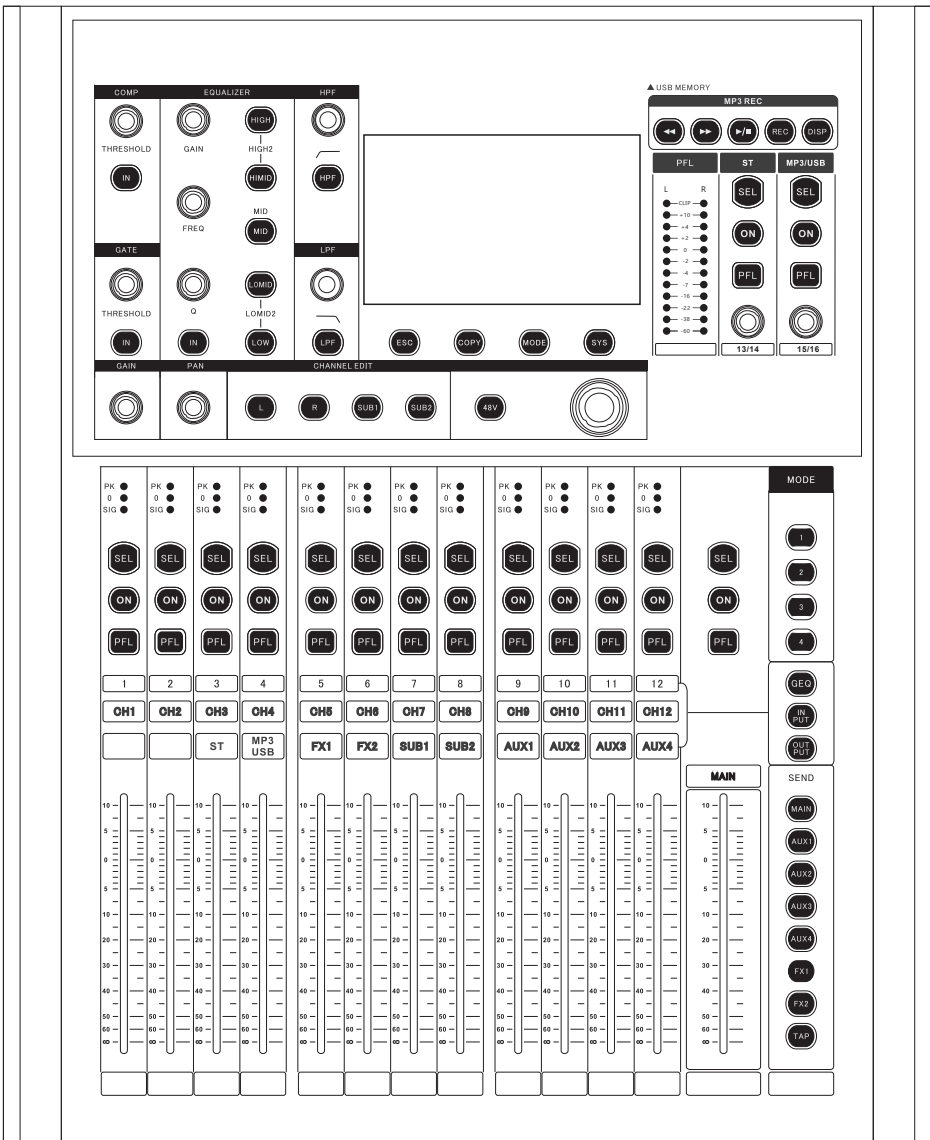


# User Manual



## 16CH Digital Mixer TCI-16DM

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## Safety Operation Guide

First of all, thank you for using our company's full-digital conference system. In order to ensure the reliable use of the equipment and the safety of personnel, please be sure to read the system connection and safety instructions carefully during installation, use, and maintenance, and operate in strict accordance with the requirements. At the same time, please Keep this manual in a safe place for future reference. Notes are as follows:

1. Please follow the "Warning" items in all equipment operating instructions.
2. Must abide by the rules and principles in the various operating guidelines.
3. Cleaning equipment: Before cleaning the equipment, please turn off the power first, disassemble each connected system conference unit, and wipe it with a dry soft cloth when cleaning.
4. Do not place the device in a humid place to avoid danger.
5. The indoor air must be kept unobstructed to facilitate the maintenance of the equipment.
6. Power supply voltage: America, Japan: AC100 V~120 V 60Hz Eurasia: AC 220 V~240 V 50Hz.
7. Grounding plug: three-pin grounding plug.
8. Please detour the extension cable required for equipment connection, and do not squeeze it with heavy objects, so as to effectively maintain the normal operation of the system.
9. In rainy and humid weather or when not in use for a long time, the main power switch of the equipment should be turned off.
10. Make sure that the casing of the device is not disassembled arbitrarily, and no hard conductors or liquid substances are allowed to remain in the casing.
11. When the equipment needs to be maintained, do not disassemble it by yourself, please contact the nearest after-sales service center in time.
12. All the products of our company will provide three-year free warranty, and the product must be sent to the repair point by the customer or returned to the repair point by the customer. Except man-made damage, such as:
  - a. The equipment is broken or damaged due to human action
  - b. Damage to the equipment due to improper operation by the operator
  - c. Damage or loss of some equipment parts due to self-disassembly
13. Connect the device with the specified connecting cable.
14. Do not place the device in a place that is too cold or too hot.
15. When the equipment will not be used for a long time, please turn off the power, preferably unplug the power plug.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

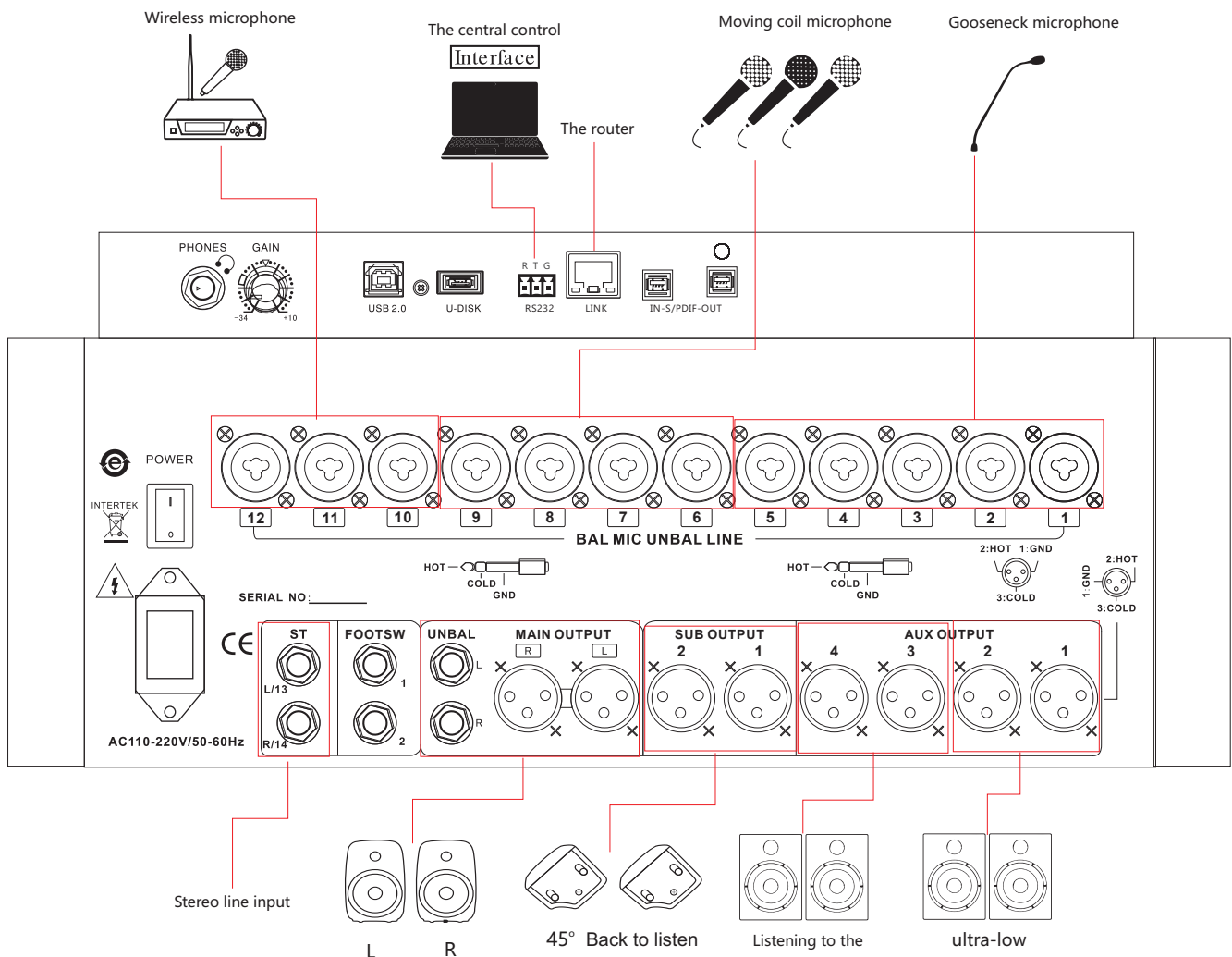
## Main Features

This product is a novel and unique multi-function digital mixer, with small size, light weight, full function, intuitive and simple operation, quick response and many other advantages. Application scenarios: performance, conference, rental, school, church, cultural hall, wedding, concert, family, band and other occasions.

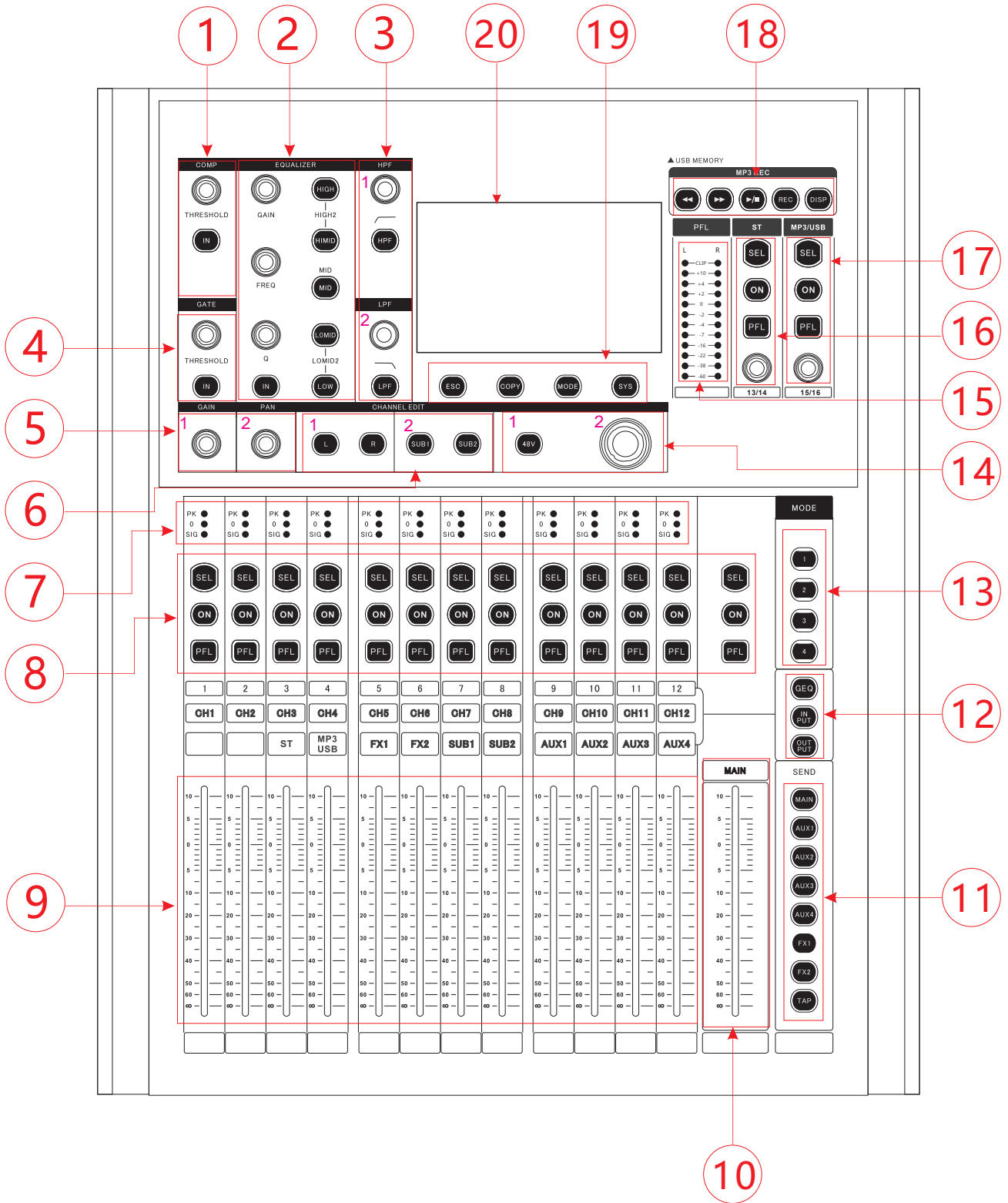
- 1.12 MIC input 1 set of stereo input, 1 digital input: optical fiber/sound card, MP3
2. Input channel audio and image adjustment
3. MIC input gain adjustment (digital gain)
4. +48V phantom power supply (MIC channels can be opened and closed independently)
5. Built-in noise door, pressure limiter, high and low pass, 5-section parameter balance, delay, sound and image balance adjustment of transmission channel
6. Fast copy of channel parameters
7. Input and output EQ ON/OFF
8. Multi-function knob
9. Each channel is equipped with multi-function menu, dumb voice and monitoring
10. The channel is equipped with 100MM electric push rod, signal, peak light (13 ALPS electric push)
11. 8 signal output (main output L,R, 4 AUX output, 2 marshalling output) AUX output (Push front/rear)
12. Output processing: high and low pass filtering, 12 section parameter equalization, compressor, delay, phase
13. Digital recording function
14. Users can customize the layer, output mixed editing function
15. Double row 3 color 12 level indicator light
16. built-in sound card (MP3, PC directly play music)
18. Four quick scene invocation modes and 20 scenes storage
19. Storage and fetching of user parameters (can be managed on PC)
20. Built-in two-channel dual-DSP effector
21. FX foot switch interface
22. Optical fiber input/output
23. Multi-operating system control software (IOS system, Android system, Windows system)
24. support wired network port adjustment (or external router wireless adjustment) 25, 5 inch touch screen

# Quick to use

1. When the mixer is turned off, select one MIC/ LINE input channel, plug in the microphone or CD player and other external audio source to connect to the mixer, please make sure before connecting Keep the access channel mute or push the physical push to the lowest position.
2. Access the L/R main output interface at the back of the mixer with the audio casson cable, and connect the power amplifier at the other end to the speaker.
3. Switch on the power supply and turn on the mixer, wait for the mixer to completely start up, and then turn on the power amplifier.
4. After starting the mixer, push the physical pusher inserted into the MIC/ LINE input channel to the appropriate position.
5. Then also push the physical pushers of the main output to the appropriate position.
6. Adjust the input gain of the input channel to make the input signal achieve the appropriate dynamic.
7. If you are connected to a capacitive microphone or other device that requires power, turn on the Phantom Power.
8. According to the demand of the signal source, the equalizer is used to enhance or weaken the corresponding frequency band, and the compressor and threshold are used to control the dynamic range.
9. Send input signals to each effector, output bus and main output.
10. Change the main push until the sound system produces the right amount of sound.



# Front Panel Instruction



# Front Panel Instruction

## 1. Channel COMP/ limiter

1). This knob can adjust the threshold size of the pressure limiter. When the pressure limiter switch is opened, the adjustment is effective.

2). In button is to open and close the limiter.

## 2. Channel EQ/ Equalizer

1). Equalizer parameter knob

Up to down means: gain, frequency and Q value.

2). Parameter equalizer button

The shortcut keys of the parameter equalizer are: treble, medium treble, medium, bass and bass (from top to bottom). After lighting the corresponding keys, match the three parameters on the left

Adjust the knob to adjust the EQ parameters,

Note: EQ adjustment is only effective when the EQ switch (ON key) is turned ON.

## 3. channel HPF/LPF(high-low pass filter)

1).(HPF) high pass knob/high pass switch

Adjust this knob to reduce the low frequency signal, HPF button is high frequency on and off.

2).(LPF) Low Pass Knob/Low Pass Switch

Adjust this knob to reduce the high frequency signal, LPF button is low pass frequency on and off.

The high-low pass filter can be treated as a frequency divider

## 4. Input channel GATE/ noise GATE

This knob can adjust the threshold size of the noise door. The IN button is to open and close the noise door.

## 5. Input channel gain/audiovisual control knob

1). Gain control

Adjust this knob to increase or decrease the input signal level.

2). Audio and video control knob

Controls the proportion of signals sent from the current channel to the main output L channel and R channel.

## 6. Channel signal routing and sending

1). The current channel signal is sent to the main output channel L and channel R (just light up).2). The current channel signal is sent to the marshalling output SUB1-2(just light it up).

## 7. Channel signal indicator light

1).PK peak indicator

This is used to indicate that the channel's signal is approaching distortion (restricted).

2).0 signal indicator light

The light is on, indicating that there is a signal input on this channel.

3).SIG signal indicator

The light is on, indicating that there is a signal input on this channel.

## 8. channel selection key/mute key/listening key

1).SEL channel selection key

The button lights up to indicate that a channel has been selected and that channel parameters can be edited.

2).ON mute switch

Channel mute switch. When off, it means the channel is in mute state and you will not hear the signal of the channel

3).PFL monitor switch

When this button is pressed, the signal will be output from the listener and the headset.

## 9. Passage pushers

This is used to control the level on the current channel (electric push).

10. Main output push

Used for adjusting the size of the hybrid main output level (electric push).

# Front Panel Instruction

the input channel to the corresponding AUX auxiliary output. The transmission size is controlled by the pushers of the corresponding channel.

## 3). Push mode button FX1 / FX2

When the page-turning button IN is lit, press the FX1-FX2 indicator light flashes, and the pusher is IN the input channel and sends to the signal level corresponding to FX1-FX2.

The send size is controlled by the push of the current channel.

## 4). Tap effect tempo button

Effect 1: Short delay in delay Long delay is the metronome effect,

Effect 2: Delay click the Tap button to change the echo delay time of the speed effect in a short delay.

12, input/output channel push page turning button

1).GEQ- When the output channel is selected, this button is effective. When the button is turned on, the push is in control of the gain of 12 segments of the output equalizer

2). In - When this button is on, the push controls the channel level (CH1-CH12) corresponding to the input channel of the first layer.

3).OUT- When this button is on, the push controls the corresponding level size of the second channel (ST stereo, digital channel, FX1, FX2, SUB grouping output and AUX auxiliary output).

## 13. Quick call button in scene mode

Click the corresponding button to quickly call up the first four modes of the scene mode.

## 14, + 48V switch/multi-function knob

### 1).48V phantom power button

Long press the button for 3 seconds to turn on the 48V power supply of the current channel and light it, indicating that the MIC jack has 48V voltage.

Note: Do not turn on the phantom power until you have connected the microphone.

### 2). Multi-function knob

Touch this knob to adjust the parameters with the display screen.

15, input and output monitoring signal indicator light.

## 16. Stereo input channel

### 1).SEL channel selection key

The button lights up to indicate that a channel has been selected and that channel parameters can be edited.

### 2).ON mute switch

Stereo channel mute switch, off means that the stereo channel is in dumb state, you will not hear the signal of the channel 3).PFL monitor switch

When this button is pressed, the signal will be output from the listener and the headset.

### 4). Volume knob

This knob currently controls the volume of the stereo channel and can also be controlled by the stereo pusher on the second layer of the pusher (out).

## 17. digital input channel (MP3/ sound card control)

### 1).SEL channel selection key

The button lights up to indicate that a channel has been selected and that channel parameters can be edited.

### 2).ON mute switch

Digital channel mute switch, when off the channel will be in mute state, you will not hear the signal of the channel

### 3).PFL monitor switch

When this button is pressed, the signal will be output from the listener and the headset.

### 4). Volume knob

This knob currently controls the volume of the digital channel and can also be controlled by the digital channel push of the second layer of the push layer (OUT).

# Front Panel Instruction

## 18. MP3 operation area

1). Disp - When the USB flash drive is inserted, the system will automatically recognize the USB flash drive.

Click this button to enter the page of the MP3 player.

2).rec - When this button is flashing, recording is in progress, and when it is not flashing, recording is paused.

Previous, Pause/Play, Next

## 19. System key area (ESC,COPY, MODE, SYS keys)

1).ESC button: Click this button to return the LOGO page.

2). Copy button: When entering the channel page, long press this button to pop up the channel COPY page.

Select the channel to be copied to and click this button again

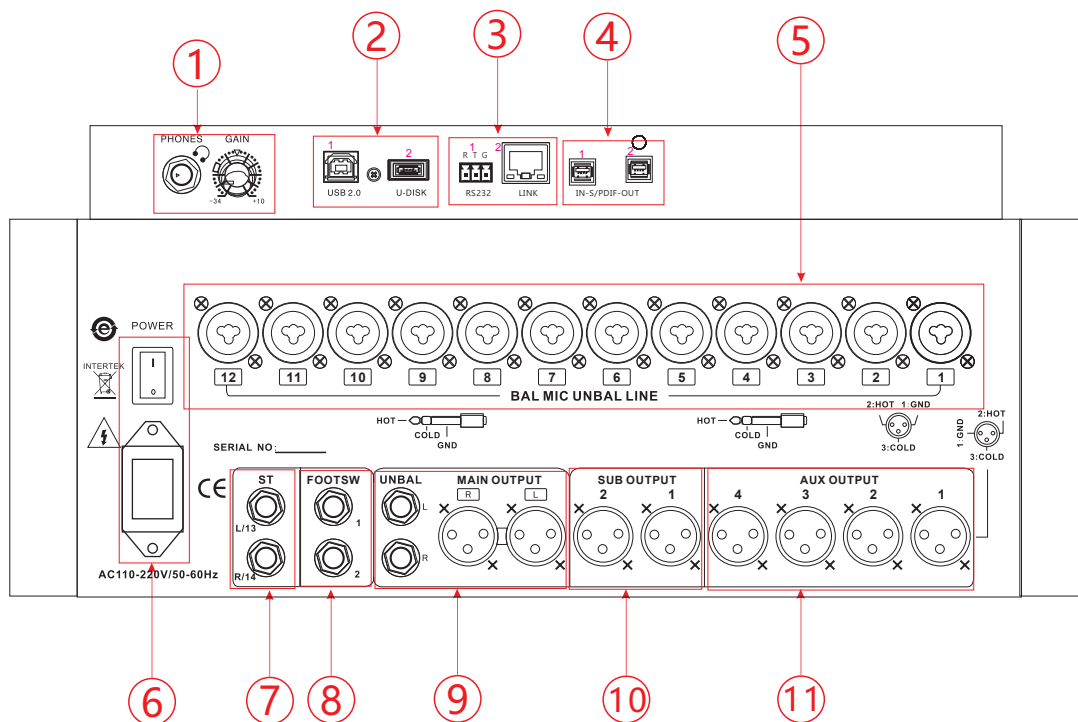
Button to copy the parameters of the previous channel to the corresponding channel..

3). Mode button: Click this button to enter the scene MODE page for storing and calling the scene.

4).SYS system button: Click this button to enter the system setting page, language setting, network setting, version information and software update and other operations.

## 20. Touch screen

# Rear Panel Instruction



## 1. Monitoring headphone jack/and monitoring knob

Insert the headset into this jack. It is recommended that the impedance of the headset be greater than 150ohm. Monitoring level knob This knob is used to control the monitoring signal level.

## 2. USB interface

1). USB 2.0: Connect the computer software debugging and audio card audio input interface.

2). U-Disk: U DISK interface, MP3 audio input and system upgrade interface.

## 3. Network interface

1). Central control RS232: external 232 central control device control connection.

2). Link: External router network cable connection control.

## 4. optical fiber signal input/input

1). In port is the fiber input

2). Out port is the optical signal output end.

## 5. MIC/ LINE microphone input interface

All balanced input ports, 12 XLR socket, can be connected to XLR line can also use 1/4" TRS line is connected to audio signal source.

## 6. Power input port and switch

110V-220V power interface.

## 7. Stereo input

Stereo line input interface.

## 8. Effect switch jack

This is the connection of the foot switch. If necessary, you can connect it here

## 9. Main output LR output interface

L/R outputs signals to power amplifiers or other amplifiers.

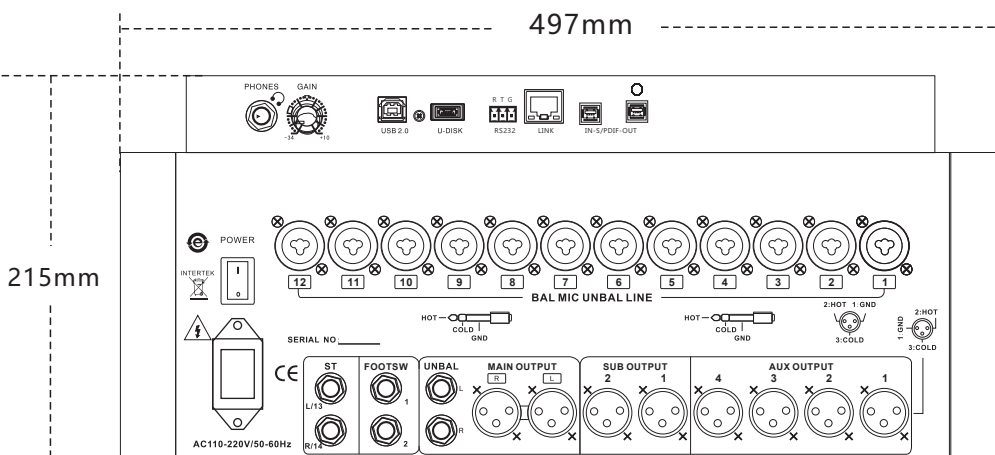
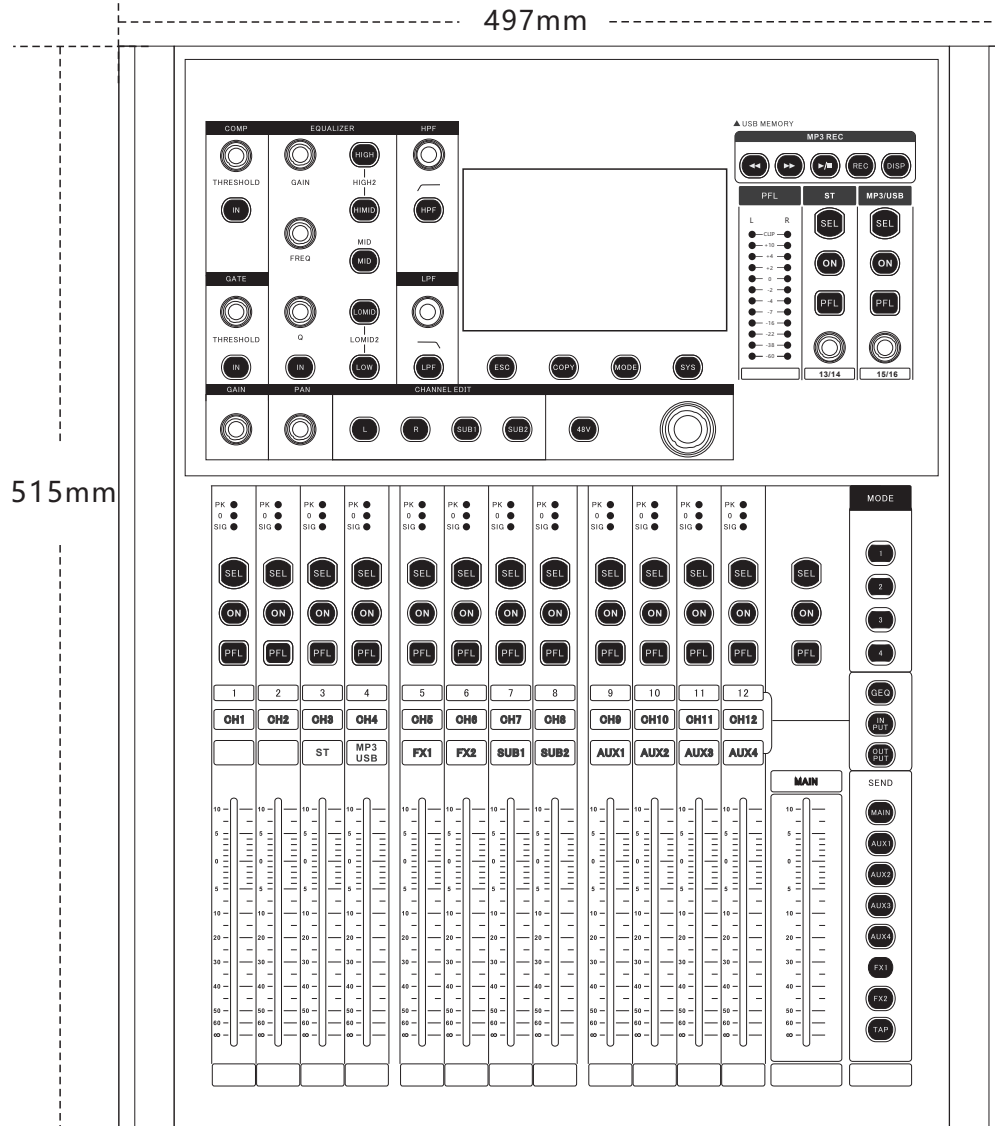
## 10. SUB1-2 marshalling output

SUB1-2 marshals output signals to power amplifiers or other amplifiers.

## 11. AUX1-4 auxiliary output

AUX1-4 auxiliary output signals to power amplifiers or other amplifiers.

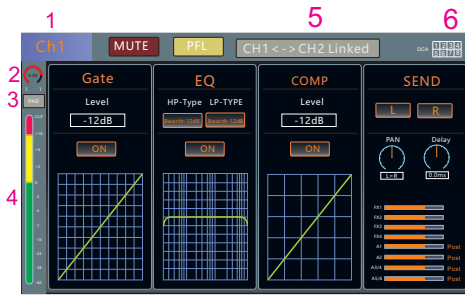
# Product size



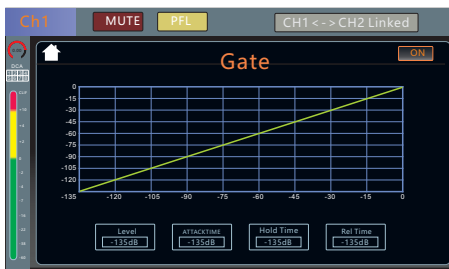
Length, width and height: 497\*515\*215MM (length includes 6.35 input seat, width includes side plate, height includes machine leg;Knobs not included)

Packing size: 620\*620\*310MM Net weight: 9.96kg Gross weight: 12.5kg

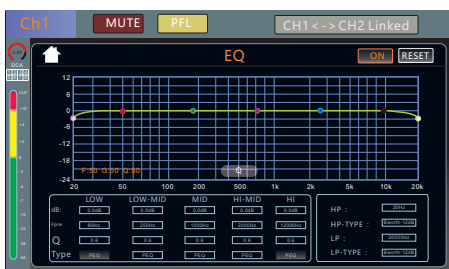
# Input Channel



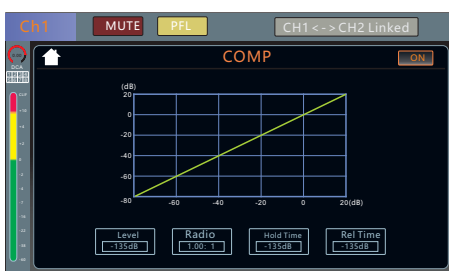
Channel main plane



Channel noise page



Channel equalizer page



Channel Limiter page



Channel sending page

Enter the main page of input channel 1 by default.

Input channel page has noise gate, equalizer, voltage limiter, send.

1. Gain: Gain/GAIN knob on the panel to control the size. 2. display the current channel signal level.

3.Touch the corresponding function area to enter the function page.

4.Click to select the parameters to be adjusted, and then use the multi-function knob to adjust.

5.Click the upper left corner of the function page to return to the main page of the channel.

# The effect of channel



Main page of effect

How to enter the effector page.

Find the word "Write (FX) effect channel" on the screen print on the right output push layer board, and click the SEL button to turn on FX effect to enter the main page.

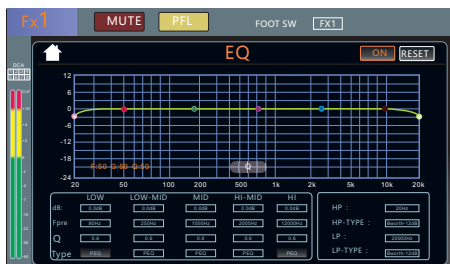
Effects channel page has volume source, equalizer, user effects, send.

1. Touch the corresponding function area to enter the function page.
2. Click to select the parameters to be adjusted, and then use the multi-function knob to adjust.
3. Click the homepage icon in the upper left corner to return to the main page of the channel.

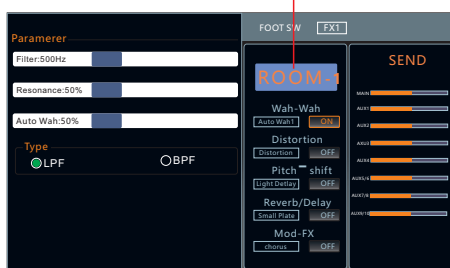


Effect volume source page

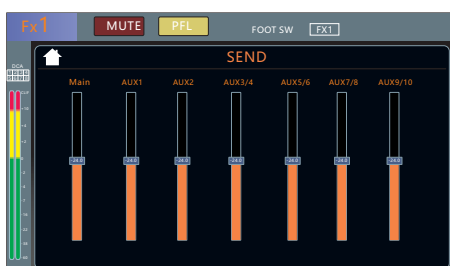
Displays the status of the input channel sent to the current effect



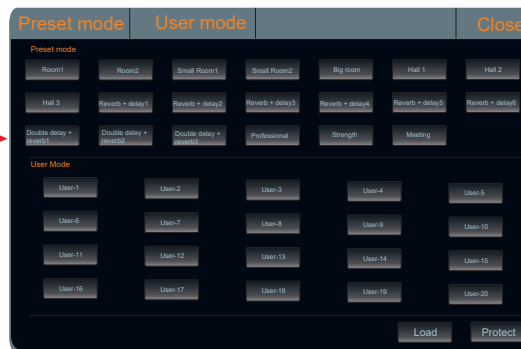
Effect equalizer page



Effects user effects parameter page



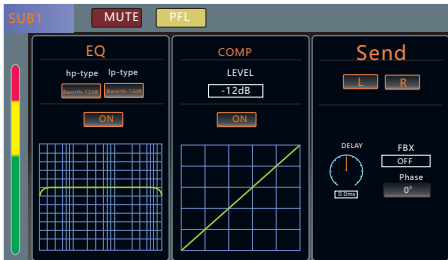
The effect is sent to the output channel page



Type of effect parameter

Effect of name	Effect type/value							
	Foot Switch	Fx1		FX2		FX1+2		
Wah-Wah	Filter	0Hz-8000Hz		Auto	0%-100%		Resonance	0%-100%
	Filter Type	BPF LPF						
Distortion	On/off							
Pitch-shift	1 / 2 Tone	-12—+12		Fine Tune	0—127		Filter	0Hz-8000Hz
	Resonance	0%-100%		Dry/Wet-Mix	0%-100%			
Reverb/Delay	Type:	Spring	Hall	Cathedral	Slap-Back	Short-Delay		
		Medium-Delay	Long-Delay	Delay Reverb 1	Delay Reverb 1			
	LevelRev	0%-100%		PreHP	0Hz-1200Hz	PreDelay	0ms—127ms	
	TimeRev	0%-200%		HDamp	0%-100%	Tone	-22.0dB—+22.0dB	
	ToneFreq	0—127						
Mod-FX	Type:	Vibrato	StepPhaser	Tremolo	SineChorus	Phaser		
		Panning	Flanger	Chorus				
	Level	0%-100%		DelTime	0ms—127ms		Feedback	0%-100%
	PreHP	0Hz-1200Hz		HDamp	0%-100%		Rate	0.02Hz-5.80Hz
	Depth	0%-100%		Tremshape	0%-100%			

## Marshal the output channels



The main page for marshalling output channels

How to enter the marshalling output page.

Press the button "Out" and click to open the output layer (when it is bright, it means it is already in the output layer).

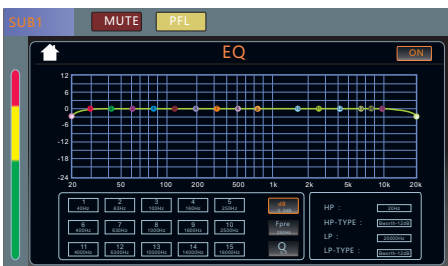
Find the word "write SUB" grouping on the screen print, and click the SEL button to open the SUB to enter the main page.

Effect channel page has equalizer, pressure limiter, send.

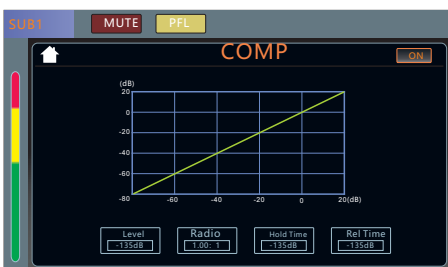
1. Touch the corresponding function area to enter the function page.

2. Click to select the parameters to be adjusted, and then use the multi-function knob to adjust.

3. Click the homepage icon in the upper left corner to return to the main page of the channel.



The equalizer page

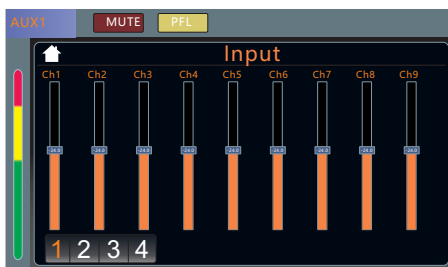


Pressure limiter page

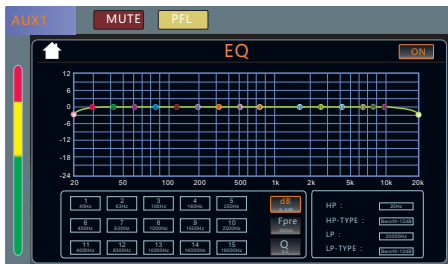
# Auxiliary output channels



Auxiliary output main page



Sends to the source page of the secondary output channel



Secondary output equalizer page

How to enter the secondary output page.

Press the button "Out" to turn over pages, click to open the output layer (when it is bright, it means you are already in the output layer), find the words with AUX assistance on the screen print, and click the SEL button to open AUX assistance to enter the main page.

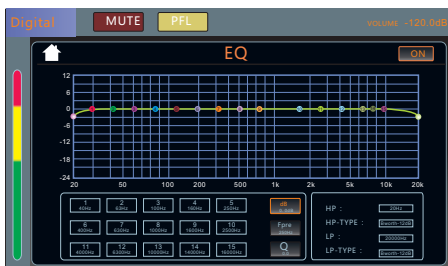
Auxiliary output channel pages are volume source, equalizer, and send.

1. Touch the corresponding function area to enter the function page.
2. Click to select the parameters to be adjusted, and then use the multi-function knob to adjust.
3. Click the homepage icon in the upper left corner to return to the main page of the channel.

# Digital channels



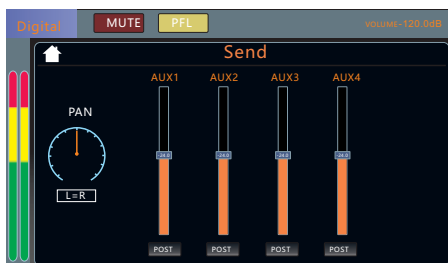
Digital channel home page



The equalizer page



Pressure limiter page



Digital channel signals are routed to the output page

How to access the digital channel page.

Under Digital In on the right side of the screen, click the SEL button to open the DIGITAL channel to enter the main page.

Digital channel page has equalizer, voltage limiter, send. MP3 and sound card playback control is through the digital channel to adjust

The upper right corner is the volume display of the digital channel. The volume can be adjusted by the volume knob of the digital channel

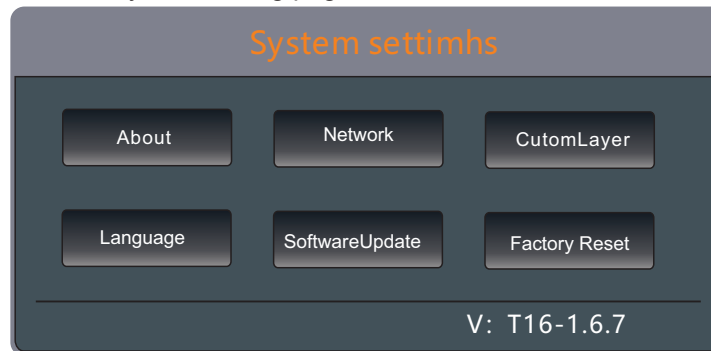
1. Touch the corresponding function area to enter the function page.

2. Click to select the parameters to be adjusted, and then use the multi-function knob to adjust.

3. Click the homepage icon in the upper left corner to return to the main page of the channel.

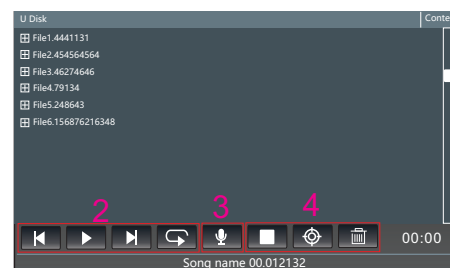
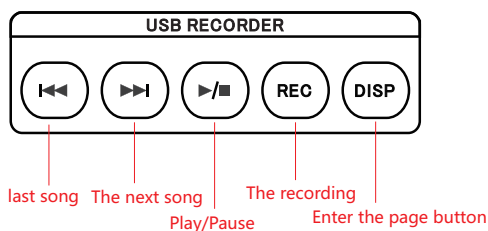
# System Settings

Press the SYS button to enter the system setting page



1. about the machine: here you can view the machine model, kernel version number, application version number, serial number of information.
- 2.Network: You can change the network IP address here.
- 3.Custom layer: set the custom channel in the custom layer, and then press the INPUT/OUTPUT button together to enable the function of the custom layer.
- 4.Language: Here to modify the language, the machine supports Chinese language and English language.
- 5.Update: Software can be updated here.  
Download the update software to the USB flash drive, then plug the USB flash drive into the mixer, click the button to open the update, it will automatically recognize that the software will automatically update, you need to wait.
- 6.Restore factory Settings: one key can be pressed to restore the machine parameters to the original factory Settings.

## Mp3/ sound card playback and recording



Play page

How to access the MP3 page:

1. Press the DISP button in the MP3 operation area to enter the MP3 page.
2. Plug in the U disk with the song, and the U disk will be automatically identified. So that the song is displayed. Learn about MP3 pages:
  1. The directory area can be swiped up and down to turn pages.
  2. This area is Last, Pause/Play, Next, Random/Single Loop/Sequence.
  3. Start recording and pause recording, recording will automatically appear the name of the recording file, recording is REC button will keep flashing.
  4. The total pause (can pause the playback or recording pause), song positioning, song deletion.

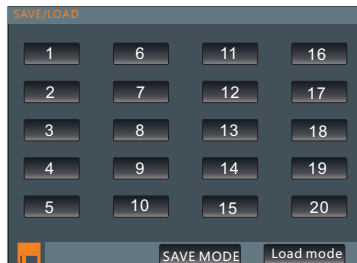
### Note:

When recording, the recording signal is the main output signal, so the recording must ensure that the main output signal output is normal, otherwise it will not record the sound  
Sound card recording needs to be connected to the computer through the USB cable, open the recording software on the computer, select the sound card of the mixer, MP3 recording directly to the U disk inside.

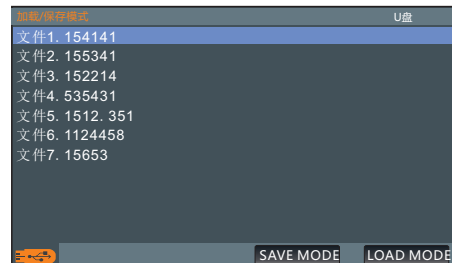
## Load/save mode

How to use load and save

The following loading and saving pages are local and U disk pages respectively.



Local page



U disk page

### How to save user data:

1. Set parameter data such as input, output and effect, and click Open Mode button.
2. There are altogether 20 scenes for the user to save. Click the scene number to be saved, and then press the "Save Mode" button.

### How to load user data:

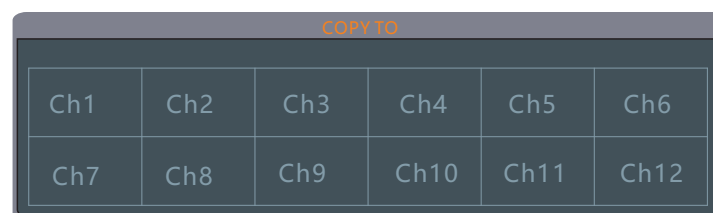
1. Go to the Loading/Preservation page, select the user to be loaded, and then click the "Loading Mode" button.
2. There are 4 buttons in the MODE area of the control panel, where you can quickly call up the first 4 users of user data, and then press "OK" on the screen Complete the call up of user data.

### User's USB disk data:

1. set the input, output, effect and other parameters, to load and save the page, click the U disk symbol in the lower left corner to enter the U disk page (orange indicates there is a U disk Insert).
2. press the save key, write the name after the completion of the virtual keyboard ENTE (Enter key), and then press the confirm key can be saved to the U disk.
3. insert U disk will automatically identify. Load the user data from the U disk, and the blue area is to select the current user data. After selecting it, press the Load button, and then you can confirm it

To load user data to the current channel.

## Channel replication page



1. Set parameter data such as input, output and effect in the current channel, and then click Open Copy to enter the COPY page.
2. Select the channel and click the Copy button to complete the COPY.





**CAUTION:** Do not open the equipment cover arbitrarily, so as not to electric shock. Please contact the professionals to maintain if necessary.