

## 1 digit IN-4 BIG Nixie Clock . Newly designed!

Thanks for purchasing my 1 digit IN-4 top view Nixie Clock.

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

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

This clock design base on very popular 1 digit IN-18 Big Nixie clock. So you have 1 digit IN-18 clock you know how to control this clock too, as User Manuals are almost identical.

Clock key features:

One 18mm high digits (IN-4 Nixie Tubes)

Displays modes: Time, Date, 2 Alarm clock sets, Blank

Accurate time clock source from internal crystal (not 50/60Hz from mains).

Integrated 2 Alarm Clocks

Easy control with only 1 button

Uses standard 9V or 12V wall plug Power Supply

Precision Seconds setup

Internal battery for data protection in case of mains power failure (optional)

Will generate alarm buzz even if mains power is off !!! ( only if backup battery installed)

Internal buzzer for Alarm1 and Alarm2

Blank Mode – all digits switched off, but alarms set and clock running.

The Clock functions in two main modes:

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

**Display mode:**

In Display Mode the Clock indicates the following information:

**Time** in format HHMM ,

where HH is Hours (01-12 or 00-23), MM is Minutes (0-59)

**Alarm1** in format HHMM , red light under tube indicates Alarm1

**Alarm2** in format HHMM , blue light under tube indicates Alarm2

**Date** in format : DDMMYY or MMDDYY,

where DD is day (1-31), MM is Month(1-12), YY is Year (00-70)

**Blank**, all digits are switched off or displays *Config* parameters when in Setup Mode



**Please note**, that when Clock displays Time, Alarm1 or Alarm2, it uses 4 digits sequence, but when in **Config Mode** or Date is displayed, 6 digits sequence is in use.

Use button to shut off buzzer when Alarm1 or Alarm2 happens.

## **More detailed description of button use:**

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

Normal push changes information to display:-  
Time, Alarm1, Alarm2, Date, Blank, and back to Time.

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

If Buzzer is buzzing, normal push shuts alarm buzzer off

In **Setup Mode** you can do:

Normal push increments the value of the currently displaying digit

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

**Please note**, that when you leave **Setup Mode**, the moment when you release button will reset clock seconds to zero, allowing you precision Seconds setup.

In **Config Mode** you can do:

Normal push increments the value of the currently displaying configuration parameter

Long push goes back to Blank Mode, where no digits are displayed

In **20 seconds Startup Display Mode** you can do:

Normal push is not in use and reserved for future

Long push leads to Frequency Test Mode.

Clock will switch display and LED off, which means 200kHz frequency output has been activated.

**Please note**, that the only way to leave this mode and come back to the normal **Display mode** is to switch your Clock off and disconnect backup battery (if applicable).

All your current time, date, alarm settings will be lost, so you'll need to set it up again.

## **How to setup Time, Date and Alarms**

To set or adjust the **Current Time**, push Button repeatedly until Clock displays current time.

Now push and hold Button until under tube LED is on with red and blue lights together.

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

Clock will continue to display time in 4 digits sequence, but it will be slower, so digits displays longer giving you time to catch the digit you have to set up.

When needed digits is displaying, push Button repeatedly until your set required value

Wait till next digit is on display, push Button repeatedly until your set required value

Now you set the current Time.

Push and hold Button until LED is off again. You have left **Setup Mode**.

To set the **Current Date** push Button repeatedly until clock displays Date.

Using the same technique to set up the Date:

Now push and hold Button until under tube LED is on with red and blue lights together.

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

Clock will continue to display date in 6 digits sequence, but it will be slower, so digits displays longer giving you time to catch the digit you have to set up.

When needed digits is displaying, push Button repeatedly until your set required value

Wait till next digit is on display, push Button repeatedly until your set required value

**Please remember** the Date format your clock is running or you have setup. Modify date digits according to the date format

Push and hold Button until LED is off again. You have left **Setup Mode**.

Use the same technique to **set Alarm1 or Alarm2**.

To go to the Alarm setup mode, just choose the Alarm Time to display

Alarm time with under tube LED red light on is Alarm Set 1

Alarm time with under tube LED blue light on is Alarm Set 2

Now push and hold Button until under tube LED is on with red and blue lights together.

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

Clock will continue to display Alarm set time in 4 digits sequence, but it will be slower, so digits displays longer giving you time to catch the digit you have to set up.

When needed digits is displaying, push Button repeatedly until your set required value

Wait till next digit is on display, push Button repeatedly until your set required value

Now you set the Alarm set 1 or 2.

Push and hold Button until LED is off again. You have left **Setup Mode**.

Clock comes back to Alarm 1 or Alarm2 **Display Mode**.

If Alarm time was modified when Clock was in Setup Mode, then red or blue LED will blink with 1 second time, which means alarm set is activated now.

**Please note**, that if Alarm time was **not** modified when Clock was in Setup Mode, then red or blue LED will come solid on, which means alarm set is de-activated now.

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

I recommend you do this procedure sometime after lunch, when PM time is started. It gives you a clear sign that you have changed the time scale.

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

Push and hold Button 2 until Clock changes time from 24h to 12 hours scale. If you do it after lunch, hours indication value will be changed from 13 to 01 for example.

Release Button 2. Check that Clock is displaying time correctly.

Second long push will change it back from 12h to 24 hours scale.

Release Button 2. Check that Clock is displaying time correctly.

## **How to change parameters in Config Mode:**

Change display mode to Blank. To do it, in **Display Mode** Using Button set your clock to when tube is blank.

Now push and hold Button until under tube LED is on with red and blue lights together.

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

Clock will start to display 6 configurable parameters as 6 digits in Config Mode in 6 digits sequence, it will be slower, so digits displays longer giving you time to catch the digit you have to set up.

Displaying 6 digits reflects 6 configurable parameter and clock displays in the following sequence: Parameter6, Parameter5, Parameter4, Parameter3, Parameter2, Parameter1, Pause, then again Parameter6, Parameter5 and so on

Parameters 6-3 are not in use yet and reserved for future use. Clock displays these parameters as its representing number: 6, 5, 4, 3 and you can not modify it.

**Parameter 2** defines Date Format.

When parameter set to 0, clock displays date in European format DDMMYY

When parameter set to 1, clock displays date in American format MMDDYY

**Parameter 1** defines Time Format.

When parameter set to 0, clock displays date in 24 Hours format

When parameter set to 1, clock displays date in 12 Hours format

When needed digits is displaying, push Button repeatedly until your set required value

Wait till next digit is on display, push Button repeatedly until your set required value

Now you set Config Parameter

Push and hold Button until LED is off again. You have left **Setup Mode**.

Clock comes back to Blank **Display Mode**. Push button to select display mode you like.

### **Notice:**

Please do not use this clock outside, it's not for use in bathroom, nor for use in wet conditions.

Use only good quality, certified Wall Plug Power Supply, which can provide regulated, not less than 150mA Direct Current at 9-12V.

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 caused by improper or careless use of this Clock.

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 and other related information can be found on our WEB site at [www.kosbo.com](http://www.kosbo.com)

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