

#### Instruction Manual for the Radio Controlled Analogue-Digital Watch

(Version 3.0)

Date: Feb 2007



#### **Main Features:**

- 1. Global Signals UK (MSF), USA (WWVB), Germany (DCF), and Japan (40/60Khz) in one watch
- 2. US and World Time Zone setting by 20 City names
- 3. With 3 level Signal Strength Indicator
- 4. Real "Single-Battery" Analogue-Digital movement that synchronises to the second the LCD and Analogue function
- 5. Reception success and failure indicator.
- 6. Auto Calendar on LCD and selectable reading as below: Hour-Minute, Day-Date or Month -Year
- 7.  $1/100^{\text{th}}$  second chronograph stopwatch.
- 8. 12/24 hour clock selectable.
- 9. Backlight LCD.
- 10. Manual time setting available, where necessary.
- 11. Battery: 2 years CR2025 battery included.

Your Radio Controlled watch incorporates a highly sensitive radio receiver that receives time signals at 3AM from the UK (MSF), German (DCF), USA (WWVB) and Japan (JJY 60Khz) time signal transmitters located in these countries.

Your watch will pick up the above appropriate signal according to your Time Zone Setting and physical location.

Your watch recalls the Atomic Clock (which measures each second of time as 9,192,631,770 vibrations of a cesium 133 atom in a vacuum) and gives time, which is accurate to 1 second every million years. Your Radio Controlled Analogue-Digital Watch will also account automatically for daylight saving time (when applicable).

#### 1. <u>Time Zone Setting</u>:

You need to tell the watch your correct Time Zone or it will not display the Local Time correctly. Follow these steps to set the Time Zone.

- 1. Holding S4 (the lower left button) until the LCD displays a flashing City Name.
- 2. Push S1 (the upper right button) or S2 (the lower right button) to set your Time Zone.
- 3. Push S4 once to confirm (or the watch will confirm by itself after 10 seconds).
- 4. The watch will run to the new Time according to the new Time Zone setting automatically after the confirmation. Wait until the watch runs normally.

#### Table of Time Zone against 20 major Cities

If you travel to country where no Radio Signal is available, your watch will continue to function in the same way as a standard watch.

Time Zone	City Code (City Name) on LCD display
+0 (UK)	LON (London) – Radio Signal available
+1 (Europe)	PAR (Paris) – Radio Signal available
+2	CAI (Cairo)
+3	MOW (Moscow)
+4	DXB (Dubai)
+5	KHI (Karachi)
+6	DAC (Dacca)
+7	BKK (Bangkok)
+8	HKG (Hong Kong, China)
+9 (Japan)	TYO (Tokyo) – Radio Signal available
+10	SYD (Sydney)
+11	NOU (Noumea)
+12	
-12	
-11	
-10	HNL (Honolulu)
-9	ANC (Anchorage)
-8 (Pacific)	LAX (Los Angeles) – Radio Signal available
-7 (Mountain)	DEN (Denver) – Radio Signal available
-6 (Central)	CHI (Chicago) – Radio Signal available
-5 (Eastern)	NYC (New York) – Radio Signal available
-4	CCS (Caracas)
-3	RIO (Rio De Janeiro)
-2	
-1	

After you have set the right Time Zone, your Radio Controlled/Atomic watch is ready to go!

### **Correct Watch Position for Signal Reception**

Your watch should be positioned according to the following picture and put nearby a window during signal reception to get the best reception result.

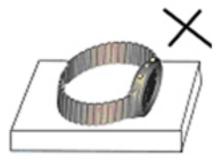
#### 1. Metal Case with metal Band

-Never let the metal band touches the back of the case, as it will affect signal reception.

-Never put the watch on its side, as it will not able to receive a signal in this position.



Never let the metal band touch the case back as it will effect the signal reception



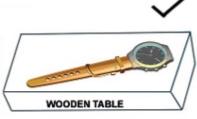
Never put the watch by its side as it will not able to get sighal on this position

2. Correct positions for signal reception





**UN-FOLDABLE BAND** 



LEATHER BAND

#### **Manual Signal Reception:**

Use this feature to manually search for the radio signal.

- 1. Holding S1 until the LCD display shows the flashing icons "Antenna and Country". At the same time, the second-hand will set to the 12 o'clock position.
- 2. Put the watch near a window to get a good signal. Do not leave the watch on the wrist whilst picking up a reception signal. For plastic cased watches, the watch should put on a wooden table with the face down, as show above for the best signal reception.
- 3. The watch takes 5 to 14 minutes (depending on signal strength) to pick up a signal.
- 4. After reception, the watch will show the correct time again.

# During signal reception, the LCD display shows the signal-strength. It is good to search for a location where the signal is at its strongest for fast accurate synchronisation.

The Signal is usually better at night. If your watch cannot get a decent signal during the day, just leave it near a window to get the stronger night reception.

#### **Reception Status Check:**

You can check if the watch was able to pick up signal.

Press S1 once

If Reception,  $OK \rightarrow LCD$  displays Antenna icon with full signal-strength bars . If Reception, FAIL  $\rightarrow$  LCD displays Antenna icon only, with NO signal-strength bar. The LCD will return to previous display after 10 seconds.

#### **LCD Display selection:**

You can set the watch to show either one of the following readings on the LCD display.

- a. Hour -Minute
- b. Day-Date
- c. Month-Year

To set your favorite reading display, push S2 (the lower right button) to select.

#### **Backlight:**

Press S3 once to turn on the backlight, it turns of automatically after 3 seconds.

#### 1/100<sup>th</sup> second Chronograph Stopwatch

- 1. Press S4 once. The watch shows 00:00
- 2. Press S1 to start and stop the stopwatch
- 3. Press S2 to reset the stopwatch to 00:00
- 4. To leave the stopwatch function, set the stopwatch to 00:00 and press S4 once
- 5. To hide a running stopwatch press S4 once while the stopwatch is running.
- 6. Press S4 again to see the stopwatch function again.

Notes:

Always set the stopwatch to 00:00 and exit the stopwatch function when not in use in order to save battery power.

After a running Stopwatch is hidden, the watch shows "STW" to remind the user that the stopwatch is still running in the background and all switches are locked. You need to stop the stopwatch, set it to 00:00 and press S4 to leave the stopwatch function before you can use alternate button functions.

Furthermore, a hidden stopwatch will be reset to zero when the watch performs an auto signal reception at 3AM.

#### **<u>12/24-Hour Clock Selection:</u>**

- 1. Hold the S4 (the lower left button) until the LCD displays a flashing City name.
- 2. Push S4 again. The LCD shows 12H or 24H.
- 3. Push S1 to select.
- 4. Push S4 to confirm.

#### Manual Time Setting:

Use this feature to manually set the time on the watch. This is optional, as your watch will set automatically by itself.

- 1. Holding S4 (the lower left button) until the LCD displays a flashing City name
- 2. Push S4 again. The LCD shows 12 H or 24 H
- 3. Push S3 (the upper left button)
- 4. The LCD displays a flashing "Hour"
- 5. Push S1 to advance or S2 to revert the "Hour" digits. Push S3 again after "Hour" is set, then
- 6. The "Minute" flashes on the LCD displays
- 7. Push S1 to advance or S2 to revert "Minute" digits. Push S4 to confirm. After your confirmation, the watch will be in fast running mode. Wait until it resumes normal running.

#### Your watch is not able to manually set Date, Day, Month and Year. The watch shows this reading on the LCD display only when a first signal reception was updated.

#### TROUBLESHOOTING:

Your watch is a very delicate and precise instrument. Although uncommon, sometimes a hard knock or vibration can cause the hands to move irregularly, and therefore display the incorrect time, however the internal clock is still keeping accurate time. You may notice this when checking for successful reception (by press S1 once) and the analog "Second-hand" position does not synchronize with the "Second" reading on the LCD (for example, the LCD reading is 29 seconds but the analogue second-hand is pointing at 27 seconds). The 6 o'clock reference point has changed and the watch needs to be re-calibrated.

#### **Re-calibrate the second-hand:**

1. Make sure the watch is running normally.

Holding S3 (the upper left button) for around 10 seconds until the second-hand stops at a new position.

2. The second hand may stop at the position mentioned below in A, B or C then release the button and follow the steps below:

A. If the second-hand stops between 12 to 6 o'clock (after second-hand stops)

1. Press **S1** (the upper right button) one at a time until the second-hand points exactly at 6 o'clock

2. Press S4 (the lower left button) to confirm.

The watch will stop for a while. Just wait until the watch resumes running.

B. <u>If the second-hand stops between 6 to 12 o'clock (after second-hand stops )</u>a. Press S4 and then wait for the watch to resume running.b. After the watch runs normally, repeat steps 1, 2 and A.

C. <u>If the second-hand stops exactly at 6 o'clock</u> this indicates that the second-hand was exactly 5 seconds left shifted before alignment. No alignment is required. Just leave the watch alone until it resumes running

#### Watch Not Receiving Time Signal

Reason for not being able to receive the Time Signal include:

-Watches not being placed by a window

-Watches not being not put on a table with either the face-up or facedown

-Watch being place on its side

-Being outside of the UK, Germany, USA and Japan (60Khz) signal areas

-Being in a built up area

-Metal objects blocking the radio signal

-Interference by computer monitor or TV

Ensure the watch is left by a window, as this gives the best reception, you may have to try different windows in the house to see which is best. You can test this using the reception status test described earlier. Please note that reception is always better at night. If your watch is unable to make contact with the radio signal, it will continue to function in the same way as a standard watch. The time will then be corrected the next time your watch receives the time signal.

#### Second Hand running non-stop

When battery is low, the Second Hand may run non-stop. Change the battery of the watch after it comes to a stop.

#### Time is wrong

If your Time Zone setting is incorrect, your watch will show you the wrong time. You need to manually set it to the right Time Zone. Go to "Time Zone Setting" for details.

#### **Battery Change**

You need to change the battery if the watch stops, the LCD display becomes dim or the watch does not function properly.

#### **Battery type**

This watch uses a CR2025 type battery, trained jewellers or watch specialists should fit new batteries to avoid and damage to the watch.

Open the watch at the back. Carefully remove the bottom, make sure you do not lose the waterproof seal.

Pick up the battery spring.

Take out the battery and insert a new one (watch the polarity!"+"up).

Now push the battery spring down.

Before you put the case-back on again, make sure the waterproof seal is correctly in place.

#### After Battery replacement, you need to:

- 1. Align all 3 hands at 12 o'clock
- 2. Set your Time Zone (through City Name)
- 3. Put the watch to a location (window) where reception is possible for 24 to 48 hours to allow the watch to receive radio signal to set the correct time.

#### 1. Align all 3 hands at 12 o'clock

The watch does not run and the LCD display is blank after a new battery is replaced until the following initiation has been done.

#### Now turn the watch to set the hands and initialize.

All hands (hour, minute and second hands) have to be moved to the 12 0'clock position (12:00:00) for initializing.

- 1. Press and hold S1 (the right top button) to set the second-hand to fast running.
- 2. You can stop the high speed running second-hand by a press of S1
- 3. To restart the fast running second-hand, press and hold S1 again
- 4. When the second-hand is moving, and the hour and minute hands close on the 11:59:00 position, stop the second-hand with one press of S1. Continuously press S1 one press at a time until all hands align at 12:00:00

(If you accidentally go past the 12, start this process again.)

- 5. When all hands are aligned at the 12 0'clock position (12:00:00), **PUSH S4 (the left lower button)** barely for 1 second to confirm.
- 4. After confirmation, the LCD display is switched ON and shows a flashing City Name

#### 2. Now Set your Time Zone (through City Name)

1. After the LCD shows a city name, press S1 (the upper right button) or S2 (the lower right button) to set your Time Zone through City Name (please refer to "Table of Time Zone against City Name")

- 2. Press S4 once to confirm
- 3. After confirmation, the watch will initiate a signal reception automatically. Put the watch nearby a window to get signal.

4. The watch will run to the right time if the reception is successful or starts to run at around 12 o'clock if the reception is failed.

## 3. <u>Put the watch to a location (window) where reception is good for 24 to 48 hours to allow the watch to receive radio signal to set the correct time.</u>

Signal is usually better at night.

So, if the initial daytime reception has failed, put the watch in a location (window) where reception is good for 24 to 48 hours to allow the watch to receive a radio signal to set the correct time. The watch will automatically initiate a reception at 3AM after receiving a valid time signal, the hands move on to the correct time.

Crane & Vicerov CM23 3HG 01279 757100