# www.Kama-Labs.com TANYA

(Assembly instructions and latest firmware you can find on my website)

# Assembled my own hands © Thanks for purchase!!!

### **Features:**

- \* 6x Soviet IV-6 VFD tubes (made in 1992)
- \* 2x Soviet IV-8 VFD tubes (made in 1994)
  - \* Full remote control
  - \* Full control of clock via Wi-Fi
    - \* 32bit ESP32 processor
      - \* 12/24h time mode
      - \* Fade leading zero
  - \* Wi-Fi connection to PC or smartphone
- \* Synchronizing time and date from NTP server
  - \* Over-the-air firmware update
  - \* High-precision onboard time chip DS3231
    - \* High effective smooth routing of PCB
      - \* 1 Alarm
    - \* IV-6 and IV-8 tubes work in static mode
  - \* Double Multicolour adjustable LED backlight
- \* Automatic change color mode for top and bottom backlights
  - \* Temperature / humidity / pressure sensor
  - \* Automatic brightness of tubes using light-sensor
    - \* 8 animations for digits
      - \* Binary clock
    - \* Off clock at night by schedule
      - \* Temperature C° or F°

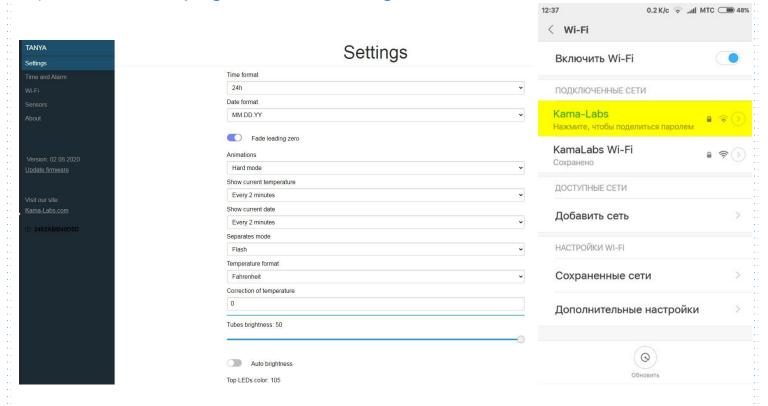
- \* Correction of temperature
- \* Accurate to +/- 1 minute/year
- \* Date in format DD.MM.YY or MM.DD.YY or YY.DD.MM
  - \* Backup battery. Data is no lost when power off
- \* Power source DC 5V barrel plug 5.5mm/2.1mm ( "+" inside, "-" outside) or Micro-USB
  - \* Consuming current 700mA
    - \* Noiseless work
  - \* Dimensions of the clock in case 145mm(W) x 84mm(L) x 75mm(H)

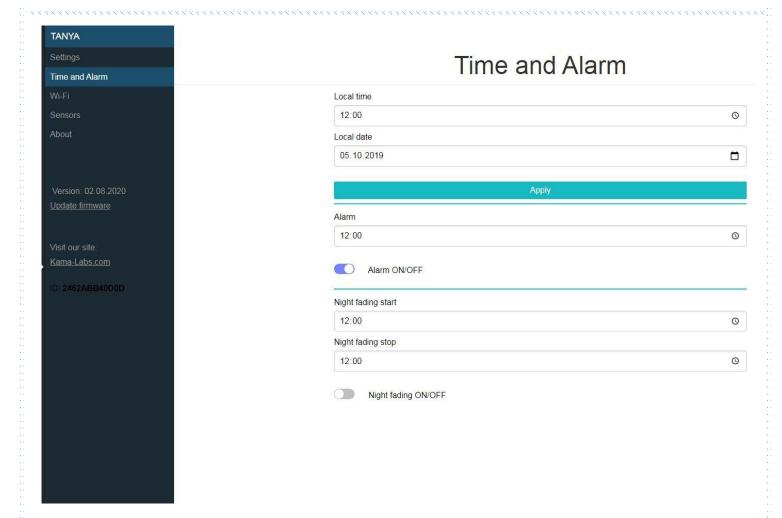
Dimensions of the clock - 135mm x 61mm x 60mm.

#### How connect to clock via Wi-Fi:

- 1) Turn on clock.
- 2) Connect to "Kama-Labs" Wi-Fi network via your smartphone or PC. Password: nixieclock
- 3) Open browser and go to "tanya.local" or 192.168.4.1 or scan QR-code.
- 4) You will see page with all setting of clock.







## Connecting to home Wi-Fi network:

The clock can connect to your home Wi-Fi network and synchronize time from NTP server. Also you will have access to clock from any device connected.

- 1) Go to "Wi-Fi" in menu
- 2) Fill fields "Name of Wi-Fi network" and "Password of Wi-Fi network" of your Wi-Fi network
- 3) In "Wi-Fi mode" choose "Internet connection"

At now clock will connected to your Wi-Fi network.

If you will press "0" key on remote control clock will show status and IP-address. Also, to know IP address you can use "**Network Service Discovery**" app from PlayStore.



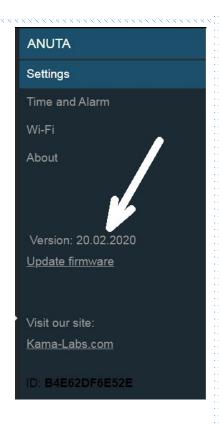
# How to update firmware:

- 1) Go to <a href="https://kama-labs.com/manuals\_and\_firmwares">https://kama-labs.com/manuals\_and\_firmwares</a> and check for new firmware version. Current version you can see here:
- 2) Click "Update firmware" link
- 3) Choose file with firmware
- 4) Click "Update". Done!





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#### How to use remote control:

Button	Action
OK	Show message
<b>4</b>	Next animation of digits
<b>A V</b>	Change brightness of tubes
1	
2	Show alarm
3	Show humidity
4	Show temperature
5	Show date
6	On/off alarm
7	Brightness of bottom LEDs
8	Turn off LEDs and tubes (clock still works)

9	Brightness of top LEDs
0	Wi-Fi status
*	Change brightness of top LEDs
#	Change color of top LEDs
9 + 1	Set Wi-Fi mode as internet connection
9 + 2	Set Wi-Fi mode as Access point
9 + 3	Reset all settings
9 + 5	Tube test mode

Look at backside of clock and there you will see orange LED. It show Wi-Fi status of clock:

- LED not glow the clock connected to you home Wi-Fi network;
- LED blink fast the clock try connect to you home Wi-Fi network;
- LED blink slow the clock in Access Point mode.

