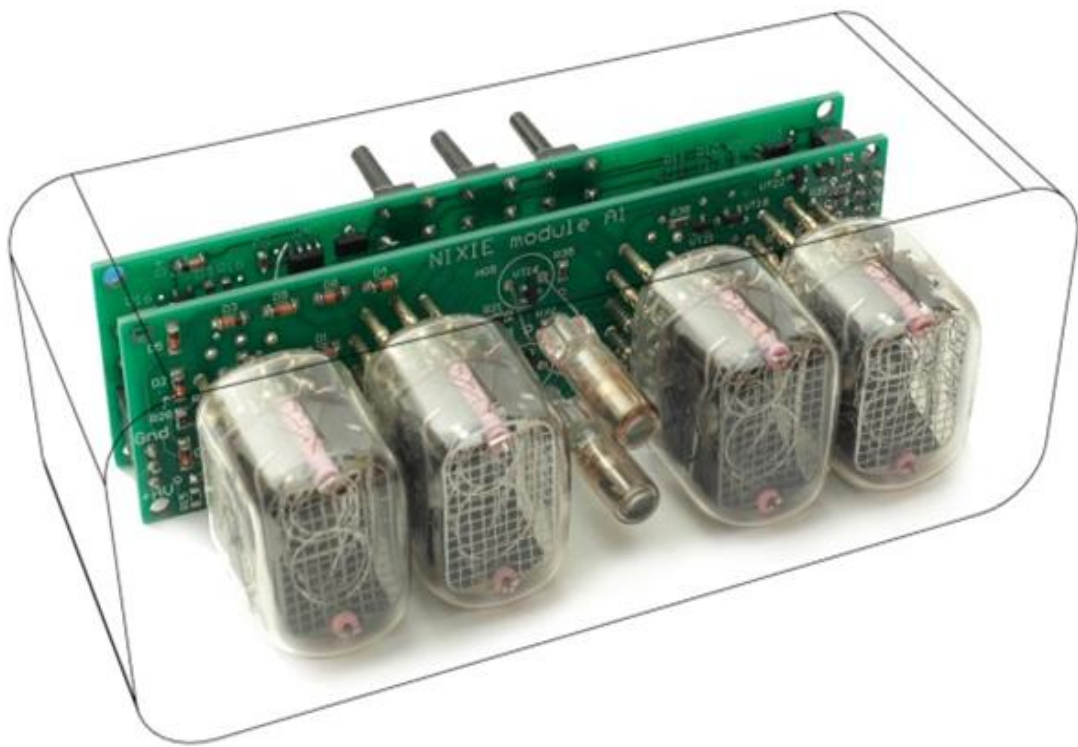# NIXIE

Clock on tube indicators

Model NW-12

User's manual

Thank you for purchasing an NW-12 electronic clock.

In this clock, digital indicators "IN-12" and separators "INS-1" are used.

The clock has an alarm function!

IN-12 lamps are installed on the board through detachable pins, which eliminates damage to the lamp when it is soldered and makes it easy to replace it if necessary.

The use of a microcontroller and a thermostable quartz oscillator made it possible to create a clock with high precision and flexibility when choosing display modes.
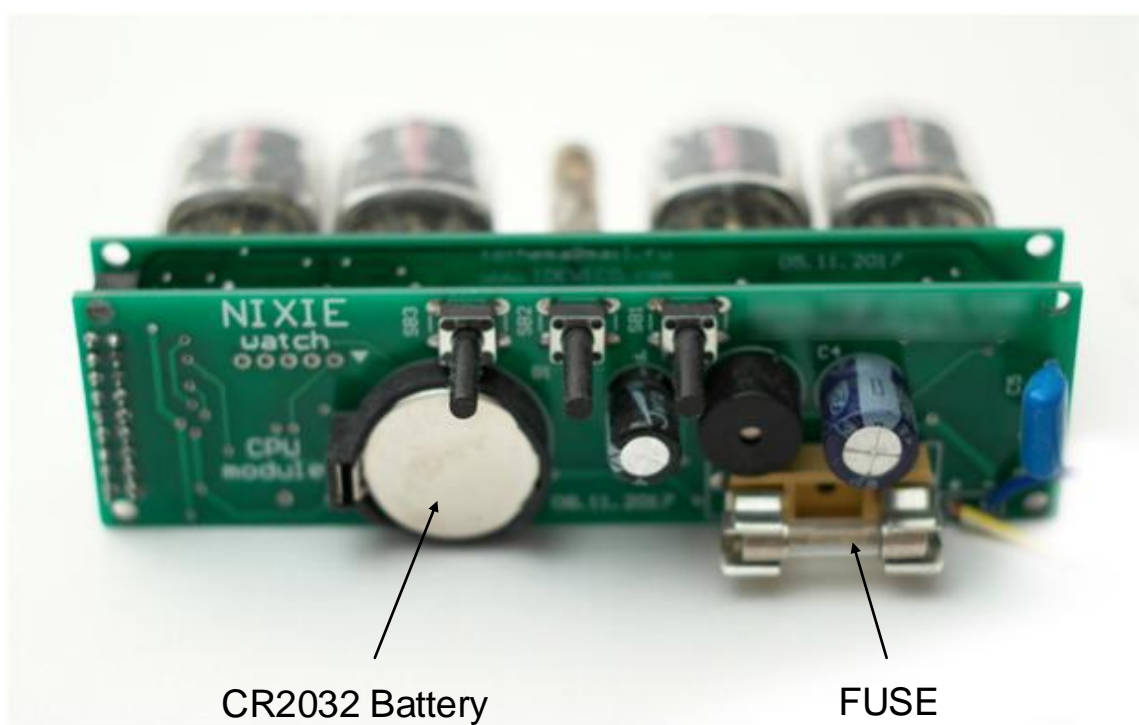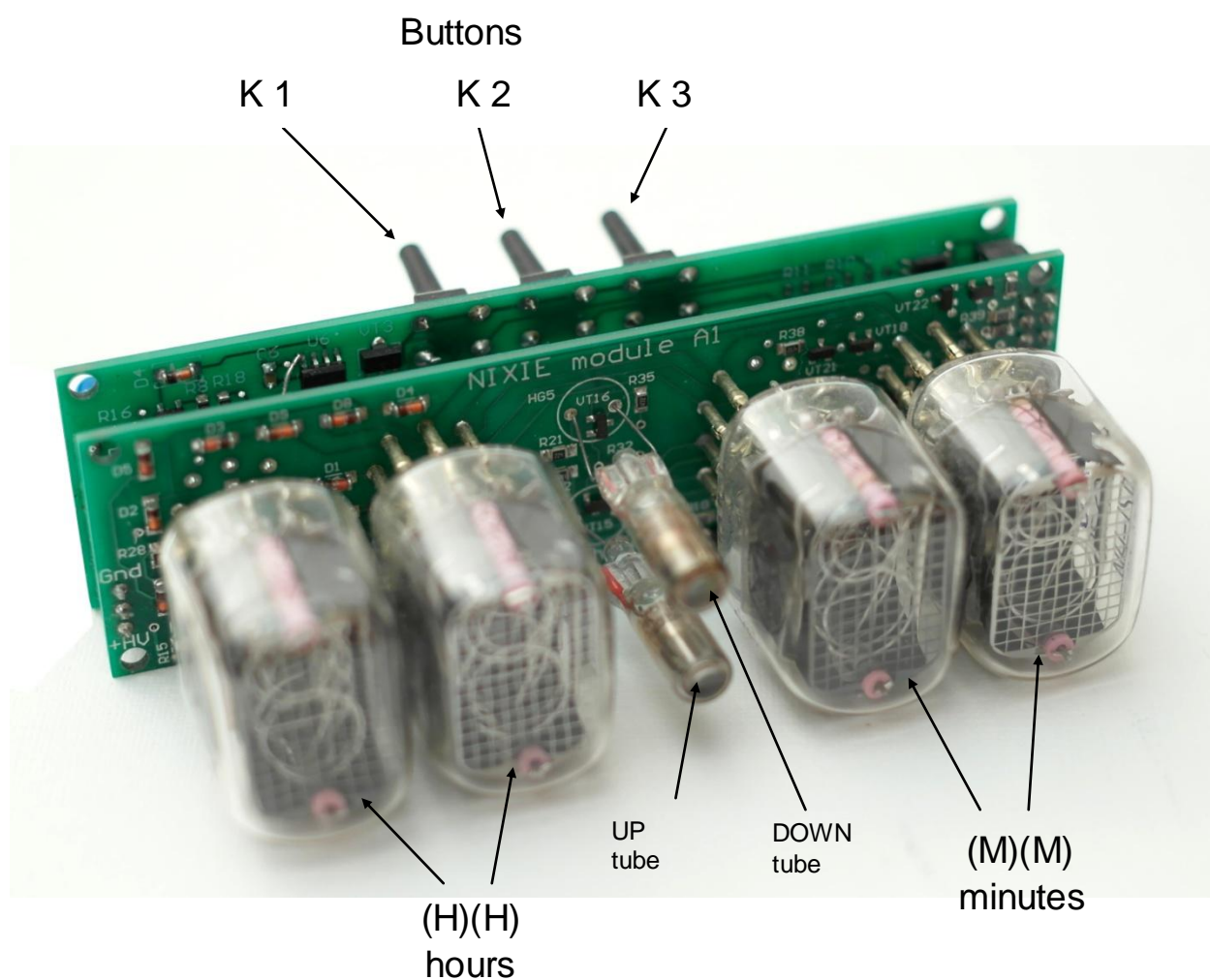
The voltage supply of the watch is 12 volts.

It is carried out from an alternating current network of 220 volts, through the power supply unit. A battery is installed on the watch board to maintain the watch while disconnecting it from the network.

Do not connect the clock to a 220 volt network without a power supply !!!

Please read this manual before use!

We hope that you will enjoy the watch, and you can send all comments and suggestions to e-mail: tothema@mail.ru

Buttons

K 1   K 2   K 3

UP
tube

DOWN
tube

(M)(M)
minutes

(H)(H)
hours

CR2032 Battery   FUSE

Time settings

To enter the current time change mode, you need to hold the K1 button for a few seconds. At the same time, the indicators (H)(H) and (M)(M) will flash. After the beep, the K1 button must be released.

In addition, if the indicators (H)(H) are flashing - the hours will be changed, if the indicators (M)(M) are flashing - minutes.

To select the hour or minute setting, briefly press the K2 button.

Wherein:

K1 button - decrease the value

K3 button - increase the value.

To quickly change the values, hold the corresponding button (K1 or K2) for a few seconds!

To exit the time setting mode, you must hold down the K2 button for a few seconds until you hear a beep.

At the same time, the values (H)(H) and (M)(M) will flash.

Alarm settings

To enter the alarm time change mode, you must hold down the K3 button for a few seconds. At the same time, the indicators (H)(H) and (M)(M) will flash and display the alarm time. After the beep, the button K3 must be released.

If the indicators (H)(H) are flashing - the alarm hour will be changed, if the indicators (M)(M) are flashing - the alarm minutes will be changed.

To select between hours and minutes of the alarm - briefly press the K2 button.

Wherein:

K1 button - decrease the value.

Button K3 - increase the value.

To quickly change the values, hold the corresponding button (K1 or K2) for a few seconds!

To exit the alarm time setting mode, you must hold the K2 button for a few seconds, until the beep sounds. At the same time, the values (H)(H) and (M)(M) will flash.

After exiting the alarm time setting mode, the alarm will automatically turn on. To turn the alarm off or on, you must press the K2 button!

When you press the K2 button, the time of the set alarm is displayed..

Settings.

The NW-12 clock has several modes of operation. To enter the setup mode, you must simultaneously press and hold the buttons K1 and K3 to the beep. At the same time, the "0 0" indicators will flash.

In the setup mode, the value of the indicators (H)(H) is the parameter number, and (M)(M) is its value.

The list of parameters and values:

Parameter (H)(H)	Value (M)(M)	Function
0		Automatic brightness (night mode)
0	0	disabled
0	1	enabled
1		The level of illumination to go to "night mode" (assuming night mode is on)
1	0..59	Light level to go to the "night mode"
2		12 or 24 hour time format
2	0	24 hour time format
2	1	12 hour time format
3		Off an insignificant zero in the discharge hours
3	0	... disabled, example: 07:18
3	1	... enabled, example: 7:18
4		Flickering indicators (imitation old tubes)
4	0	
4	1..3	The flicker level of all indicators simultaneously
4	4..6	The flicker level of each indicator, separately
5		Beep every hour.
5	0	Disabled
5	1	Enabled (low volume)
5	2	Enabled (high volume)
5	3	Enabled 08:00 to 22:00
5	4	Enabled, high volume 08:00 to 22:00, low volume 23:00 to 07:00
6		Alarm
6	0	Song №1
6	1	Song №2
6	2	Song №3

To switch between a parameter and its value, briefly press the K2 button.

Wherein:

      Button K1 - decrease the value.

      Button K3 - increase the value.

To exit the setup mode, press and hold the K2 button.

Upper and lower indicators

The up tube (UT) and down tube (DT) show the alarm condition and indicate the time until noon (AM) and afternoon (PM) if the 12-hour time format is selected.

24-hour time format:

Alarm off - lamps (UT) and (DT) blink simultaneously

Alarm on - lamps (UT) and (DT) flash alternately

12 hour time format:

the alarm clock is off, the time before noon– (UT) is flashes, (DT) – if off

the alarm is on, the time before noon (UT) is flashing, (DT) is on

In the afternoon, the alarm is turned off - (UT) is off, (DT) - is flashing

In the afternoon, the alarm is on - (UT) is on, (DT) - is flashing

In the 12 hour format, when setting the current time and setting the alarm time, the tube (UT) indicates the time before noon, the tube (DT) indicates the time after noon.