Digital mixer

Reference manual

MD-18

DIGITAL
LIVE SOUND CONSOLE

Applicable to: Firmware Version 2.0

Before installation, operation and maintenance of this product, Please make sure to firstly read the *[Important Safety Information]* on page I of this Manual.

Revision history

Revision	Revision description and content updated
V1.0	Initial version
V2.0	Official version

Symbols used in this Manual

The following symbols are used for explanations on limiting, warning and prompt in operation and instructions so as to ensure safety:

	The purpose of the excalmatory mark in an equilateral triangle is to remind the user of paying attention to the important safety, operation and maintenance instructions existing in the Manual.
	The arrow headed lightning symbol in the triangle is to remind the user of the un-insulated "dangerous" voltage that exists in the product housing and may constitute an electric shock risk to the human body.

" Warning ! " is the term denoting the instructions on relevant personal safely. Failure to follow these instructions may result in personal casualty.

" Caution ! " is the term denoting the instructions on damages that may be caused to the relevant devices. Failure to follow these instructions may result in equipment damage and this damage is not within the range of quality guarantee.

Important Safety Information

- In order to prevent fire or electric shock, please do not expose this equipment in the rain or a damp environment. The max. working environmental temperature is 40℃, please do not insert power source in the unwatched condition. Please make sure to pull out the power plug immediately after completing the use.
- Please do not use the power source with the voltage and frequency not in conformity with those indicated on the machine, use of different ones may cause a fire or an electric shock.
- Please do not scrape, damage or alter the power cord nor place any heavy objects on the power cord, do not pull or over-bend the power cord.
- Lay the power cord at places far away from the heat, or otherwise the skin of the power cord will be softened and may cause a fire or an electric shock.
- Please do not use the power cord whose electric contact at any of its ends is found with the sign of corrosion or overheat, nor any power cord that it seems damaged in any way, as the damaged power cord may cause a fire or an electric shock.
- Make sure to use the power supply, outlet and power cord with protective grounding, so as to maintain the equipment in good protective grounding.
- Immediately turn off the power switch and unplug the power plug from the receptacle when the machine falls off or gets damaged in any way.
- Please do not make bold to open the cabinet and repair or reconstruct the machine, the high voltage and sharp components inside the machine may hurt you.
- Clean the machine with a piece of wiping cloth dipped with mild detergent and water and fully dried. Please do not use alcohol, paint thinner or other inflammable substances such as gasoline, nitrocellulose lacquer thinner etc.

Repair and Maintenance

This equipment belongs to precision electronic products, requiring a special maintenance and repair method. In order to avoid equipment spoilage, personal injury and /or add potential safety hazards, all the maintenance and repair of the equipment must be undertaken by the authorized service station or distributor. Our company will not take any liability for any hurt, impairment or mutilation caused by unauthorized repair conducted by the equipment client, owner or user.

FCC statement

Note: This machine conforms to the limitation for digital equipment of Category B as specified in Part 15 of FCC Rules after testing.

These limitations are specified for providing rational protection, preventing any harmful interference caused to the dwelling house facilities. This machine will produce, use and radiate radio frequency energy, failure to follow the directions for installation and operation of the machine may cause harmful interference to the telecommunication. But anyhow, we can not eliminate the possibility of any interference generated in special installation conditions. If the machine indeed brings harmful interference to radio or television reception (can be determined by turn on or turn off the machine), users are encouraged to try one or more of the following measures to rectify this interference:

- Change the orientation of the receiving antenna or resetting.
- Increase the distance between the equipment and the receiver.
- Separate the power outlet used by the equipment and the receptacle used by the receiver.
- Consult the dealer or experienced radio or TV technician for help.

RoHS Statement

This digital mixer complies with the 2011/65/EU Command on Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).
This digital mixer complies with " China RoHS " standard. The table below is suitable for the products used in China and other regions:

Name of Components	Toxic or hazardous Substances and Elements					
	Pb	Hg	Cd	Cr (VI)	PBB	PBDE
PCB Assemblies	×	○	○	○	○	○
Chassis Assemblies	×	○	○	○	○	○

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363_2006.

×: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363_2006.

Packing content of MD-18 Mixer

MD-18 Main Unit
(Not including tablet) 1pcs

AC power cord 1pcs

Bluetooth adapter
(USB interface) 1pcs

User's
reference manual 1pcs

Content

Content (continued)

Chapter 1 *MD-18 Quick Start*

Notice: This manual is applicable to **MD-18** digital mixer of firmware version 2.0. The old version is unable to support the full functions below, partial functions may have some difference. Firmware of higher version may have the manual of corresponding new version, please acquire the latest information in time .

1.1. Registration and upgrade

Before using MD-18 digital mixer, please take some minutes to visit website and register your MD-18 mixer. After completing registration, you can:

- Download the latest available firmware version of MD-18 , install The latest functions for your mixer , or optimize and upgrade the performance.
- Timely receive the latest update notice.
- Obtain the relevant member favorable convenience, understand about the latest product pulse and the support you will probably obtain.

You can also obtain the related application knowledge and technique, find out video and other tools to help you easily and pleasantly use the MD-18 digital mixer.

1.2. About the MD-18 mixer

Professional field tuners often require four-band parametric frequency equalization (PEQ) , high-pass filter (HPF), compressor (COMP) and noise gate (GATE) on each input. They often use more high-quality digital effect processors at the same time. On the output channel, they also need to conduct equalization, compressing and time-delay operation, and also use the DCA and MUTE grouping functions.

On the whole signal chain, the professional audio engineer has an endless pursuance for high quality of audio signals, including the top low distortion pre-amplifiers, professional-grade digital to analog/digital converter at input and output ends.

MD-18 digital mixer provides you with professional, gliding and perfect performance. The simple and powerful Preset & Scenes function can easily save or recall optimized parameter configurations. From now on, you can experience the professional tuning fun easily and contentedly.

1.2.1. Main features

- With the digital signal processors (DSP) of the fourth generation (SIMD core), precise 450MHz / 40bit floating-point mathematical operation, 24bit/48KHz high performance ADC/DAC, Concerned about the details of the sound you care about, showing a rich sound content.
- MD-18 digital mixer is configured with:

  Input (18ch) of 12-channels Mic / Line with full digital control gain analog pre-processing (XLR female plug and ¼" TRS combinatorial input interface), 1 analog stereo channel, 1 stereo digital AES / EBU channel, 1 stereo USB Media channel (U disk playback or Bluetooth audio).

  Output (14ch) of 6 channels AUX, 1 stereo channel Main L / R ***(Both are XLR male plug interfaces, differential balanced output circuits)***
  1 stereo digital AES/EBU channel, 1 stereo channel USB recording, 1 ST headphone channel.

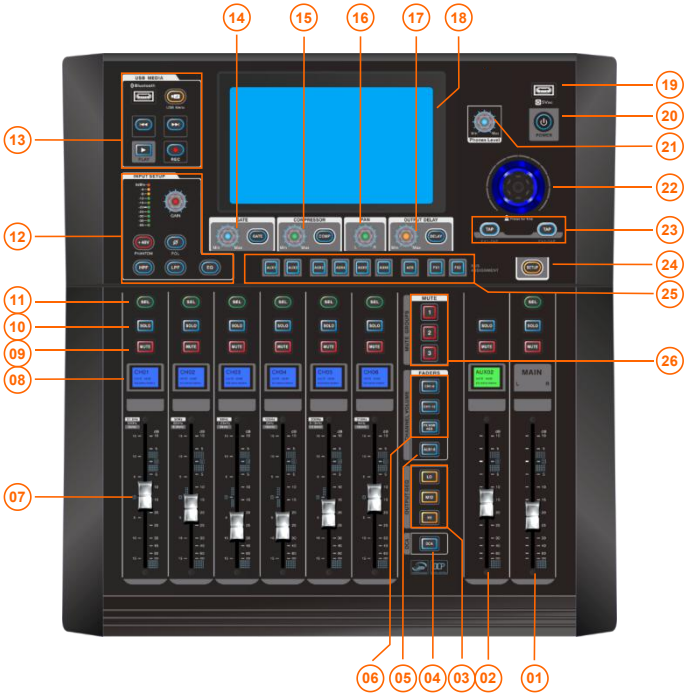
- All Mic / Line input channels are made of high quality professional grade microphone pre-amplifier: high dynamic, low distortion, full digital control 63-stage analog gain, that easily meet your requirements, to achieve good signal matching.
- All Mic / Line input channels are configured with 48V Phantom power supply, Polarity switching (Phase), Noise gate (Gate), Compressor (Comp), 4-band parametric frequency Equalizer (PEQ) / including high shelf filter (HSF), low shelf filter (LSF), high pass filter (HPF), low pass filter (LPF).

- All output channels are configured with Delay, Compressor (Comp), graphic frequency equalizer (GEQ), 4-band parametric frequency equalizer (PEQ) / including high shelf filter (HSF), low shelf filter (LSF), high pass filter (HPF), low pass filter (LPF).
- Configuration 2 professional DSP effectors (FX), 6 effect types: Chorus, Echo, Flanger, Pitch-Shift, Reverb, ping-pong (Stereo Delay), totally over one hundred types of effect preset.
- Use the functions such as wizards, message indicators and [Scenes] / [Presets] / [Copy to] help users easily complete channel configuration, gain settings, and effect selection. [User Scenes] and [Presets] can be stored or recalled from the internal or external USB disk.
- 6 DCA volume groups and 3 MUTE groups that can be easily operated with one key.
- With light entity touch switch and intelligent servo electric fader, give you the experience of smooth hand feeling. More visual and quick control is obtained with the color capacitive touch screen, user graphic operations interface combined with hardware physical buttons.
- Perfect switch "pop" sound automatic elimination function in the full voltage range (100Vac ~ 240Vac), than no annoying switch impact sound.
- USB Media playback, support MP3, AAC, WAV, AIFF, APE or FLAC file format. Direct use of external USB disk recording, no need to connect to an external computer.
- USB Bluetooth interface, plug and play, connect to your phone's Bluetooth device at any time to achieve wireless music playback.
- Automix can be set on all buses, and the input channels include microphones from CH01 to CH12 channels. It has intelligent algorithms for weight distribution and gain sharing.
- Color TFT guidance screen provides real-time channel parameter information and surveyability in

operation. *(User can self-define colors)*

- **ISUeasy™** remote firmware upgrade function supports comprehensive upgrade of the system by piloting the upgrade package data from the USB port (including MCU programs), ensuring that the MD-18 digital mixer you purchased will be readily and completely upgraded to the latest state.
- The mixer provides LAN IP networking function, IOS iPad or android tablet can wirelessly connect to the mixer for remote control operation. APP software for wireless remote control of almost all parameters of the mixer.
- Programmable central control remote control, using the device's network port, this digital mixer can accept the remote control command of the center console. The communication protocol uses an easy-to-understand ASCII command language and a flexible and extensible syntax structure.

1.2.2. Introduction of front panel functions



01 Main L/R primary output channel control, Solo / Mute / Volume fader, It can be controlled at any time.

02 Buses output control, Solo / Mute / volume control, it will be automatically related when you choose the BUSES.

03 Fader page switch for output GEQ.

04 Fader page switch button for DCA channels.

05 Fader page switch button for bus output channels.

06 Fader page switch button for input channels or routing.

07 Motorized faders.

08 Multi-color guidance screen instantly plays the associated channel information.

09 Channel MUTE or Routing MUTE

10 Solo buttons.

11 Channel select button, single push will enter the setup of the channel.

12 MIC/Line IN channels control zone.

13 USB Media play / recording。

14 Input channel GATE.

15 input /output Compressor.

16 Input channel PAN. To adjust the Pan that assigned to Main L/R output.

Introduction of front panel functions (continued)

17 Output delay.

18 Touch Screen control area

19 Lighting power supply (5V/0.5A).

20 Standby power switch, push and stay 2 seconds till it flashes, push one more time it will go for standby mode. Another push will go back to working mode

21 Headphone volume /SOLO setup

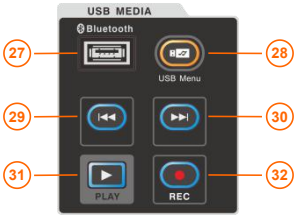
22 The main jog dial for parameter adjustment (push down to switch between fast and fine adjustment).
When you choose any parameter or icon on display it will turn yellow, then you can adjust by the jog dial.

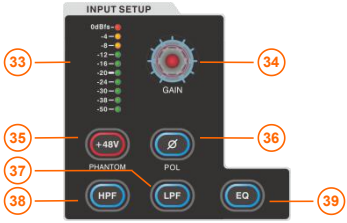
23 TAP, system will detect the interval of 2 TAPs and will make it as delay of the effect, the indicator under the push button will keep the same time as delay effect time

24 System parameter setting.

25 AUX output BUSES Routing setup.

26 MUTE group quick buttons.





27 USB dock，can connect WIFI adapter, BT adapter and USB stick, note: BT and USB can`t work at same time.

28 USB quick button, single click will enter the setup of USB.

29 Previous song.

30 Next song.

31 Play/pause.

32 USB record/stop.

33 Input channel level meter before fader and Mute.

34 Select channel input Gain adjustment knob.

35 48V phantom power，when light up 48V it`s working.

36 Phase, when light up it`s 180 degree opposite.

37 Input channel low pass filter switch (LPF).

38 Input channel high pass filter switch (PHF).

39 Input channel parameter equalization filter switch (PEQ)

1.2.3. Introduction of rear panel functions

01 Analog stereo input, single-ended signal input, ¼ "TRS interface or RCA socket.

02 AES digital audio input connector. Stereo dual-channel inputs, and the clock frequency is adaptively and automatically converted.

03 12-channel MIC / Line differential balanced input (XLR female plug and 1⁄4" TRS combined input), independent 48V phantom power control.

04 One AES digital audio stereo dual channel output interface, 24bit/48kHz.

05 Bus AUX1~AUX2 output, Mono, differential balanced output, 1⁄4" TRS interface.

06 Bus AUX3~AUX6 output, Mono, differential balanced output, XLR male interface.

07 Bus Main L/R output, Mono, differential balanced output, XLR male interface.

08 Internet connection, can work with IP (currently not open).

09 Headphone monitor output interface.

10 USB dock， can connect BT adapter and USB stick.
NOTE: BT and USB can`t work at same time.

11 AC power input interface and power switch.

Warning: Be sure to use a three-pin plug, socket and cable with protective grounding. The safety ground must be reliable !! To ensure the safety of people and equipment, and to avoid equipment interference and work unstable or damaged.

1.3. Tip wizard for quick start

You can have a quick start

1). Connect MD-18 mixer with Mics, Music instruments, amps etc.

2). Turn on the power of MD-18, wait for start of the unit, normally it will take around 25 seconds.

3). In the navigation zone 

, you can select the input/output channels , single click  enter setup of the channel, or you can click the fade pages button 

, then click button 

to enter the setup the channel. Then you can click【Config】, and adjust the analog gain, or adjust with the gain knob 

on the left, check the channel level and make sure it is within the right level, you can click 【Solo】 to monitor, to know about the level of input.

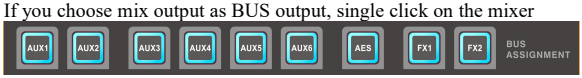
Note: *GATE, COMP and EQ/HPF/LPF function will probably effect the input level,or even lead to dramatically decay of input signal.*

4). Same way to setup other input channels,single click other 

can setup other channels, or you can use【Copy to】function to paste the specifications to other channels rapidly

5). Single click【Back】to return to overview of channels, put the volume fader to right level, normally it`s 0dB, single click【MUTE】button to cancel the channel MUTE.

6). Under Default mode, the input channel signal will go through Main L/R as output, you can adjust the volume to right level, and MUTE off, then you can hear the sound.

7). If you choose mix output as BUS output, single click on the mixer 

, now the mixer is under status of routing setup, the input channels which can be used as routing will be shown with brown color, you only need to adjust the volume of the input channels, the effect sent volume will also setup here.

8). Single click again 

will quit the routing setup mode.

9). In the navigation menu 

you can choose the output group, or single click the fader page 

to switch to the output BUS, then put the output volume to right

level, MUTE off，then you can see there would be signal from the related output BUS，check the output level and see if it`s in the right level.

10). If you need effect function, follow step 7) 8) to setup input routing for the selected effect, then in the navigation menu 

single click 【FX/USB/AES】，then click the related channel  to enter FX setup menu，choose the effect and setup specifications. Or single click the fader page button 

to switch to the effect menu，single click 【SEL】 can also enter the setup for effect. And follow step 7) 8), send the effect to the related output BUS, the output channel will work with the effect.

11). Congratulations, the quick tuning operation is successful !! You can learn and master the MD-18 digital mixer in the following chapters to experience the joy of tuning !!

1.4. Recall a preset scene and easily restore the required working parameters

What is a scene? Scene are a group of settings saved in advance by manufacturer or by the user, and can be recalled at any time, and all the parameters of the MD-18 digital mixer can be set as the value of the scene.

MD-18 digital mixer includes a lot of preset scenes to be used in all kinds of performance occasions. In allusion to the performance that you will tune for, you can find the most suitable scene. (Refer to Paragraph 2.7 for details)

You will see a lot of scenes by manufacturer or by the user, choose one and single click [Recall]. After recalling you can modify the specs per your request.

1.5. Use Presets to tune

What is the preset? The channel preset is a group of multi-parameter settings saved and aimed at one channel, it can be recalled at any time. All the input channels/bus channels/effect channels of TQ-22 digital mixer have the corresponding Presets, the fussy parameter adjusting work is completely avoided, it is only required to save the adjusted parameters as presets, and recall it to restore the original operating state when it is used in the future.

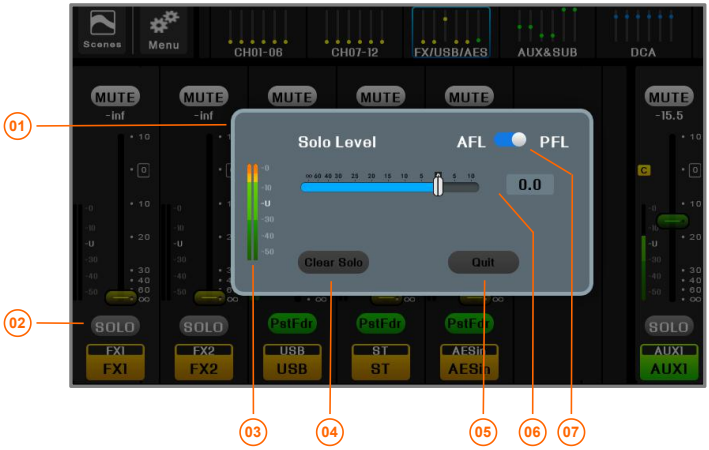
The preset is suitable for common microphone and musical instrument and is preset by the skilled and experienced audio engineer for performance application on site. The preset is very useful and has very good effect with less modification required, or no modification is required at all.

Preset which you can single click the icon【Preset】， you can choose the preset from the list and recall. (details refer to 2.1.6 / 2.2.6 / 2.4.9)

1.6. Monitor headphone

On the panel turn 

，the system will pop up the Solo setup，the user can setup specs, view the headphone output level, also you can clear Solo which is clear all monitor.



01 Rotate the headphone monitor knob on the panel to automatically pop up this monitor control menu. If there is no operation, it will automatically retreat in 3 seconds.

02 Headphone monitoring can be accessed by clicking the button【Solo】on the screen or by clicking the button 

on the panel. Multiple channels can be monitored simultaneously.

03 Headphone monitor output level meter.

04 Clear all related setup with headphone monitor.

05 Quit operation.

06 Volume adjustment.

07 For the input channels, the headphone monitor access point can be selected before the fader or after the fader. The access points of the earphones of the output channels are all before the faders.

1.7. Restrictions on USB interface power

This mixer has two USB ports and a USB light port (only 5V power supply), but no matter which USB port, its power supply capacity is less than 500mA, it is strongly recommended:

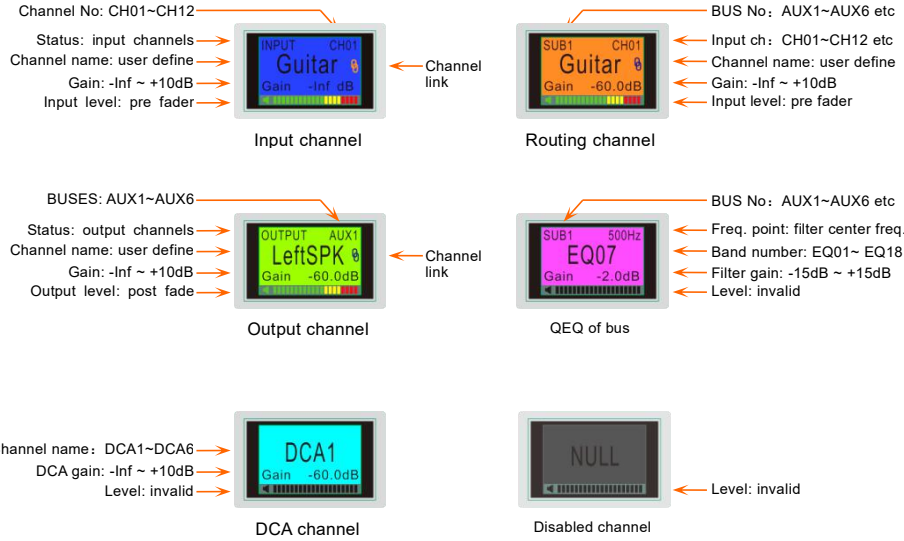
	1). Do not insert a high current USB device.
	2). Do not insert the phone into the above socket for charging, the test has proved: when the phone into the USB port charge, and the same time the phone as the input source for the mixer, it will produce interference ! !

Use the phone comes with the charger from other places to take power, and the phone as the input source of the mixer will not be a problem.

Chapter 2 *Detailed Description of MD-18*

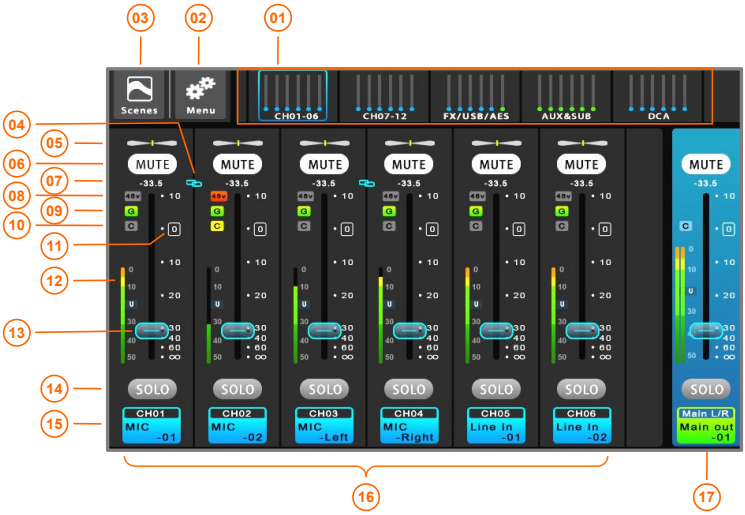
This section details the screen and operational controls of the MD-18 Digital Mixer. The operation of this tuning station basically consists of input channel setting, bus output channel and routing settings, effect settings, and system settings.

Key points: The faders and buttons on the panel are mainly used during operation, and the TFT touch screen is supplemented by two-way synchronous control. What is the function of the fader can be distinguished by the corresponding guidance display. Channels that are prohibited from operating display a black screen.



2.1. Input Channels

2.1.1 Home of input channels



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button 

on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Channel linked icon, when two adjacent channels of a stereo channel linked, the logo lights.

05 PAN, this channel is assigned to the panning of the Main L/R. Make adjustments in the channel settings, or click on the screen to select the channel and adjust the knob 

on the panel.

06 Channel MUTE, Grey for off, red for on.

07 Channel Gain. Change with fader, unit：dB.

08 Phantom power, the indicator will show in working.

09 Indicator of Gate, it will light up when in working.

10 Compressor indicator, will light up in working.

11 Gain level of fader, unit：dB.

12 Signal level (pre fader), unit: dBfs. -20dBfs as standard level U.

13 Channel gain fader.

14 Solo on/off.

15 Channel label, including the physical channel number CH01, CH02, etc., as well as the user can customize the channel names, such as "MIC-01", "Guitar-02" and so on.

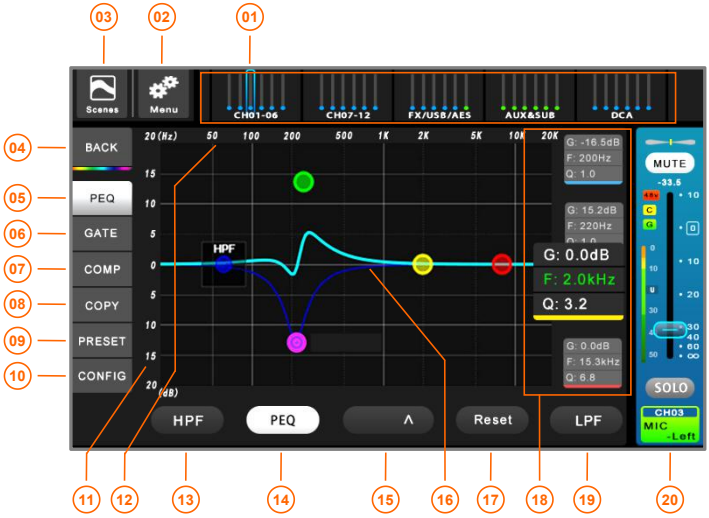
Click the channel label to enter the channel setting menu.

16 Channels overview, single click can choose any channel as current channel, turn the main jog dial can adjust the Parameter.

17 Main L/R channel master control panel, adjustable gain and mute, etc.

2.1.2 Parametric equalization (PEQ)

MD-18 mixer equipped every MIC/Line In channel with 4 bands PEQ and High/Low Pass filter, Among which BAND1 and BAND4 can select normal filter or High/Low shelf Filter



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 PEQ filter gain scale in dB.

12 PEQ filter frequency scale, unit: Hz.

13 HPF switch. Same function as the button HPF on the panel. The filter is active when lit.

14 PEQ switch. Same function as the button EQ on the panel. The PEQ is active when lit.

15 Filter type selection, and when BAND1 BAND4, the normal filter or select the high / low shelf filter.

16 EQ curve and filter point, click on a band point, press drag to adjust the filter frequency and gain. The dotted circle represents the current frequency band, the right list shows the parameters, click or slide to select the parameter to be adjusted (displayed as green text when selected), you can use the main knob to change the value. Press the main knob to switch between coarse and fine adjustment modes. Use the two-finger gesture to adjust the Width. In the main unit, use two semi-circular color blocks. Press the horizontal push-pull to adjust the width.
Double-click the selected band point to reset the filter gain to zero.

17 Reset all parameters of the EQ to a flat state.

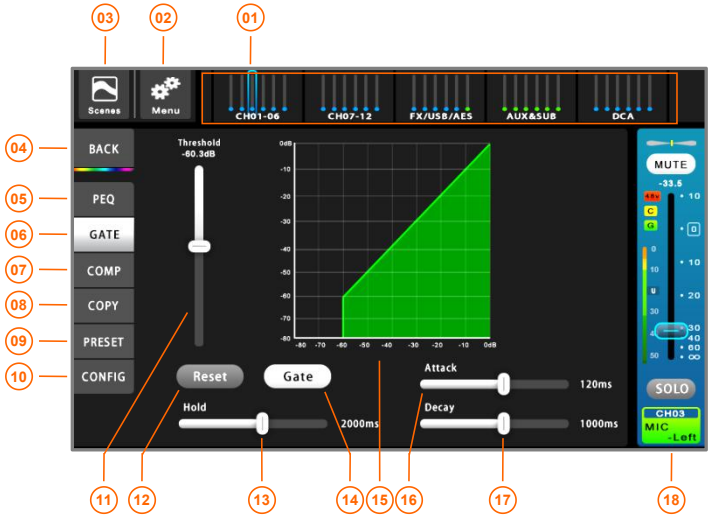
18 EQ parameter display area, the current text edit point will be filtered enlarged display. Click on the parameter area or swipe up and down in the parameter area to select the parameter to be adjusted, and then use the main jog dial to make precise adjustments.

19 LPF switch. Same function as the button LPF on the panel. The filter is active when lit.

20 Current channel master control panel, adjustable gain and mute, etc.

2.1.3 Gate

The noise gate allows an audio signal above a set threshold to pass, attenuating or muting the audio below the threshold.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 Threshold, the starting point at which the threshold is set to cause the signal level to begin to decay, in dB. The shortcut knob on the panel can also be adjusted.

12 Reset the parameters to their initial values.

13 Set the minimum time for the gate to hold the state of ON after having enabled it, and the gate will be held the state of ON when the input level is below the threshold.

14 Gate switch. Same function as the button GATE on the panel. The Gate is active when lit.

15 Gate graphic, when it`s on, it will turn green.

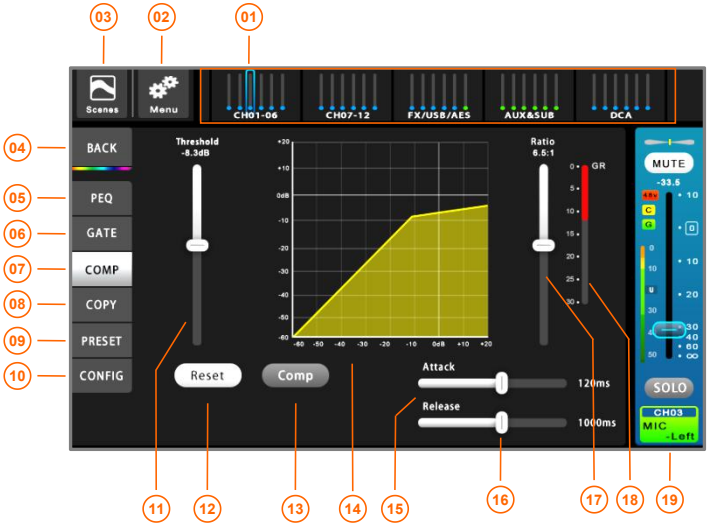
16 In case that the signal is above the threshold, it is the response speed to adjust the gate ON.

17 In case that the signal is below the threshold, it is the response speed to adjust the gate OFF.

18 Current channel master control panel, adjustable gain and mute, etc.

2.1.4 Compressor

The Compressor controls the dynamic range of the signal when the signal exceeds the set threshold.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 Threshold, the starting point for setting the Comp to start decaying the signal level, in dB. The shortcut knob on the panel can also be adjusted.

12 Reset the parameters to their initial values.

13 Compressor switch. Same function as the button COMP on the panel. The Comp is active when lit.

14 Gate graphic, when it`s on, it will turn yellow.

15 In case that the signal is above the threshold, it is the response speed to adjust the compressor ON.

16 In case that the signal is below the threshold, it is the response speed to adjust the compressor OFF.

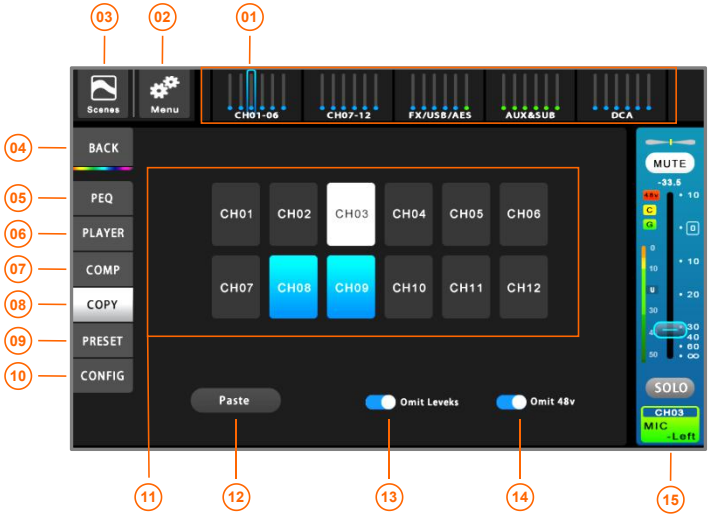
17 In case that the signal is above the threshold, set the ratio of the input level to the output level.

18 A gain attenuation(Red) indicates how much the compressor makes the signal attenuated.

19 Current channel master control panel, adjustable gain and mute, etc.

2.1.5 Copy to

When you have carefully set an input channel, its parameters have met the requirements, and other channels have basic or identical setting requirements with this channel. In this case, the parameter copy function will be used to quickly complete the parameters of other channels settings.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 The white area is the current channel and the parameters are set. The blue area is the target channel for which you want to copy parameters. Click to select. Multiple choice. Gray is the unselected channel.

12 Click this button to copy the parameters of the current channel to the selected target channel.

13 When turned on, the channel level parameter is ignored during parameter copying.

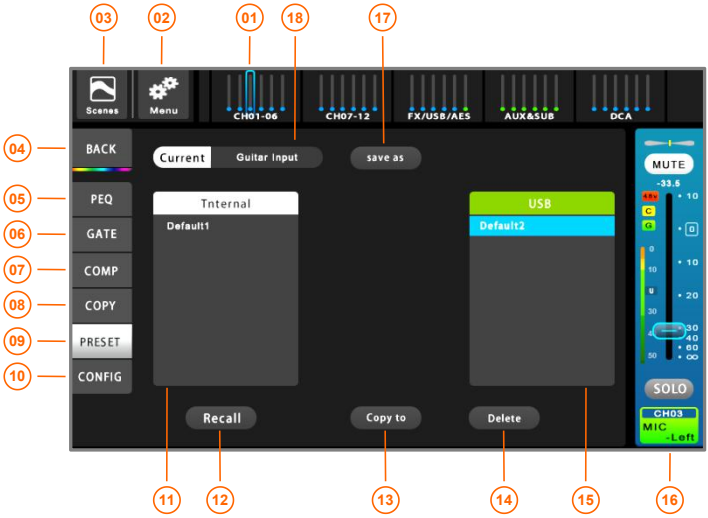
14 When turned on, channel 48V phantom power is ignored during parameter copying.

15 Current channel master control panel, adjustable gain and mute, etc.

2.1.6 Preset

What is a channel preset? A channel preset is a set of saved parameter settings for a channel that can be recalled at any time. Simply save the adjusted parameters as a preset, and recall them in the future to restore the original working state.

The input presets are suitable for common microphones and instruments. The presets are very useful, the effect is very good, there are few places to be modified, or no modification at all, completely avoiding the cumbersome parameter adjustment work.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 Built-in preset list, a list of user presets inside the mixer.

12 Call the selected preset parameters. The parameters are retrieved onto the input channel.

13 Copy selected user presets to the inside of the mixer or to a USB stick.

14 Delete the selected user preset.

15 A list of user presets placed on an external USB stick.

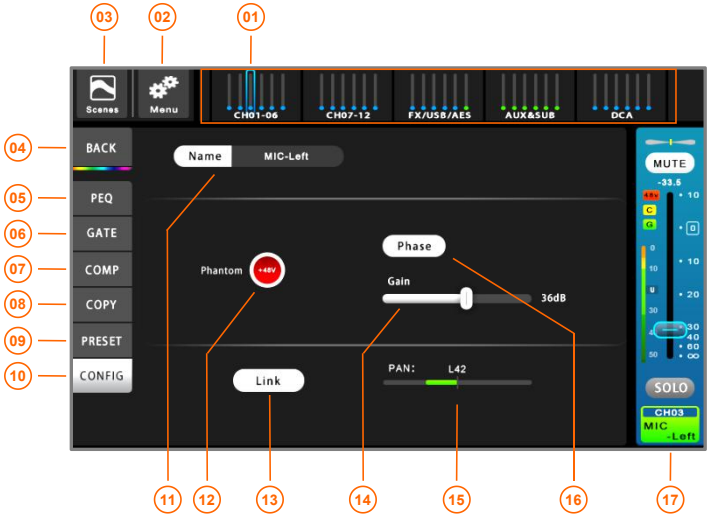
16 Current channel master control panel, adjustable gain and mute, etc.

17 Save the current channel parameters as a user preset. Stored in the inside of the mixer or an external USB stick.

18 The name of the current preset.

2.1.7 Configuration

The channel settings configure the channel name, analog gain, phantom power, pan balance, and more.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home Button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to Gate setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 Channel name, which can be modified by the user, up to 6 English characters and numbers.
This name will be displayed synchronously on the guide screen for quick identification by the user.

12 Phantom power switch. Same function as the button +48V on the panel. The +48V Phantom power is active when lit.

13 Link, the two adjacent MONO channels are linked into a pair of stereo channels.
Only channel linking such as (CH01, CH02), (CH03, CH04), etc. are supported, and channel linkings such as (CH02, CH03), (CH04, CH05), etc. are not supported. The parameters of the odd channel are automatically copied to the even channel when linked, and the phantom power control is also copied.

15 Pan balance adjustment assigned to the Main L/R output channel. It can also be adjusted with the knob PAN/BANL L R on the panel.

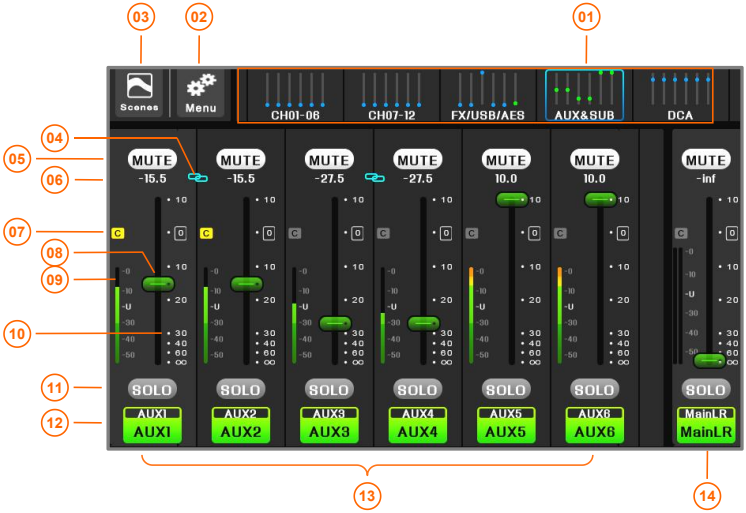
14 The input channel analog gain is used to match the input source of different input amplitudes. When adjusting, observe the level meter so that the U-scale of the meter is illuminated. Do not display the red level. Gain range: -5dB ~ +58dB.

17 Current channel master control panel, adjustable gain and mute, etc.

16 Polarity switch. Same function as the button Ø on the panel. The Phase is active when lit.

2.2. Output Channels

2.2.1 Home of output channels



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Channel linking icon, when the adjacent two mono channels linked into a stereo channel, the logo lights.

05 Channel mute switch, muted when lit.

06 Channel gain. Changed by fader adjustment, unit: dB.

07 The compressor icon lights up to indicate that the compressor is enabled.

08 Channel gain fader.

09 Signal level meter，unit：dBfs。make -20dBfs as standard level U.

10 Fader gain scale in dB.

11 Solo On/Off.

12 Channel label, including the physical channel number AUX01, AUX02, etc., as well as the user can customize the channel names, such as "Surr-Left", "Center-01" and so on.
Click the channel label to enter the channel setting menu.

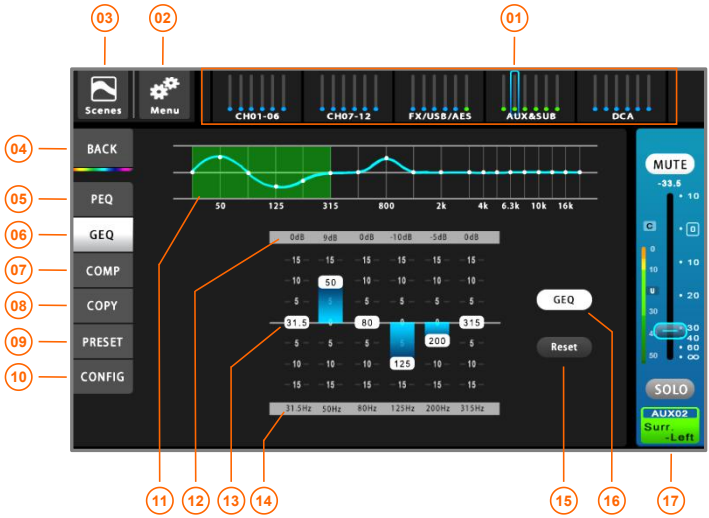
13 Channels overview, single click can choose any channel as current channel, turn the main jog dial can adjust the Parameter.

14 Main L/R channel master control panel, adjustable gain and mute, etc.

2.2.2 PEQ (Same as the input channel, please refer to section 2.1.2)

2.2.3 GEQ

The MD-18 mixer provides a high-quality 15-segment graphic equalizer for each output channel.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to GEQ setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 EQ curve.

12 Current gain of the filter in dB.

13 The gain adjustment slider pushes to change the filter gain (double-click the blank area of the frequency point to reset the filter gain to 0dB). You can also click on a certain frequency point area and then use the main jog dial to adjust (press the main jog dial to switch between coarse and fine adjustment mode).
Or use the fader to adjust, when in the 0dB position, the system will automatically prevent the fader movement, giving the user feedback of the zero position. Click the button MUTE to reset the filter gain to 0dB.

14 Filter frequency scale.

15 Reset all parameters of GEQ.

16 Graphic equalizer switch, when lit indicates GEQ effective.

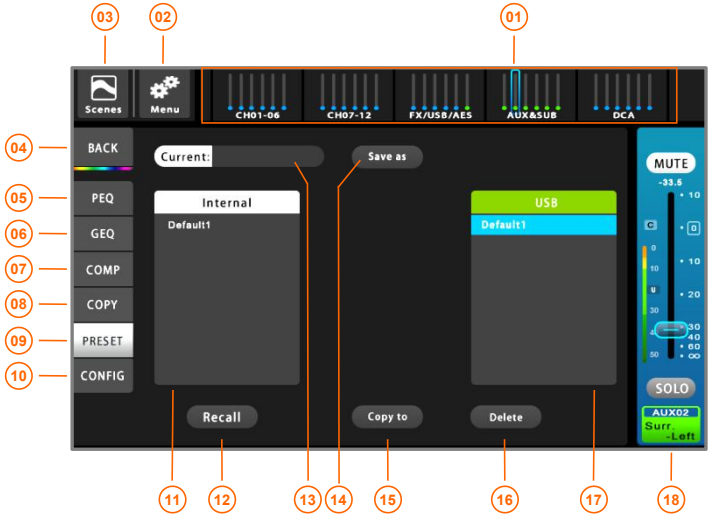
17 Current channel master control panel, adjustable gain and mute, etc.

2.2.4 Compressor (Same as the input channel, please refer to section 2.1.4)

2.2.5 Copy to (Same as the input channel, please refer to section 2.1.5)

2.2.6 Preset

Select, recall, and save channel presets. The preset is very useful and the effect is very good, completely avoiding the cumbersome parameter adjustment work.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to GEQ setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

11 A user-defined preset library placed inside the mixer.

12 Recalls the selected preset parameters, including EQ settings, filter settings, Comp. settings, mute grouping, DCA grouping, routing connection status, name, and (optional) channel level.

13 The name of the current preset.

14 Save the current channel parameters as the user preset by the specified path and name.

15 Copy selected user presets to the inside of the mixer or to a USB stick.

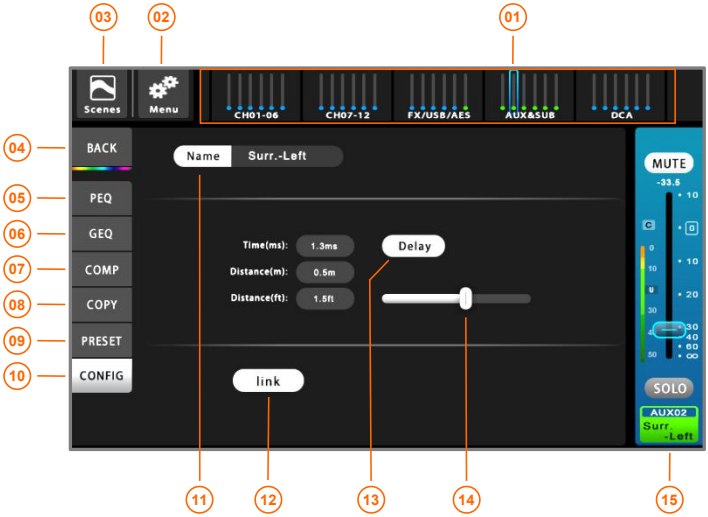
16 Delete the selected user preset.

17 A user-defined preset library placed on an external USB stick.

18 Current channel master control panel, adjustable gain and mute, etc.

2.2.7 Configuration

The channel settings configure parameters such as channel name and output delay.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button  on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to GEQ setup.

07 Single click to Compressor setup.

08 Single click to Copy setup.

09 Single click to Preset setup.

10 Single click to configuration setup.

12 Link, the two adjacent MONO channels are linked into a pair of stereo channels.
Only channel linking such as (AUX1, AUX2), (AUX3, AUX4), etc. are supported, and channel linkings such as (AUX2, AUX3), (AUX2, AUX3), etc. are not supported. The parameters of the odd channel are automatically copied to the even channel when linked, and the phantom power control is also copied.

11 Channel name, which can be modified by the user, up to 6 English characters and numbers.
This name will be displayed synchronously on the guide screen for quick identification by the user.

13 Delay switch, the delay is valid when lighting.

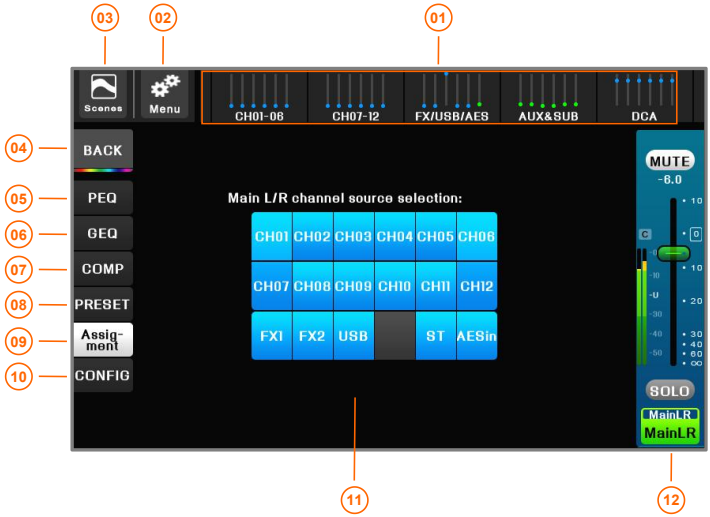
14 The delay value of the current output channel is displayed in different delay units. Delay value adjustment fader. Delay range: 1.34 ~ 500mS.
The knobs and buttons 

on the panel can also be adjusted.

15 Current channel master control panel, adjustable gain and mute, etc.

2.2.8 Main L / R channel setup

The Main L / R channel is identical to the other bus output channels. For details, please refer to the previous section. The difference is that the channel name cannot be modified, the route has no volume control, but which input channels can be selected as the source.



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button SETUP on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 Home button, back to the overview channels page.

05 Single click to PEQ setup.

06 Single click to GEQ setup.

07 Single click to Compressor setup.

08 Single click to Preset setup.

09 Single click to Assignment setup.

10 Single click to configuration setup.

11 All source inputs that can be linked to the Main L/R output bus, click to switch, highlighting indicates the signal is ON.

12 Main L/R channel master control panel, adjustable gain and mute, etc.

2.3. Route assignment operation

The MD-18 mixer has a very powerful and flexible routing function that enables any input to any output routing control. Before the routing operation starts, please make the necessary settings for the relevant input channel and output channel according to the previous chapter. The route assignment operation is as follows:

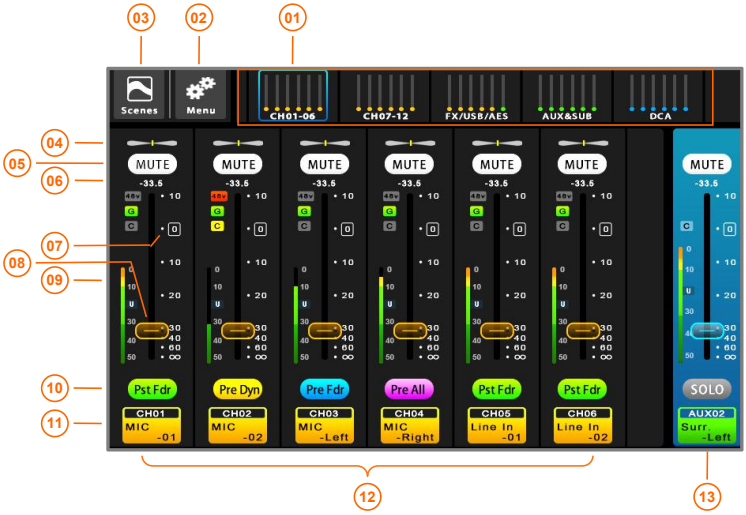
[Step 1]: If you are not in the home page, click 

to return to the home page.

[Step 2]: Click the bus area on the left side of the APP screen to select the output bus that needs to be routed. Or click the button

on the panel to make the MD-18 mixer in the routing setting state. At this time, the input channel for routing assignment is allowed. The fader slider is displayed in brown, and the TFT guide screen is also displayed in brown. The color of channels that cannot be routed is not changed.

[Step 3]: Use the navigation bar (01) to select the group where the input channel is located, or click the fader page button on the panel (as shown in the right figure), cancel the [Mute] of the corresponding input channel in the input channel page, click the button (10) to select the signal from Pre-fader or Post-fader and other locations, and set the channel routing volume (08) to the appropriate position (as shown below)



01 The total navigation bar, click the corresponding index page or the fader page button on the panel to quickly switch to the page where the channel is located.

02 System setup button, click to enter the system parameter control page. Same function as the button 

on the panel.

03 Scene button, click to enter the scene control page. Save or load the scene parameters you need.

04 PAN, this channel is assigned to the panning of the Main L/R.

05 Routing channel mute switch. When the red light is on, the input channel route is muted and no signal is coupled to the bus.

06 The route allocates the gain of this channel in dB. Change by fader adjustment.

07 Fader gain scale in dB.

08 Route Gain Fader (the fader slider is brown). Channels that are not brown cannot be set as routes.

09 Channel lever meter (pre-fader)，unit：dBfs。take -20dBfs as standard level U.

10 Each output bus, the corresponding signal access point of each input source channel can be independently selected, respectively: [Pre-All], [Pre-Dyn], [Pre-fader], [Post-fader] a total of four completely independent signal access points.

11 The channel label, which contains the physical channel numbers CH01, CH02, etc., as well as the channel name that the user can customize.

12 Channel overview area. The channel of the brown fader slider is a valid routing source channel, which can be used as a routing input to adjust routing parameters.

13 Current channel master control panel, adjustable gain and mute, etc.

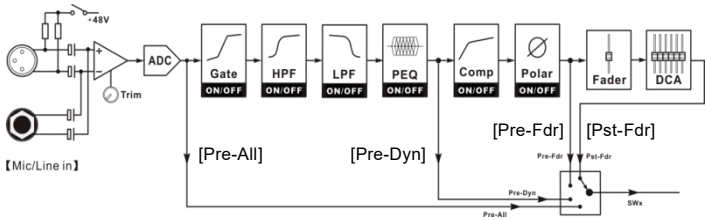
[Step 4]: Repeat step 3 until all routing settings are complete.

[Step 5]: Set the volume of the current output bus in (13).

[Step 6]: At this point, the routing settings have been completed. Click the bus area on the left side of the APP screen and select [OFF] to exit the route setting status. Or click the bus button on the panel 

to exit the routing settings state.

The structure of the signal access point is as follows.



According to the needs of different output buses, make independent selection of the input signal source. For example, if AUX1 needs to retain the original signal of input channel CH01, then the access point is selected as [Pre-All] (before all processing units). AUX2 wants input channel CH01 to be processed by EQ, but do not compress the processing, then the access point is selected as [Pre-Dyn] (before the compressor). AUX3 is expected to be processed by the compressor, but it cannot be affected by the volume of the input channel. Then the access point is selected as [Pre-fdr] (before the fader). AUX4 wants to have all the processing, and is controlled by the input channel volume and DCA, then the access point is selected as [Pst-fdr] (after the fader). The above is just an example. Each output bus can individually select different access points for the same input channel.

2.4. Effect processor

The mixer has two completely independent effect processing modules FX1 ~ FX2, each effect module is capable of completing one of 6 effects including Chorus, Echo, Flanger, Pitch-shift, Reverb, Stereo Delay.

2.4.1. TAP of effect

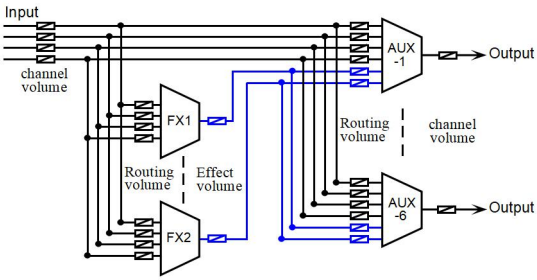
For the effect of the Delay Time parameters, when this type of effect is chosen, TAP metronome on the panel will be automatically associated to the corresponding effect, and its flash speed is set according to current Delay Time parameter. You can hit the button 

to set the Delay Time parameter value, and the system automatically measures two neighboring time you hit the button.

NOTE: *This operation can also be performed without the FX settings menu.*

2.4.2. Signal Chain of FX

The data link graph is shown in the right graph, FX1 ~ FX2 have completely independent effect input buses, can select any input signal source or mixing signal source for effect module. The output of effector is added into the input bus as input, The routing of the AUX output channel can be very flexible to add effects.

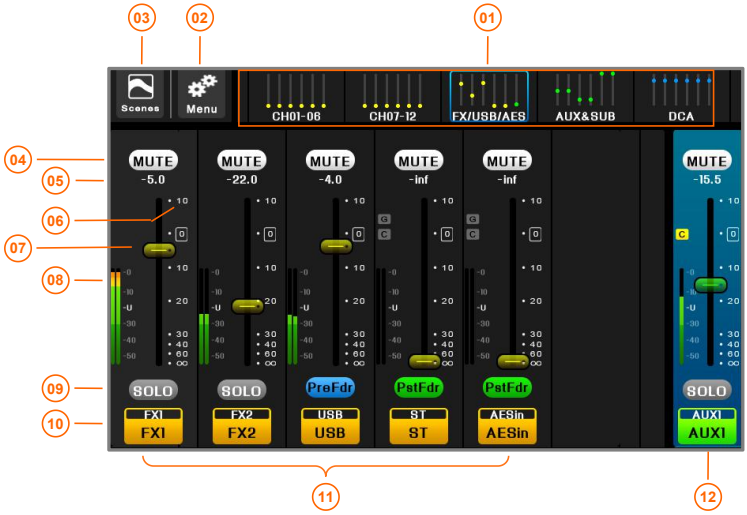


The FX effects engine is completely self-contained and does not occupy any input or output channel resources.Each FX effects engine can independently select different effect types, which is very flexible and completely free of conflicts.

2.4.3. Add effect

[Step 1]: Click the bus button on the panel that needs to add effects, Then select the [FX/USB/AES] group in the navigation bar or click the fader page button 

switch to the FX channel, cancel the route mute, adjust the FX routing volume, and assign the effect signal to the output bus.



01 Navigation bar, click the corresponding index page, you can quickly switch to the page where the channel is located. The channel corresponding to the brown dot is a valid routing channel.

02 System parameter button, Click to enter the system parameter control page.Same function as the button 

on the panel.

03 Scene button , click to enter the scene control page.

04 Mute. The FX channel route is muted when red is lit and no signal is coupled to the bus.

05 Routing channel gain. Unit: dB. Change by fader adjustment.

06 Fader gain scale, unit: dB.

07 Route Gain Fader (the fader slider is brown). Channels that are not brown cannot be set as routes.

08 Signal level meter，unit：dBfs。make -20dBfs as standard level U.

09 ***Each bus can be independently selected for its access point corresponding to the input channel.***
The FX has no access point selection function.

10 Channel label.
Click the channel label to enter FX setting menu.

11 Channels overview area. ***The channel of the brown fader slider is a valid routing source channel, which can be used as a routing input to adjust routing parameters.***

12 Current channel master control panel, adjustable gain and mute, etc.

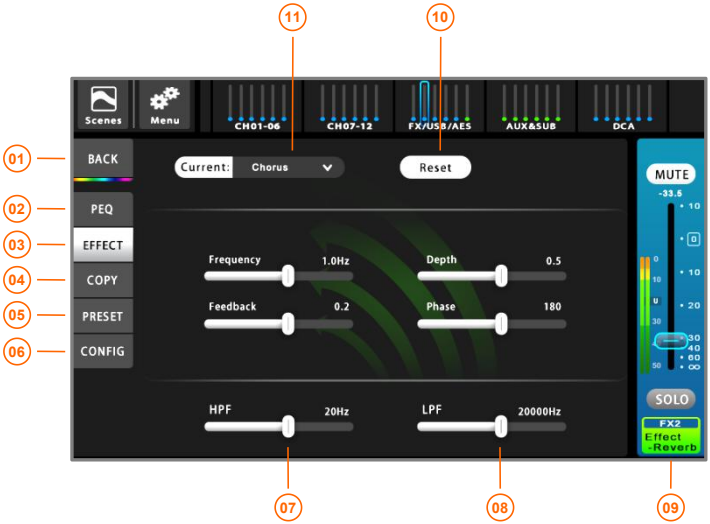
[Step 2]: Set up the routing for FX1 or FX2 according to the steps in Section 2.3. Then exit the routing settings state, click the fader page button 

switch to the FX channel, click the FX channel label or click the button 

Go to the FX settings screen and select the FX type as described in the next section.

2.4.4. Chorus effect

Chorus effect, it can create the effect that several people are talking simultaneously for single speech, produce left and right reverberation, and chorus of wide and beautiful reverberation.



01 Home button, back to the overview channels page.

02 Switch to the PEQ control page. Set the high / low shelf filter for the effect.

03 Switch to the FX setting menu.

04 Switch to the channel parameter copy pages, you can copy parameters of current channel to another channel effect.

05 Switch to the FX preset parameter management page, you can retrieve the pre-saved effect parameters, eliminating the trouble of setting, you can also save the adjusted current effect parameters as user-preset effect parameters for later recall.

06 Single click to configuration setup.

07 HPF, High-pass filter for the effects module.

08 LPF, Low-pass filter for the effects module.

09 Current FX channel master control panel, adjustable gain and mute, etc.

10 Reset all parameters of the current effect to their default values.

11 Current effect name, click to select the effect type. Chorus, Echo, Flanger, Pitch-shift, Reverb, Stereo Delay have one of six effects, or select NONE to turn off the effect.

[Frequency]: Modulation frequency. Quick modulation frequency can cause one vibrato effect, but frequency shift will be caused if it is too fast.

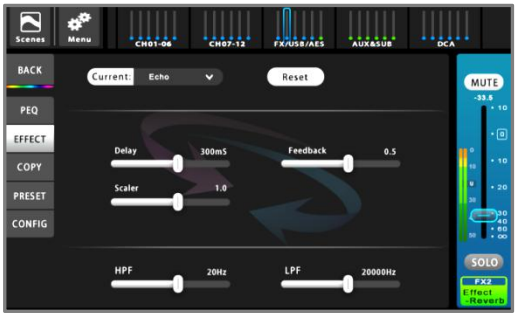
[Depth]: Modulation depth. Change the pitch of delay signal through the modulation of delay time, 0 means no modulation, 1 means max modulation.

[Feedback]: Feedback quantity. The feedback of output delay signal to the input end.

[Phase]: Phase modulation. Various stereo effects are available through changing the phase.

2.4.5. Echo effect

Echo effect is used to create a sense of space and presence.



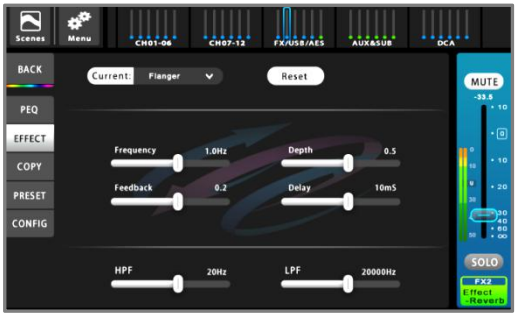
[Delay]: Delay, unit: ms. Input signal and feedback signal of delay.

[Feedback]: The amount of feedback. The output signal is fed back to the input, and the number of echoes can be changed by changing the amount of feedback.

[Scaler]: Echo gain.

2.4.6. Flanger effect

Flanger effect can be used to create special effects, such as short-time delay, chorus, tremolo, etc.



[Frequency]: Modulation frequency. Quick modulation frequency can cause one vibrato effect, but frequency shift will be caused if it is too fast.

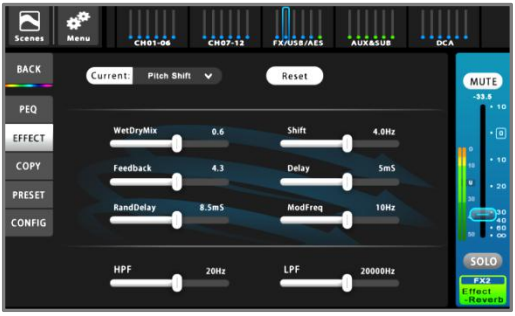
[Depth]: Modulation depth. Change the pitch of delay signal through the modulation of delay time, 0 means no modulation, 1 means max modulation.

[Feedback]: The feedback of output delay signal to the input end.

[Delay]: Basic delay, unit: ms.

2.4.7. Pitch-Shift effect

Pitch-Shift is an effector which changes the tone but doesn't change the speed. In popular terms, that is, the male voice is changed into the female voice, and the female voice is changed into the male voice. The effect is that increasing or decreasing an audio signal tone at regular intervals.



[WetDryMix]: Wet and dry mixing . 0: only input signal, 1: only tone effect signal .

[Shift]: Positive value means the pitch has got higher, and negative value means the pitch has got lower; 0: original pitch.

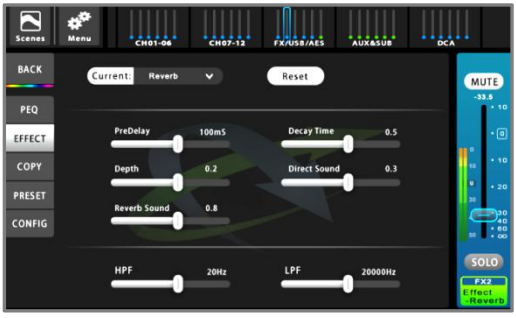
[Feedback]: The feedback of output delay signal to the input end.

[Delay]: Basic delay, unit: ms. **[RandDelay]:** Random delay, unit: ms.

[ModFreq]: The rate of random delay is affected and the decay quantity is also affected simultaneously.

2.4.8. Reverb effect

Reverb effect makes the sound become more realistic, full and not dull, and it can also create a different sound amplifying field.



[PreDelay]: The time interval between the front-reflection and the direct sound. The bigger the PreDelay, the bigger the space, on the contrary, shorter.

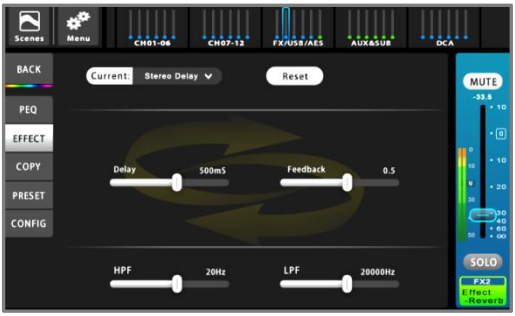
[DecayTime]: That's the total length of the whole reverb.The bigger the space, the bigger the decay time.

[Depth]: Reverb depth. Feedback strength of post reverb sound.

[DirectSound]: Direct sound ratio. **[ReverbSound]:** Reverb sound ratio.

2.4.9. Stereo Delay

Stereo Delay (ping-pong's sound effect) , which has a sound sent out from the left and right channels through the different decay of the left and right channels, like ping-pong's motion trail effect.



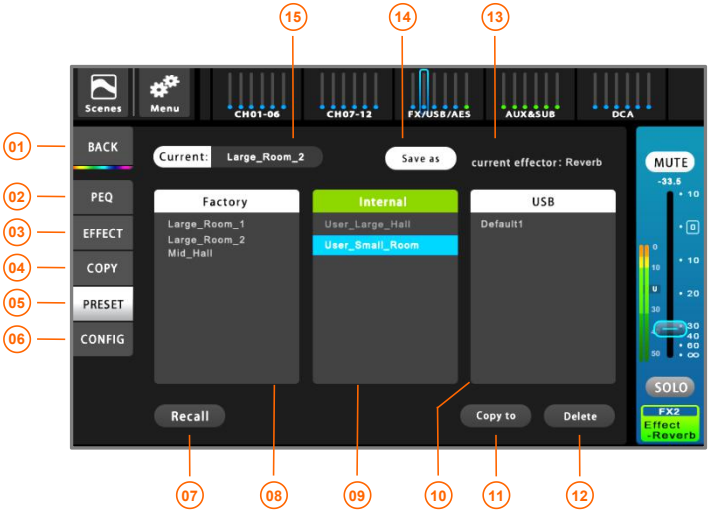
[Delay]: Create an effect of a sound that moves back and forth. The sound is bigger, the effect is more obvious.

[Feedback]: The amount of feedback. Delayed output signal is fed to the input magnitude .

2.4.10. Effect Presets

According to the current effect type, the preset parameters of the effect are invoked, which greatly simplifies the complexity of the operation, and is convenient for the user to quickly experience the flexibility and powerful performance of the professional effect module.

The effect preset has a factory preset mode and is placed in the [Factory Preset] field. The user can also adjust the effect module and save it in the user mode (placed in the [Device Internal Preset] field) or in the external USB stick (placed in the [External U disk preset] field).



01 Home button, back to the overview channels page.

02 Single click to PEQ setup.

03 Switch to the FX setting menu.

04 Single click to Copy setup.

05 Single click to Preset setup.

06 Single click to configuration setup.

07 Call the selected preset parameters to the effect module.

08 Factory-designed effects preset library.

09 A user-defined preset library placed inside the machine.

10 A user-defined preset library placed on an external USB stick.

11 Copy the selected user preset to the inside of the mixer or to the external USB stick. Use this feature to copy preset parameters to other mixer.

12 Delete the selected user preset.

13 Current effect type.

14 Save the configuration parameters of the current effect according to the specified path and name (user mode).

15 The name of the effect preset currently in use.

2.5. USB recording and playback

Click the [FX/USB/AES] group on the navigation bar, then click the USB channel label to enter the USB control menu. As shown below. Or click the button 

on the USB MEDIA function area on the panel to quickly switch to the USB channel menu.

2.5.1 USB playback

USB Media playback, supports MP3, AAC, WAV, AIFF, APE or FLAC file formats.

01 Click the [FX/USB/AES] group on the navigation bar switch to the USB overview page, and then click the USB channel label to enter the USB control menu. As shown above.

02 Home button, back to the overview channels page.

03 Single click to PEQ setup.

04 Switch to the USB playback control menu.

05 Switch to the USB recording control menu.

06 Switch to the bluetooth playback control menu.

07 Single click to Preset setup.

08 Single click to configuration setup.

09 Play progress and time indication. Push and pull the progress bar fader slider to fast forward or rewind.

10 Music file directory specification. If the music file is not stored in the root directory of the USB disk, you need to click this button to specify the music file directory before playing. The player will automatically list all the files that can be played in this directory in the playlist.

11 The previous song. The same function as the button  on the panel.

12 Play or pause. The same function as the button 

on the panel.

13 The next song. The same function as the button  on the panel.

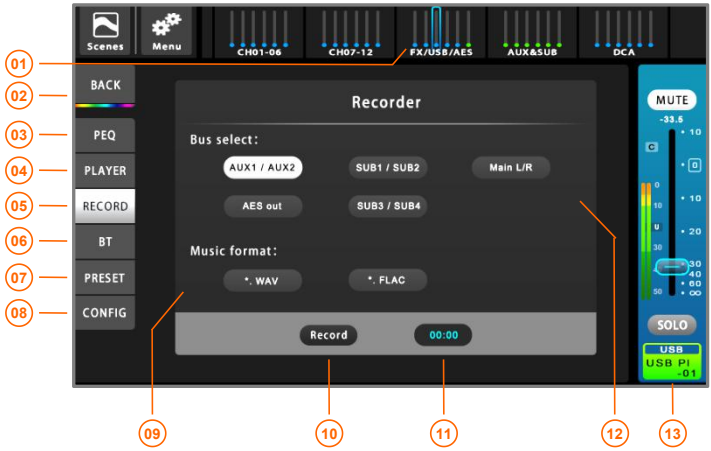
14 Play mode: sequential play / single loop, etc.

15 Song playlists and scroll bars, click on the song name to play.

16 Current USB channel master control panel, adjustable gain and mute, etc.

2.5.2 USB recording

You can perform stereo recording by inserting a USB stick into any USB port, and the recording source is optional. U disk playback and recording can be performed in the same USB stick.



01 Click the [FX/USB/AES] group on the navigation bar switch to the USB overview page, and then click the USB channel label to enter the USB control menu. As shown above.

02 Home button, back to the overview channels page.

03 Single click to PEQ setup.

04 Switch to the USB playback control menu.

05 Switch to the USB recording control menu.

06 Switch to the bluetooth playback control menu.

07 Single click to Preset setup.

08 Single click to configuration setup.

09 The recording file format is selected and can be saved in WAV or FLAC lossless format.

10 Record button, the same function as the button  on the panel. Recording while red.

11 Recording progress time.

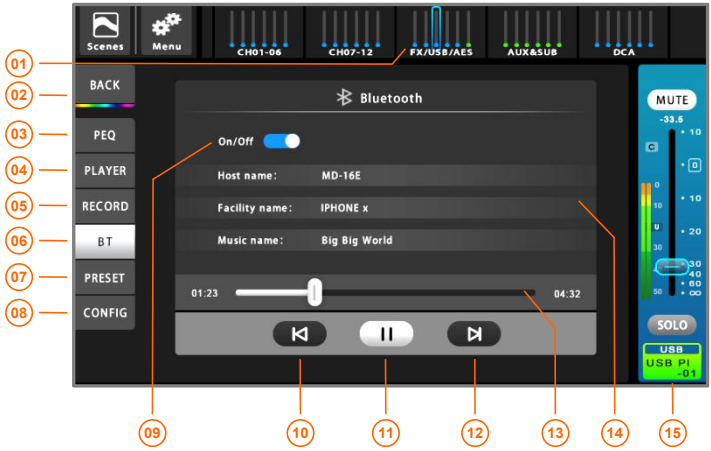
12 Record source selection.

13 Current USB channel master control panel, adjustable gain and mute, etc.

2.5.3 Bluetooth playback

Plug in the USB port Bluetooth adapter that is shipped with the device at any USB port. Switch to the USB control page as shown below. Click the Bluetooth switch to the open position, you can see the host Bluetooth name: MD-18 (user can modify). Then search for available Bluetooth devices in Bluetooth devices such as mobile phones, and click on the device for Bluetooth pairing. After the connection is successful, the system displays the name of the connected device, such as "IPHONE x". The song name and playback progress are displayed after playing Bluetooth music.

TIPS: Since USB disk playback and Bluetooth playback use the same physical resources, in order to avoid conflicts, the system does not allow USB disk and Bluetooth to play at the same time.



01 Click the [FX/USB/AES] group on the navigation bar switch to the USB overview page, and then click the USB channel label to enter the USB control menu. As shown above.

02 Home button, back to the overview channels page.

03 Single click to PEQ setup.

04 Switch to the USB playback control menu.

05 Switch to the USB recording control menu.

06 Switch to the bluetooth playback control menu.

07 Single click to Preset setup.

08 Single click to configuration setup.

09 Bluetooth switch.

10 The previous song.

11 Play or pause.

12 The next song.

13 Bluetooth playback progress display. Can't fast forward / rewind.

14 Device information. They are: the host Bluetooth name (the user can click to modify), the connected device name, and the name of the song played.

15 Current USB channel master control panel, adjustable gain and mute, etc.

2.6. Grouping shortcuts

2.6.1 DCA volume grouping

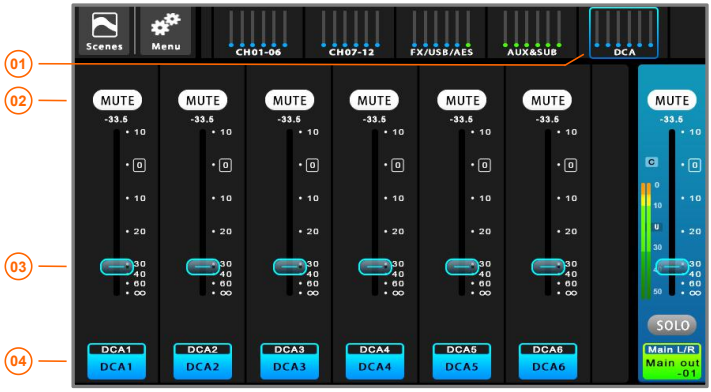
The DCA volume group control function can realize the volume control of a plurality of pre-associated input and output channels by a single fader, and realizes the volume control of a group of devices very easily, which greatly reduces the workload of tuning, and is flexible and convenient to operate. The mute of this group can also be muted through the [Mute] button on the DCA menu.

In any case, click the DCA group in the navigation bar, or press the button 

on the panel to quickly switch to the DCA overview page, as shown below.

Operate the button of (02) or click the button 

on the panel to achieve one-key group mute. The fader or motorized fader of operation (03) can realize a fader to control a group of volume.



01 Click the [DCA] group on the navigation bar to switch to the DCA Overview page. As shown above.

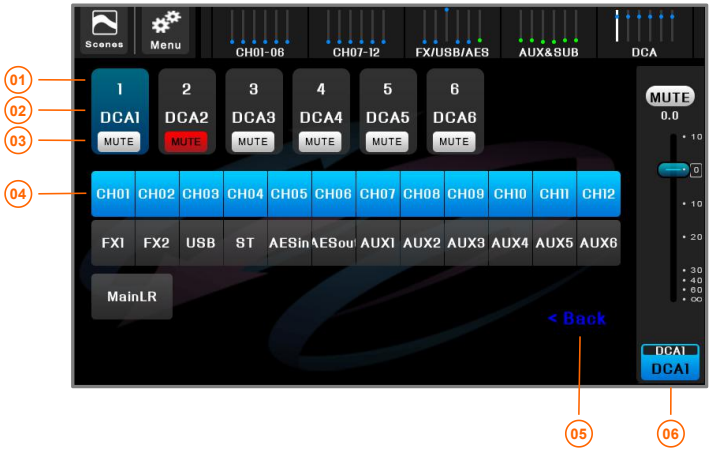
02 When [Mute] is lit, it indicates that the mute of the DCA group is effective, and all the channels associated in advance will be muted. Click this button to switch.

03 DCA group volume control, push the fader to adjust the related channels volume

04 Channel label, with DCA number and DCA channel name..

Click the channel label to enter the DCA setting menu.

The DCA needs to be pre-configured with channel association before use. On the DCA overview page. Click the DCA channel label or click the button on the panel SEL to enter the DCA settings menu, as shown below:



01 DCA number.

02 DCA channel name.

03 DCA mute switch, red light indicates mute, all channels associated in advance will be muted by one button.

04 Associated input and output channels, color indicates that they are already associated, click to switch.

05 Return to the DCA overview screen.

06 DCA volume grouping. Pushing the fader controls all pre-associated channel volumes.

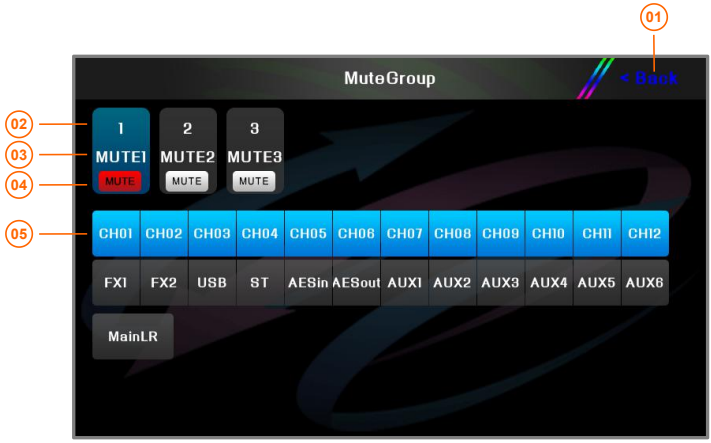
2.6.2 Mute Groups

The mute grouping function enables single-key mute control of several pre-associated input and output channels, making it easy to control the mute of a group of devices.

The MD-18 mixer has three mute groups. Double-click the button 

on the panel to switch the mute state of the corresponding mute group. When the yellow light is on, the mute group is active and the associated input/output channel will be muted. In the system parameter interface 

, you can set the mute group as follows.



01 Back to the overview channels page.

02 Mute Groups channel number.

03 Mute Groups channel name, long press this button to rename.

04 Mute Groups mute switch, yellow light indicates mute, all channels pre-associated will be muted by one button.

05 Associated input and output channels, color indicates that they are already associated, click to switch.

2.7. SCENES

What is a scene? A scene is a set of pre-saved settings (preset by the factory or preset by the user) that can be retrieved at any time and set all parameters of the MD-18 digital mixer to the value of the scene.

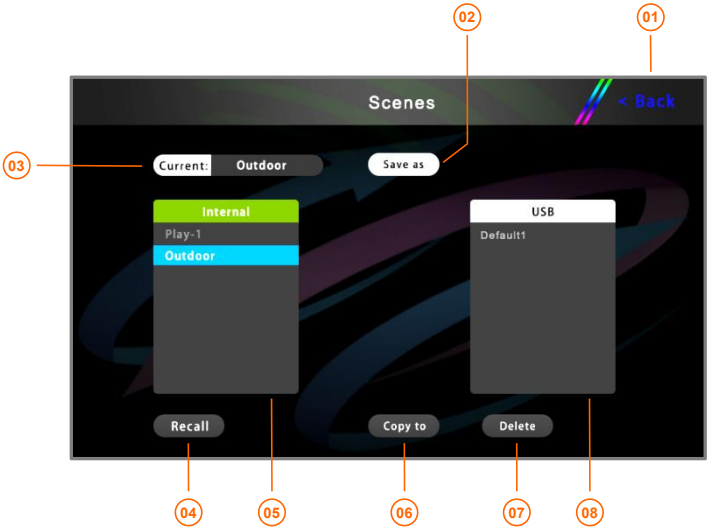
A scene includes all channel processing settings, channel names, phantom power settings, effect selection, DCA and mute group assignments, and level settings.

The factory preset scene stored in the mixer uses a minimum amount of input faders to avoid causing harsh sounds when recalling scenes (feedback whistling, music above 20dB beyond the pain threshold, etc.), in actual use Need to make the appropriate volume adjustment.

The MD-18 mixer includes a number of pre-set scenes for a variety of performances. For the show you are going to tune, you can find the one that works best for you. Use the scene presets to quickly configure the device to the desired working state.

Click 

on the screen to enter the scene operation menu, call the scene parameters you need, and restore the machine to the working state you need with one click.



01 Back to the overview channels page.

02 Save all current parameters as user scenes according to the specified path and scene name.

03 The name of the scene currently in use.

04 Recall the selected scene mode and restore the mixer to the original setting state according to the parameters of the scene.

05 A user-defined scene preset library placed inside the mixer.

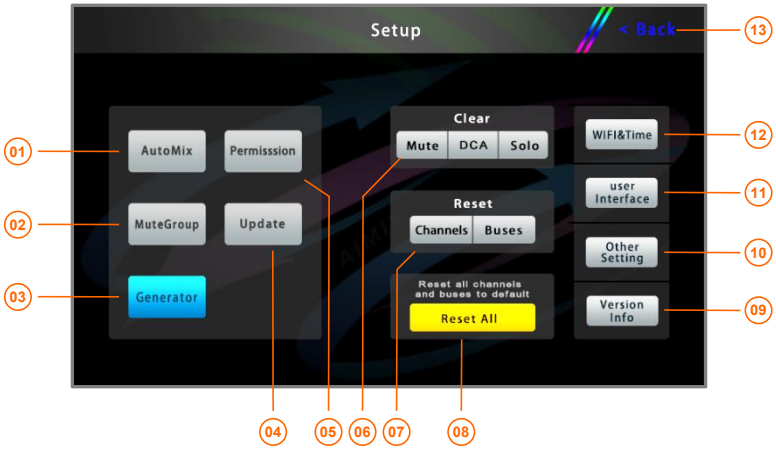
06 Copy selected scene to internal or USB stick.

07 Delete the selected user scene.

08 A user-defined scene preset library placed on an external USB stick.

2.8. System settings

The system setup menu is used to set or browse system parameters and machine configuration. Click the button SETUP on the panel, or Setup on the host screen or on APP home interface to enter the system settings menu, as shown below.



01 Click to enter the Automix menu.

02 Click to enter the mute groups setting menu.

03 Click to enter the signal generator settings menu.

04 Click to enter the system upgrade menu.

05 Click to enter the permission control management menu.

06 Click to clear all mute settings, including channel mute and mute grouping. Click DCA to clear the DCA's mute setting and set the DCA volume to 0dB. Click to clear all SOLO settings.

07 Reset all input channels to their initial state.
Reset all output buses to their initial state.

08 Restore the device to the factory settings.
User settings will be cleared.

09 Information about the mixer, such as hardware and software version, date of manufacture, etc.

10 Other parameter settings.

11 Set user interface parameters such as lighting, color, software menu style, and more. (No such feature)

12 Set network parameters and system date and time.

13 Return to the home page.

NOTE: *The part with no buttons at the bottom of the gray is only used as an alternate function for future expansion, and it is not available for use at the moment !!*

2.8.1 Automatic microphone mixing control (this feature is not available yet)

What is automatic mixing? When a person speaks, the system quickly assigns gain to the MIC, while other silent MICs are automatically pulled down. When the speaker stops talking, the volume of this MIC is pulled down. The next person speaks, the system quickly assigns gain to the MIC, while the other silent MICs are pulled down. The result sounds like a MIC is quickly passed between several speakers.

When multiple people speak at the same time, the gain of the MIC will be shared and all MIC sounds will be used normally, but the background noise will not increase due to the increased number of MICs, or acoustic feedback will occur. The system provides the [Minimum Gain] option to ensure that the MICs in the call have the proper volume gain for normal calls, but the MICs with high privileges will have a relatively high volume.

01 Return to the home page.

02 Set the minimum gain to participate in the automix channel to ensure that the lower priority channel also has the right amount of volume.

03 Set the gain of the Automix. Avoid multi-microphone gain too low when talking at the same time, and also coordinate the volume ratio of the automatic mixing channel and the channel that does not participate in the automatic mixing.

05 Select the output bus for the automix feature.

04 Auto mix on/off

07 Input channel label.

06 The bus name of the current automix.

09 The weight of the channel is assigned. The weight range is 0~100, and 100 is the maximum weight. The system counts the weights of all channels participating in the auto mix and assigns the actual channel gain based on the weight.

08 The current actual gain of the channel, the channel participating in the automatic mixing, whose gain will be automatically assigned by the system through intelligent algorithms.

11 Input channel auto mix switch, [Auto] indicates that the current input channel participates in automix.

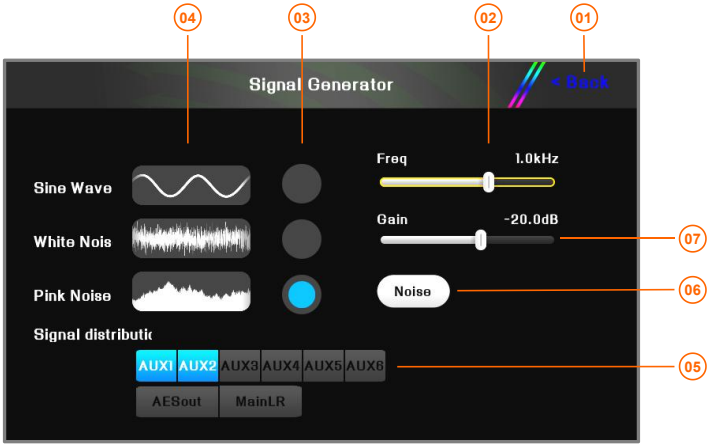
10 Channel weight value. The greater weight, the higher gain assigned and the greater volume of the channel.

12 Release time: When the microphone of a channel does not speak for more than this time, the system will determine that the microphone of this channel stops talking and its corresponding route volume will be pulled down to -60dB.

13 Start time: When the microphone of a channel continues to speak for more than this time, the system will determine that the microphone of this channel starts to talk, and its corresponding routing volume will be based on the gain sharing principle, and the microphone volume gain will be allocated according to the weight ratio of all the calls.

2.8.2 Signal Generator

Use the built-in DSP processor to produce accurate sine, white, pink noise and optionally couple to the output channels you need, including the FX channel. Provides standard test signals for commissioning calibration and external devices for the mixer.



01 Return to the home page.

02 Set the frequency of the sine wave from 20Hz to 20kHz.

03 Select the signal type: sine wave, white noise, pink noise.

04 Signal wave forms are: sine wave, white noise, pink noise.

05 The associated output buses, when highlighted, indicates that the signal is coupled to the bus. Click to switch.

06 Signal generator switch.

07 Noise generator output gain adjustment.

2.8.3 Firmware Upgrade

The MD-18 Digital Mixer supports the powerful **ISUeasy™** full firmware upgrade feature, and any software feature can be easily upgraded with **ISUeasy™** as long as it does not involve hardware circuit changes. Make sure that the equipment you purchase is always in the best working condition and enjoy the latest added features in the first place. Continuous quality service is our constant commitment !!

1). Log on to our website and download the appropriate update software to your U stick root directory .

Note : ***The upgrade file must be placed in the root directory of the U disk, and the file name and extension name can not be changed !!***

2). Turn on the power of MD-18 mixer, wait till the system starts up and enters normal operating conditions.

3). Enter the system settings menu, Click [Upgrade] on the screen. Start the firmware upgrade program **ISUeasy™**. Read the precautions carefully and confirm that it is correct. Click [Continue] to perform the upgrade process.

The upgrade process takes a few minutes, please be patient. Do not power off during this process to avoid the upgrade failure and equipment failure !!

2.8.4 Network settings and iPad remote operation

Set the WIFI device name and password. After modifying the SSID name and password of WIFI, please restart the network for the settings to take effect. *(Note: Products supplied starting from July 2024 will no longer provide WIFI hotspot functionality and will not be equipped with WIFI adapters.)*

01 Return to the home page.

02 Current system date and system time. Click on the screen to modify the content, then turn the main jog dial on the panel to change its value, the result is automatically saved.

03 After modifying the name SSID and password, click this button to restart WIFI for it to take effect.

04 The name of the WIFI can be modified by the user.

05 WIFI connection password, user modify settings.

The digital mixer has LAN/IP networking function and can be easily remotely controlled using an Android or IOS tablet.

1) Connect the mixer to the local area network via ethernet cable and set the IP address of the mixer.

2) Log in to the Apple App Store with your iPad, search for apps using the keyword "MD-18", and install them on your iPad.

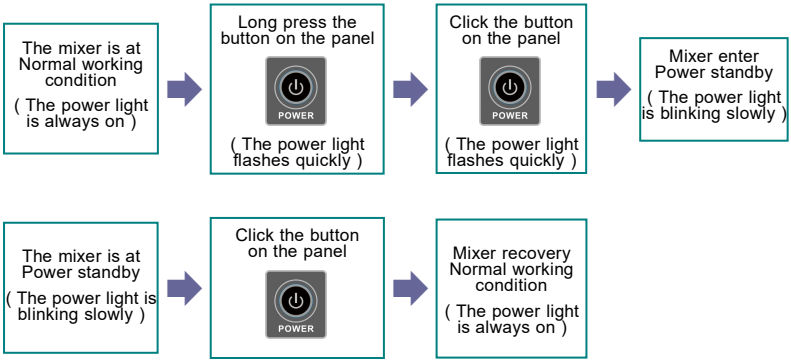
3) If it is an Android tablet or phone, an Android version of the app needs to be installed.

4) To run the app for the first time, you need to set the correct IP address: click on the " ≡ " icon button in the upper left corner of the app, set the same IP address as the mixer in "Change Connection", confirm and return to automatically connect.

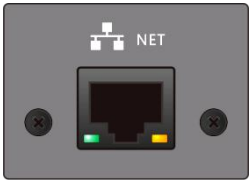
Not the first time running the APP program. When the network connection icon on the app turns green, it indicates that the app has established a communication connection with the digital mixer and can now be remotely controlled.

2.9. Power standby and recovery

If you do not use this mixer for a while, but want to quickly enter the working state when you need it, you can let the device enter the standby state to save energy.



2.10. Programmable central control remote operation



Using the device's network port , this digital mixer can accept remote control commands from the center console. Through the centralized control of the programmable central control unit, you can quickly and efficiently control the main parameters of the digital mixer, such as input/output volume and mute control, as well as scene calls, and so on.

The easy-to-understand ASCII command language, flexible and extensible syntax structure, direct parameter assignment or incremental/decrement assignment, can also read back the current parameter values of the mixer. For detailed communication protocols and requirements, see "AIMIX Digital Mixer Central Control Communication Protocol".

Appendix 1. Technical performance parameters

(The key performance parameters are derived from the standard test method. Test equipment: Professional audio analyzer APx525 / SN: APX2-28556 of Audio Precision Co.,Ltd.,US. All are direct results of unweighted testing.)

A). General specifications

Display screen	6.1" x 3.5" (156mm x 90mm), 7" high-definition color TFT LCD screen and capacitive touch screen.
Faders	100mm electric intelligent control, accuracy = 1024 position, + 10dB to - 60dB / - ∞ , full electric Fader
Audio Input	channels input: 12 channels Mic/Line(XLR/TRS composite balanced interface), 1 analog stereo (1/4" TRS stereo port and RCA), 1 stereo AES(XLR interface), 1 stereo USB disk player or bluetooth player.
Audio output	14 channels output: 2 way main output (XLR balanced port) 2 way auxiliary output AUX1 and AUX2 (1/4" TRS balanced port) 4 way auxiliary output AUX3 to AUX6 (XLR balanced port) 1 stereo AES output (XLR balanced port) 1 stereo USB disk recording 1 stereo monitor (1/4" TRS stereo port and 16Ω minimum impedance headphone)
Input channel processing	Digital control analog gain adjustment (Gain), phase adjustment, 4 position source sound section before/after faders, 4-bands parametric equalization (PEQ), high-pass filter, low-pass filter, noise gate and compressor.
Output channel processing	18-bands graphic equalizer(GEQ), high-pass and low-pass filters, 4-bands parametric equalization (PEQ),compressor and delay (max 500ms).
Recording function	A stereo dual channel recorder selects a set of 4 stereo bus outputs for Main-L/R and AUX1/AUX2, AUX3/AUX4 and AUX5/AUX6 as recording sound source.
Grouping	6 DCA groups(with mute) and 3 mute groups
Effectors	2 professional effectors: Chorus, Echo, Flanger, Pitch-shift, Reverb and Stereo Delay, 6 kinds of effect processing, 60 factory presets(FX Presets) , simple and easy presets for users.
Presets	Presets of mixer: User presets include saving or recalling all mixer parameters from the internal and U disk to mixer. Channel presets: User channel presets can be saved or recalled from the internal and U disk to mixer.
Scene mode	You can implement [Save] / [Delete] / [Recall] / [Export] / [Import] of the scene.
External control	Android or Apple iPad digital audio interactive management APP software, access and control almost all parameters of the device through IP, remote control operation is easy and comfortable.
Bluetooth	USB Bluetooth adapter package is included.
Sampling frequency / quantization bits	48kHz / 24bit
Signal delay	Less than 3.3 milliseconds, from any input to output
Frequency response	+/- 0.2dB (20Hz to 20kHz @+4dBu input, balanced input from MIC/Line to AUX balanced output, Analog gain=0dB and other level gain=0dB)
THD+N	Less than 0.03% (20Hz to 20kHz @+4dBu input, balanced input from MIC/Line to AUX balanced output, Analog gain=0dB and other level gain=0dB) Less than 0.009% (1kHz @+4dBu input, balanced input from MIC/Line to AUX balanced output, Analog gain=0dB and other level gain=0dB)
Signal to noise ratio	>100dB(Input level for maximum undistorted output, balanced input from MIC/Line to AUX balanced output, Analog gain=0dB and other level gain=0dB)
Equivalent input noise	-125dBu typ. (Balanced input from MIC/Line to AUX balanced output, Analog gain =Max and other level gain=0dB)
Redundant output noise	-91dBu typ. (Balanced input from MIC/Line to AUX balanced output, All channels analog gain =Min and other level gain=0dB, with no signal input)
Dynamic range	114dB type, DA converter >101dB type,(Input level for maximum undistorted output, balanced input from MIC/Line to AUX balanced output, Analog gain=0dB and other level gain=0dB)
Crosstalk @ 1kHz	< -108.5dB (Input level for maximum undistorted output, balanced input from adjacent MIC/line to adjacent AUX/SUB balanced output, Analog gain=0dB, other level gain=0dB)
Profile dimension and weight	Product (without packaging): 435mm(W) x 460mm(D) x 138mm(H) / 7.6 kg Product (including packaging): 545mm(W) x 515mm(D) x 250mm(H) / 10.7 kg
Working voltage	100Vac ~ 240Vac, 50 ~ 60 Hz, $50W_{MAX}$
Temperature range	Operating temperature range: 0℃ to 40℃ , storage temperature range: - 20℃ to 60℃

B). Analog input characteristics

Input port	Used for standards	Enter Impedance	Analog gain adjustment range	Analog gain	Input level *2		Port
					Sensitivity *1	Maximum distortion before the level	
CH01 ~ CH12	50Ω to 600Ω Mics & 600Ω Line	6.8kΩ	-8dB ~ +55dB 1dB/Class	+55dB	-70.9dBu (220.8uV)	-34.4dBu (14.8mV)	XLR / TRS Mixed and balanced
				-8dB	-7.9dBu (312.8mV)	+24dBu (12.3V)	
STin	600Ω Line	8kΩ	-20dB ~ +20dB 1dB/Class	+20dB	-35.3dBu (13.3mV)	+1dBu (869mV)	1/4" TRS(Stereo, Unbalanced) and RCA
				-20dB	+4.7dBu (1.89V)	+15.3dBu (4.5V)	

*1. Sensitivity means that the minimum input level of output +4dBu (1.23V) can be generated when the mixer is set to the maximum gain (all faders and level controllers are at the maximum position, Output channel gain is 0dB). Analog port input and AUX output.

*2. Level uV, mV, V are RMS, i.e. uVrms, mVrms and Vrms.

C). Analog output characteristics

Output port	Used for standards	Output impedance	Output level *1		Port
			Rated	Maximum distortion before the level	
AUX1 ~ AUX2	600Ω line	75Ω	+4dBu (1.23V)	+20.6dBu (8.3V)	1/4" TRS (Balance)
AUX3 ~ AUX6、Main-L/R	600Ω line	75Ω	+4dBu (1.23V)	+20.6dBu (8.3V)	XLR-3-32 (balanced)
Phones	32Ω Phone	51Ω	0.82Vrms / 21mW*2	1.83Vrms / 105mW	1 / 4" TRS (Stereo, Unbalanced)
	300Ω Phone	51Ω	1.76Vrms / 10mW*2	5.52Vrms / 100mW	

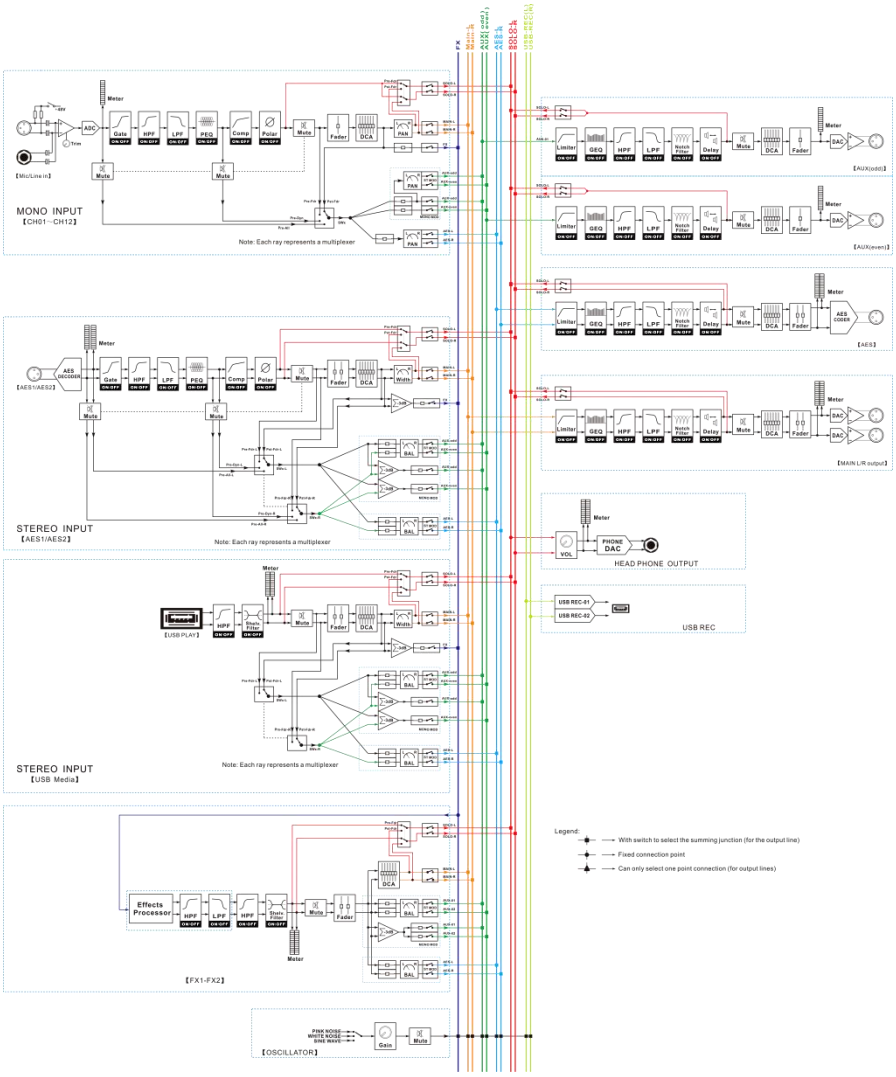
*1. Level uV, mV, V are RMS, i.e. uVrms, mVrms and Vrms.

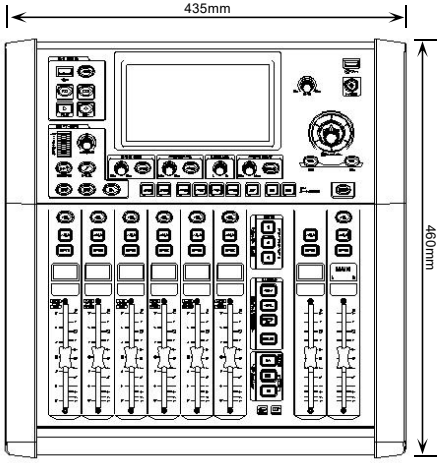
*2. The position of the level control is -10dBfs.

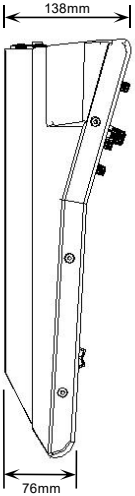
D). Digital input / Output characteristics

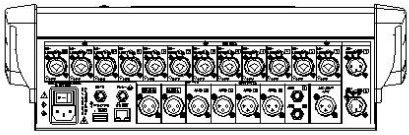
Digital port	type	Format	Data length	Sampling frequency	Level	Port
AES-In1 / AES-In2	AES / EBU	AES / EBU Professional application	16 to 24 bit Digit self adaption	28kHz to 216kHz Sampling rate self adaption	RS422, transformer separation	XLR-3-32 (balanced)
AES-Out			24 bit	48kHz		

Appendix 2. The Mixer Block Diagram









Appendix 3. Dimensions

MIX | MD-18

Showing rich sound connotations

Dongguan 3G Audio Technology Co., Ltd.

Add: Building 3, No.1 Nanqi street, Qiaodong road,
Qiaotou town, Dongguan City,
Guangdong province, 523800 China

Website: www.beta3pro.com

UG-MD18-EN/V2.0-210508