Relacart®
— Real Sound Always

MIXXI2 DIGITAL MIXER

12 INPUT CHANNELS
10 OUTPUT CHANNELS

Installation and Operation

Contents

Introduction

Thank you for choosing RELACART digital mixer, and welcome you to join our team of tens of thousands of professional users. Our professional design and production experience ensure the excellent performance of our products in terms of quality, performance and stability.

Quick Connect Guide

Quick Connect Guide

一、 Application download

Open the APP Store application in IPAD, search MIXX12 to download and install
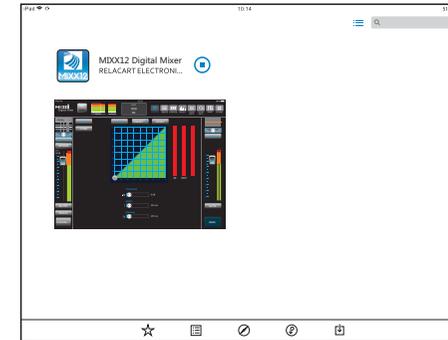
二、 MIXX12 Quick connect

Mixer communicates with IPAD

1: Turn on the power switch of the mixer, open the WIFI setting of IPAD, and connect to MIXX12 (WIFI factory password: 12345678)

2: Open MIXX12 Software

3: Click the software connection status button or system setting button to enter the connection page.

4: Click "Search" to display the IP address, click the IP address and then click Connect.

5: After connection successfully, it will automatically jump to the channel homepage. The connection status button lights up blue to indicate that the connection is successful.

Product introduction

MIXX12 / MIXX12-E is a digital mixer with 12 inputs and 10 outputs. It is a new mixer equipped with DANTE4 * 4 digital audio transmission module. You can use a network cable to connect to the router for wireless control, or use the built-in WIFI of the mixer for wireless control. Can support all Apple ios tablets and Windows tablets. With 6 - channel broadcast-quality microphone amplifiers (6 combo sockets), 2 main outputs (dual XLR + dual 6.35 sockets), 4 auxiliary outputs, 4 DANTE outputs Adopt high - performance 40-bit floating-point digital signal processor and 24-bit AD/DA converter. Built-in effects processor, compression, threshold, parametric equalizer. The wireless control mode allows you to walk on the stage and among the crowd. A 12 - channel digital live mixer that is perfectly touchable with a tablet such as an iPad.

Features :
• Intuitive touch controls covering almost all major mixing functions.
• Mixer interface can adjust each channel control, including solo, mute, pan, fader, and see
  the complete level meter.
• The channel interface can control powerful DSP effects. The input channels include 4-band
  PEQ, high-pass filtering, compression, threshold, main output and auxiliary output,including
  31-band graphic EQ and limiter. The effect channel includes reverb and echo.
• Each channel can be edited with names and icons for easy identification, and icons can be
  imported from the picture library.
• The +48V phantom power of each channel can be individually switched.(Channel 1-channel 6)
• Extremely low noise floor and extremely high headroom design.
• 4 auxiliary outputs, 4 DANTE outputs can be used to monitor the mix.
• Globally shared reverb and echo effects.
• Seamless access, you can adjust the target's audio at any position in the network domain,
  you can go directly to the stage to adjust their own monitoring, and wireless control gives the
  musicians on the stage the ability to adjust their own monitoring.
• Can connect a variety of DANTE equipment, such as wireless microphones, conference
  microphones, amplifiers and other equipment supporting DANTE communication.

Specification：
Sampling rate： 24bit， 48kHz
Frequency respond： 20 Hz to 20 kHz +/–1 dB
Latency： 1.5 ms
T.H.D.： <0.1%
Noise-Mic input to main output： -72dBv Single channel-Max fader(A weighted)
                                                    -90dBv Single channel-Min fader(A weighted)
Input crosstalk(adjacent channel)： <–120 dB @1 kHz
S/N： 93dB One channel and main fader at unity(A-weighted)
Dynamic Range： 110dB One channel and main fader at unity(A-weighted)
CMRR： >70 dB @1 kHz
Input Impedance： 3.3k Ω(XLR Balance); 30 kΩ(1/4″)
Gain： 0 to 60 dB
Output Impedance： 600Ω(XLR Balance)
Max Output Level： +21 dBu(XLR Balance)
Power Supply： 100-240V AC 50/60Hz
Dimension(mm)： 488(L)x 132(H)x 191(D)
Weight： Approximately 4kg

Introduction of Mixer Panel

Front panel:

1. WIFI antenna socket: Install the factory configured WIFI antenna.
2. WIFI: The WIFI indicator flashes when transmitting data.
3. POWER: The power indicator is on to indicate that the power is on.
4. Monitor socket: 6.35MM stereo monitor output socket.
5. PHONE: Stereo monitor output volume adjustment potentiometer.
6. MAIN L OUTPUT potentiometer: The main output left channel volume potentiometer.
7. MAIN R OUTPUT potentiometer: The main output right channel volume potentiometer.
8. Input channel （MIC / LINE）： 1-6 channels XLR and 6.35 jack （JACK） compatible
    balanced input. Cannon type can independently control 48V phantom power.
9. Input channel LINE: 7-12 channel 6.3 jack balanced input.
10. Auxiliary output (AUX 1-AUX4): 4 unbalanced auxiliary outputs, each independently
    controlled.
11. MAIN L / R OUTPUTS: The main output XLR and JACK are output in parallel with the
    same signal.
12. MAIN L / R OUTPUTS: The main output XLR and JACK are output in parallel with the
    same signal.
13. MAIN L / R OUTPUTS LED: main output audio indicator, not controlled by main output
    volume potentiometer

Rear panel:

1. AC power interface: Install the factory-configured power cord and connect 110V-240V 50 / 60Hz AC power.
2. Power switch: I / O boat switch, press I to turn on the power, press O to turn off the power.
3. RESET: Press and hold for 3 seconds to reset DANTE network IP address: 192.168.1.120, press and hold for 6 seconds to reset DANTE network IP + WIFI reset. (Please refer to WIFI reset parameter setting after resetting WIFI)
4. DANTE network interface: The DANTE interface can transmit audio through the network, and can also control the mixer through software.
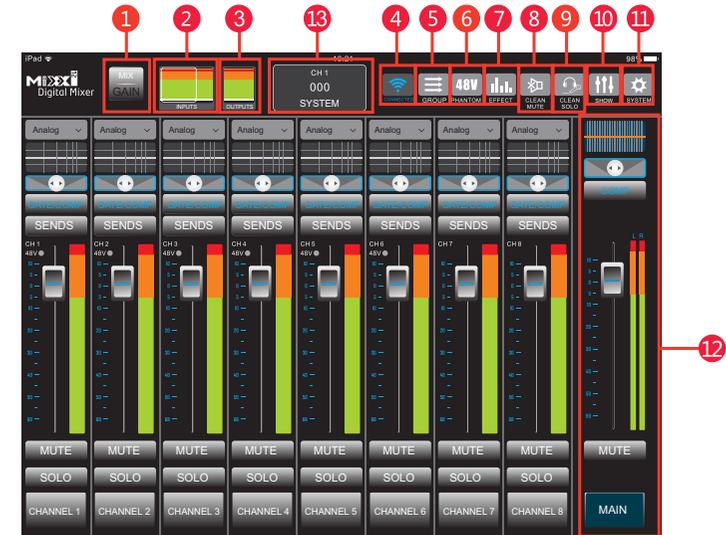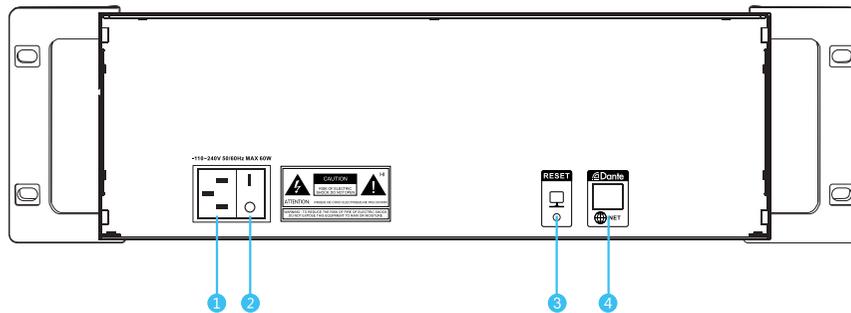
Instructions for using the interactive operation interface

1. MIX / GAIN function switch: A switch that switches the fader to control channel level or control channel gain.
2. Input channel 1-12 window: display the fader status and input level display of channels 1-12. Click to switch to the input channel page.
3. Output channels AUX 1-AUX 4, DANTE 1-DANTE 4: display output channels AUX 1-AUX 4, DANTE 1-DANTE 4 The fader status and output level are displayed. Click to switch to the output page.
4. Software communication status: The icon lights up in blue to indicate online, and gray to indicate offline.
5. Group function: You can edit mute group and control group to make the channel function work synchronously.
6. 48V phantom power interface: can independently control phantom power for channels 1-6.
7. Effect parameter setting interface: You can set the effect parameters of reverb and echo.
8. Clear mute switch: Mute all channels that are muted.
9. Clear monitoring: Turn off monitoring for all channels that have monitoring enabled.
10. Performance saving: You can save the set parameters to the performance interface, and use the saved scene next time after the software connects and communicates directly.
11. System setting interface: You can enter the connection page, and you can update the firmware.
12. Main output channel: You can control the function of the main output channel.
13. Function status display window: It is displayed in three lines, the channel currently being set in the first line, the parameters of the function currently set in the second line, and the function currently set in the third line.

1 CH1-12 Input channels

1. MIX / GAIN function switch: A switch that switches the fader to control channel level or control channel gain.
White text on a gray background MIX indicates the control channel volume fader (silver gray), orange low white text GAIN indicates a control channel gain fader (orange).
2. Fader scale: blue for volume scale and orange for gain scale.
3. Channel output volume fader: silver gray adjusts output volume, orange adjusts channel input gain.
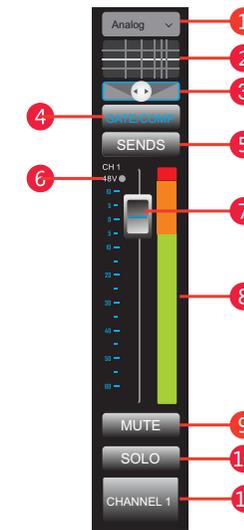
1. Signal source switching: You can select analog signal or DANTE 1-4 channel signal input.
2. Input channel EQ: 4-band parametric EQ, which can be arbitrarily controlled within the setting range, with built-in high and low pass functions.
3. Left and right sound image adjustment (PAN): Adjust the distribution of the sound source in the space, you can drag left and right, double-click to restore. If it is turned to the left, it is equivalent to putting the sound source on the left channel,Use this function in places where stereo sound is required.
4. Noise gate / compressor interface: detailed parameter settings of noise gate and compressor.
5. AUX Aux Send: Send the volume of the current channel to the output channels AUX 1-4, DANTE 1-4 effect.
6. Channel name and phantom power status: Displays the name of the current channel. A 48V red light indicates that phantom power is on.
7. Channel fader: Drag the channel up and down to adjust the channel output volume. The adjustable range is -60dB to + 10dB.
8. Volume level display: The input level display of the current channel.
9. Mute: mute switch. Click this button to turn off the output of the channel audio source.
10. Solo: Monitor switch, click this button, you can use the monitor headphones to hear the sound signal in front of the channel faders.
11. Channel name: Click this button to allow editing a new name or changing the color and image.

Input equalizer: 4 - band parametric equalizer, of which BAND 1 and BAND 4 can be switched between shelves and bells, can be in the range Click "Equalizer", and when the font color turns blue, you can arbitrarily swap the balls in the range to draw the equalization effect you want.
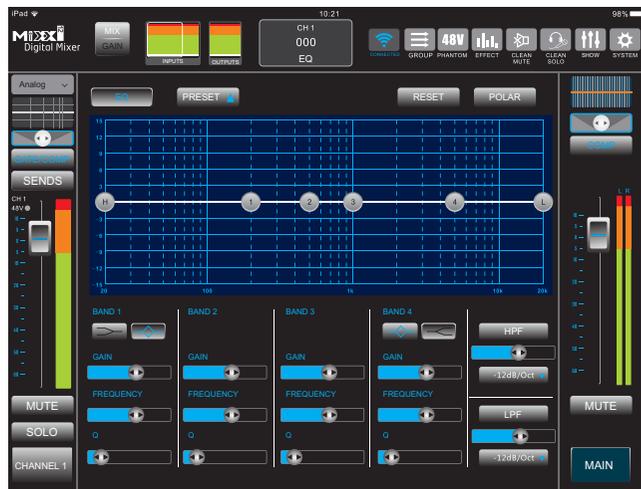
■ Drag the band ball up and down to adjust the gain accordingly. The gain range is -15dB ~+15dB.

■ Drag the band ball to the left and right to adjust the frequency accordingly. The gain range is 20Hz ~ 20KHz.

■ Q value: Adjust the frequency bandwidth of the frequency sphere.

■ High-pass: High-pass filter, high-frequency signals can pass normally, while low-frequency signals below the set threshold are blocked and weakened.

■ Low-pass: Low-pass filter, low-frequency signals can pass normally, while high-frequency signals above the set threshold are blocked and weakened.

■ Preset save: recall preset effects.

■ Reset: Reset the parameters.

■ Polarity: The sound wave phase is reversed.
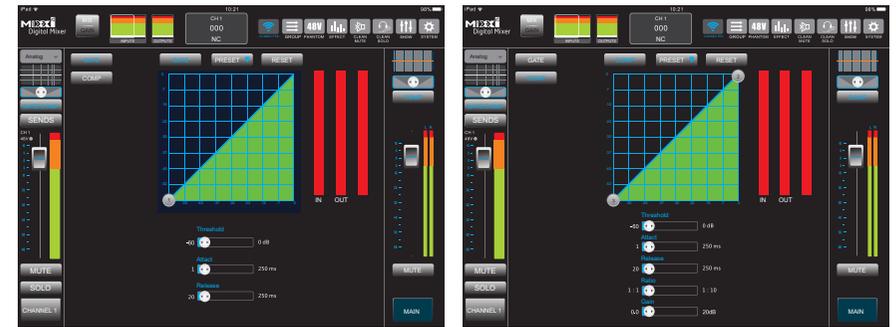
■ Noise gate: You can use the noise gate to set a level threshold, and the signal level above the threshold is normally amplified and lower than the threshold.
The level of the value is off. Generally used to eliminate the background noise when there is no music signal.
Door valve: Set the threshold value (ie critical level) of the noise door, and the setting range is -60dB~0dB.
Start-up: The time required for the noise gate to open after the input signal time-out threshold. The setting range is from 1ms to 250ms.
Recovery: The time required for the noise gate to close after the input signal is less than the threshold. The setting range is from 20ms to 250ms.

■ Compressor: An amplifier whose gain decreases as the input signal level increases.
Gate valve: Set the threshold (ie critical level) of the compressor. The setting range is -60dB~0dB.
Start-up: The time required for the noise gate to open after the input signal time-out threshold. The setting range is from 1ms to 250ms.
Recovery: The time required for the noise gate to close after the input signal is less than the threshold. The setting range is from 20ms to 250ms.
Ratio: The compression ratio is 1: 1-1: 10. The larger the compression ratio, the smaller the compression ratio. The smaller the compression ratio, the larger the compression ratio.
Preset save: recall preset effects.
Reset: Reset the parameters.

2 **AUX1-4 / DANTE1-4 Auxiliary output / DANTE output**

Click this button, the main interface area is displayed as shown in the figure

Equalizer

■ Auxiliary output equalizer: The standard 31-band graphic equalizer compensates the defects of speakers and sound field by adjusting various frequency bands. Click "Draw", and when the font color turns blue, you can drag the frequency ball in the range to draw the balance effect you want.
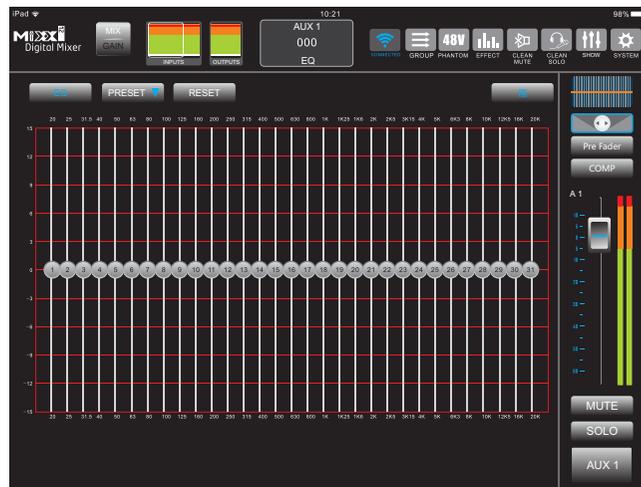
■ Compressor: An amplifier that reduces its gain as the input signal level increases.
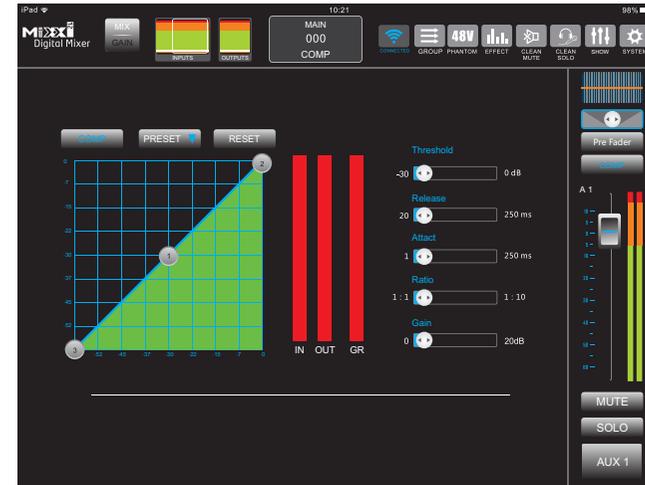
Gate valve: Set the threshold (and critical level) of the compressor. The setting range is -60dB~0dB.

Start-up: The time required for the noise gate to open after the input signal time - out threshold. The setting range is from 1ms to 250ms.

Ratio: The compression ratio is 1:1-1:10. The larger the compression ratio, the smaller the compression ratio. The smaller the compression ratio, the larger the compression ratio.

Preset save: recall preset effects.

Reset: Reset the parameters.

Gain: Adjust the compensation gain of the compressor.

■ Before Fader: Click this button to select Pre Fader, Post Fader, or Pre Dsp.(Before the fader) indicates that the signal is not limited by the fader. If you do n't push the fader, there is a signal output. After the fader, it means that the fader will not be pushed, and the signal will not be sent out.

Pre Dsp: If you select this button, you will hear no preset analog sound.

Auxiliary channel fader: drag up and down to adjust, adjustable range: -60dB~10dB.

Mute: mute switch, click this button to turn off the input of the channel audio source.

Solo: monitor switch, click this button, you can use the monitor headphones to hear the sound signal in front of the fader of the channel.

Channel name: Click this button to allow editing a new name or changing the color and image.

3 | **EFFECT: Reverb / Echo**

Click this button, the main interface area is displayed as shown in the figure:

- Input equalizer
- Left and right channel adjustment
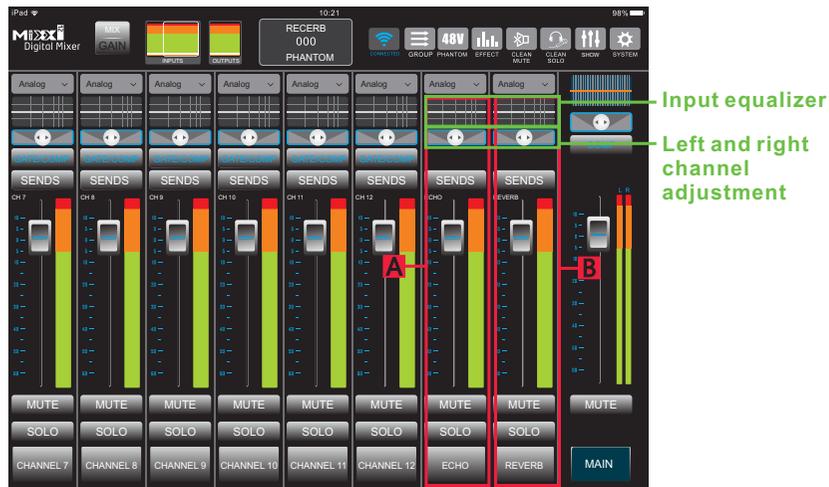
A | **DELAY (Echo):**

Input equalizer: 4 - band parametric equalizer, of which BAND 1 and BAND 4 can be switched between shelves and bells, which can be arbitrarily within the range. Set the frequency, gain and Q value. Click "Equalizer", when the font color turns blue, you can drag the frequency band arbitrarily within the range Draw the balance you want.

B | **DELAY (Echo):**

Input equalizer: 4-band parametric equalizer, of which BAND 1 and BAND 4 can be switched between the shelf and the bell shape, and the frequency, gain and Q value can be arbitrarily set within the range. Click "Equalizer". When the font color turns blue, you can drag the band ball anywhere in the range to draw the equalization effect you want.
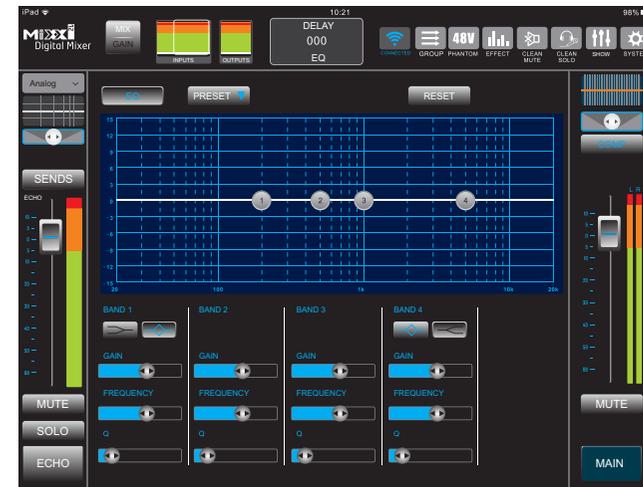
■ Drag the band ball up and down to adjust the gain accordingly. The gain range is -15dB~15dB.

■ Drag the frequency ball to the left and right to adjust the gain accordingly. The gain range is 20Hz~20KHz.

■ Q value: Adjust the slope of the audio curve.

■ Preset save: recall preset effects.

■ Reset: Reset the parameters.

■ Left and right sound image adjustment (PAN): Adjust the distribution of the sound source in space, you can drag left and right, double-click to restore. If it is adjusted to the left, it is equivalent to placing the sound source on the left channel, and uses this function in places requiring stereo.

■ Auxiliary: Adjust the level of the sound source of each channel to the auxiliary output.

■ Channel fader: Drag up and down to adjust, the adjustable range is -60dB~10dB.

■ Mute: mute switch, click this button to turn off the input of the channel audio source.

■ Solo: monitor switch, click this button, you can use the monitor to listen to the sound signal in front of the fader.

4 **GROUP: Grouping**

There are 4 mute groups and 4 control groups. After clicking GROUP, a pop-up picture is displayed, click "Edit", the main screen area enters the mute / control interface.
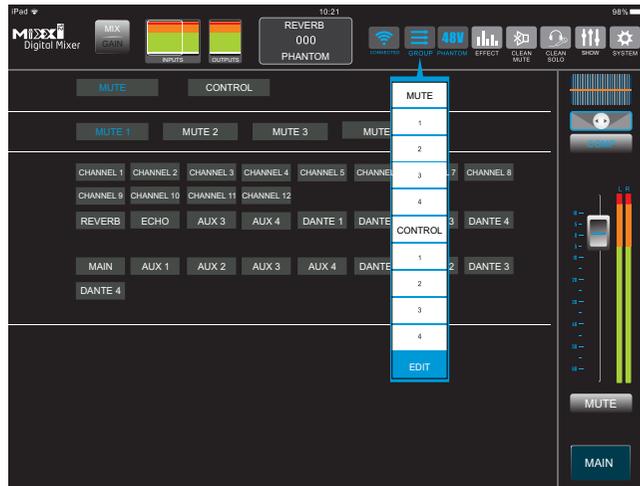
Mute group : After entering the mute editing interface, as shown in the figure: Click "Mute 1" to select 1, 3, 6, 8 channels, and then click the group "1" in the mute drop-down menu, then 1, 3, 6, 8 channels are Mute.

Control grouping: After entering the control editing interface, as shown in the figure: click "Control 1", select 1, 2, 3, 4 channels, then select the function you want to adjust at the same time, and then click the control group "1" in the drop-down menu In this way, the parameters of 1, 2, 3, and 4 channels can be adjusted at the same time.

5 **48V phantom power**

Control the switching state of 48V phantom power of 12 input channels independently. Click this button, the main screen area is displayed as shown in the figure: which channel requires 48V power supply, click on the corresponding channel, the corresponding channel's 48V icon will light up.

6 EEFFECT: mixing / echo parameters

REVERB

ECHO
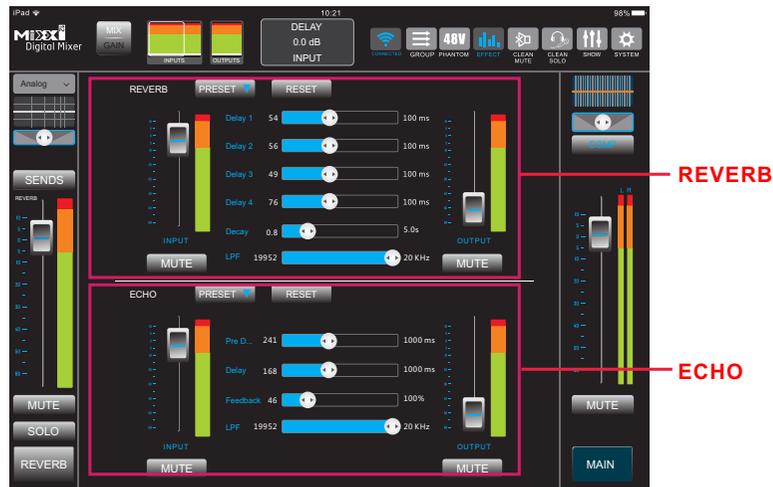
■ Effects (reverberation): Its role is to change the waveform of the original sound, adjust or delay the phase of the sound wave, enhance the harmonic components of the sound wave, and other measures to produce a variety of special sound effects, and apply Effects to the sound.).

Delay (1, 2, 3, 4): The time required for the sound to return to the human ear after transmission, with a range of 30ms to 100ms. The 4-segment delay group makes the sound superimposed more delicate, making the sound effect fuller and more beautiful.

Reverberation time: The duration of the reverberation effect. The setting range is 0.1S~10S.

Low-pass: Low-pass filter, the setting range is 20Hz ~ 20000Hz.

The reverberator has the functions of preset saving, resetting parameters, input level, output level adjustment and mute switch function.

■ Delayer (echo): Delayer is an effector that produces echo.

Delay 1: Control the interval time of echo 1: The range is 10ms ~ 1000ms.

Delay 2: Control the interval time of echo 2: The range is 10ms ~ 1000ms.

The longer the delay time, the longer the interval between echoes, until the double or multiple sounds can be clearly heard.

Feedback Amplitude: The feedback rate of the echo effect, setting range (0% to 100%), controlling the number of echoes. When the feedback rate is 0%, the echo actually plays the effect of reverberation, and the feedback rate is 100% At this time, an endless echo effect will be formed, so the echo effect is generally controlled at about 30%.

Decrease: The echophone has the functions of preset saving, resetting parameters, input level, output level adjustment and mute switch function.

7 CLEAN SOLO

After clicking this button, the monitoring function of all channels will be cancelled after 2 seconds.

8 CLEAN MUTE

Click this button to cancel the mute function of all channels after 2 seconds

9 SYSTEM

Connect: Connect to the target host through the searched host or manually enter the IP.

Help: Provides a quick start guide and upgrades the console firmware over the network.

Main output controls

Main output channel function:

Input equalizer

Left and right channel adjustment

MUTE
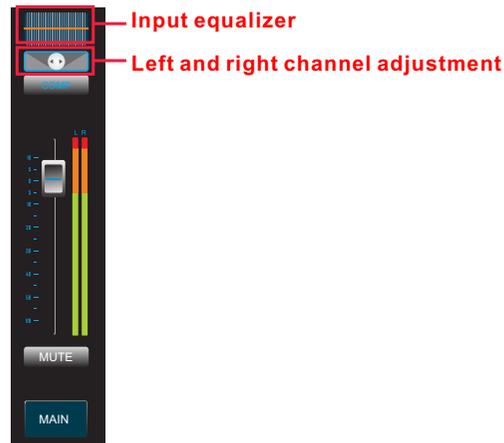
MAIN

■ Main output equalizer: The standard 31-band graphic equalizer compensates the defects of speakers and sound field by adjusting various frequency bands. Click "Draw", you can drag the frequency ball in the range to draw the equalization effect you want.
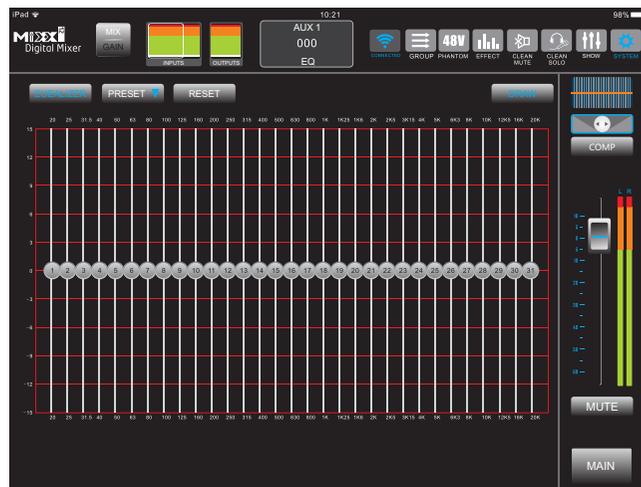
■ Main output compressor: You can set a level point. Once the signal exceeds this critical point, the volume will be attenuated and the overall volume will be stable, so as to avoid howling or overload the amplifier.
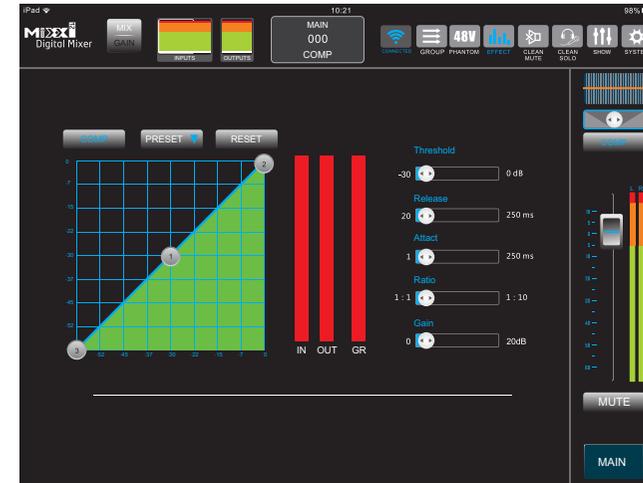
Gate valve: Set the threshold (critical level) of the compressor. The setting range is -60d~0dB.

Start-up: The time required for the noise gate to open after the input signal time-out threshold. The setting range is from 1ms to 250ms.

Recovery: The time required for the noise gate to close after the input signal is less than the threshold. The setting range is from 20ms to 250ms.

Ratio: The compression ratio is 1: 1-1: 10. The larger the compression ratio, the smaller the compression ratio. The smaller the compression ratio, the larger the compression ratio.

Gain: Adjust the compensation gain of the compressor.

■ Main output fader: drag up and down to adjust, adjustable range: -60dB~10dB.
■ Mute: Controls the mute switch of the main output.

Home screen area

No sound? Troubleshooting guide

Is the threshold closed?
Incorrect threshold processor settings may cause all signals to be intercepted. This happens most often when the threshold is set too high and the signal is not large enough to make the threshold "open".

Is the fader up?
The channel fader needs to be set to a sufficiently high level. If the problematic output path is in front of the fader, the fader position has no effect on its signal.

Is the output main channel path valid?
The inspection method is basically the same as the output channel inspection method, and the same inspection is run on the output channel.

Is the physical output valid?
Check the connections and your amplifier system.
If the meter shows a valid output, then the problem may be with the physical output or after the physical output.

Troubleshooting Guide

DANTE network port or WIFI operation steps are the same

1: Network connection between computer / tablet and MIXX12.
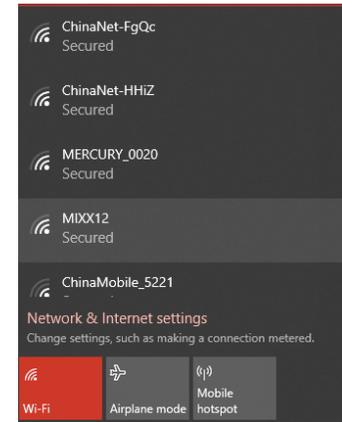
2: Open the software and search for the target IP. After searching, click the IP address. Do not click Connect.
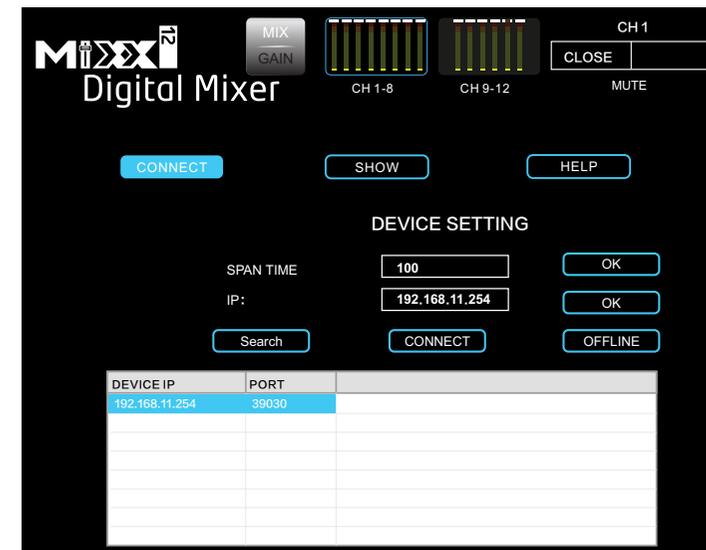
3: Switch to the help page and click Local Upgrade. Do not click repeatedly or you will get an error. After clicking, the firmware will start to upgrade, as shown below:

4: When the progress bar finishes running twice, a prompt window Update successfully is displayed, indicating that the upgrade was successful. After the upgrade is successful, restart the console and control software.

5: If the upgrade is unsuccessful, the Update fail prompt window appears. Please check the upgrade steps and upgrade again.
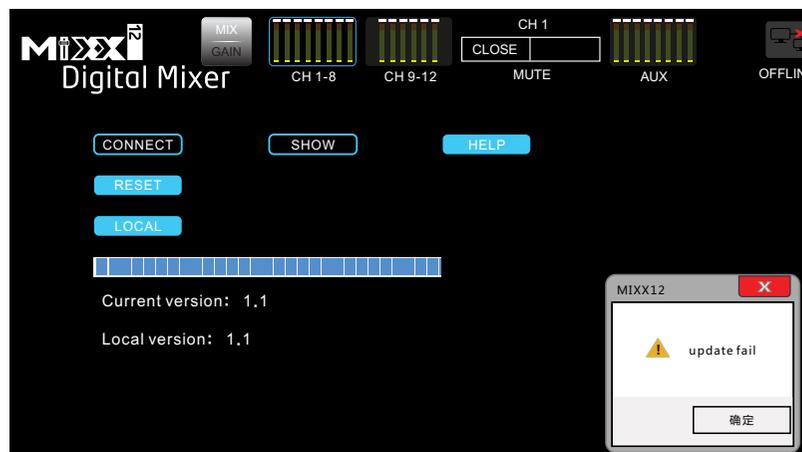
Reset the parameters after the WIFI reset

(Press and hold the RESET key for 3 seconds to reset the factory fixed IP address of the DANTE network port. Press and hold for 6 seconds to reset the factory fixed IP + WIFI setting of the DANTE network port.)

1: Wait for 20 seconds after WIFI reset, search for the WIFI name connection of HI-LINK.

2: The WIFI password for connecting HI-LINK is: 12345678
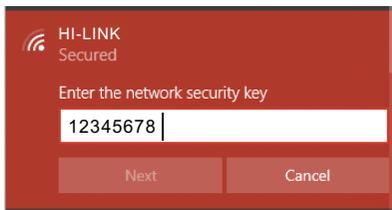
3: Open your browser, enter IP: 192.168.16.254 in the address bar, and press Enter.
Login account and password: admin
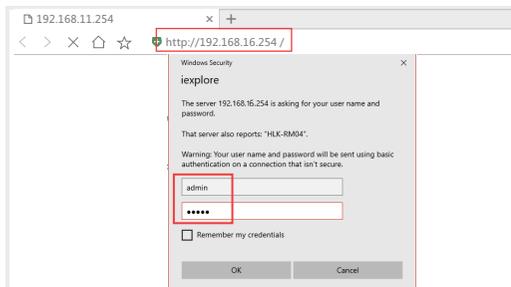
4: Change the webpage to Chinese, click the HLK-RM04 page (see Figure 1)

PIC 1 :

Modify the parameters in Figure 1 according to the box in Figure 2 without any difference. After confirming the modification is correct, click OK. Just close the page.Connect to the network.

PIC 2 :
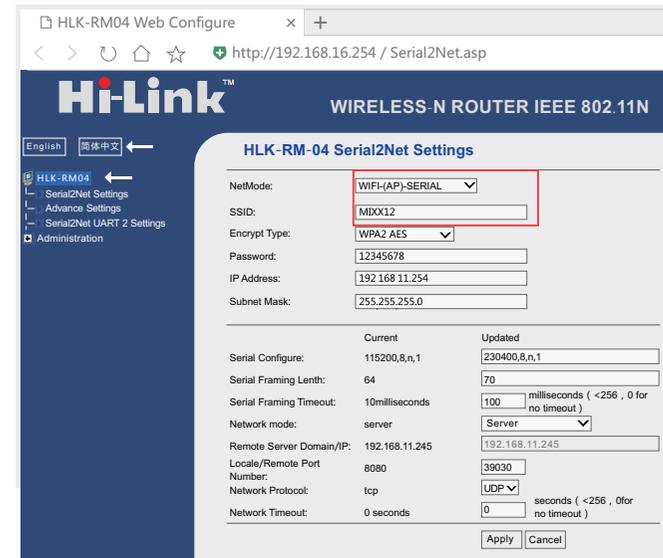
5: Wait for 20 seconds and search again for WIFI name: MIXX12, and the connection password is 12345678
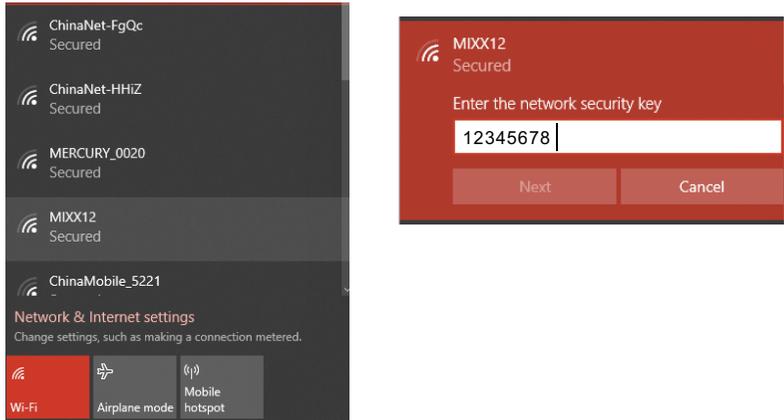
6: After setting the WIFI parameters according to the above 5 steps, if you need to modify the WIFI name and password, or the connection software is abnormal, the IP that needs to re-enter the setting interface has changed: 192.168.11.254, the login account and password are also: admin