ONE
Little Bear

DOUK AUDIO

MAKE HI-FI AFFORDABLE

MANUAL

Introduction

VU2 is multi-functional VU meter & audio splitter box originally designed by Douk Audio:

- Can be used as an analog VU meter, with wired stereo RCA input and wireless microphone inputs, can be matched very well with most common audio device such as mobile phone, computer, CD players, or speakers and so on, very suitable for home/office/studio system to dynamically decorate your auditory feast.
- Can be used as a 4-way audio splitter box, VU2 can work in 4-IN-1-OUT to compare the sound quality of differet audio source among mobile phone, tablet computer, TV, CD player, DAC etc., also can work in 1-IN-4-OUT mode to do contrasts among preamp, headphone, power amplifier and active speakers etc., no need to plug in and out cables repeatedly to avoid wearing the contact point of the sockets. 4 channel can input at the same time to mixer different audio source, also can output at the same time to satisfy the requirements of monitoring or recording.

Warm tips

1. 4 channel can work (input or output) at the same time, but this function only can be set by pressing the four channel buttons on the front panel, cannot be controlled by remote control.
2. When in 4-IN-1-OUT mode, 4 channels of VU2 are not recommended to work in parallel, there will be some distortion if the output level of 4 players are different.
3. Not recommend to power VU2 from the USB interface of audio source device, noise will be generated in this condition.

Instructions for use

1. Delay knob: used to set the beating speed of the pointer, and the beating speed can be adjusted according to the rhythm of music to get better visual enjotment. Tips: slow down the beating of pointer when listening the music of slow rhythm, and quicken for the music of fast rhythm. All settings are displayed in real time, and the reference

signal is the input audio signal, please make sure there is signal input when adjusting.

2. Gain knob: used to set the gain of the input signal. This GAIN setting doesn't use the potentiometer which attenuates the input signal through the resistor, instead, it is adjusted by the microcontroller internal digital adjustment. GAIN's potentiometer has no physical contact with the input audio signal, so it has no impact on the audio signal.Through this GAIN knob, the beating range of the light beam can be set. If the input signal is too small, you can increase it appropriately; if the signal is too large it can also be reduced appropriately. In short, the pointer beating range can be set optimally. In addition, for some friends who need recording, the 0dB position can be set at will, very convenient to monitor the recording volume.
3. With two inputs of microphone and line. Recommend to use LINE input when accurate display is needed, and recommend to use micrphone input when inconvenient to use cables for connection.
4. With dynamic acceleration and deceleration damping mode(default turn on), to make the beating rhythm of pointer better. Only can be set by remote control: press the MUTE button and then press ACG/DB button, this mode has been turned on/off when the LED indicator of ACG/DB flashes, after setting just press MUTE knob to exit. Recommend to play music and rotate the Delay and Gain knob to 50% position at least when setting, when the pointer is beating fast means the dynamic damping is turned on, beating relativey slow means turned off.

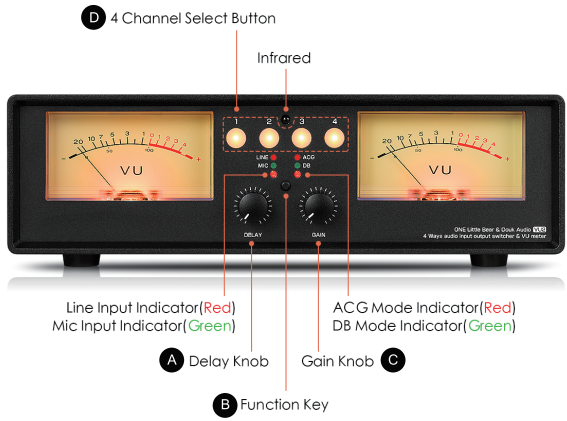
Notice

1. In the sensitivity setting, there must be music input. Otherwise, the pointer will not swing,therefore cannot see the actual effect of the currently set value. When you click to select, there will be an appropriate delay which is designed by the program, it is normal.
2. When using the microphone to pick up sound, according to the volume of speaker or the distance between VU2 and speaker, gain knob can be adjusted properly to get better display effects.
3. Because all channels are connected in common ground, a little common ground noise of some audio system may be generated

when there are multiple inputs, this is normal. You can buy a audio islation module and connect it between audio source and VU2 to avoid the noise.

4. In mute mode, the pointer will still swing when VU2 works in 1-IN-4-OUT, and the pointer will stop swinging when VU2 works in 4-IN-1-OUT.
5. The backlignt of VU2 dark version can be adjusted, need to open the chassis and there are adjustable resistors on the left and right channel, you can adjust to get proper lightness according to different needs.

Front panel



A. Delay Knob: to adjust the sensitivity of pointer, that is the speed of pointer beating.

B. Function buttton:

Single click: 1. Start (when VU2 is shutdown)
2. choose signal input between microphone and line (when VU2 works)

Double click: choose gain mode between ACG and DB mode.

Long press for 3 seconds: shutdown

C. Gain knob: to adjust the gain of input signal, that is the swing range of pointer.

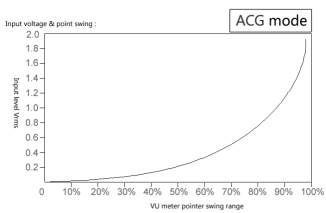
D. Input channel button:

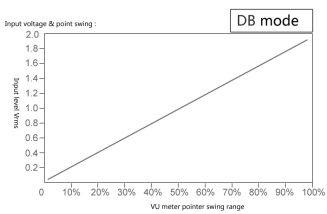
Short press: to choose one channel to work independently

Long press: to choose the channel to work with the current channels.

Back panel

The relationship between input voltage and pointer swing range





Instructions of ACG and DB display mode

1. In ACG mode, the VU meter is driven by a dynamic square root audio compression algorithm, which means that the relationship between the input volume and the swing of light beam is not proportional. It can be seen from the relationship diagram that when the input volume is low, the swing amplitude of the light beam is large, and when the volume is gradually increased, the swing amplitude of the light beam gradually becomes small. In this mode, users can use VU2 meter to get good

display effects in a larger audio input range without adjusting the gain. When the light beam jumps with the music, even if the volume input is too small, the light beam will jump, even if the volume input is large, it will not reach the maximum swing. It is recommended to adjust GAIN to make the light beam swing as close as possible to 70% (0dB). Due to the algorithm driver of dynamic square root audio compression, it cannot truly display the actual level of the current input volume, so it is not suitable for professional recording occasions. But this mode is suitable for people's regular hearing habits.

2. In DB mode, the VU meter pushes the light beam to beat after standard AD conversion. The data is the most original without any compression changes, therefore, the swing of the light beam is proportional to the input signal. This display mode is suitable for some occasions that need to know the real music level, such as a recording studio or when testing a certain sound level.

Parameters

Brand: Douk Audio
Model: VU2
Color of VU meter: light (yellow) / dark (black) / Blue
Audio input: stereo RCA / Microphone
Audio output: 4 groups of stereo RCA
Working mode of switcher: 1-IN-4-OUT / 4-IN-1-OUT
Sensitivity adjustment: support
Gain adjustment: support (DB mode / ACG mode)
Working voltage: Micro USB DC 5V
Working current: 0.5A (dark version) / 1.5A (light version)
Voltage of backlight filament: DC / AC 6-12V
Current of backlight filament: 10mA (dark version) / 100mA (light version)
Dynamic acceleration / deceleration damping modes: support
Power on/off function: support
Settings saved after shutdown: support
Mute function: support
Dimensions(W*D*H):280*122*80mm（11.02*4.08*3.15in)

Contact information

Website: www.doukaudio.com
Email: nobsound@doukaudio.com
WeChat/Whatsapp: +86-17704028602
Address: Room 1329, Wang Cheng Building, Long Guan East Road, Long Hua District, Shen Zhen, Guang Dong, China, 518000