. | Set time | Cty name | UTC |
| D: (Abution function indic. | LIG |  | SET | START | -- | LIGHT |  |
| E : © Button function indic. | SEL,UP/DOWN |  |  | - | SEL | SEL,UP/DOWN | $\cdots$ |
| F: М1 bution function indic. | MODE |  |  | MODE |  |  |  |
| G: Crown | Analog time setting |  |  | Analog time setting |  |  |  |
| H: Hour hand | Always hours indicated |  |  | Always hours indicated |  |  |  |
| 1: Minute hand | Always minutes indicated |  |  | Always minutes indicated |  |  |  |
| J: Second hand | Always second indicated |  |  | Always second indicated |  |  |  |


5. FUNCTION INDICATOR FOR BUTTONS OPERATION

| No. | Indica tion | City | $\begin{gathered} \text { Time } \\ \text { differnce } \end{gathered}$ | $\begin{gathered} \text { Summar } \\ \text { time } \end{gathered}$ | NO. | $\begin{gathered} \hline \text { Indica } \\ \text { tion } \\ \hline \end{gathered}$ | City | $\begin{array}{c\|} \text { Time } \\ \text { differnce } \end{array}$ | $\begin{gathered} \hline \text { Summer. } \\ \text { time } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | UTC | Universal time | $\pm 0$ | -- | 17 | TYO | Tokyo | +9 | $\times$ |
| 2 | LON | London | $\pm 0$ | O | 18 | SYD | Sydney | +10 | $\cdots$ |
| 3 | PAR | Paris | +1 | 0 | 19 | NOU | Noumea | +11 | $\times$ |
| 4 | ROM | Rome | +1 | 0 | 20 | AKL | Auckland | +12 | $\bigcirc$ |
| 5 | CAI | Cairo | +2 | $\cdots$ | 21 | HNL | Honolulu | -10 | $\times$ |
| 6 | IST | Istanbul | +2 | $\bigcirc$ | 22 | ANC | Anchorage | -9 | 0 |
| 7 | MOW | Moscow | +3 | $\bigcirc$ | 23 | LAX | Los Angeles | -8 | 3 |
| 8 | KWI | Kuwait | +3 | $\times$ | 24 | DEN | Denver | -7 | - |
| 9 | DXB | Dubai | +4 | $\times$ | 25 | CHI | Chicago | -6 | 0 |
| 10 | KHI | Karachi | +5 | $\times$ | 26 | MEX | Mexico City | -6 | $\times$ |
| 11 | DEL | New Deihi | +5.5. | $\times$ | 27 | NYC | New York | -5 | 0 |
| 12 | DAC | Dacca | +6 | $\times$ | 28 | YUL | Montreal | -5 | 0 |
| 13 | BKK | Bangkok | +7 | $\times$ | 29 | CCS | Caracas | -4 | $\times$ |
| 14 | SIN | Singapore | +8 | $\times$ | 30 | RIO | Rio de Janeiro | -3 | $\bigcirc$ |
| 15 | HKG | Hong Kong | +8 | $\times$ | 31 | BUE | Buenos Aires | -3 | $\times$ |
| 16 | PEK | Beijing | +8 | $\times$ |  |  |  |  |  |

## As Of 1989




## 6. TIME DIFFERENCE BETWEEN THE LOCAL TIME AND THE UTC


7. MONITORING THE UNIVERSAL LOCAL TIME AND THE CALENDAR

1. Select the TIME or CALENDAR mode by pressing the M button.
2. Each time the $B$ button is pressed, the city name and its local time (or calendar) will be shown

- When the "UP" is shown on the display of button function, the city name will change forward each time the B
name will change backward.
- Press the $A$ and $B$ button simultaneously to switch the "UP" and "DOWN" indicator.
- The cities adopting the summertime are indicated with a circle mark (O), the non-adopting cities are indicated with a cross mark (X).
- The time difference between the UTC and summertime shown on the table may be changed practically according to each country's summertime system operation.


## 8. EL (ELECTROLUMINESCENCE) ILLUMINATION EL

EL (Electroluminescence) panel is a florescent panel which becomes illuminant when voltage is applied to it.

## EL Illumination

The EL panel will be illuminated under the following circumstances:

1. When pressing button A in time mode, calendar mode, zone set mode or UTC mode.
2. When displaying stop state or split time state in chronograph mode.
EL panel has the following characteristics.

- When the battery voltage decreases, so will the brightness.
- It is sensitive to dampness. In case the watch gets wet inside, have it serviced as soon as possible.
- Depending on the accumulative usage time of the EL (Emitting time), the brightness will decrease. If the emitting display starts to go dark, and the face becomes hard to read, take it to the shop from which you bought it, or the nearest Citizen Service Centre, and ask for the EL panel to be replaced or repaired. You will be charged for the service.


## 9. SETTING THE DIGITAL TIME DISPLAY (TME)

When the Local Time adjustment for a city is completed, the time of the other 31 cities will be automatically adjusted calculating time differences.


What is the "Summertime"
It is also called OST (Dayight Saving Time). The Summenme sysiom is in effoct in some oties advanoing the local satndard tme for certain hours to make a day trie more useful during the sumerer sesson (The Summerime set is acheped only by one hour adusiment on the watch.)

1. Set to the Time mode by pressing M button.
2. Press the B button to select the desired city name for adjustment.
3. The "ON" or "OF" indicator of the Summertime set will start flashing by pressing the $B$ button for about 2 seconds. Set the Summertime by pressing the A button while the indicator is flashing.
4. To adjust other Time displays, select the digits by pressing the $B$ button. The flashing digits will change in the order as shown in the diagram.
5. Adjust the flashing digits by pressing the A button.

Press and hold the A button for rapid advancement.


- Make sure that the AM/PM indicated is correct when setting the time to the 12 -hour display system.
- Auto-Return to the normal time display will activate when the watch is left in the adjustment mode for more the 2 minutes.
- The adjustment mode will be directly returned to the normal time display by pressing the M button.


## 10. SETTING THE CALENDAR DISPLAY (CAL)

When the local calendar adjustment for a city is completed, the calendar of other 31 cities will be adjusted automatically calculating time differences.


1. Set the Calendar mode by pressing the $M$ button.
2. Press the $B$ button to select a desired city for adjustment.
3. Press and hold the B button for 2 seconds or more. The Month digits will start flashing for adjustment. Month can be adjusted by pressing the A button.
4. To adjust other digits, press the $B$ button. The digits will change as shown on the diagram.
5. Adjust the flashing digits by pressing the A button. Press and hold the A button for rapid advancement.


- Year can be set from 1995 to 2099.
- Calendar is programmed to be set automatically, so the month-end adjustment is not required.
- Day of the week is automatically adjusted synchronising to Month, Date and Year settings.
- Auto-return to the normal display will activate when the watch is left in the adjustment mode for more than 2 minutes.
- When the Calendar is set to a non-existent date (e.g., February 30 ), the display will show automatically the first day of the next month when the display is returned to the normal position.


## 11. USING THE ALARM-1 AND ALARM-2 (AL-1/AL-2)

The operation of the Alarm-1 and Alarm-2 are the same except the alarm sound. Once the Alarm is set, it will ring every day at the set time.


## Alarm Setting

1. Set to the AL-1 or AL-2 mode by pressing the M button.
2. Select a city name to set the Alarm on each local time by pressing the B button.
3. Press and hold the B button for at least 2 seconds or more until the Hour digits start flashing for adjustment. Adjust the Hours by pressing the A button. Press and hold the A button for rapid advancement.
4. To adjust the Minutes digits, press the $B$ button to change the flashing digits. Adjust the Minutes by pressing the A button.
5. Press the $B$ button to complete setting, the display will return to the normal alarm display.

## Switching the Alarm ON/OFF

- Press the A button to switch the Alarm on/off in the Alarm mode.


## Alarm Sound

The Alarm will sound for about 20 seconds. Press any button to stop alarm sound.

- Alarm Monitoring: Press and hold the A button in the Alarm mode to monitor the alarm sound. The alarm will sound while the button is pressed.
- The Alarm time setting will be synchronised to the selection of 12-hour/24-hour system in the Time mode. Make sure that the AM/PM is set correctly when the 12 -hour system is selected.


## 12. USING THE CHRONOGRAPH (CHR)

This Chronograph can be measured up to 24 hours in $1 / 100$ second. The Chronograph Counter will automatically stop after 24 hours measurement and return to the reset state. This Chronograph also has the Split Time measurement function.


## Elapsed Time Measurement

1. Press the A button to start/stop the Chronograph. (Time measurement can be repeated to start/stop for any number of times by pressing the A button.)
2. Press the $B$ button to reset the Chronograph when the watch is in stop state.


## Split Time Measurement

1. Press the A button to start/stop the chronograph.
2. The Split Time will be shown with the flashing "SPLIT" mark for 10 seconds by pressing the B button while time measurement is continued. The Split Time will be shown for any number of times by pressing the B button.
3. To reset the Chronograph, press the $B$ button when the Chronograph is in the Stop state.


## 13. USING THE TIMER (TMR)

The Timer can be set up to 23 hours 59 minutes in 1 minute. The Alarm will sound to 5 seconds when the Timer Countdown reaches time-up. Thereafter the display will be reset to the set time.


Timer Correction Mode


## Setting The Timer

1. Set to the Timer mode by pressing the M button.
2. Press and hold the $B$ button for 2 seconds or more. The Hours digits will start flashing. Set the Hours by pressing the A button. Press and hold the A button for rapid advancement.
3. Press the $B$ button to switch for Minutes adjustment while the Hours digits are flashing. Adjust the Minutes by pressing the A button.
4. Press the B button again to complete the adjustment. The digit flashing will stop.

## Using The Timer

1. Press the A button to start/stop the Timer. (The start/stop of the Timer Countdown can be repeated for any number of times by pressing the A button.)
2. Reset the Timer by pressing the $B$ button while the Timer is in stop condition.

## Fly Back System

The Timer Countdown will be quickly restarted manually from the original setting by pressing the B button while the Timer is timing.

## 14. USING THE ZONE SET (SET)

The Zone Set is a function to preset the desired cities among the 31 cities of the world for the local time display. This makes it easier to monitor the Local Time of desired cities.


## Setting The Time Zone Monitor

1. Set to the Zone Set mode (SET) by pressing the $M$ button.
2. Select a desired city name for Zone Setting by pressing the B button.
3. Press the $B$ button again for 2 seconds or more. The "ON" or "OFF" mark and City Name will start flashing. Switch the zone set on or of by pressing the A button while one of these marks are flashing.
4. Press the B button for Summertime setting while the "ON" or "OFF" mark and City Name are flashing. Set the Summertime by pressing the A button.

- The Zone Set display will advance to the next city by pressing the $B$ button again. Repeat the same procedure for a multiple Time Zone Setting.

5. Press the B button to finalise the Zone Set. The display will return to the normal display and flashing will stop.

## 15. MONITORING THE UTC (GREENWICH MEAN TIME)



Set to the UTC mode for monitoring the Greenwich mean time by pressing the $B$ button. The UTC will always be shown in the 24 -hour display system.

## 16. BATTERY LIFE INDICATOR

This watch may show an irregular operation or display such as continued sounding or on display when the battery life draws near to an end. It is caused by the irregular operation of the IC chip with a low electric power, and is not an abnormality of the watch function itself. When this happens, replace the battery with a new one.

## 17. ALL-RESET FUNCTION

Use the All-Reset function to reset the watch when the battery has been newly replaced or the watch shows irregular operation or display such as continued sounding or no display because of a strong shock.

Operating procedures for the All-Reset Function


1. Pull out the crown.
2. Press and hold the $A, B$ and $C$ buttons simultaneously. All the digital displays will disappear while the buttons are pressed.
3. Release the buttons and all the segment of digital displays will reappear.
4. Push back the crown to the normal position to finalise the All-Reset. The buzzer will sound in confirmation.
5. The watch will be ready for use after adjusting the displays in each mode.

## 18. USING THE CALCULATOR

Please observe the following points during operation.

- Use the calculator function only as approximate indicators.
- The calculator scale does not indicate decimal places.


1) Navigation Calculator

## - Calculation of time required



## Problem:

How long does it take an airplane flying at 180 knots to fly a distance of 450 nautical miles?

## Solution:

Set the 18 mark on the outside scale to the SPEED
INDEX ( $\mathbf{\Delta}$ ). At this time, the point on the inside scale that is aligned with 45 on the outside scale indicates (2.30), and the answer is 2 hours and 30 minutes.

## - Flying distance calculation



## Problem:

What is the flying distance in 40 minutes at a speed of 210 knots?

## Solution:

Align the 21 on the outside scale with the SPEED $\operatorname{INDEX}(\mathbf{\Delta})$ of the inside scale. The 40 of the inside scale is now pointing to 14 , and the answer is 140 nautical miles.

## 2. General Calculation Functions

## - How to multiply



## Problem:

$20 \times 15(\log 25+\log 15)$

## Solution:

Align 20 on the outside with 10 on the inside scale, and read the outside at the 30 mark which is aligned with 15 of the inside scale. Figure the number of decimal places, and the answer is 300 . Remember, decimal values can not be read on this scale.

## 3. Distance conversion function



## Problem:

How do you convert 10 miles into kilometres?

## Solution:

Align the ( $\cdot$ ) mark on the conversion scale (miles) to 10 for the value desired to be converted on the logarithmic scale. The value (roughly 16.1) corresponding to the ( + ) mark on the conversion scale (kilometres) is the converted value ( 1 mile = 1.60 kilometres).
(conversion of miles $\rightarrow$ nautical miles, kilometres $\rightarrow$ miles, kilometres $\rightarrow$ nautical miles, nautical miles $\rightarrow$ miles and nautical miles $\rightarrow$ kilometres can be performed in the same manner.)

## 19. Precautions

## 1) Resistance to water

Refer to the table for water-resistance performance after checking the water-resistance characteristics inscribed on the face and back of the watch.

- Always set the crown in the normal position.
- While working with water and using as a waterresistant sports watch, when the watch is dipped in sea water or after a lot of sweat, please rinse it well in fresh water and dry it with a cloth.
- Leather straps have characteristics that may affect their durability after getting wet.
- Because there is always moisture inside the watch, when the air temperature is lower than inside the watch, the surface of the glass may fog. If fog remains temporarily there is no problem, but if it doesn't disappear after a long period of time, please consult the shop from which you purchased it or a shop dealing with Citizen watches.


## 2) Avoid temperature extremes

Avoid leaving your watch in direct sunlight or in extremely warm locations for long periods of time.

- This will cause malfunctioning and shorten the life of the battery.
Do not leave your watch for long periods of time in extremely cold places.
- This may cause your watch to gain or lose time.
- Place your watch on your wrist to restore its original accuracy should it begin to gain or lose time.


## 3) Avoid wet conditions

Do not operate the buttons when your watch is wet.

## 4) Avoid strong shock

This watch will withstand the bumps and jars normally incurred while playing and during sports activities. Avoid dropping your watch on the ground or otherwise imparting severe shock to it.

## 5) Avoid strong magnetic fields

Keep your watch out of the immediate vicinity of strong magnets.
Generally, your watch is not affected by magnetic fields from such household appliances as television sets and stereo equipment.


## 6) Static Electricity

The integrated circuits used in the watch are sensitive to static electricity. If exposed to intense static electricity, the watch's display may lose its accuracy.
7) Avoid harmful chemicals, solvents and gases Avoid wearing your watch in the presence of strong chemicals, solvents and gases. If your watch comes in contact with materials such as gasoline, benzine, paint thinner, alcohol, spray cosmetics, nail polish, nail polish remover, adhesives or paint, discolouration, deterioration or damage to the case, band and other components may occur.

## 8) Photosensitive eyeglasses

The watch digital display can become difficult to read clearly when wearing photosensitive eyeglasses or sunglasses such as ski goggles and tinted fishing glasses. This problem can be corrected by turning your wrist slightly to change the angle between the eye and watch providing a clear view of the display.

## 9) Keep your watch clean

Wipe off any water and moisture that adheres to the case, glass and band with a soft, clean cloth. Any dirt left on the case or band may cause skin rash.
A watch band will easily become soiled with dust and perspiration because it is in direct contact with the skin. Even a stainless steel or gold-plated band may begin to corrode if it has not been cleaned for a long period of time. Mesh bands, because the meshes are very fine, will lose their particular "flexibility" if they are left soiled for a long time.
Metal watch bands are usually washed with a brush in mild, soapy water and wiped with a soft cloth to make sure all water is removed. Pay attention to prevent any water from getting inside your watch when the watch band is washed.

## 10) Periodic inspection

Getting your watch checked once every year or two is recommended to ensure long use and trouble-free operation.

## 11) Watch bands

Metal bands: Metal watch bands can be cleaned with a toothbrush, soap and water.
Leather bands: Wipe off the front side of the band with a soft dry cloth, and remove stains on the back side of the band with a cloth moistened with alcohol. Plastic and rubber bands: Wash in water. (Avoid using solvents as they may cause the band to dissolve.)
12) Be sure to keep the batteries out of reach of infants and small children. Should accidental ingestion occur, consult a doctor at once.

## 20. Specifications (Cal. No. C420)

1) Type: Combination display quartz watch.
2) Accuracy: $\quad \pm 20$ seconds per month at $5-35^{\circ} \mathrm{C}$ (41-95 ${ }^{\circ}$ ).
3) Operating temperature range:
$0-55^{\circ} \mathrm{C}\left(32-131^{\circ} \mathrm{F}\right)$.
4) Display functions:

Time: Hours, Minutes, Seconds and City name.
Calendar: Month, Date, Day and
City name.
Alarm 1/2.
Chronograph: 24-hour
measurement (in 1/1000 sec.)
Split time measurement.
Timer: 24-hour countdown
(in 1 minute)
Zone set: 31 major cities.
UTC monitor: Greenwich meantime.
5) Additional function:

Electric luminous system.
6) Battery: 280-44 (SR927W)
7) Battery life:

Approx. 2 years.

- Alarm sound 40 secs./day.
- Timer time-up sound 5 secs./day.
- Electric luminous lighting 3 secs./day.

Note: Battery life will depend on the function used.
Specifications are subject to change without prior notice.

