

# Quick Setup Manual of USB Powered 2 Tube 6E1p/6E2 (EM84) Magic Eye VU Meter(Audio Visualizer) -V1.0

Version: 1.0. (06-19-2019).

Download product documentation and the related software at:

<http://vfdclock.jimdo.com>

<http://vfdclockmirr.jimdofree.com>

or You can contact me via email:

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## Notice

In order to drive the Magic Eye tube, some internal equipments are under the High Voltage (up to 250V DC), please do not use this VU meter outside or in any wet conditions, please do not touch any part inside it when the power supply is turned on. Always keep it away from kids.

- 1). Install the 6E1p/6E2 tube(s) first before plug the USB power!
- 2). Never change the tube when the power on!
- 3). Do not touch the 6E1p/6E2 tube when the power on, the tube is hot!
- 4). No guarantee it will work fine with other 6E1p/6E2 (EM84) tubes.

## Specifications

**Tube Name:** 6E1p/6E2 (EM84) ;  
**Power Supply:** 5V DC via MINI-USB;  
**Working Current:** 1000mA;  
**Size:** 106mm (L) \* 50mm (W) \* 80mm (H)  
( with the tube installed);  
**PCB Size:** 96mm (L) \* 40mm (W) ;  
**PCB Color:** Black;  
**Weight:** 90g (with the tubes);  
**The 6E2 VU-meter works with any standard 5V 1A USB power supply, use only high-quality adapter!**



## Features

Features:

- 1). **5V Mini-USB powered**, easy to be used. Small size & high efficiency. Can connect to your computer's USB plugs directly.
- 2). **Round trimmer resistor** installed on the right side of the case, easy for adjusting the circuit's sensitivity;
- 3). **Tri-colored RGB LEDs** mounted under the 6E1p/6E2 tube. This LEDs can display any color with a lot of pre-defined colors as back light;
- 4). Simple setting by using **1 button** only, can Turn ON & Turn OFF the power and switch the LED's color or turn off the LED;
- 5). The tube is installed in the Ceramic Tube Socket or the Gold Plated Stamped Contacts. You can replace tube by yourself without using any tools;
- 6). Support **3.5mm Line\_in** and MIC (**optional**) on board, and also has a **3.5mm Line\_out** socket installed, you can just connect the VU-meter to your computer's sound output or other sound source and connect your headphone to the VU-meter;
- 7). Beautiful **CAD** designed **acrylic case** made using a laser cutter makes the clock look beautiful. You can assemble / disassemble the case by using only 4 screws on the bottom of the case. The case also has 4 bumpers as feet on the bottom of the case in order to stop to prevent case's damage.

## Turn Power ON/OFF

**Install the tubes first before plug the USB power!**

When you plug the MINI-USB with power supply to the VU Meter, the tubes will turn on automatically, please wait for about **20 seconds** for the soft-start.

For turn the VU Meter power off, long click the back button for about 2s;  
(Tips: Keep pressing the button down for 0.5s~1s more when you see the LED light off)  
Or unplug the USB wire for the fully power off;

**For saving the tubes' life, please do not turn the tubes On/Off frequently,**

## Connect the wires

Please connect the Audio source to the back 3.5mm **Line\_in** hole (Usually near the USB power socket) by using the 3.5mm audio-joint wire, or if you wanna swap the L&R audio signal, you can use the [R+L] on the back if on the PCB in some of the version, and connect your headphone into the right side **Line\_out** hole;

**For the MIC installed version, when you unplug the back 3.5mm Line\_in wire, the MIC will be turned on automatically (unplug all the rest like dummy plug and the headphone in the Line\_out too if necessary).**

**(!!For the item contains MIC version, if the PCB has a R+L optional 3.5mm audio-in socket, please plug a dummy (empty) 3.5mm male plug in.!!)**

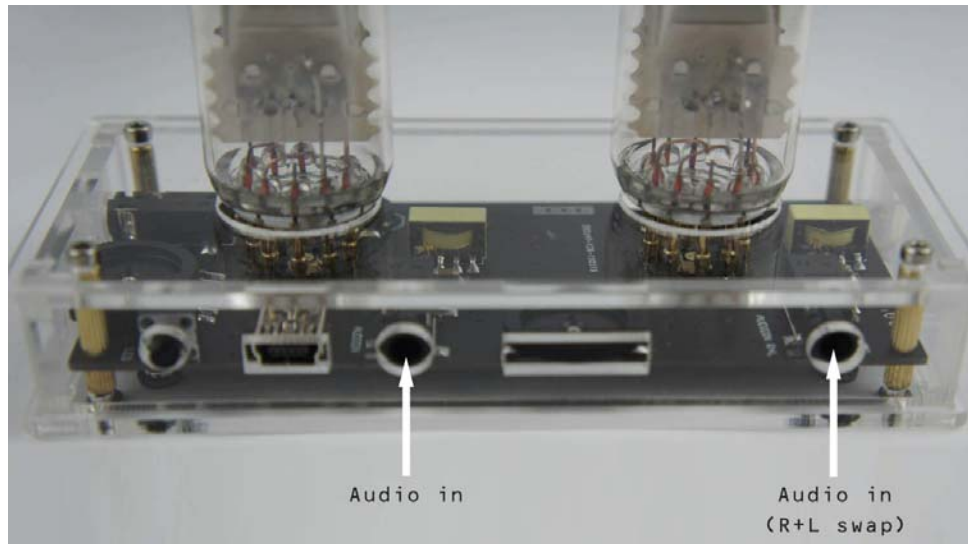
## Adjust the sensibility

By using the Round trimmer resistor installed on the right side and back side of the

case, you can adjust the sensibility easily.

Tips: The stand method for adjusting the sensibility: make sure you connect all the wires correctly, and in the mute mode, turn the trimmer till the up&down light bar just moved, there will be the right position.

## Picture of back sockets



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