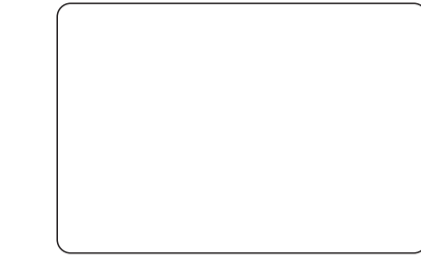# Audio Processor

**instruction manual**

Note: the operation methods of all models of this machine are consistent and the software is common. The above specifications and parameters are subject to change without notice

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- USB flash disk * 1: USB driver, control program and device operation instructions are included
- Power cord * 1
- Instructions * 1
- Square Port USB data cable * 1

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## Performance technical parameters

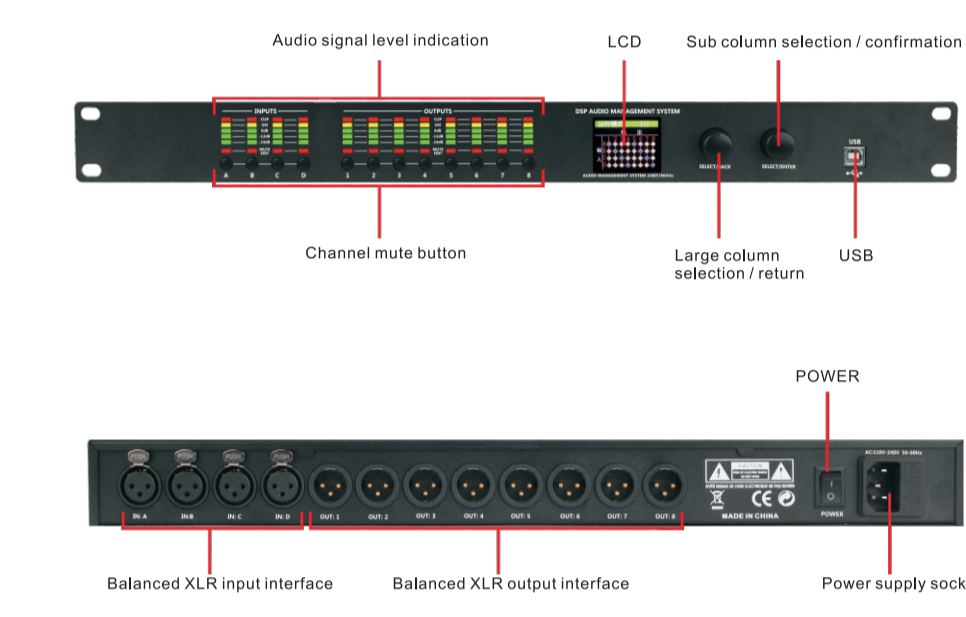| Input / output channel | | 2 in 4 out, 2 in 6 out, 2 in 8 out, 3 in 6 out, 4 in 8 out |
|---|---|---|
| Function of each input channel | Mute | Separate mute control is set for each channel |
| | delayed | Each input channel has independent delay control, with delay value of 0-1496.05ms and step distance of 0.0ms |
| | Polarity | identical ( + )  contrary ( – ) |
| Function of each output channel | equible num | Each input channel has 11 sections of gate Eq, in PEG state, the adjustment parameters are center frequency point: 20Hz-20KHz, step: 1Hz, gain: ± 12dB, step: 0.1dB Q value: 0.3 to 6.3 |
| | Mute | Each channel is equipped with independent mute control |
| | blend | Different input channels can be selected for each output channel, or any combination of input channels can be selected |
| | gain | ± 12dB, The step length is: 0, 1dB |
| | delayed | 0~(-996, 50B) |
| | Polarity | identical ( + )  contrary ( – ) |
| | equible num | Each channel can be set with 11 segments of equalization, with PEG ( II - shelf ) II shelf options |
| | Frequency divider | Low pass filter (LPF), high pass filter (HPF), filter type (pfmode): linework/dey / Bessel / Butterworth, Tril 20Hz-20KHz, attenuation slope: 6dB / OCT, 12dB / OCT, 18db / OCT, 24dB / oct30db / OCT, 36dB / OCT, 42db / OCT, 48dB / OCT |
| | limiter | Each output channel can be equipped with a compressor or separately, and the adjustable parameters are: threshold value: 17 + – 70dbu, step-distance: 1dB p, Release time: 1ms200ms; Step length: 1ms |
| Input / output interface | | Input: XLR female XLR out output: XLR male XLR test |
| CPU | | 250mz main frequency 48Khz sampling frequency 32-bit DSP processor, 24 bit / and D / a conversion |
| display | | 1.77 inch 18 bit true color display screen, LED display input / output matrix |
| Input impedance | | 20kΩ |
| Output impedance | | 100 Ω |
| Input range | | ±1 kdBu |
| frequency response | | 20Hz~2Hz  (+–0.5dB) |
| Signal to noise ratio | | >96dB |
| Distortion degree | | <0, 05%  (Output=0dBu/1KHz) |
| Degree of separation | | >80dB ( 1KHz ) |
| PC interface | | Panel 1 USB interface |
| power waste | | ≤5W |

### Welcome to our audio products

### Digital audio processor
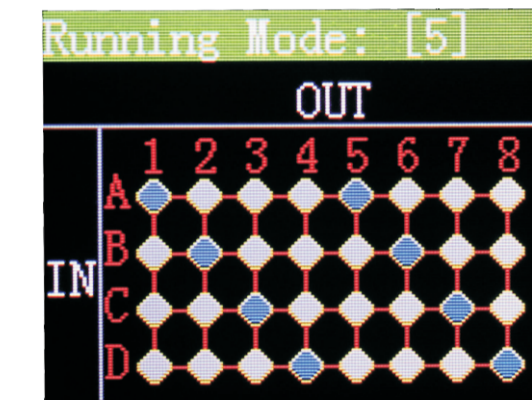
## Product characteristics

- Full 32bit high-speed digital signal processing, and the system delay is as low as 1490ms
- Arbitrary routing and hybrid control from input to output. Full range with peak peak compression amplitude limit
- Each input channel has a delay of 1490ms and is equipped with 11 segments of parametric equalizer with optional filtering characteristics
- Each output channel has 11 sections of parameter equalization, the filtering characteristics are optional, and the Q value can be up to 60
- Each output has high pass, low pass, filter, delay, compressor and limiter
- The operation interface can be switched between Chinese and English, which is simple and intuitive
- Balanced canon I / O interface
- 16 kinds of preset modes can be saved, which is suitable for switching in various occasions
- Quick connection to the operation interface of the computer through USB
- The operation screen can be switched between Chinese and English, and the operation interface is intuitive and convenient

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## Panel function introduction



Audio signal level indication · LCD · Sub column selection / confirmation · Channel mute button · Large column selection / return · USB · POWER

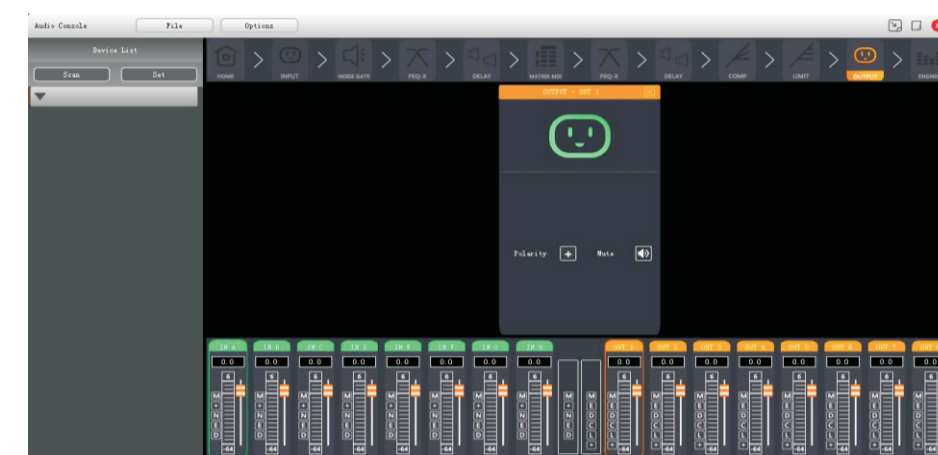Balanced XLR input interface · Balanced XLR output interface · Power supply socket

## Introduction to panel operation

1: The home page of the display screen shows the current mode and the interworking of routing channels, as shown in the figure below



5: Double click "O"  P  To adjust the polarity of the output channel, mute. To adjust the output channel, click the corresponding output channel below. As shown in the figure below



## shortcut button

1: Input channel shortcut button



1: click "M" to switch the channel mute
2: click "+" to switch the channel polarity
3: click "N" to switch the channel noise gate
4: click "E" to switch the channel equalizer
5: click "D" to switch the channel delay
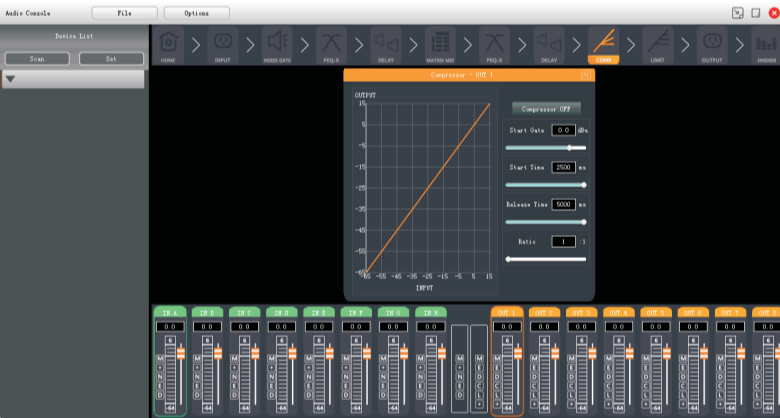6: drag the pull rod up and down to adjust the channel gain

2: Output channel shortcut button

1: click "M" to switch the channel mute
2: click "E" to switch the channel equalizer
3: click "D" to switch the channel delay
4: click "C" to switch the channel compressor
5: click "L" to switch the channel amplitude limiter
6: click "+" to switch the channel polarity
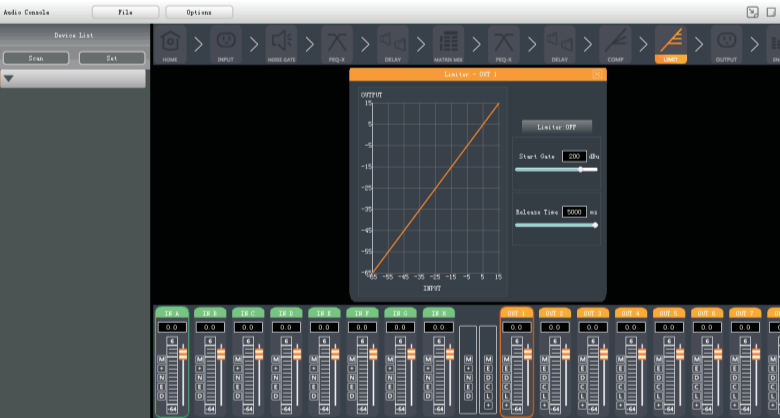7: drag the pull rod up and down to adjust the channel gain

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3: Double click the mouse to adjust the output compressor. To adjust the output channel, click the corresponding output channel below. As shown in the figure below



Start control level: used to set a level value that can trigger the compressor to open. Start control time: how long after the input signal exceeds the threshold, the noise door will open, that is, the time required for the compressor to open from never opening the door. Compression ratio: that is, the ratio of the dynamic range of the input signal to the dynamic range of the output signal of the low-level expander. Release time: it is used to set how long the compressor will change from the open state to the closed state after the allowable drum signal passes
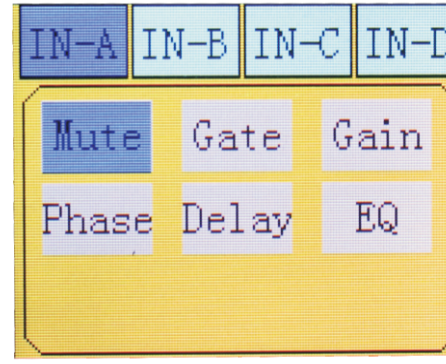
4: Double click "to adjust the output amplitude limiter". To adjust the output channel, click the corresponding output channel below, as shown in the figure below
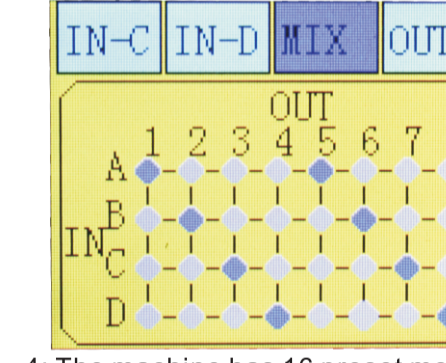


Start control level: it is used to set a level value that can trigger the opening of the amplitude limiter. Release time: it is used to set how long the amplitude limiter will change from open state to closed state after the drum signal allowed to pass through.
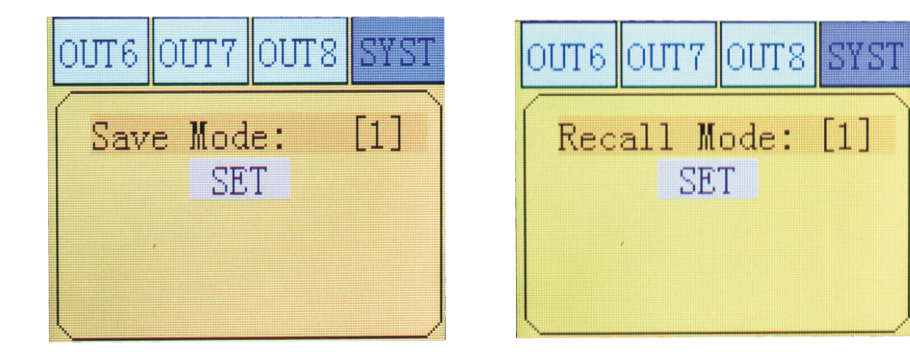
2: Press the "small column / OK" button to enter the system. Turn the "large column / return" button to switch the channel to be adjusted. If the function or parameter of the channel needs to be adjusted, turn the "small column / OK" button and press the button. As shown in the figure below



3: Set the channel route. Select the "big column" knob to the "mixing" item column, rotate the "small column / OK" button to switch the cursor and press the button to set the corresponding channel route, as shown in the following figure



4: The machine has 16 preset modes that can be saved and can be switched at will. It is suitable for users to switch anytime and anywhere: as shown in the figure below
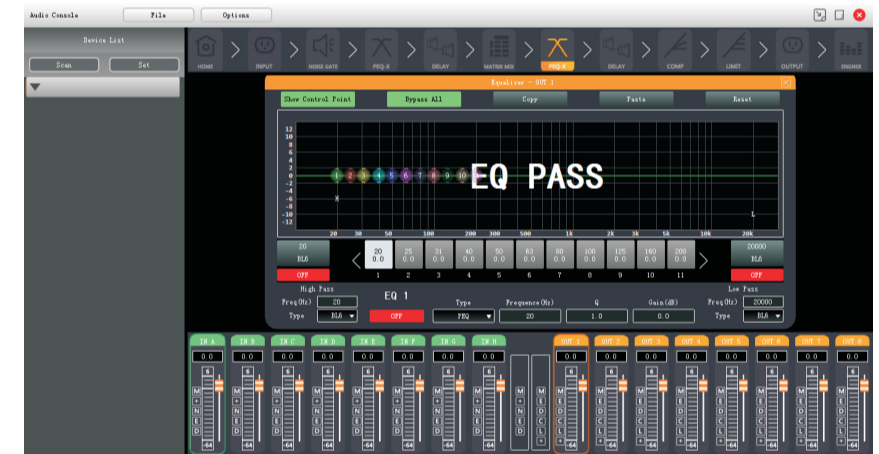
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5: The machine is equipped with key password lock, which is convenient for users to prevent false adjustment after debugging. No password or password can be set. Password setting: select the reset password and press the confirm button to enter  I interface, input  N ew password. Turn the confirmation button to enter the password. After confirming the password twice , 'long press the confirmation key to save the password". If debugging is required, long press the confirmation key after entering the password (if you forget the password, enter the universal password "8888" to unlock). If there is no password setting, you can directly open the parameter lock

6: The machine can copy and paste any channel to any channel, avoiding the cumbersome operation process of users
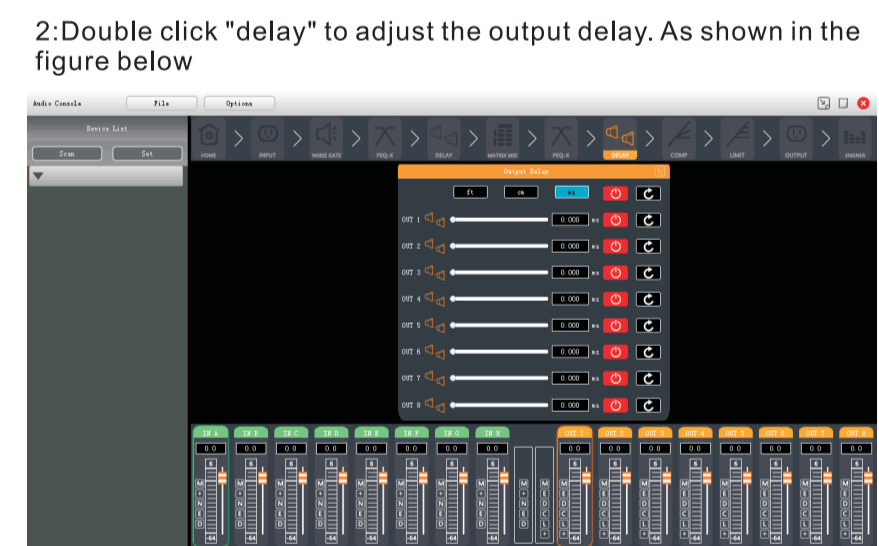
## Computer software installation and introduction

Note: before installing the USB drive, do not connect the device to the computer to install the USB drive

1: Plug the attached USB stick into the USB interface of the computer and open the USB stick

2: You will see a folder named "digital audio processor", as shown in the figure

3: Double click the folder to open it, and you will see three folders as shown in the figure

4: Double click it     USB driver exe, install the USB driver according to the prompt. After the installation is completed, the USB driver is pre installed successfully

5: After the driver is installed, the attached USB cable can be used to connect the digital audio processor to the computer

6: Double click the     digital audio processor with the mouse to debug the software Exe, you can open the control interface and configure the equipment accordingly
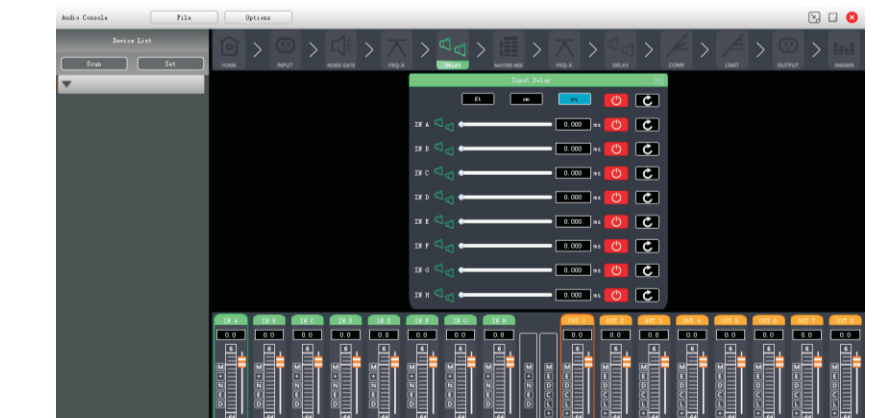


Display control point: display adjustable equalization point
Full bypass: then through, equalization does not work
Copy: click Copy to copy the channel data
Paste: (paste only after copying) click the channel below to paste and paste the copied data
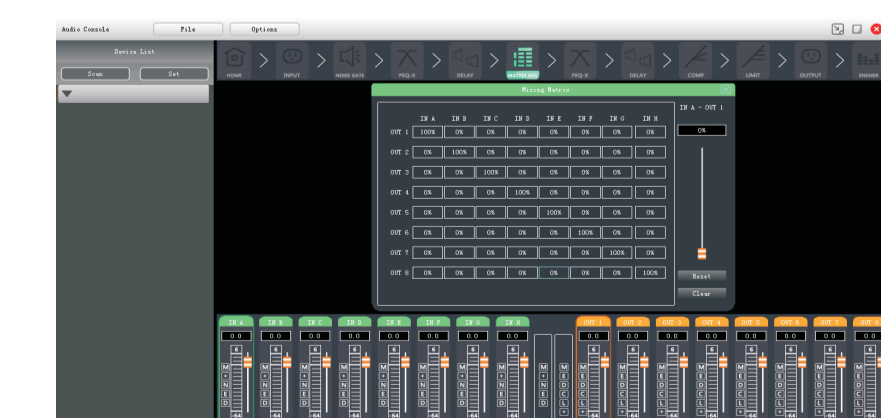Reset: readjust the balance data

2:Double click "delay" to adjust the output delay. As shown in the figure below

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4: Double click "delay" to adjust the input delay. As shown in the figure below



5:Double click "matrix mix" to adjust matrix mixing. This setting is to set the interworking between input channel and output channel and the percentage value of signal distribution between channels, which is generally adjusted to 100%. As shown in the following figure: (for channel a input signal, the signal output port is output 1 and output 2. For channel B input signal, the signal outlet is output 3 and output 4)
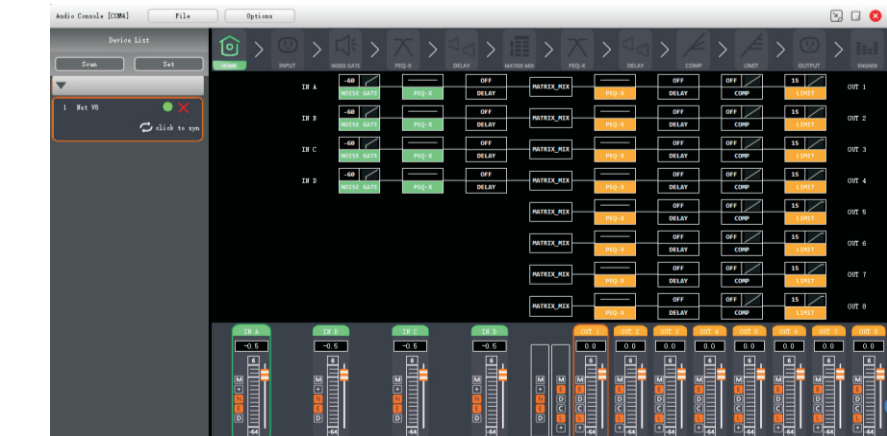


### 2: Output part

1: Double click PE  – I in order to adjust the output channel equalization and high-low-pass switch, adjust the value. To adjust the output channel, click the corresponding output channel below. Click "display control point" to adjust the corresponding frequency point, as shown in the figure below
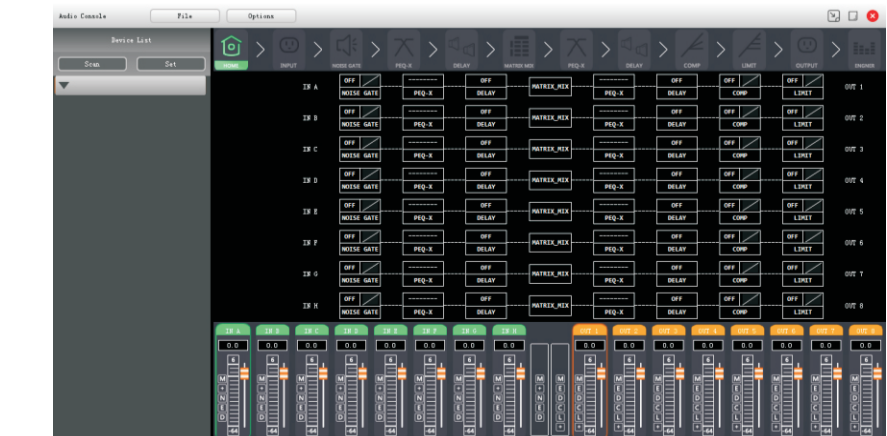
## Connection and use of equipment and computer

**Online:**
1: Before online operation, please ensure that the power supply of the device has been turned on, both ends of the USB cable are reliably connected, and the USB driver has been installed on the computer.
2: open the operation interface of the computer (the software is a Chinese and English operating system, which can be switched according to personal needs, and the software can be switched by clicking the option) as shown in the figure below:



3: Click "scan" to display the equipment in the left column after the scanning is completed, and then click "click synchronization parameters" to debug after the computer software reads the equipment (the display screen of the equipment is also displayed as "connect computer"), as shown in the figure below:
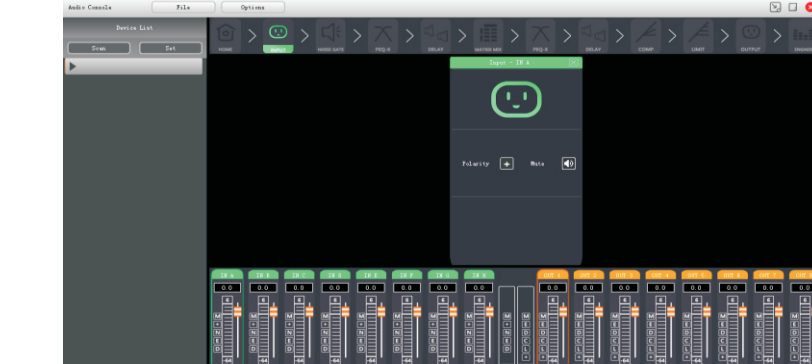
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## Interface operation instructions

1: Click the "file" option, and the drop-down box shows that this column is called. The purpose of saving data is to load settings from the computer: after debugging, click Save settings to the debugging file generated by the computer to save the file data to the computer: after software re data debugging is completed, click this button to generate a data file, Easy to call data, use step to set up the machine position: click the button, the machine's running state parameters will be read to the computer's control software to show the sound effects: click the button to save the data to any sound effect of the software (software built-in 16 kinds of saved sound effects), loading the sound effect button, that is, loading any sound effect in 16 kinds of sound effects.

2: Click the "option" option, and the drop-down box shows that the column is for language switching and equipment software management purpose
3: The "debug" option is a software parameter record, which is useless

Load settings from PC
Save settings to PC
Synchronous setting to saved collection
Save sound
Load sound
English
Firmware update
Restore factory settings
Device copy

## Software debugging button

### 1: Input part

1: Double click InP  T "is to adjust the polarity of the input channel and mute it. If you need to adjust the input channel, you need to click the mouse to correspond to the input channel. As shown in the figure below:
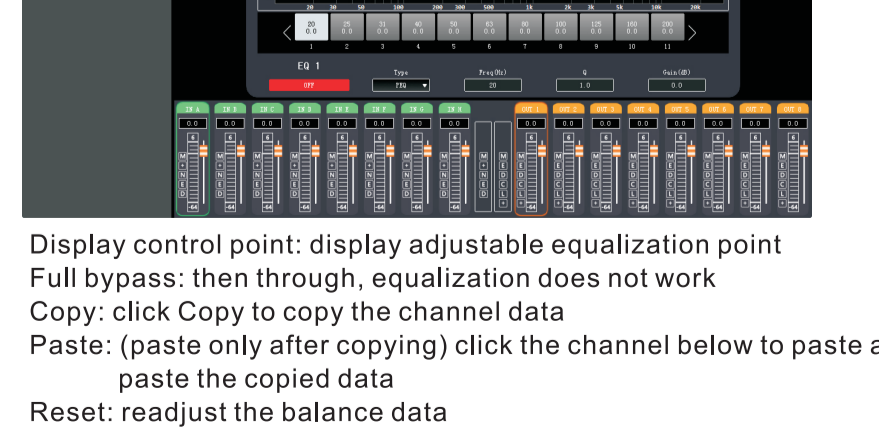


2: Double click "noise gate" to adjust the noise gate of the input channel. To adjust the input channel, click the corresponding input channel below. As shown in the figure below:



Start control level: used to set a level value that can trigger the opening of the noise door. Release level: used to set how much the gain decreases when the noise door is closed

3: Double click PE  - "X" refers to the equalization of the input channel. To adjust the input channel, click the corresponding input channel below. Click "display control points" to adjust the corresponding frequency points, as shown in the figure below:



Display control point: display adjustable equalization point
Full bypass: then through, equalization does not work
Copy: click Copy to copy the channel data
Paste: (paste only after copying) click the channel below to paste and paste the copied data
Reset: readjust the balance data