

## 6 digits Nixie Clock with 2 Alarms. Ideal gift!

Thanks for your interest in my 6 digits Nixie Clock.

I have tried to create stylish, reliable, accurate and easy to use Clock and I hope you will love it and this Clock is what you are really expected to see when you was looking for Nixie Clock.

Please read carefully the information below as it will help you to use your Clock efficiently and in proper way and hopefully will avoid any negative moments which could arise in case of incorrect or careless use.

### **Clock key features:**

- 6 18mm high digits (IN-12 Nixie Tubes)
- Displays Time , Date and 2 Alarm clock sets
- Accurate time clock source from internal crystal.
- Integrated 2 Alarm Clocks
- Easy control with only 2 buttons
- Uses standard 9v wall plug Power Supply
- Precision Seconds setup
- Static digits indication ( digits do not flickering with 50Hz)
- 2 default Alarm sets on your choice
- Internal battery for data protection in case of main power failure
- Will generate alarm buzz even main power is off !!!
- Internal buzzer for Alarm1 and Alarm2
- 2 external outputs trigger on Alarm1 and Alarm2 events

The Clock functions in two main modes:

**Display Mode** and **Setup mode**

### **Display mode:**

In the **Display Mode** Clock indicates the following information:

**Time** in format HH:MM:SS (colon separators),  
where HH is Hours (00-12 or 00-23), MM is Minutes (0-59), SS is Seconds (00-59)

**Alarm1** in format HH:MM: 1, where number 1 indicates Alarm1

**Alarm2** in format HH:MM: 2, where 2 indicates Alarm2

**Date** in format : DD.MM.YY (dot separators),  
where DD is day (1-31), MM is Month(1-12), YY is Year (00-70)

**Time and Date** in format HH:MM:SS and DD:MM:YY with 7 seconds interval



## More detailed description of buttons use:

In the **Display mode** you can do:

Button1. Normal push shuts alarm buzzer off, if it was buzzing at this moment

Button1. Long push changes time **Display Mode** from 24h to 12 hours scale. Second long push will change it back from 12h to 24 hours scale.

Button2. Normal push changes information to display – Time , Alarm1, Alarm2, Date or Time/Date and back to Time.

Button2. Long push leads to **Setup Mode**, where you can modify the appropriate values.

Button1 & Button2 together. Long push leads to Frequency Test Mode. Clock will display 200000, which means 200kHz frequency output has been activated.

**Please note**, that the only way to leave these mode and come back to the normal **Display mode** is to switch your Clock off and disconnect backup battery. All your current time, date and alarms setups will be lost, so you'll need to set it up again.

In **Setup Mode** you can do:

Button 1. Normal push increments the value of highlighted digit.

Button1. Long push switches off Active Alarm ( works only in Alarm1 or Alarm2 **Setup Mode**).

Button2. Normal push changes the position of highlighted digit

Button2. Long push goes back to Display Mode, where Clocks displays the current Time, Date, Alarm1 or Alarm2 sets.

## How to setup Time, Date and Alarms

To set or adjust the current time, push Button1 until Clock starts to display time.

Now push and hold Button1 until Seconds Ones digit starts to flash.

Release Button1. You are in the **Setup Mode** now.

Seconds Ones digit is highlighted by flashing, so Seconds value can be reset by pushing Button2 now.

Push Button1 to highlight next digit. Push Button1 and it highlights Seconds Tens digit. You can push Button2 to reset seconds value.

Push Button1 to highlight next to the left digit. Now Minutes Ones are flashing.

Use Button2 to set correct value. Every Button1 push will increase value by one.

Push Button1 to choose next digit to set. Minutes Tens will be flashing.

Push Button1 again in case don't need to change Minutes tens value

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Hours Ones digit should be flashing.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Hours Tens should be flashing.

Use Button2 to set correct value.

Now you set the current Time.

Push Button1 and it will highlight Seconds Ones again. Push Button1 to reset seconds value when you need to synchronize the seconds.

Push and hold Button1 until Digit stops flashing. You have left **Setup Mode**.

To set the current date push Button1 until clock displays Date.

Use the same technique to set up Date.

Now push and hold Button1 until Years Ones start to flash.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Year Tens will be flashing.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Month Ones will be flashing.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Month Tens will be flashing.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Day Ones will be flashing.

Use Button2 to set correct value.

Push Button1 to choose next digit to set. Day Tens will be flashing.

Use Button2 to set correct value.

If some digits still don't have the correct value, push Button1 until this digit is highlighted again.

Use Button2 to correct the value.

To leave **Setup Mode** push and hold Button1 until Digit stops flashing.

Use the same technique to set Alarm1 or Alarm2.

To go to the Alarm **Setup Mode** just choose the Alarm to display then push and hold Button1 until first Alarm digit starts to flash. You are in the alarm **Setup Mode** now.

In this case only 4 digits can be set up and first digit is to be highlighted is Alarm Minutes Ones.

In the Alarm **Setup Mode**, when digit is flashing, as soon as you change Alarm digit Value by pressing Button2, Active Alarm Indicator will be switched on and this Alarm will be activated.

To de-activate Alarm, go to the Alarm **Setup Mode**, then push and hold Button1 until Active Alarm Indicator is switched off, which means this alarm is no longer active. To leave Alarm **Setup Mode**, push and hold Button2 until digit stops to flash. You are now in the **Display Mode**.

## **How to change from 24 to 12 or from 12 to 24 Hours displaying**

I recommend to do this procedure sometime after lunch, when PM time is started. It gives you clear sign that you have changed the time scale, as PM should be on when you set 12h time scale.

Please make sure you are in **Display Mode** with Current Time indication.

Push and hold Button1 until Clock changes time from 24h to 12 hours scale. If you do it after lunch, hours indication value will be changed and PM indicator lamp should be switched on.

Release Button1. Check that Clock is displaying time correctly.

Second long push will change it back from 12h to 24 hours scale and if you do it after lunch, PM indicator should be switched off.

Release Button1. Check that Clock is displaying time correctly.

## **Using Backup battery**

Just put jumper on the Backup battery connector J1 to activate your current time and Alarm Sets protection.

## **Another way to understand Button1 and Button2 usage:**

Button1 in **Display Mode**:

Normal push – switches between Display Modes

Long push - go to the **Setup Mode**

Button1 in **Setup Mode**:

Normal push – choose parameter to configure

Long push - go back to the Display mode

Button2 in **Display Mode**:

Normal push – switch off alarm buzz

Long push – change time **Display Mode** 12 or 24 hours

Button2 in **Setup Mode**:

Normal push – change parameter value

Long push - switch off selected alarm

Button1 and Button2 together:

In **Display Mode**:

Normal push – not defined yet

Long push - go to Frequency test Mode

In **Setup Mode**:

Normal push – not defined yet

Long push - go to Frequency test Mode

### **Important Notice:**

Please do not use this clock outside, it's not for use in bathroom, avoid using it in wet condition.

Use only good quality, certified Wall Plug Power Supply, which can provide not less than 300mA DC current at 9V.

Do not leave clock without main power for more than 24 hours, as I will discharge your backup battery and you will need to replace it.

Some internal components are under High Voltage, so before handling or do any maintenance work, be sure that power supply is switched off.

**I do not accept any liability may cause during improper or care less use of this Clock.**

**Do not use the Clock in any wet or dusty condition. This clock is for internal use only.**

Due to constant improvement, your clock design could be slightly different from the sale description, but technical parameters and functionality will be the same or better.

The latest User Manual can be found on my WEB page at <http://www.sparkletube.com/nclock>