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(MultiWatch Instruction Manual)

## Getting Started:

When you are done swooning over the awesomeness you see before you, remove the four Phillips head (Crosshead) bolts. The circuit board is removed by turning over the case, if it does not come out right away, give the case a light tap on a hard surface. If the circuit board does not want to come out, CAREFULLY insert a small rod-like object into one of the two holes on the circuit board (a corkscrew works really well) and gently pull it out. Insert the CR2450 coin cell battery (provided, also available at most local pharmacies) into the battery holder. The display on the front will immediately count from “0-9” and “A-F” and then turn off. Carefully place the circuit board right side up back into the case. Re-assemble and enjoy.

Tip for replacing the battery: If the display is not on when you remove the battery, and you do not press the button to do so, the watch will keep the time for about 7 seconds while the battery is not present, move quickly.

## Setting the Time:

This is most easily done with the top Acrylic cover removed. Press and hold the push button near the bottom of the circuit board until the right two digits of the display start to flash. The watch will be set to 24hr mode, in the Decimal number base (to make things easier). Pressing the button will increment the minutes by 1. When you are happy with the time, press and hold the push button again, the left two digits will begin to flash. Press the push button to increment the hours by 1, remember, this is in 24hr mode (0-23). When satisfied, press and hold the push button again, only the right two digits will be on and they will be blinking.



This option is to change the display to 12hr or 24hr mode, pressing the button will switch between the two. When ready, press and hold the push button one last time until the display turns off. The time is now set.

## Displaying the Time:

To enable the display, simply give the face of the watch a firm tap with your hand, wall, table, or any other object you desire (just don't hurt yourself or others, KBE will not be held responsible for your irresponsibility). The watch can also be activated with a firm push on the face. The display will turn on for about five seconds before turning off again. If the button is pressed again while the display is still active, it will switch the current number base. The bases rotate in order: Binary, Octal, Decimal, Hexadecimal, and back around. Once the display turns off, the watch will remain in the same number base until it is changed via the method above.

## But, What Does it All Mean:

Below you will find a quick tutorial on understanding the four different number bases, if you are still having some trouble it is recommended to do some searching on the Internet.

### **Decimal:**

This is the standard numbering system we use in everyday life, 0-9. The numbers on the display will look like the following:



### **Octal:**

This number base is very close to Decimal, however, instead of counting from 0-9 and then adding one to the tens place, it counts from 0-7 and then adds one to the tens place. As an example, below is a quick arithmetic way to convert 17 decimal into octal:

$$17 - 8 = 9 \text{ ones remain} + 1 \text{ tens}$$

$$9 - 8 = 1 \text{ ones remain} + 2 \text{ tens}$$

17 decimal is equal to 21 octal.

There may be easier ways to convert this, each person is different. Octal uses the same number displays as Decimal, without the numbers 8 and 9.

### **Hexadecimal:**

This number base uses the number 0-9 and A-F to count ultimately from 0 to 15 (using one digit as opposed to two) then adding 1 to the tens place. The digit displays above, in addition to the ones below, are used to convey the time:



As an example, below is a quick arithmetic way to convert 45 Decimal to Hexadecimal:

$$45 - 16 = 29 \text{ ones remain} + 1 \text{ tens}$$

$$29 - 16 = 13 \text{ ones remain} + 2 \text{ tens}$$

13 Decimal in Hexadecimal is D + 2 tens.

45 Decimal is equal to 2D Hexadecimal.

### **Binary:**

This is most likely the hardest base to get the hang of. Each digit of the display has 4 vertical segments (and three horizontal that are not used in binary), the top row of them spanning all four digits is the hours while the bottom row spanning all four digits is the minutes. The best way to describe binary is that it increments from right to left starting at one and doubling every time. The far right place is worth 1, one left of that is worth 2, one left of that is worth 4, and so on. If a segment is lit, that places worth is added to the total for that line. Let's do a few examples:



The time is 18:49



The time is 7:14



The time is 00:00 (midnight)

If more assistance is needed, please contact your local web browser.

### **Water:**

The MultiWatch is water resistant, but it is not recommended to take it under more than a few feet of water (the shower should be OK). If water does happen to get inside, immediately remove the cover and the circuit board, remove the battery, and dry with a towel. After letting it dry out for a few hours, insert the battery and see if it turns on again. If you are still having issues please contact KBEEmbedded support.

## Specifications:

- Dimensions: 1.4" x 1.8" x .51"
- Battery: CR2450 Coin Cell, years of battery life (depending on usage)
- Hand assembled, tested, and numbered; limited edition of 200 are available at this time
- Guaranteed to be free from defects
- Most parts are user replaceable
  - 2mm Acrylic top
  - #4-40 3/8" bolts
  - 19mm Watch lug size

Disclaimer: The MultiWatch has sharp edges and corners that may cause injury; exercise caution when wearing the watch to prevent any personal or property damages. KBEEmbedded is not responsible for any damages caused by carelessness, neglect or misuse of the product.