

# USER MANUAL

DIGITAL MIXING CONSOLE

DB16

DM4/DM8//DM16

SOUNDKING AUDIO

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**ECNJG2001084**

|                               | Description                                                                                                            |                              |                               |                               |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|-------------------------------|
|                               | DM4                                                                                                                    | DM8                          | DM16                          | DB16                          |
| Microphone input              | 2 channels,<br>2 Combo XLR                                                                                             | 6 channels,<br>2 Combo XLR   | 12 channels<br>6 Combo XLR    | 12 channels<br>4 Combo XLR    |
| Channel input                 | 1 pair of stereo,<br>2 jacks                                                                                           | 1 pair of stereo,<br>2 jacks | 2 pairs of stereo,<br>4 jacks | 2 pairs of stereo,<br>4 jacks |
| Main output                   | 2XLR                                                                                                                   | 2XLR                         | 2XLR                          | 2XLR                          |
| AUX output                    | 2 jack outputs                                                                                                         | 2 jack outputs               | 4 jack outputs                | 4 XLR output<br>interfaces    |
| FOOTSWITCH                    | 2 jacks                                                                                                                | 2 jacks                      | 2 jacks                       | none                          |
| MONITOR                       | 1 jack                                                                                                                 | 1 jack                       | 1 jack                        | 1 jack                        |
| MIC input impedance           | 3K                                                                                                                     |                              |                               |                               |
| Line input impedance          | 20K                                                                                                                    |                              |                               |                               |
| Output impedance              | 75 $\Omega$                                                                                                            |                              |                               |                               |
| Headphone output<br>impedance | 100 $\Omega$                                                                                                           |                              |                               |                               |
| BUS remaining<br>output noise | -90dBu                                                                                                                 |                              |                               |                               |
| BUS maximum<br>output value   | +18dBu                                                                                                                 |                              |                               |                               |
| Maximum<br>voltage gain       | 80dB input to output                                                                                                   |                              |                               |                               |
| Dynamic range                 | 106dBu (20Hz–20KHz)                                                                                                    |                              |                               |                               |
| AD/DA                         | Maximum 24Bit / 48KHz supported                                                                                        |                              |                               |                               |
| Signal processing             | 40-bit floating-point processor                                                                                        |                              |                               |                               |
| Signal latency                | <1.8msec input to output                                                                                               |                              |                               |                               |
| Phantom power<br>supply       | 48V, each channel can be switched individually                                                                         |                              |                               |                               |
| Crosstalk(@1KHz)              | -85dB                                                                                                                  |                              |                               |                               |
| USB interface                 | 2 USB2.0 interface, maximum 32G supported, can be used for USB disk<br>playback and recording, support WAV, MP3 format |                              |                               |                               |
| Network                       | WIFI connecting to USB wireless module, 1 LAN interface                                                                |                              |                               |                               |
| Effects                       | 4 effects modules, 2 reverb, 2 delay                                                                                   |                              |                               |                               |
| Power supply                  | Connect to DC power adapter (AC 100-240V 50/60Hz)                                                                      |                              |                               |                               |

## IMPORTANT SAFETY SYMBOLS



Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.



The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.



Protective grounding terminal



Alternating current/voltage



Hazardous live terminal

**ON:** Denotes the apparatus is turned on

**OFF:** Denotes the apparatus is turned off.

**WARNING:** Describes precautions that should be observed to prevent the danger of injury or death to the operator.

**CAUTION:** Describes precautions that should be observed to prevent danger of the apparatus.

## 1. IMPORTANT SAFETY INSTRUCTIONS

• **Read these instructions.**

• **Keep these instructions.**

• **Heed all warning.**

• **Follow all instructions.**

• **Water & Moisture**

The apparatus should be protected from moisture and rain, can not used near water, for example: near bath-tub, kitchen sink or a swimming pool, etc.

• **Heat**

The apparatus should be located away from the heat source such as radiators, stoves or other appliances that produce heat.

• **Ventilation**

Do not block areas of ventilation opening. Failure to do could result in fire. Always install accordance with the manufacturer's instructions.

• **Object and Liquid Entry**

Objects do not fall into and liquids are not spilled into the inside of the apparatus for safety.

• **Power Cord and Plug**

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, refer

to electrician for replacement.

• **Power Supply**

The apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the product and possibly the user.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.

• **Fuse**

To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described in the manual. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.

• **Electrical Connection**

Improper electrical wiring may invalidate the product warranty.

• **Cleaning**

Clean only with a dry cloth. Do not use any solvents such as benzol or alcohol.

• **Servicing**

Do not implement any servicing other than those means described in the manual. Refer all servicing to qualified service personnel only.

• Only use accessories/attachments or parts recommended by the manufacturer.

## PRODUCT PROFILE

Economical DM series mixer includes 3 models: DM4, DM8 and DM16,

Economical DB series mixer includes 1 model, DB16

1. DM series can be remotely controlled through IPAD and other tablets, or can be controlled through cable connected with a computer.

Support independent panel operation, can achieve main operations through the panel.

Based on HTML5, operation is achieved through browser graphic interface.

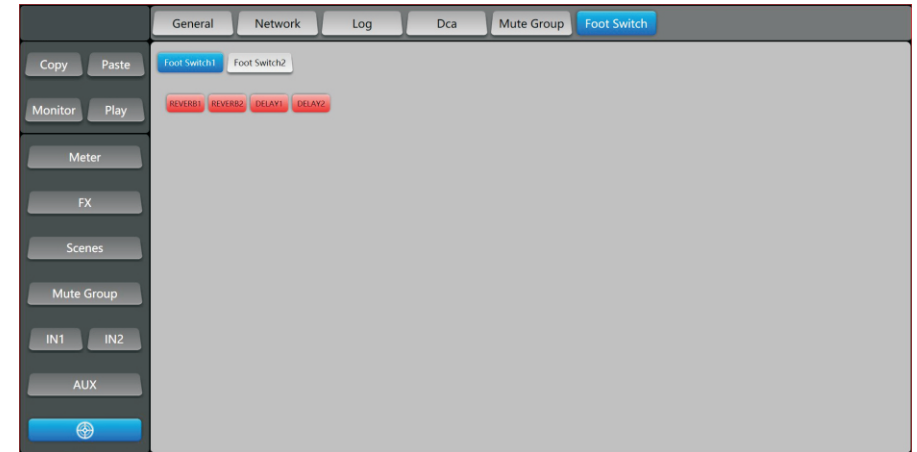
Compatible with Android, ios, Mac, Windows, Linux, etc.

## APPLICATIONS:

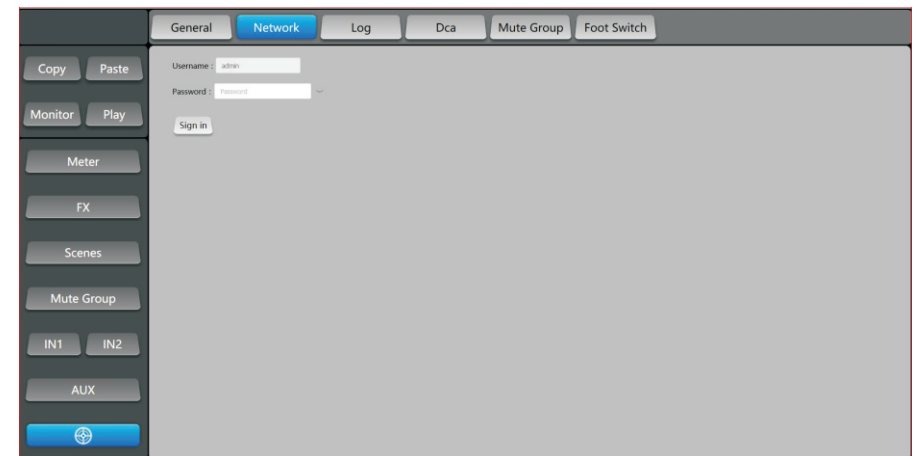
- 1). entertainment venues such as pubs, karaoke, parties.
- 2). institutions such as businesses and schools.
- 3). Small and medium-sized bands, musical performances and other activities.
- 4). personal and family gatherings.
- 5). online live broadcasting, studio, etc.

## PRODUCT FEATURES AND FUNCTIONALITY:

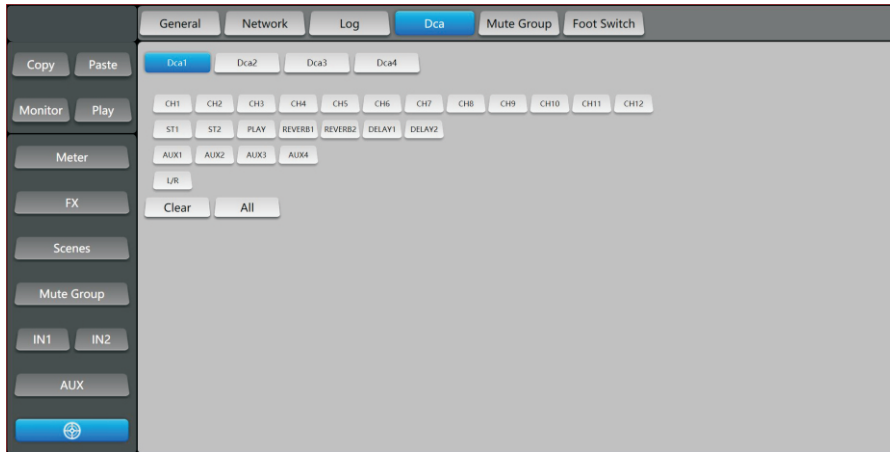
- 1). Tablet/PC/smartphone controlled digital mixer.
- 2). Multiple devices can be controlled at the same time via WLAN and Ethernet, compatible with iOS, Android, Windows, Mac OS and Linux devices.
- 3). input channel supports phantom power supply, 4-band equalizer, high pass filter, compressor, effects and noise.
- 4). output channel supports reverberation, delay and 8 internal effect modules.
- 5). Simple operation interface, comprised of LED display and multifunctional buttons and knobs.
- 6). 2 USB ports support stereo recording/playback/system upgrade/scene import and export.
- 7). 24bit/48kHz analogue-digital/digital analogue converter.
- 8). 60dB MIC pre-amp gain
- 9). 4 internal effect modules.
- 10). support scene memory.



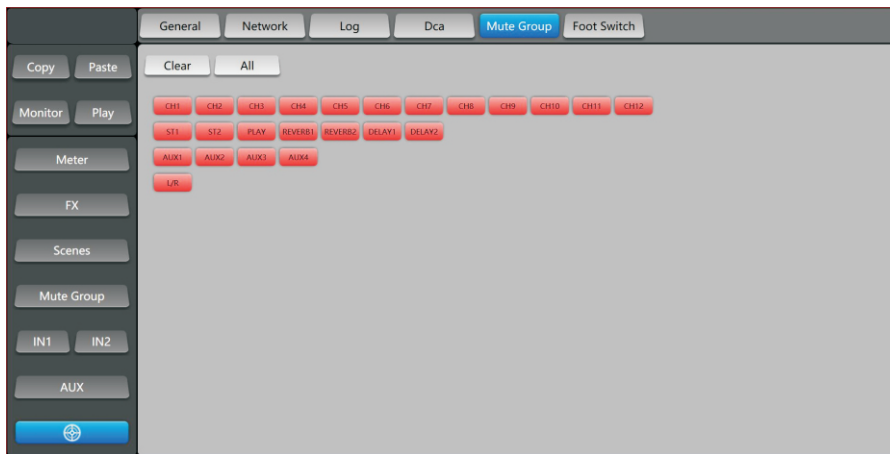
20. Select Foot switch tab, got to foot switch configuration page. Can set the corresponding module for foot switch control.



21. Select network tab, go to web setting page, including various parameters for system network connection settings.

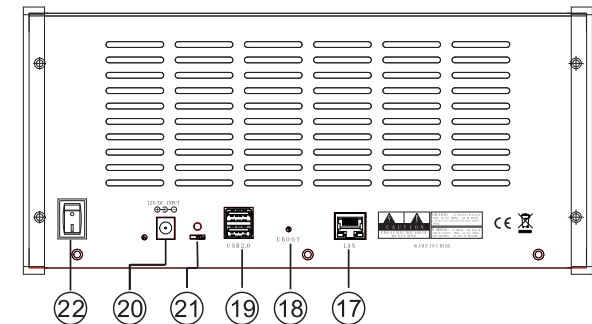
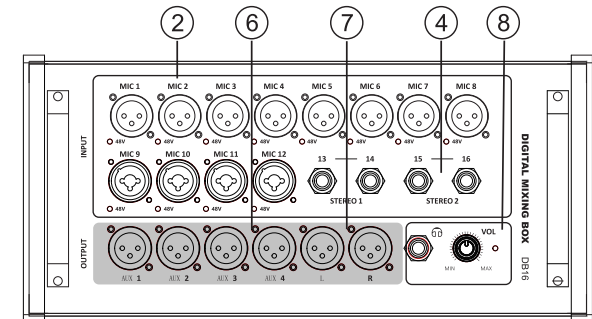
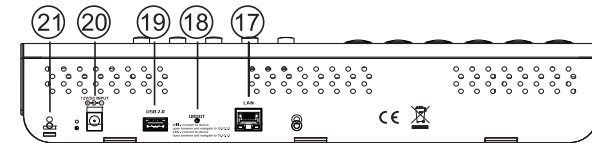
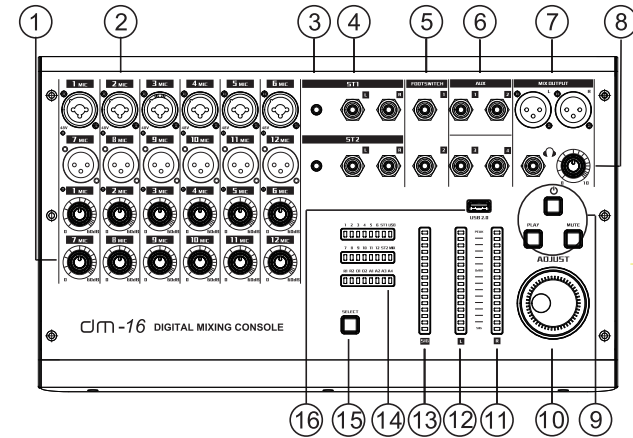


18. Select Dca option to enter group configuration page, there are 4 groups, groups, which can be controlled as required. No grouping is performed by default.

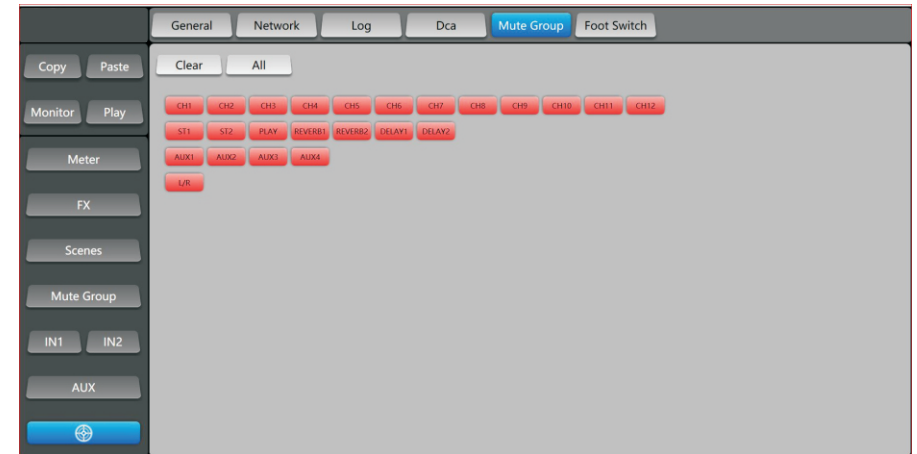


19. Select Group Setup tab, go to grouping configuration page. Default mute grouping configuration is for mute all, settings can be changed as needed.

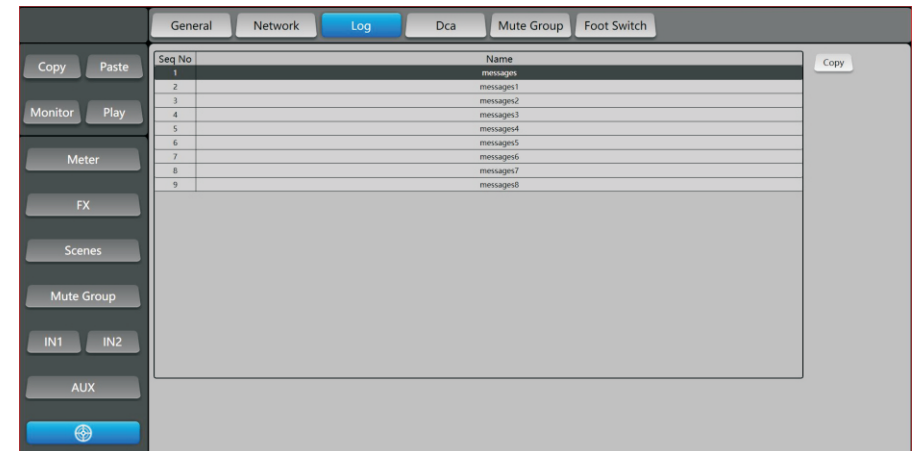
## PRODUCT FUNCTIONALITY LAYOUT



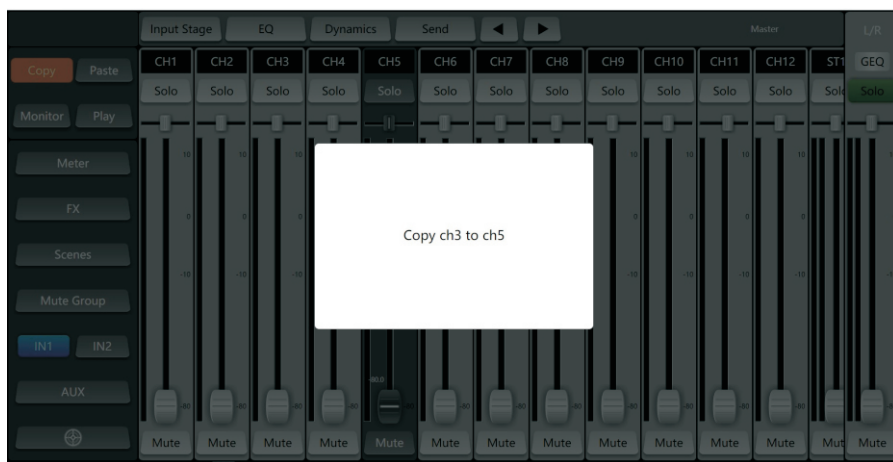
- 1). Gain potentiometer knob  
Adjust microphone input volume.
- 2). Microphone amplifier input XLR/some multifunctional supports 6.3 jack  
Connect microphone or other sound source (default PAD attenuation for 6.3 input).
- 3). 3.5 Stereo Input  
Connect laptops, mobile phones and other stereo sound sources.
- 4). 6.3 standard stereo input
- 5). Connect foot switch  
Can connect foot switch to control effects, mute, etc.
- 6). Auxiliary output
- 7). Main output
- 8). Headphone (6.3) stereo output/volume control knob.
- 9). Function key: power, USB music playback, mute.
- 10). Versatile combination knob.  
Controls the main output fader by default, when other channels are chosen, it controls switch volume of the chosen channel. Operation: press SELECT button, switch control channel in turn. Release SELECT button, the current channel is chosen.
- 11/12). Main level meter  
Show main output fader back level by default; when a channel is chosen, it will show switch rear level of the current chosen channel.
- 13). Channel level meter/fader position indicator  
Show current chosen channel fader front level, when turning versatile knob, it will show current channel switch position.
- 14). Current chosen channel indicator  
Indicates current chosen channel.
- 15). Channel selection button  
Click the button to select the channel.  
Operation: when press SELECT button, it will switch control channel in turn.  
Release SELECT button, current channel is chosen.
- 16/19). USB interface  
You can connect USB flash drive to play music or connect to WIFI module.
- 17). Network interface  
You can connect directly to the computer network port or connect to the router.
- 18). System maintenance (hide)
- 20). DC power interface
- 21). Power supply anti-loosening buckle
- 22). Power switch



15. Select setting option in the lower-left corner, go to system settings page, can choose General, Network, Log, Dca, Mute Group, Foot Switch configuration options.
16. Select General page to switch system language, including Update (System upgrade) and Factory Reset features.



17. Select log option to enter system log page, which saves the last 10 boot records, use Copy button to copy the log information to an external USB flash disk (requires inserting a USB flash disk).



14. Copy/Paste function, set parameters in current channel, and after finishing click copy, choose other channels, click paste, can copy channel parameter settings.

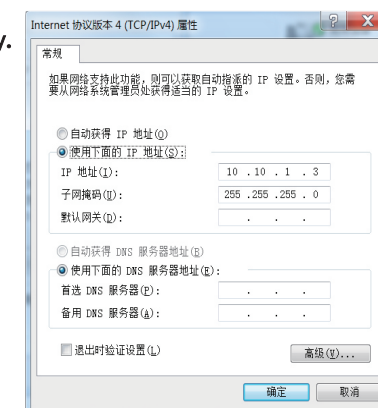
## CONTROLLING DEVICE CONNECTIONS

- ① Computer with wired network connection
- ② Mobile phone
- ③ Tablet
- ④ Wireless signal
- ⑤ DM Digital mixer
- ⑥ Laptop with wireless network connection
- ⑦ Wireless router
- ⑧ Router or switchboard



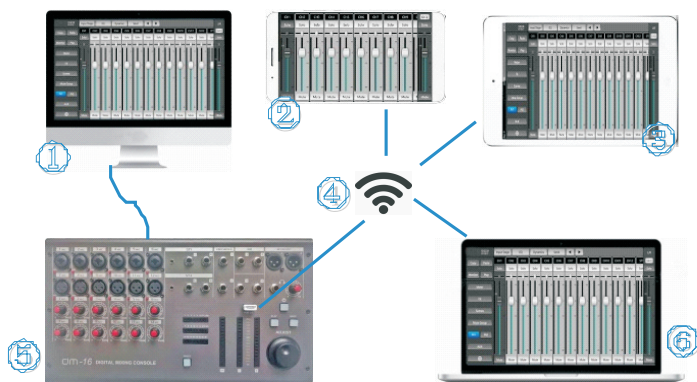
### 1. One client controls one machine and is wired directly.

- 1) DM digital mixer is connected to computer through network cable (using computer with wired network connection).
- 2) Set up computer network. Ipv4 address is set to 10.10.1.x, (x:2-255), and Ipv4 default gateway is set to 10.10.1.1
- 3). Enter 10.10.1.1 in the address bar of the computer browser to open Control digital mixer page for operation.



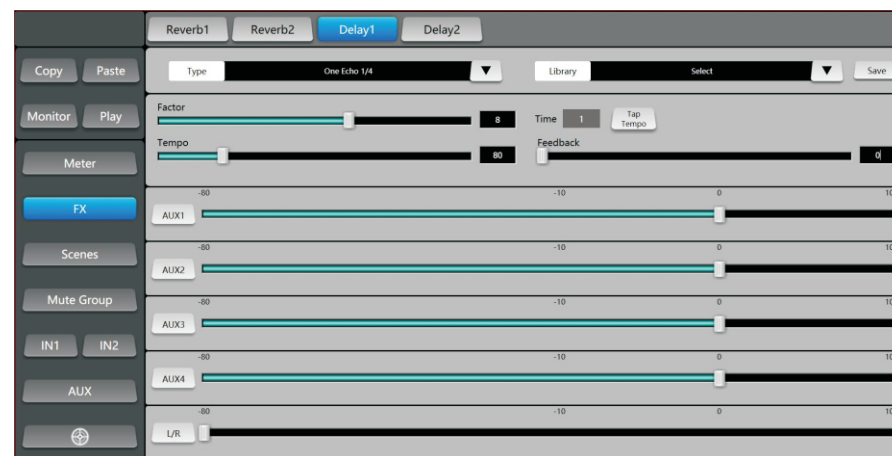
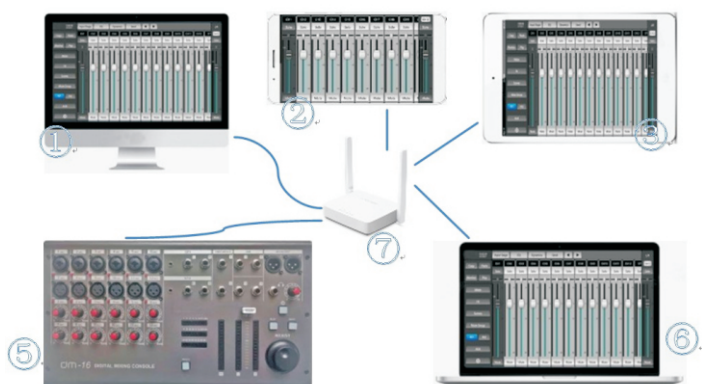
### 2. One client controls one machine, wireless direct connection.

- 1). Install USB wireless network card for DM digital mixer.
- 2). Mobile phones, tablets, laptops and other devices using wireless networks, turn on wireless network connection, search for wireless network signal of digital mixer, and connect.
- 3). Mobile phones, tablets, laptops and other devices using wireless networks, enter 10.10.2.1 in the browser to open Control digital mixer page for operation.



3. Multiple clients control one machine and connect directly. Wired access address 10.10.1.1, wireless access address 10.10.2.1

- 1). Install USB wireless network card for DM digital mixer.
- 2). DM digital mixer is connected to computer through network cable (using computer with wired network connection).
- 1). Set up computer network. Ipv4 address is set to 10.10.1.x,(x: 2-255), IPv4 default gateway is set to 10.10.1.1
- 4). Enter 10.10.1.1 in the address bar of computer browser to open Control digital mixer page for operation.
- 5). Mobile phones, tablets, laptops and other devices using wireless network, turn on wireless network connection, search for wireless network signal of the digital mixer, and connect.
- 6). Mobile phones, tablets, laptops and other devices using wireless network, enter 10.10.2.1 in the browser to open Control digital mixer page for operation.

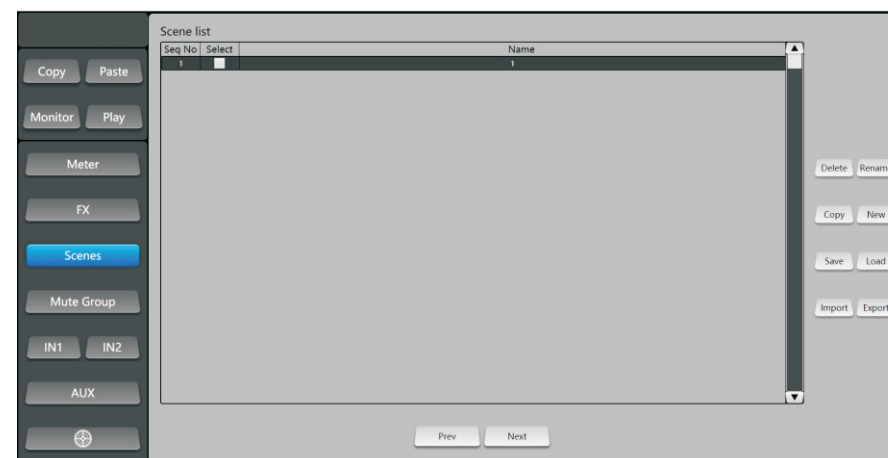


12. Select FX tab, got to effect control page, choose different effect module for control, and choose dispatch and control dispatch amount. reverb effect and delay effect.

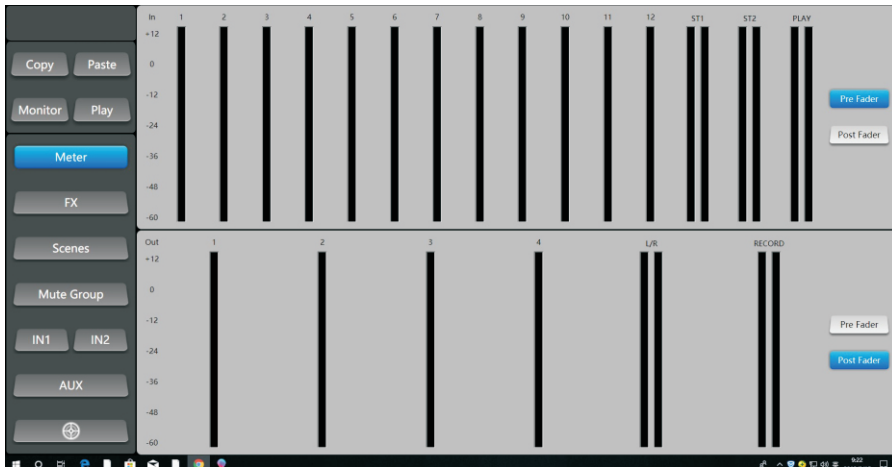
Library: can save and access parameter setting library files

Save: saving settings to Library

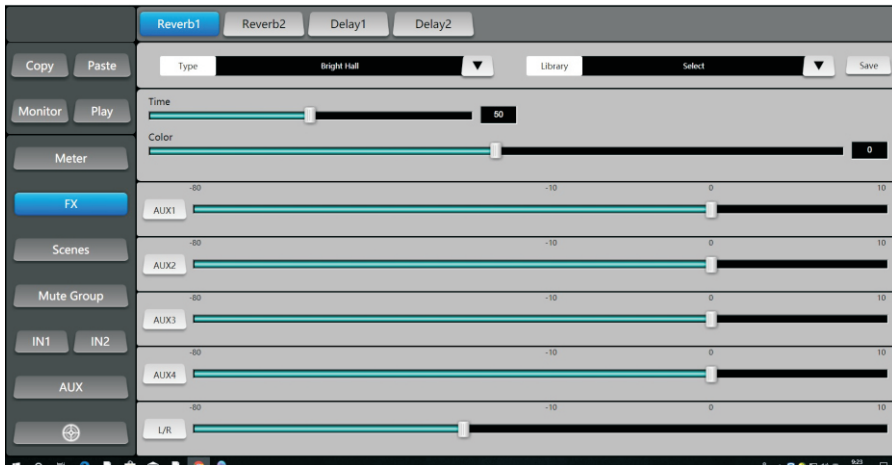
Type: select effects type



13. Select Scenes tab, go to scene editing page. You can make operations for scenes such as save, delete, copy, create, access, import, export and so on.

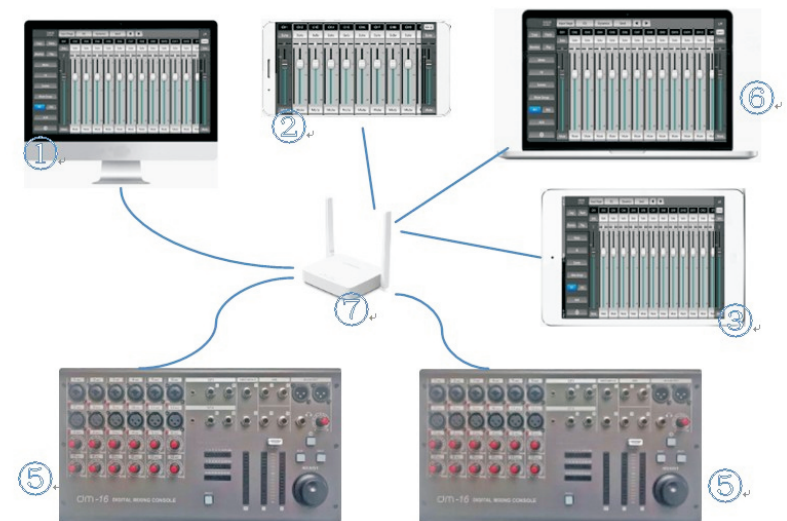


11. Select Meter tab, go to whole level table display page. Indicates whole signal level and can select signal indication before and after fader.



4. Multiple clients control one machine and connect via wireless router.

- 1). Install USB wireless network card for DM digital mixer
- 2). DM digital mixer connected to router LAN port via network cable.
- 3). Computer (PC with wired network connection) is connected to router LAN port through network cable.
- 4). Confirm router gateway, if it's 192.186.0.1
- 5). Use tablet, laptop, or other device that uses wireless network to connect to the digital mixer, set LAN network and router to the same network, configure IP, if it is 192.186.0.10
- 6). Set computer network to be automatic or the same network as for the router.
- 7). Enter 192.186.0.10 in the address bar of computer browser. Open Control digital mixer page for operation.
- 8). Mobile phones, tablets, laptops and other devices using wireless network, turn on wireless network connection, search for wireless network signal of wireless router, and connect.
- 9). Mobile phones, tablets, laptops and other devices using wireless network, enter 192.186.0.10 in the browser, open Control digital mixer page for operation. Wireless device can be connected via wireless router or digital mixer's built-in wireless network (IP is 10.10.2.1), enter a different IP address.

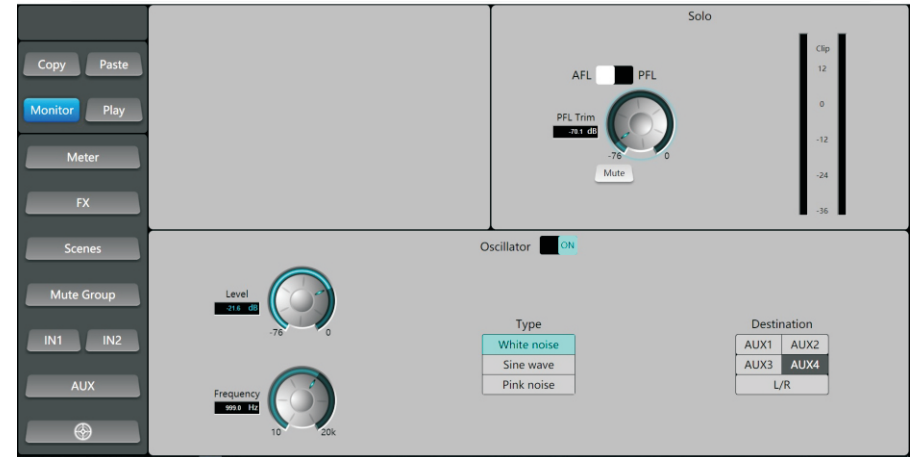
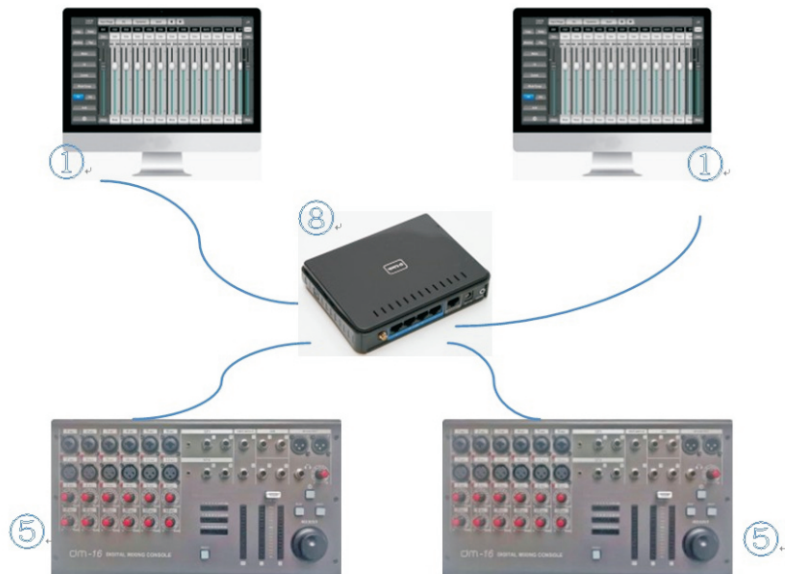


5. Multiple clients control multiple machines and connect via wireless router.

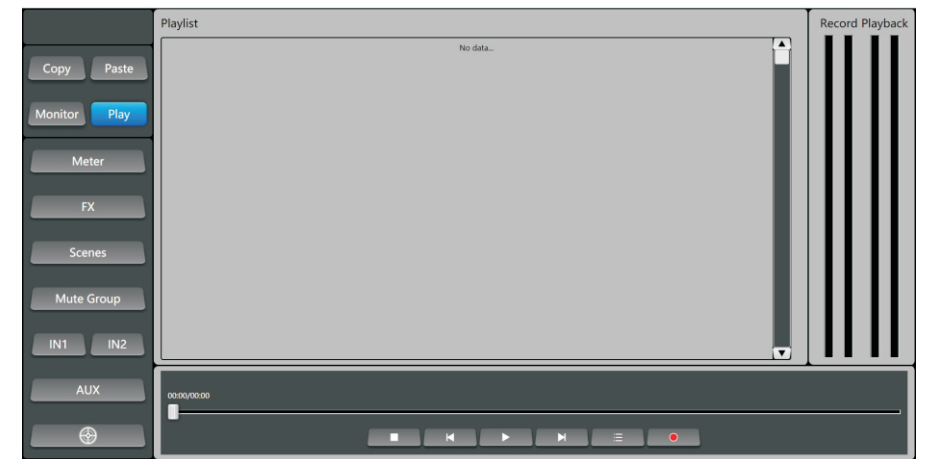
- 1). Install USB wireless network card for DM digital mixer.
- 2). DM digital mixer connected to router LAN port via network cable.
- 3). Computer (PC with wired network connection) is connected to router LAN port through network cable.
- 4). Confirm router gateway, if it is 192.186.0.1
- 5). Use a tablet, laptop, or other device that uses wireless network to connect to the digital mixer, set LAN network to router, and configure IP.  
If it is 192.186.0.10, 192.186.0.11...

According to actual needs, cannot be repeated.

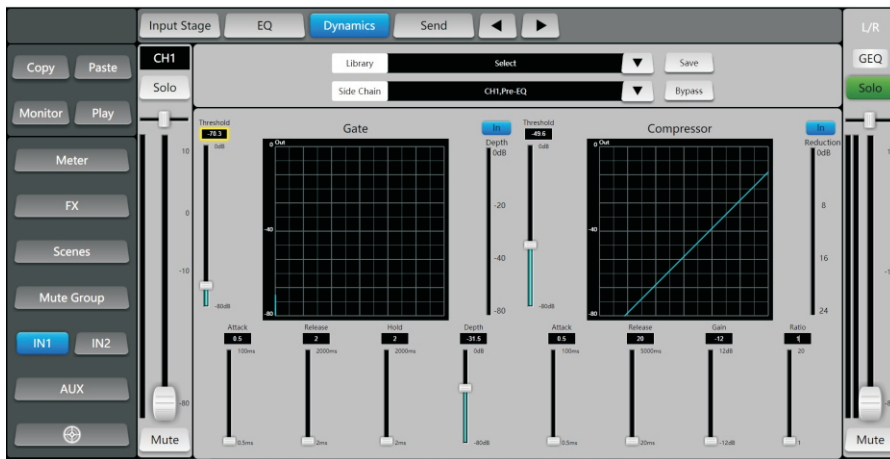
- 6). Set computer network to be automatic or the same network as for the router.
- 7). Enter 192.186.0.10, 192.186.0.11... in address bar of computer browser .  
Open Control digital mixer page for operation, you can open multiple pages at the same time.
- 8). Mobile phones, tablets, laptops and other devices using wireless network, turn on wireless network connection, search for wireless network signal of wireless router, and connect.
- 9). Mobile phones, tablets, laptops and other devices using wireless networks, enter 192.186.0.10, 192.186.0.11... in the browser, open Control digital mixer page for operation, you can open multiple pages at the same time.



9. Select Monitor tab, go to monitor control and Oscillator signal generator controller page.  
Control monitor output, each channel Solo click highlight for monitor dispatch.  
AFL/PFL: select before/after Fader for monitor signal  
PFL Trim: adjust monitor volume  
Mute: mute monitor  
Oscillator: can turn signal generator on or off and select signal type, adjust size, frequency and dispatch channel

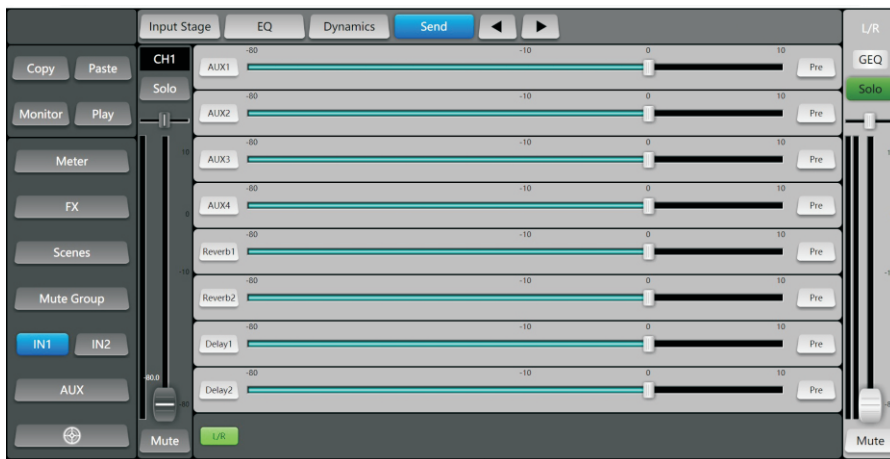


10. Select Play tab, go to play recording page.  
Can display music name in USB flash disk, and can choose to control playback track directly.  
Red dot button is recording function button, can realize recording function.



7. Select Dynamics tab, go to Dynamics control page. Adjust noise gate and compression parameters.

Save: save settings to Library  
Side Chain: side chain channel settings  
Bypass: bypass balancing function



8. Select Send tab, go to Bus channel dispatch control page.

Bus dispatch channel dispatch control can send channel signal to the corresponding output bus according to the need, and control the amount of transmission through the virtual fader.

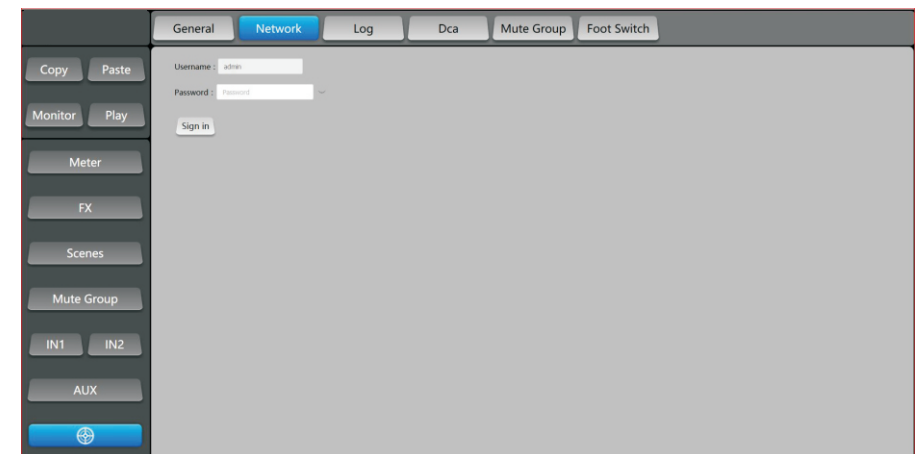
Pre/Post: can switch signal for dispatch before or after fader.

5. Multiple clients control multiple machines via wireless router connection or switchboard
- (1). Install USB wireless network card for DM digital mixer.
- (2). DM digital mixer connected to router LAN port via network cable.
- (3). Computer (PC with wired network connection) is connected to router LAN port through network cable.
- (4). Confirm router gateway, if it is 192.186.0.1
- (5). Use a tablet, laptop, or other device that uses wireless network to connect to the the digital mixer, set LAN network and router to the same network, and configure IP. If it is 192.186.0.10, 192.186.0.11...
- According to actual needs, cannot be repeated
- (6). Set computer network to be automatic or the same network as for the router.
- (7). Enter 192.186.0.10, 192.186.0.11 ...in the address bar of computer browser

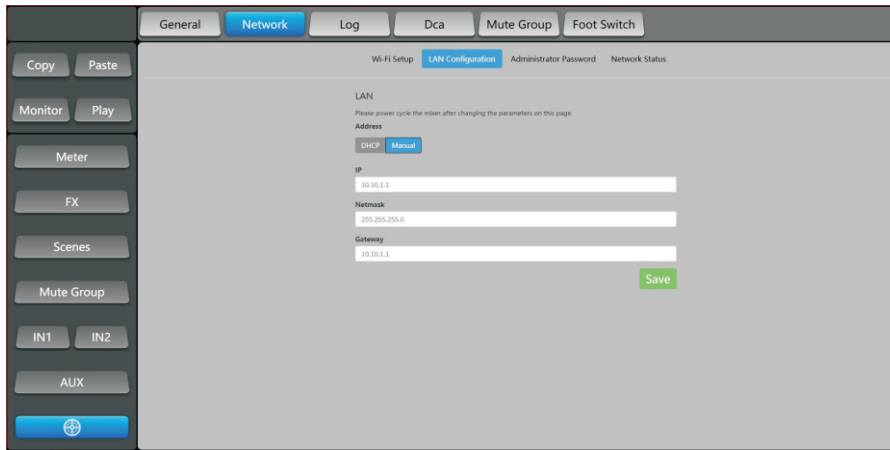
Chrome browser recommended.

No more than 10 devices can be connected to the digital mixer. If necessary, revert to direct connection mode. You can use tablet to connect digital mixer with built-in wireless network to change LAN configuration, or press and hold play button for 5 seconds, and wait for the digital mixer to restart.

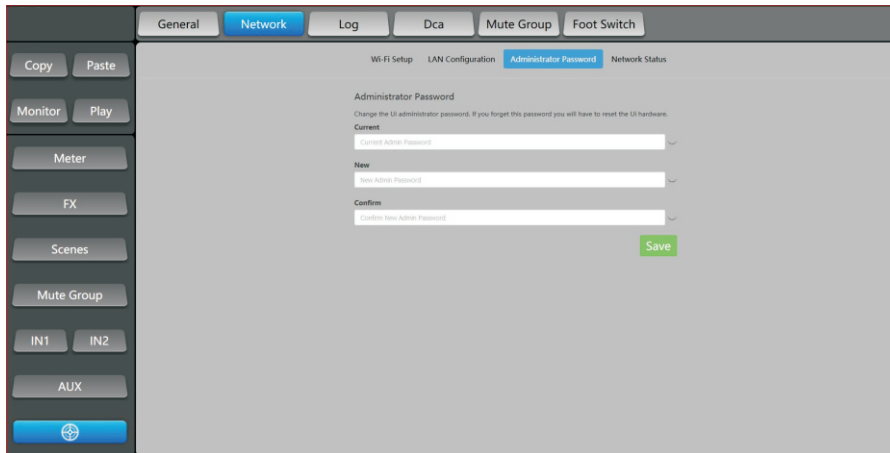
## NETWORK CHANGES AND LOCAL GROUP NETWORK SETTINGS



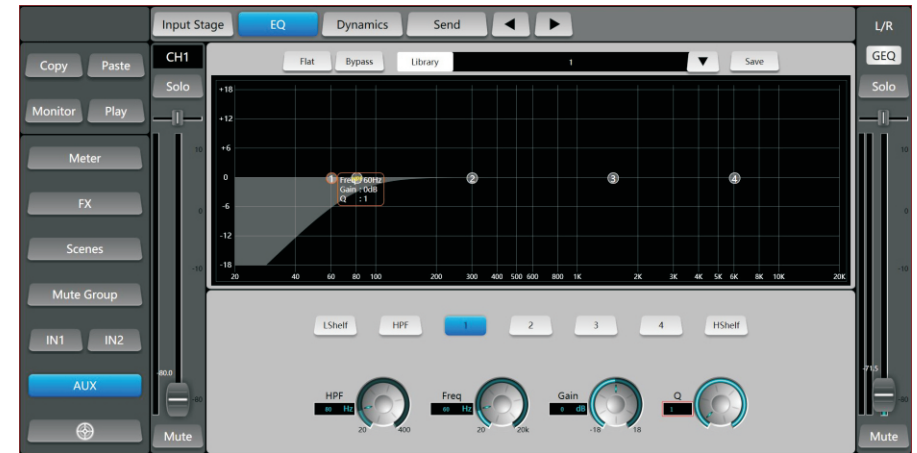
1. Network changes and local group network settings, click setting tab, shows ID verification required, enter user name and password, enter network setting page. Default user name and password are both admin.
2. Click Sign in to enter the network settings page.



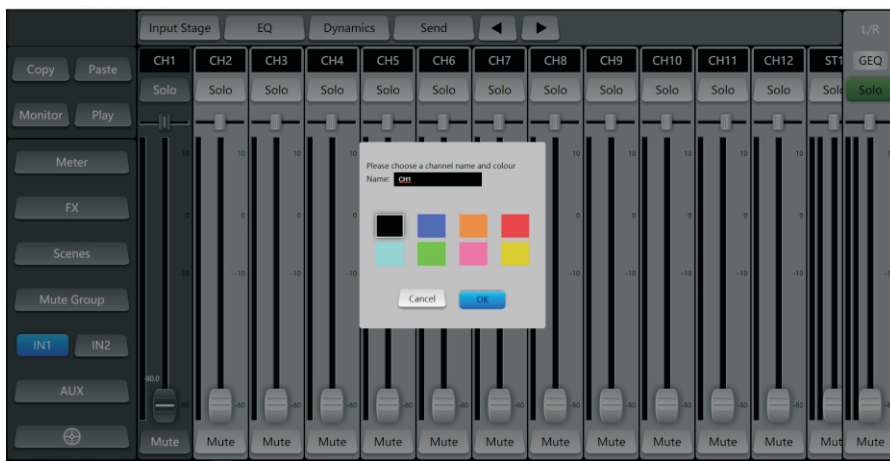
3. Select LAN Configuration settings, go to wired network settings page. You can view the device IP address, or manually change the IP. Under the same network, type this IP in the connected control device (PC) browser to connect and control the device.



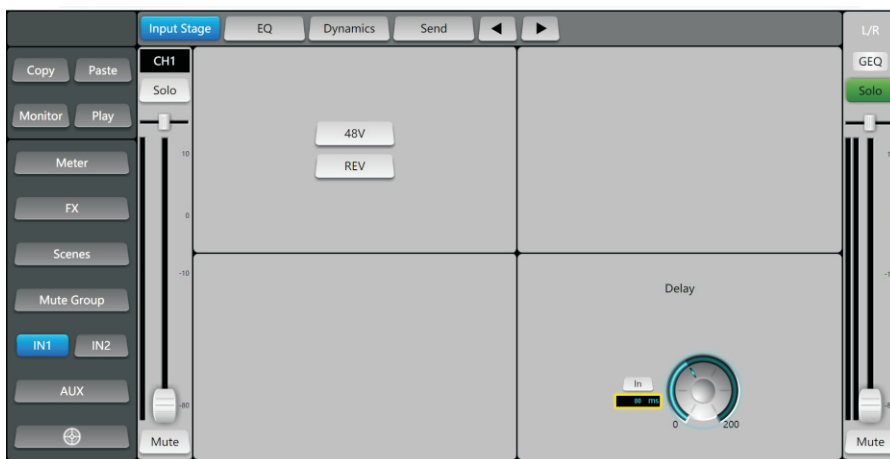
4. Select Administrator Password option to enter administrator password setting page. You can change the administrator login password.



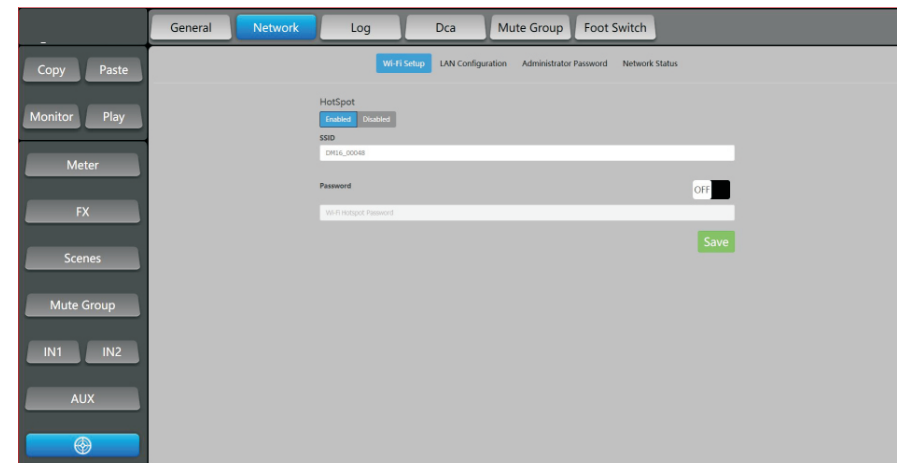
6. Select EQ tab, goto to parameter EQ settings page
- Select the corresponding frequency point, you can drag or use the lower knob to control the corresponding parameters.
- Flat : reset equilibrium parameter
- Bypass: bypass balancing function
- Library: can save and access parameter setting library files
- Save: saving settings to Library
- HPF: high pass filter
- Freq: adjust equilibrium frequency point
- Gain: adjust equilibrium gain
- Q: adjust equilibrium Q value
- Lshelf Low-Shelf filter
- HShelf High-Shelf filter



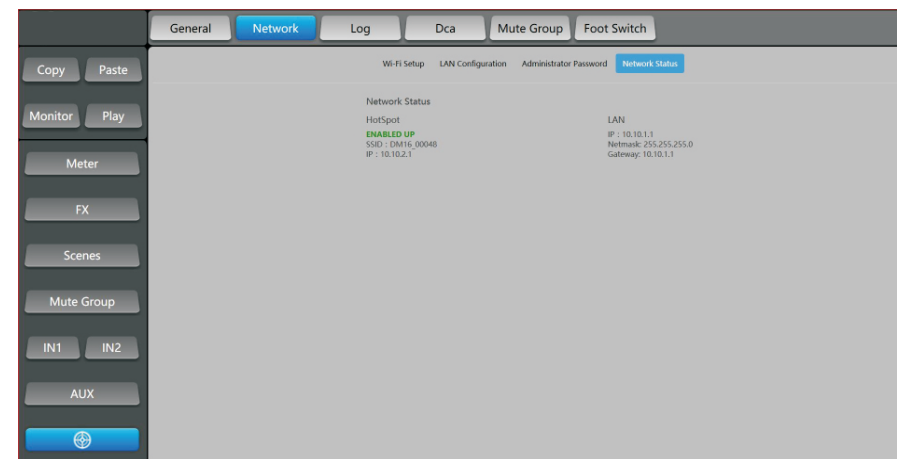
4. You can modify the name and color of CH1 channel by clicking the position of CH1 with the mouse. For modifications to other channels, click the appropriate channel position. The left and right arrows can move to the left or right for channel selection.



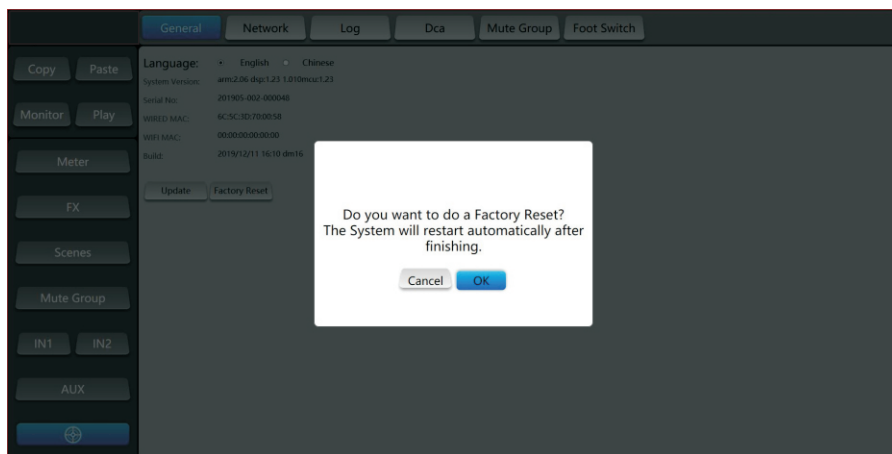
5. Select Input Stage tab, go to input channel settings page, current channel 48V, REV (phase) and Delay parameters can be controlled.



5. Select Wi-Fi Setup option to enter wireless network setup page. You can set hotspot name and password.



5. Select Network Status option, go to network status page, view the current network connection status.



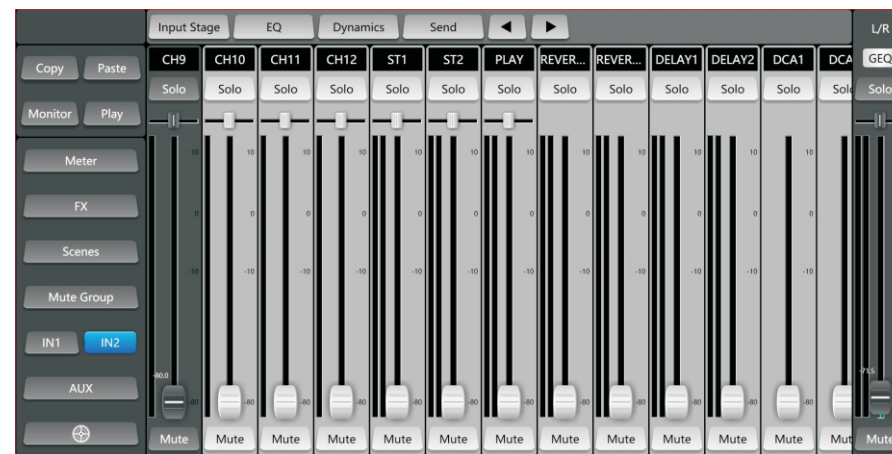
## 7. Restore system default settings

Select Factory Reset button, or press and hold UBOOT (hidden on the back) for more than 3 seconds while the computer is on. Select OK to restore default settings and Cancel to abort the restoration.

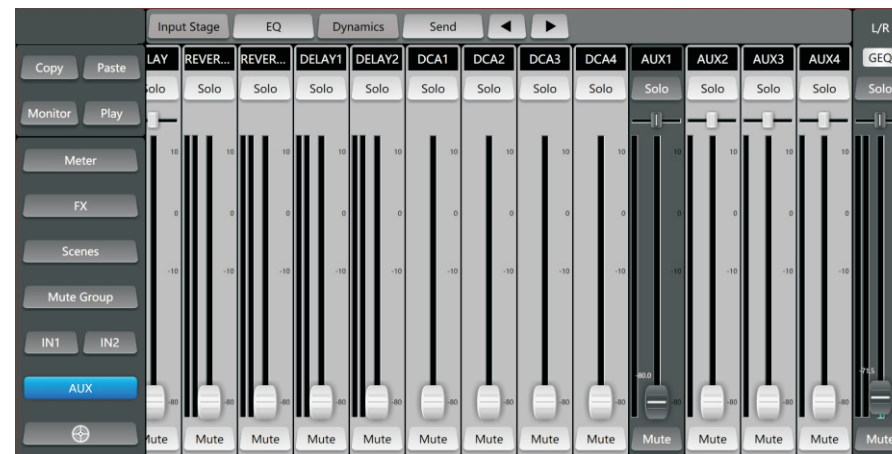
## MAIN OPERATION INSTRUCTIONS



1. Channel main page (go to system's first page) take DM16 mixer as an example. The page displays channel status and button to go to the subpage. Click button to enter the corresponding subpage menu.



2. Select IN2 tab, the right window displays from channel 9.



3. Select AUX tab, the right window displays as shown in the picture. Channel selection can also be dragged with the mouse to display.