NIXIE V1

This *NIXIE V1 wrist watch* (hereinafter - watch) is designed to indicate the exact time. The indication is carried out by neon lamps, while the power is provided autonomously.
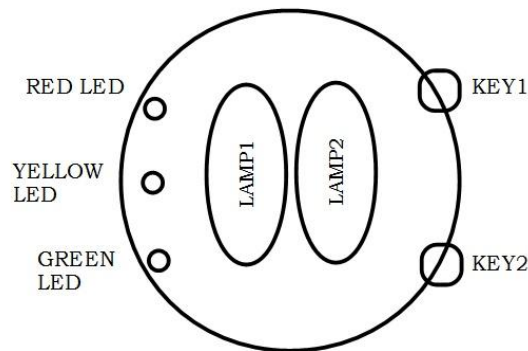
Basic specification

Number of digits -	2
Power supply –	3.7V
Duration of operating as provided by one fully charged battery, h -	240 *

* - the duration was measured in accordance to a special technology, when the device works only on one fully charged battery, and the data being read out 1 time per 30 minutes.

Operation

The drawing below shows the main keys and indicators.

Calling the time indication is triggered by pushing one of the keys (any). The pushing should continue not less than 1 second. First, the watch will indicate the hours (the GREEN LED will light simultaneously), then – minutes (the YELLOW LED will light simultaneously). If the lamps do not light, but the LEDs do, it may be caused by the lack of battery charge of the watch. To check the reason, the watch should be connected to a charger.

To enter the mode of setting the time and other parameters, **push KEY2, unhold it, then push it again, and hold it** till the watch stops indicating time.

When the watch switches to the setting mode, the both LEDs will blink at the same frequency – approximately 2 Hz (2 times per second). **Use KEY1 to set the number of hours**.

To set the minutes, **push KEY2 again.** Then the GREEN LED will blink with the same frequency, and the frequency of the YELLOW LED will be doubled. **Use KEY1 to set the number of minutes.**

The next push of KEY2 will call the setting of seconds. The indicator will show the current value of seconds. **Pushing KEY1 will reset the seconds to zero**.

The next push of KEY2 will call the time format mode. 12- or 24-hour **format can be set by pushing KEY1**, and the indicator will show respectively "12" or "24".

The next push of the KEY2 sets the watch to the mode of adjustment of time accuracy. This mode should be only used if the watch shows deviation in time accuracy within not less than 24 hours. **Pushing KEY1 sets the needed combination of numbers**, that corresponds to (or approximately corresponds to) the percent of eventual time deviation. Please, see the table.

Pos.	Figure 1	Figure 2	Time deviation, %
1	0	0	0
2	1	0	0.8
3	2	0	0.16
4	3	0	0.32
5	4	0	0.64
6	5	0	1.28
7	0	1	-0.8
8	0	2	-0.16
9	0	3	-0.32
10	0	4	-0.64
11	0	5	-1.28

Thus, if the watch is losing time, the required operations should be carried out according to positions 2-6 of the table, if the watch is gaining time - according to positions 7-11.

The last **push of KEY2 will set the duration of time display**. The default duration equals to 6. This parameter specifies how long the current time will be displayed. The minimum duration of display is "0," the maximum duration of display is "15". It should be taken into account, that the longer the watch displays time, the faster the power battery is being discharged.

At this point, the watch setting is considered complete.

If the battery is insufficiently charged, the push of any key (to call time readings) does not trigger time indication, the GREEN LED and the YELLOW LED will blink simultaneously a couple of times. **If the battery is dangerously discharged**, the device does not react to the key push at all. This means that the battery should be urgently charged.

To see the battery charge level in the watch, push KEY1, un-hold it, then before the time indication is stopped, push it again. After indicating the time, the watch indicates another number – the battery charge level. It has values from 1 to 50. The values 45 - 50 denote full charge of the battery, **the values less than 10 denote a dangerously low charge level, and request for immediate recharging**.

Any charger can be used as a charging device for the watch (for example, charger of a tablet or smartphone) **if it uses USM Micro connector** as a power plug. This plug should be plugged into the corresponding connector in the watch.

The charging of battery is indicated by the RED LED. As the battery is being charged, the LED lights steadily, gradually fading. When fully charged, the LED glows with a barely noticeable light.

Note: when the battery is fully charged, the charger is connected to the watch, and the LED is turned off, the pushing of any key can call a short-term lighting of the RED LED. This is not deemed an error.

When the charger is connected to the watch, the later can work disruptively! To set this mode, call the time display by pushing **KEY2**. In this case, the time indication will be carried out continuously. **To turn off this mode**, disconnect the charger, or push **KEY1**, and hold it until the watch starts indicating the battery charge level.