TAKSTAR® 得勝
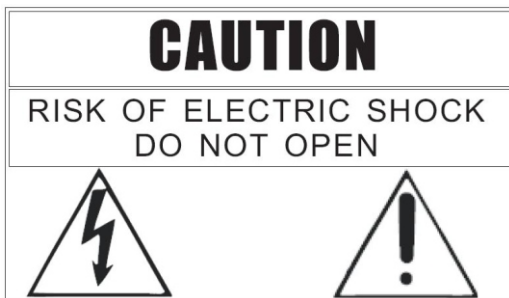
XR26

数字调音台

DIGITAL MIXER

欢 迎！

承蒙惠购本公司产品，甚表感谢！

安装及正式使用本产品前，请务必通读此说明书，以便使您全面了解本设备，并熟练掌握如何正确使用本设备。当您读完本说明书后，请把它妥善保存好，以备今后查用。

基于持续发展的产品策略，因此关于本设备的部分新增或修改功能可能不包含在本说明书中，请注意相关补充说明。
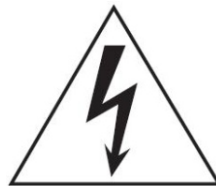
本产品其他相关信息，请致电您的服务商。

安全事项

请阅读这些简明的规则，违反这些规则可能会导致危险。在本手册中提供了有关安全事项的更详细信息。请仔细查阅。

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

注意：机内无用户可用备件！为了防止触电，切勿自行拆开机盖！必要时需由专业人士维修！

警告：为防止发生火灾或触电危险，本机切勿受雨淋或受潮！

● 图形符号说明

等边三角形内带有箭头的闪电图形旨在提醒用户外壳内存在未绝缘的"危险电压"，该电压可能足以对人造成触电危险。

等边三角形中带有感叹号的图形表示——机器附件中有重要的操作和保养说明，请查阅使用说明书。

注 意 ！

⚠ 警告！

为了避免因触电、短路、损伤、火灾或其它危险可能导致的人员受伤，请务必遵守下列基本注意事项。这些注意事项包括但不限于下列情况：

重要安全事项

- 阅读这些说明，保留这些说明，并遵照所有说明。

- 注意设备上或说明书中的所有警告。

电源/电源线

- 只能使用本设备所规定的电压，所要求的电压被印在本设备的电源接口附近。

- 插拔电源接口之前，请先关闭设备电源开关。

- 不要将电源线放在热源附近，不要过分弯折或损伤电源线，不要在电源线上加压重物，不要将其放在可能被踩踏或可能被碾压的地方。

请勿打开

- 本设备内部不含有用户可用的任何备件，请勿自行拆卸或进行任何形式的改造。

- 若遇特殊异常情况，必须由经厂家认可的专业人士进行检修。

关于潮湿的警告

- 在潮湿的环境中禁止使用本设备，请勿将盛有液体的容器放置在本设备附近，防止液体溅入。

- 只能用干布进行清洁。

- 切勿用湿手插拔电源插头。

为了避免您或周围他人可能发生的人身伤害、设备或财产损失，请务必遵守下列基本注意事项。这些注意事项包括但不限于下列情况：

设备连接

- 请将本设备安放在通风良好的地方。

- 请务必连接到妥善接地的电源。

- 本设备与其他外部设备连接时，请使用
  经制造商认可的连接电缆。

- 移动设备之前，请务必断开所有的连接
  电缆。

- 请勿将本设备安放在潮湿处或暴露在雨
  中。

- 请勿将饮料、食品、火源放置在本设备
  上，以防液体、固体残留和明火损坏设
  备。

操作/安放位置

- 在打开保护外壳的情况下，禁止使用本
  设备。

- 在操作使用本设备前，可以通过释放电
  的方法防止静电。

其他注意事项

- 请勿长时间在较高的音量下使用耳机，
  否则可能导致听力损害。

- 操作本设备的按钮、旋钮等部件时，请
  避免过分用力。

- 为避免可能的噪音，请勿在附近使用移
  动电话。

目　录

1. 简介

及特点

　　此数字调音台以专业现场演出为标准设计，用于歌舞厅 、 音乐放映厅扩声、 舞台演出扩声 、 现场音频节目录制等应用环境 ，其具备强大的功能以满足最苛刻的专业人士的需求。该产品在灵活便携、操作简单的同时保证了专业的混音效果，能够帮助经验较少的用户快速获得高质量的效果。

　　此数字调音台具备 iOS, Android, Windows, Mac OS 和 Linux 设备的跨平台兼容性，可以通过手机、平板、电脑端连接调音台 WIFI/热点信号进行远程操控，也可以通过网线连接调音台与电脑进行远程操控。

　　此数字调音台的 用户权限管理 系统能够针对不同用户开放不同的功能权限和预设 ，最大限度地 避免了 多人使用时 因误操作引起的 事故 。

主要特点

● 26 通道输入包括：16 路麦克风输入、3 路立体声输入、2 路数字立体声输入（USB 声卡、USB 播放）。

● 内部 14 路总线设计、具有 8 路独立的可编程 DCA 通道。

● 8 路 BUS 输出通道、1 路立体声主输出、1 路立体声监听输出、3 路立体声数字输出（AES/EBU、USB 声卡、USB 录音）。

● 所有输入通道具有独立的低切、PEQ、压缩器、噪声门、相位处理。

● 所有麦克风输入通道具有高质量、可编程数字式增益控制及独立的幻象电源控制。

● 所有 BUS 输出通道具有独立的分频器、PEQ、压缩器、延时器处理，并支持 2 个独立可插入式 31 段 GEQ 处理功能。

● 立体声主输出通道具有独立的分频器、 PEQ、压缩器、延时器处理，具有独

立的 31 段 GEQ 处理。

● 所有输入通道或输出 BUS 通道都可以自由 LINK 为立体声状态。

● 所有通道标号可以自定义名称及颜色。

● 所有输入输出通道可支持任意的自定义复制。

● 所有输入、输出通道的均衡器、压缩器、噪声门功能具有独立的预设存储调用功能，并支持通过 U 盘的导入和导出功能。

● 所有输入输出通道可具有独立的通道预设功能，支持通道预设的存储及调用功能，所有通道预设支持通过 U 盘的导入和导出功能。

● 内置两路独立的专业立体声效果器，具有独立发送总线、多种效果类型可选。

● 内置 U 盘播放器，支持实时的立体声录音及播放功能。

● 内置 USB 声卡，支持与 PC 连接的实时录音及播放功能。

● 具有 3 个可编程的静音编组按键及 1 个总效果静音、1 个总输出静音按键。

● 支持用户的场景存储及调用功能，所有场景支持通过 U 盘的导入和导出功能。

● 具有独立的管理员密码及可自定义的用户密码保护功能，可对系统实现分权限管理，管理员密码保护对本地操作及移动端访问同时有效。

● 10 寸高清的 1280*800 的电容触摸屏，支持多点触摸操作。

● 9 个高精度的 100MM 电动推子，5 个翻页管理按键,。

● 内置基于 HTML5 技术的 web 服务器，自带 Wi-Fi 热点，跨平台支持苹果、安卓、Windows 等各种移动端的访问，支持多屏互动、全功能操作。

●支持中控管理协议及实现系统集成应用。

●可配合指定支架，可安装在标准机柜上。

2. 技术指标

硬件指标	
输入通道	26通道输入：16路话筒；3路立体声；2路数字立体声（U盘播放、USB声卡输入）
输出通道	12通道输出：主输出L/R；8路BUS输出；监听输出及耳机输出L/R；
录音接口	双轨USB声卡
	双轨U盘录音存储
输入增益	话筒增益-20~+70；线路增益-20~+20
输入和输出阻抗	话筒/线路输入：5kΩ；输出：200Ω
频率响应	20Hz~20kHz：+/-0.5
总谐波失真加噪声THD+N	-20dBFS @ 1kHz：＜0.01%
噪音	噪音电平（20/20k 带通）：-84dBu；
动态范围	-107dB
串音	通道间隔离度（+4dBu 1k）：-96dB
相位差	通道间相位差（+4dBu 1k）：＜0.1°
等效噪声	-122dBu
延迟	＜3ms
采样率	48K；24bit
USB	最大电流：500mA
幻像电源	+48V，软件控制管理
功耗	＜65W（典型值）
电源	电压：100~240VAC自动感应；交流频率：47~63Hz
运行条件	温度范围：-20℃~55℃
功能指标	
DCA编组	8个独立可编程DCA通道
	支持所有输入/输出通道分配及管理
效果器	2路独立效果器通道
	8种Reverb混响效果；每种7个参数可调
	4种Delay延时效果；每种5个参数可调
	3种Chorus合唱效果；每种6个参数可调
输入通道门限	阈值Threshold：-80~0dB
	衰减Range：-80~0dB
	启动时间Attack：1ms~120ms
	释放时间Release：10ms~4000ms
	保持时间Hold：1ms~2000ms
输入/输出通道压缩器	阈值Threshold：-60dB~+0dB
	压缩比Ratio：1:1~1000:1
	启动时间Attack：1ms~120ms
	释放时间Release：10ms~4000ms
	保持时间Hold：1ms~2000ms
	补偿增益Makeup Gain：-20dB~+20dB
	软拐点可控
输入/输出通道均衡器	4频段参数均衡器
	每个频段频率：20Hz~20kHz
	Q：0.05~15
	增益：-20dB~+20dB
	类型可选：PEQ,HPF，LPF，HSF，LSF
输入通道滤波器	HPF：20Hz~20kHz（-12dB/oct）
	LPF：20Hz~20kHz（-12dB/oct）
输出通道分频器	HPF：20Hz~20kHz、斜率：-12dB~-24dB/oct可调、类型：Butterworth/Linkwitz-Riley可选
	LPF：20Hz~20kHz、斜率：-12dB~-25dB/oct可调、类型：Butterworth/Linkwitz-Riley可选
31段图示均衡器	4*31段GEQ，20Hz~20kHz，±15dB；
	2个在主输出通道，2个可以自由分配给任意BUS输出通道
输出通道延时器	延时时间Delay：0-735ms
静音编组	3个可编程静音编组
	1个总效果静音编组
	1个总输出静音编组

3. 硬件结构与

安装

结构与尺寸

接口说明
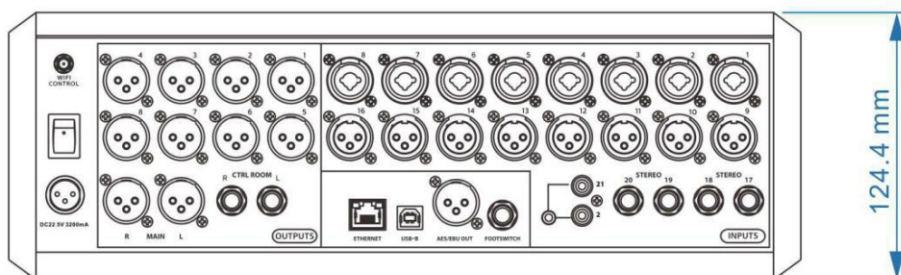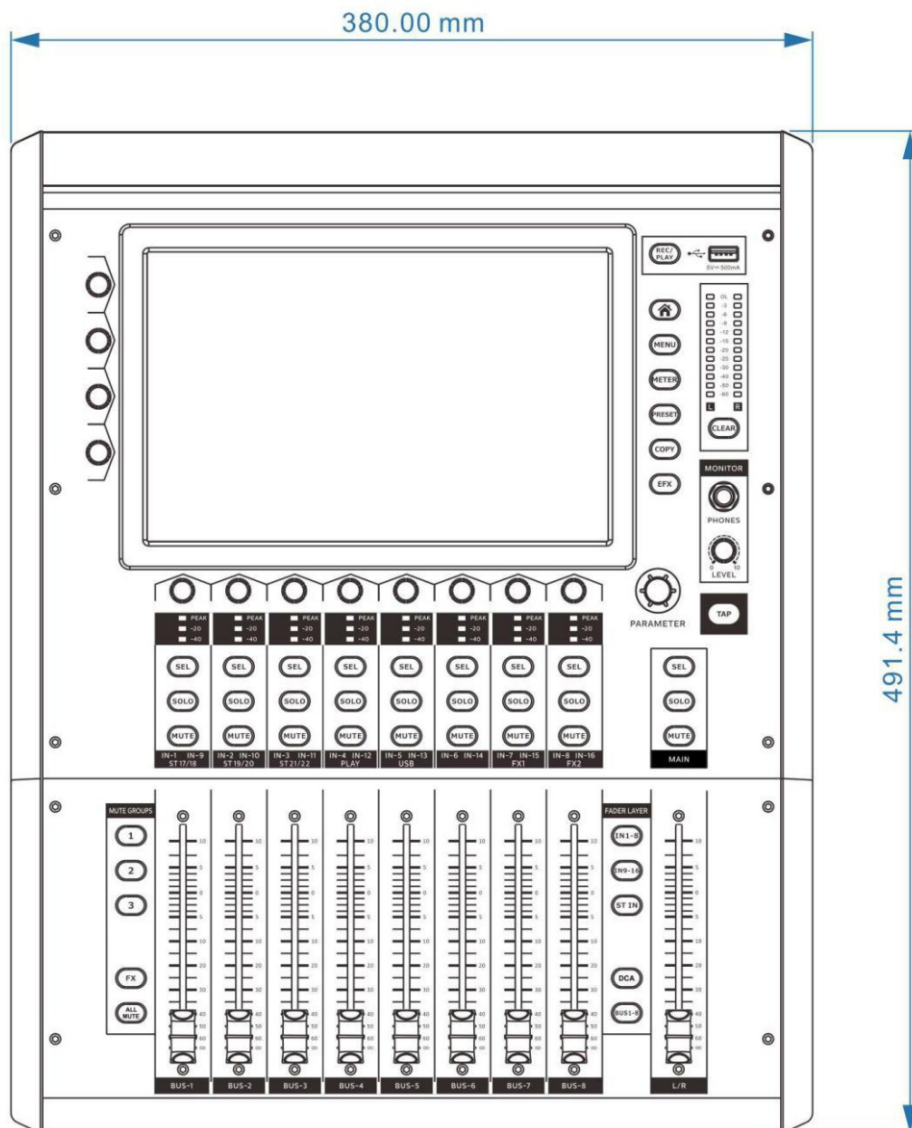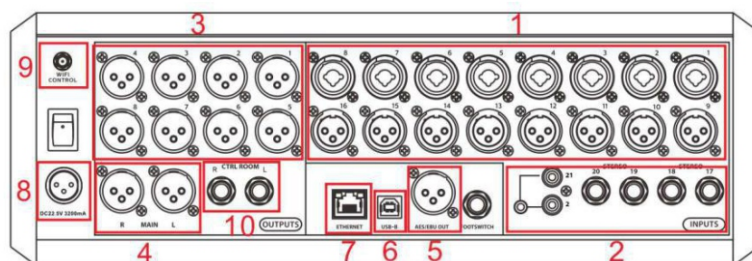
1. **1-16 输入通道接口**

   用于连接话筒或平衡模拟线路输入信号。XLR 接口用来连接话筒，6.35mmTRS 直插接口用来连接平衡线路信号。这些接口均可以提供 +48V 幻象电源。本产品 1-8 通道为组合输入接口，9-16 通道为 XLR 接口。·

2. **17-22 通道 6.35mm TRS 及 RCA 立体声输入接口**

   用于连接立体声模拟输入信号。本产品拥有 2 对 6.35mmTRS 立体声输入接口及一对 RCA 立体声输入接口。

3. **BUS 母线 XLR 输出接口**

   BUS 1 至 BUS 8 母线的平衡输出接口，接口采用 XLR 插口。

4. **MASTER 总线 XLR 输出接口**

   主输出 MASTER L/R 信号的平衡输出接口，接口采用 XLR 插口。

5. **AES/EBU OUT XLR 输出接口**

   用于输出 AES/EBU 数字信号的 XLR 接口。

6. **USB-B 声卡接口**

   用于作为外置 USB 声卡与 PC 连接，可以与 PC 实现双向立体声音频传输。

7. **RJ-45 网络接口**

   用于将本产品直接连接到电脑或交换机，并通过该网口对本产品进行管理和操作。

8. **电源接口**

   用于给调音台供电。注意：插拔电源前，请先确认接口上方的电源开关已经关闭。
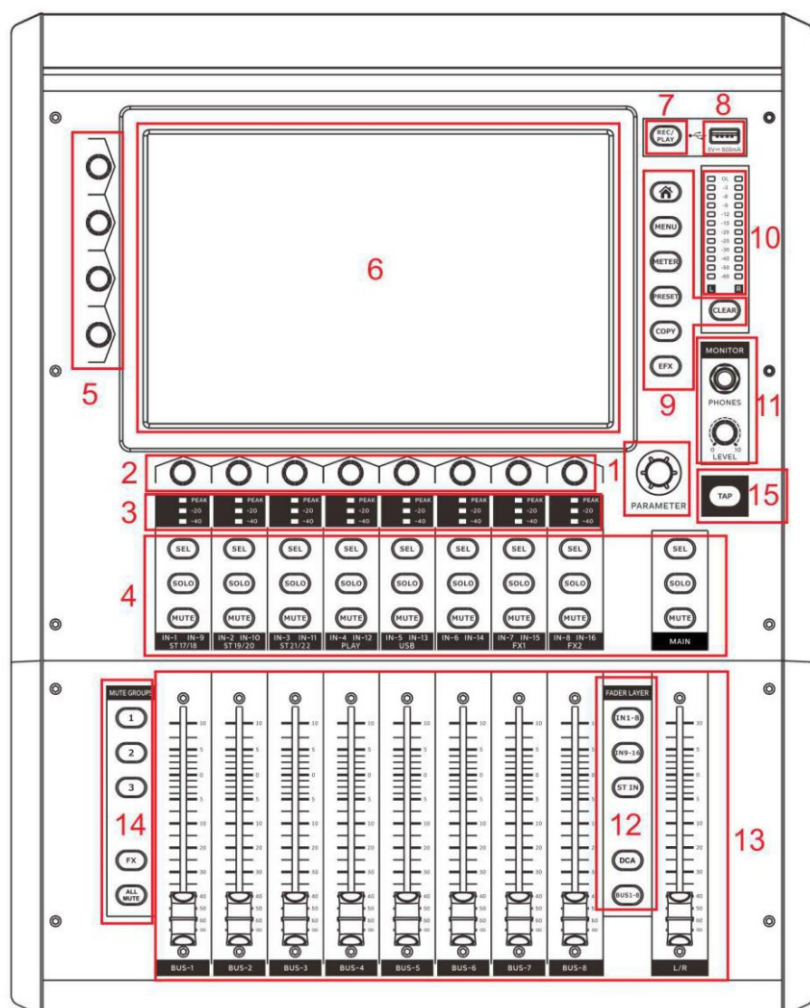
9. 天线接口

用于安置 WIFI 天线。在未安装天线时，将无法通过 WIFI 热点信号进行远程控制。

10. CTRL ROOM（控制室监听输出接口）

监听系统的左右声道输出接口。

操作面板说明

1. 主编码器旋钮

用于快速调整选中的相应功能参数（如 EQ 增益、动态参数、通道发送参数等等）。调音台的绝大多数可调参数均可在选中后通过主编码器旋钮调节。

2. 通道编码器旋钮

在通道总览页面中可以直接调整通道的增益和相位参数，并通过编码器的按键切换所管理的参数。

在通道编辑页面中可以快速调节 EQ 参数。

3. 通道电平指示灯

用于快速直观地显示通道输入电平状态。当绿灯亮起时输入电平 > -40dBFS，当黄灯亮起时表示输入电平 > -20dBFS，当红灯亮起时输入电平>0dBFS。

4. 通道操作按钮

SEL（Select）按钮用于选择该按钮对应通道并进入该通道的通道编辑页面；

SOLO 按钮用于在监听通道中监听该按钮对应通道（注：所有的输入通道可以一起使用 SOLO 按钮，所有的输出通道可以一起使用 SOLO 按钮，但输入通道与输出通道无法同时使用 SOLO 按钮）；

MUTE 按钮用于将该按钮对应通道静音。

5. 通道参数快速调节旋钮

用于在通道编辑界面快速调节常用参数。在输入通道的通道编辑界面，旋钮由上至下分别调节通道增益 Gain、EQ 低切滤波器 Low Cut、通道门限值 Gate、通道压限值 Comp。

6. 屏幕

用于监看调音台的各种工作状态并通过触屏对调音台的参数进行设置。具体操作方法在"基本操作"章节详细介绍。

7. 录音及播放按钮

用于进入 U 盘的录音及播放（PLAY/REC）界面，并可以通过文件夹方式浏览及操作 U 盘内容。

8. U 盘插口

用于播放、录音和软件更新。调音台可以读取 U 盘内部的音乐（支持 mp3、wav 格式），也可以读取 u 盘内部的更新文件并更新调音台系统。

注意：部分 U 盘可能存在读取/存储较慢的情况，读取/存储完毕后文件将会显示在录放音界面的左侧列表内；录音完毕后，请确认录音文件已被完整储存后再插拔 U 盘，避免文件损坏。

9. 调音台功能按钮

按钮从上至下功能分别为：回到主页面、打开菜单设置界面、打开电平表总览界面、打开预设界面、打开通道复制界面、打开效果器设置界面；主输出电平表下侧的按钮功能为清除监听通道中所有 SOLO 的通道。

10. 主输出电平表

该电平表为主输出的 VU 表，其电平指示不受输出音量调节旋钮控制。当有通道启用 SOLO 功能时，电平表将变为监听母线电平表。

11. 耳机监听接口与监听通道音量旋钮

用于耳机监听。在 Menu 界面的 Monitor 页面下可以选择无 Solo 时的监听通道以及通道前/后监听。

12. 层切换按钮

用于切换当前推子控制的层。从上至下分别为 CH1~8 层、CH9~16 层、Stereo 立体声/Digital 数字/FX 效果器通道层、DCA 控制层、BUS 母线输出层。

13. 通道推子

推子 Fader 用于控制该通道的发送量。

14. 静音编组按键

1/2/3 编组按键用于控制相应的静音通道。在各通道的通道编辑界面的 Channel 页面内，可以设置各通道的静音编组 Mute Group。所有非 FX 通道都可以编入 1/2/3 静音编组并受相应的按钮控制。

FX 编组按键用于针对 FX1 和 FX2 通道的快速静音。

ALL MUTE 编组按键用于针对所有输出通道的快速静音

注意：当长按静音 1/2/3 中任何一个按键超过 3 秒，可以将当前状态下每个通道的静音状态一次性记忆到该编组按键中。
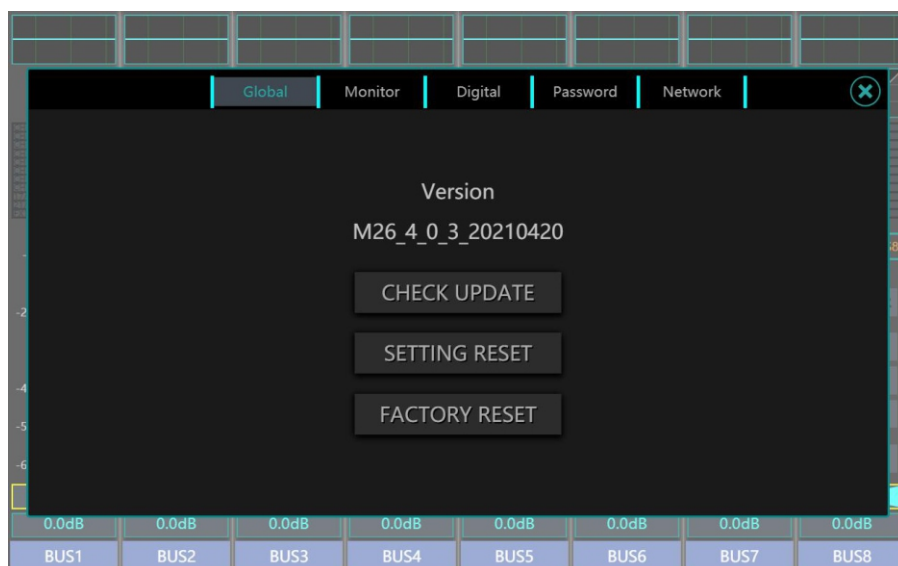
15. TAP 延时设置按键

Delay 效果器的时间参数的专用外部设定按键，连续按动此按键可以同时对 FX1、FX2 的 Delay 时间做快速设定。

4. 软件控制

软件更新

您可以与本产品的经销商联系，以取得最新版本的软件。

软件升级方法：（U 盘升级）

1.将升级包文件（后缀名为.upk）拷贝到 U 盘的根目录下；

2.调音台开机；

3.将 U 盘连接到调音台的 USB 口；

4. 在 Menu-Global 界面下单击 Check Update；

5. 操作界面自动查找及显示 U 盘中所有的可更新的数据包及版本信息，点击需要升级的数据包 UPK 文件，并确认；
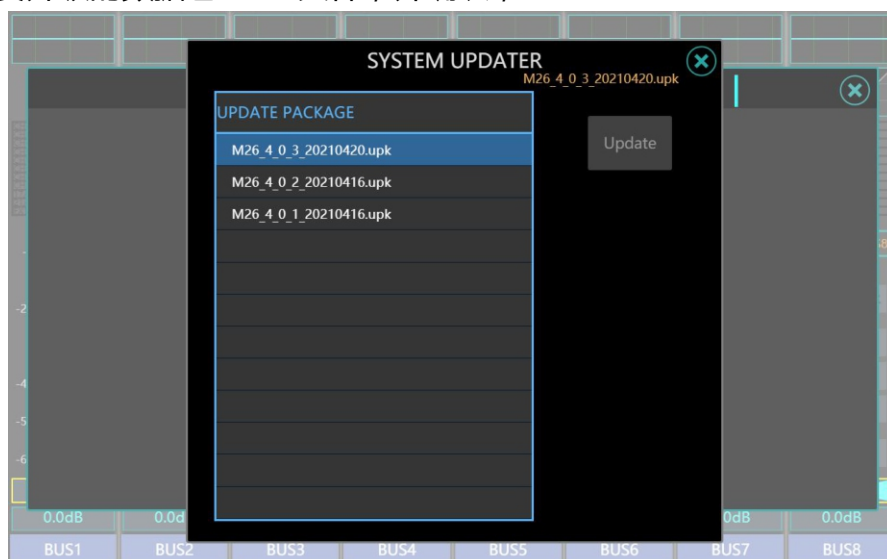
6. 大约等待 1-2 分钟，调音台将重新启动并更新完毕。

注意：1. 更新过程中切勿中断电源；

2. 更新前请备份所有用户数据到 U 盘中，以防止更新后数据丢失。

恢复出厂设置

调音台提供 2 种级别的恢复设置。一种是还原所有通道的设置参数，另一种是清除所有用户数据、完全恢复为出厂设置。

还原所有通道设置
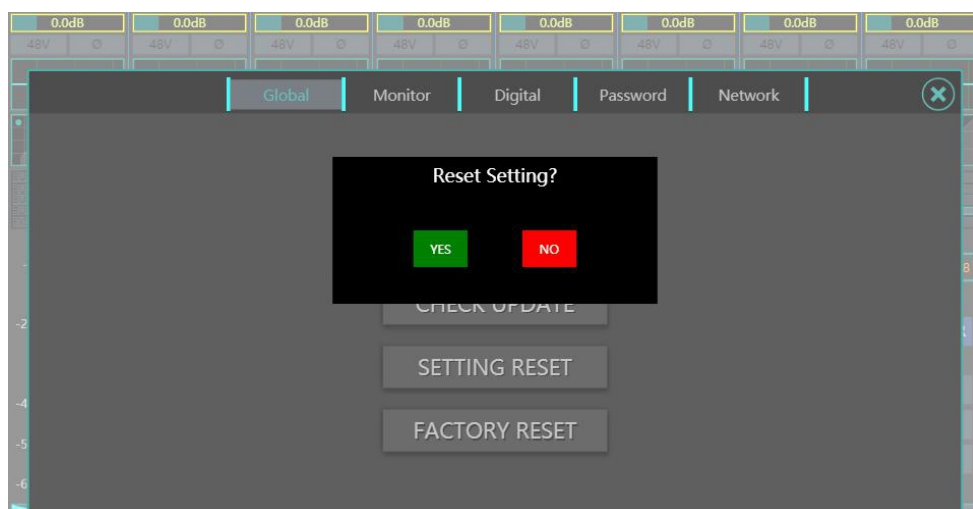
在调音台的 Menu-Global 界面单击 Setting Reset，可还原调音台所有通道的设置，包括所有输入通道、母线通道和效果器通道。

恢复出厂设置
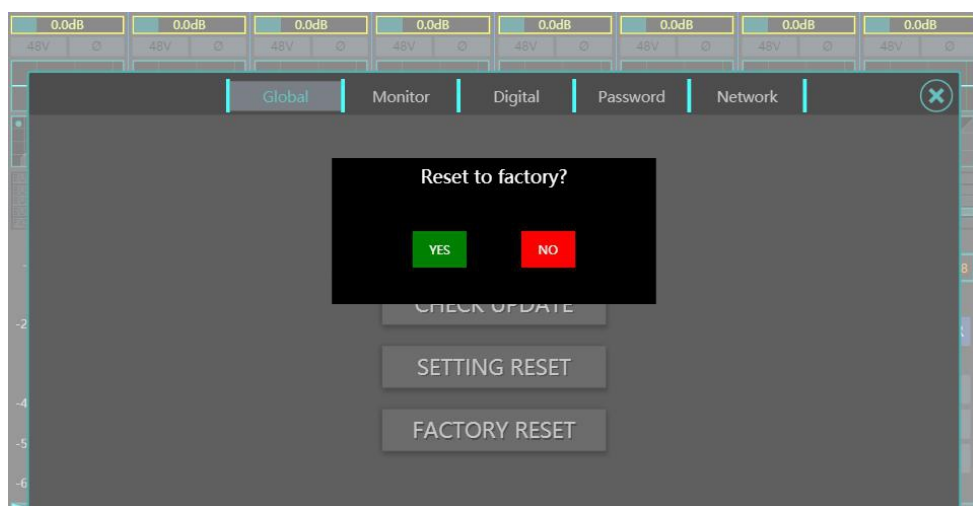
在调音台的 Menu-Global 界面单击 Factory Reset，可对调音台进行彻底的恢复出厂设置。包括所有的通道设置、网络设置、预设参数及场景、用户文件、

用户密码等。

    注意：移动端连接可能因网络设置恢复而中断，重新设置调音台网络并重新连接即可。

监听设置

本产品包含了专业的监听选择系统。调音台内置监听母线分别将信号发至给面板上的 MONITOR PHONES 耳机监听插口和背板上的 CTRL ROOM 连接监听系统的左右声道输出，您可以通过这些插口获得监听母线的信号。

您可以通过调音台面板上的 SOLO 按键将相应通道加入监听母线中，这时，面板右上侧的主输出电平表会变为监听母线电平表，电平表下方的 CLEAR 按钮会变为红色，表示现在有通道启用 SOLO 监听功能。您可以在 MENU-MONITOR 页面选听 SOLO 的通道推子前（PFL）/推子后（AFL）的信号，Channel Solo 对应输入通道，BUS Solo 对应输出通道。

所有的输入通道（MIC/LINE/SPDIF/AESEBU/STEREO/PLAY 等）可以一起启用 SOLO 功能加入监听母线，所有的输出通道（BUS/MASTER）也可以一起启用 SOLO 功能加入监听母线；但是输入通道与输出通道不可以一起加入监听母线。

当没有通道启用 SOLO 功能时，您可以在 MENU-Monitor 页面选择发送给监听母线的默认通道。
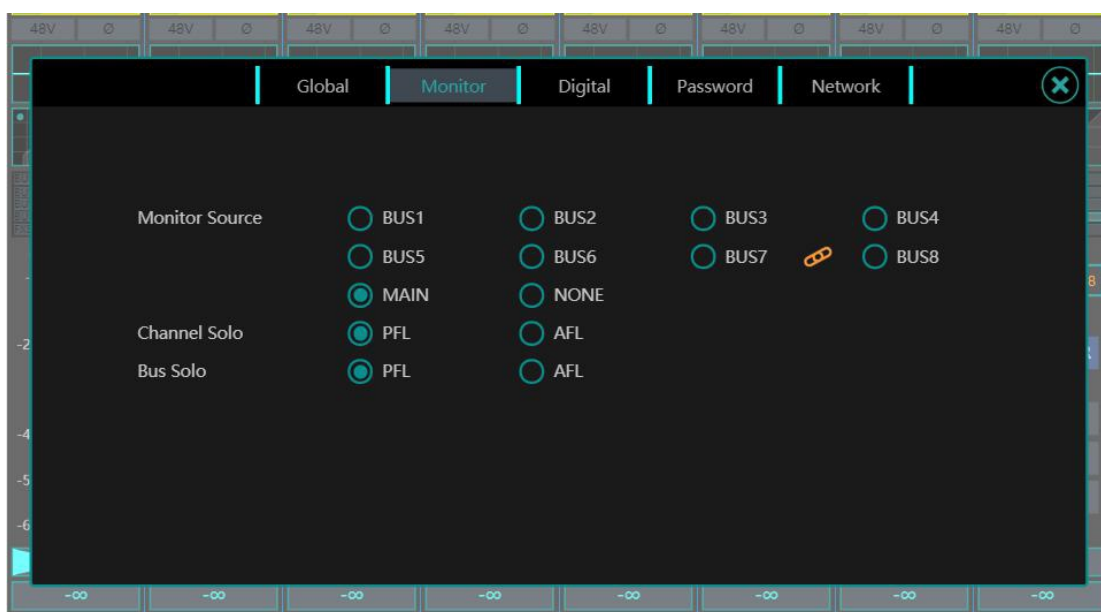
数字输出通道设置
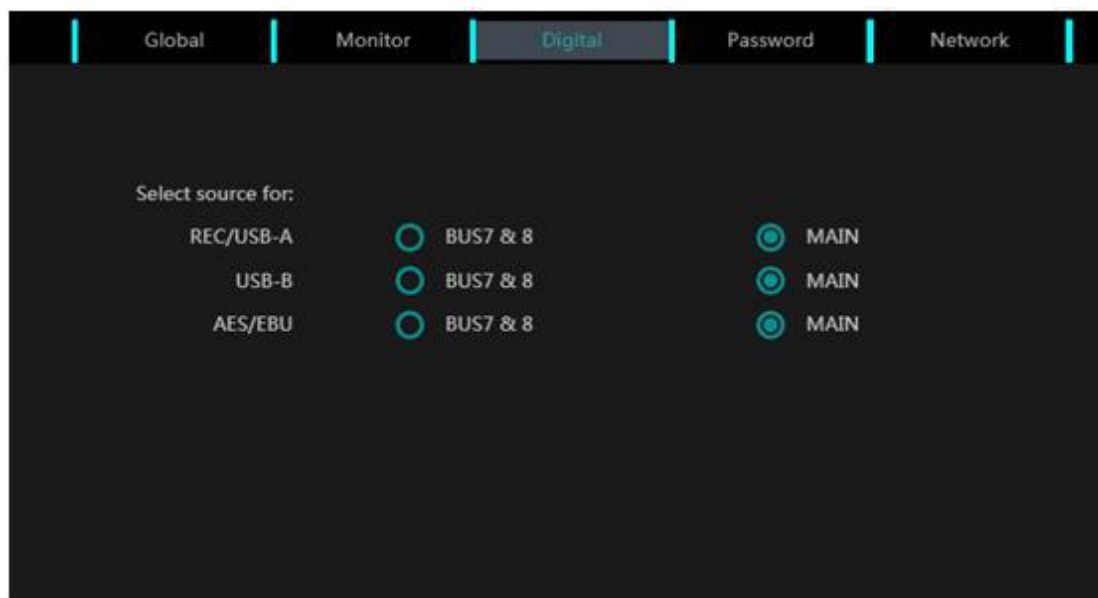
本产品的数字输出通道可以选择不同的来源信号。

您可以在 MENU-Digital 页面中将 BUS7&8 或 MASTER 通道的信号作为源信号发送给指定数字输出通道及录音通道(AES/EBU、USB-B 声卡、REC/USB-A 盘录音）。

账户设置

本产品内置了账户密码系统，可以防止调音台误触碰造成的播放事故。本产品出厂默认无密码。

1、 设置管理员密码：
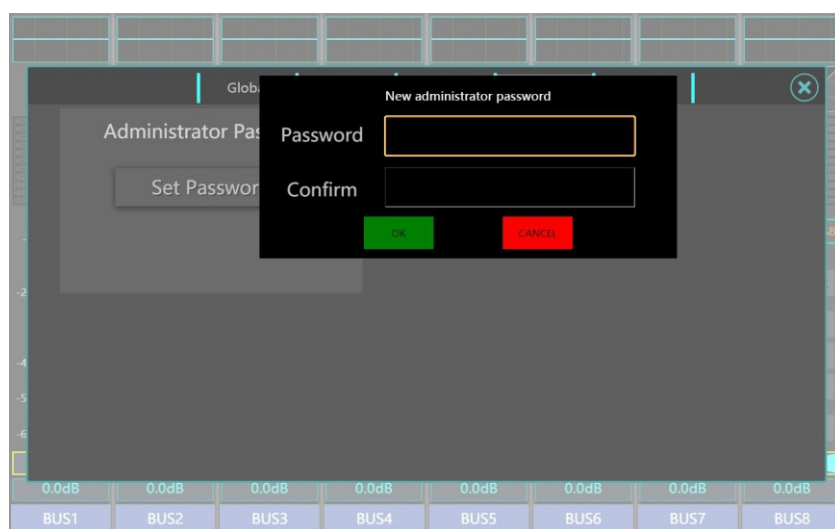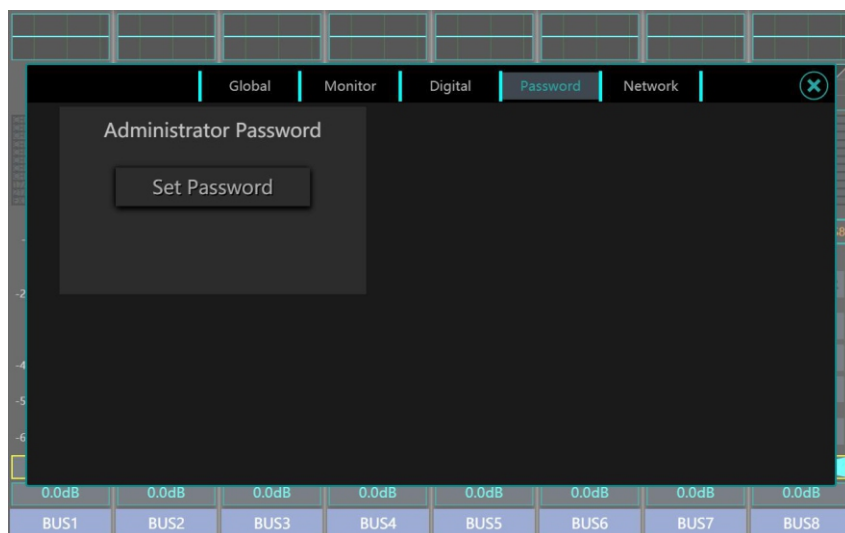
您可以在 Menu-Passwrd 页面单击 Set Password 按钮。系统将跳转至密码输入及确认页面，输入密码后点击确认键即可开始生效。

若想解除或编辑密码，您可以在　　　Menu-Passwrd 页面单击　Delete Password/Modify 按键，输入原密码后即可执行操作。

2、 设置用户密码

在管理员密码设置完成后，系统将弹出用户密码设置页面，您根据需要设置可以设置一个用户密码。

注意：用户密码的级别低于管理员密码，管理员可以通过菜单勾选设置用户可以密码使用的权限。

网络连接
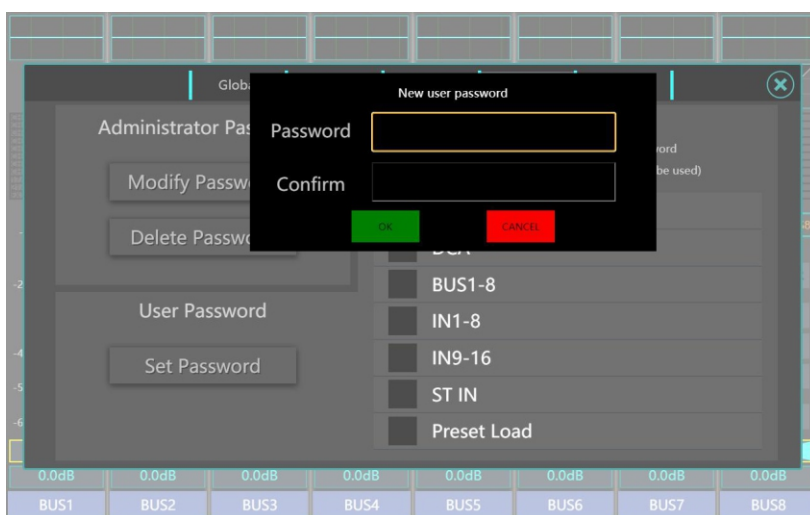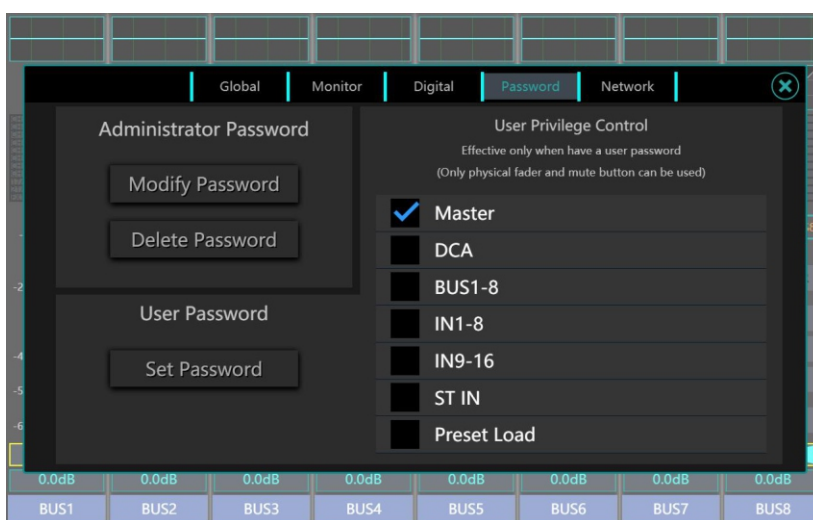
您可以使用移动端通过调音台的WIFI进行连接，也可以通过调音台的LAN网口直接用网线连接到电脑，实现对调音台的远程操控。连接完成后，在移动端或电脑端浏览器中输入调音台IP地址，即可在网页上加载和使用控制软件。

Takstar XR26

*WiFi无线连接方式：

　　选择登录调音台的WiFi热点，默认名称为 "WIFIMixer"

　　在移动端的浏览器中输入调音台的无线IP地址，默认地址 "192.168.2.1"

*LAN有线连接方式：

　　打开电脑的网络设置，设置电脑LAN网关为 "192.168.1.1"，设置LAN的子网掩码为 "255.255.255.0"。

　　在电脑的浏览器中输入调音台的有线IP地址，默认地址为 "192.168.1.114"
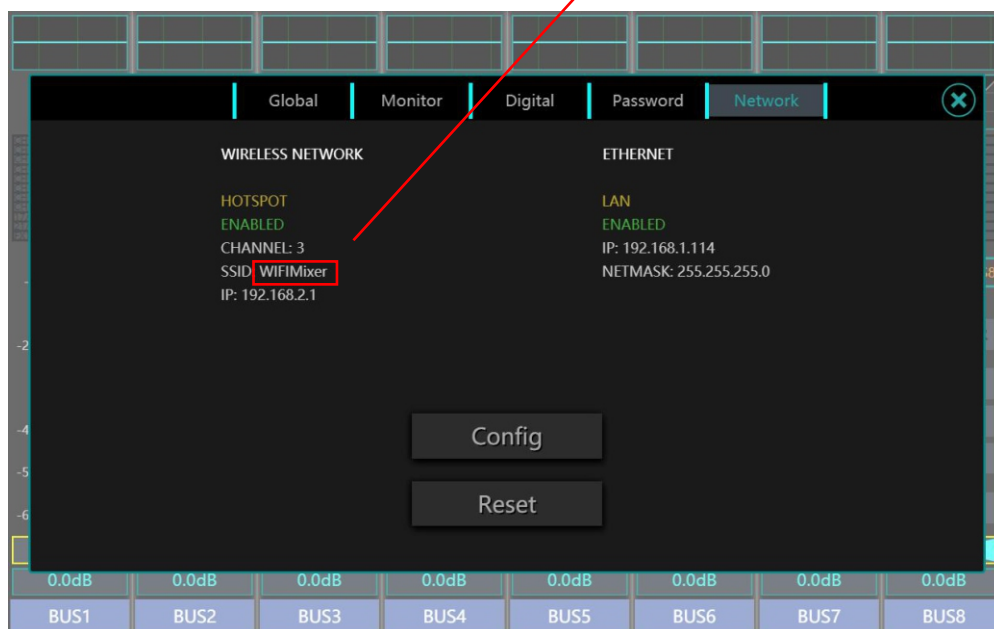
在Menu-Network页面，您可以方便地查看当前网络设置状态。点击CONFIG按钮可以更改系统网络设置，点击Reset按钮可以将网络设置恢复为初始状态。

进入到网络的 CONFIG 页面中，您可以在无线连接（Wireless）、有线连接（Wired）两个子页面分别设置调音台无线/有线网络连接设置，设置完成后单击 Save 按钮即可保存。
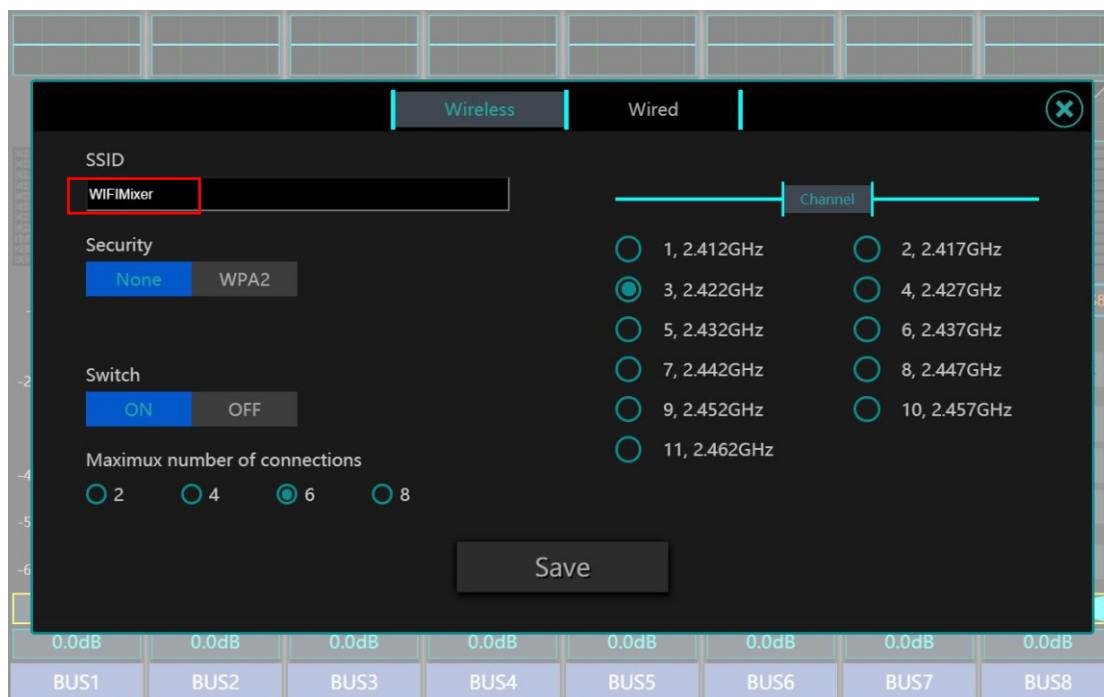
无线连接（Wireless）

在无线连接页面，您可以设置调音台WIFI网络名称（SSID）和网络密码（Security），并且可以调整调音台的信道（Channel）。

调音台 WIFI 加密方式有 None/WPA2 两个选项。当选择 None 时，热点无密码，可直接连接。当选择 WPA2 时，需要输入设置的调音台 WIFI 密码。

注意：SWITCH 开关可以关闭本机的 WIFI 热点功能。

Maximux number of connections 用于对用户同时的连接最大数量进行管理。

本产品提供了2.412GHz至2.462GHz的11个无线信道供您使用，根据不同的管理域，Wi-Fi无线频谱范围内可选择多个信道，例如欧洲（ETSI）为13，北美（FCC）为11。第三方软件可以帮助选择Wi-Fi通道。由于使用调音台时现场的无线网络环境可能非常复杂，如果当前使用的信道非常拥挤，将会导致调音台控制延迟，此时，建议您选择使用其他信道。

有线连接（Wired）

在有线连接页面，您可以设置调音台的连接方式DHCP/Manual，以及有线网络连接的IP地址、子网掩码（Netmask）和网关（Gateawy）。

当您选择动态 IP 分配（DHCP）时，调音台会自动分配 IP、子网掩码和网关。如果您选择手动 IP 分配（Manual），则需要自行填写这些字段。请咨询您的网络管理员了解手动 IP 分配。

5.操作使用

当您设置了管理员与普通用户密码时，调音台在启动后会首先进

入密码输入页面 ，正确输入密码后方可正常使用 。密码相关设置详情

参考 4.软件控制 -账户设置。
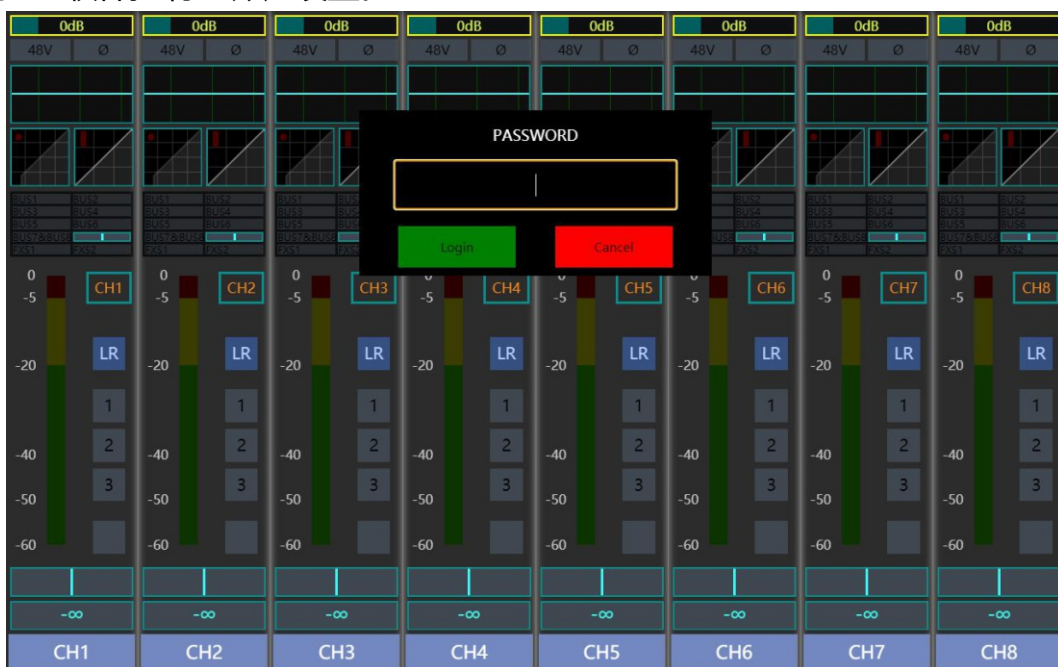
注意：当不输入密码进入系统或用户权限不足时，系统将显示为

下图中的锁定状态 ，在此状态下 ，系统的音频输入输出仍然正常工作 ，

但是无法进行操作，并提示要求输入密码。
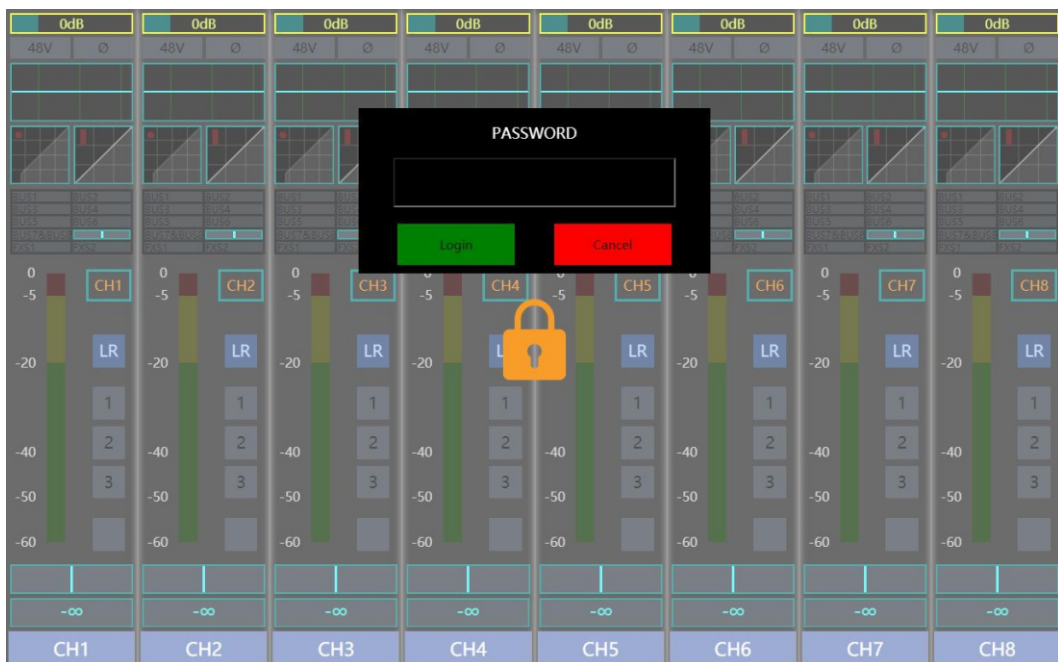
通道总览界面

　　这是调音台首先进入的通道总览页面，它显示了每个通道的总览信息，从上至下依次为通道增益、Mic通道幻象供电开关、反相开关、EQ曲线、噪声门曲线、压限器曲线、通道发送量、通道输入电平表、通道ID、MASTER母线发送开关、静音编组、DCA编组、PAN值、推子衰减值、通道名称。

注意：通道增益值和PAN值可以直接在总览界面通过通道旋钮调整，按下通道旋钮可以切换选择调节通道增益值和通道PAN值。

MENU 菜单设置界面
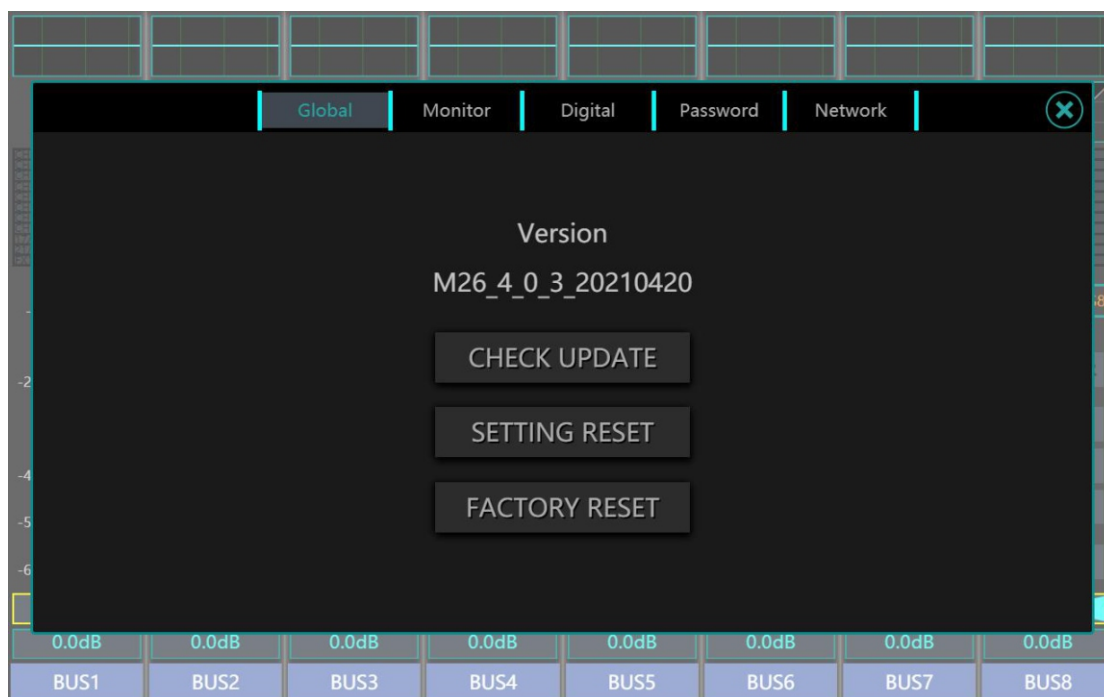
　　按下 MENU 按钮后，您将进入菜单设置页面。该页面包括了 Global 、Monitor 、Digital 、Password 、Network 子页面，您可以在这些页面下更新或重置调音台、调整监听设置、调整数字输出源、设置调音台密码以及调整网络连接设置。

　　将 U 盘插入调音台，单击 CHECK UPDATE 可以检测 U 盘中的升级文件 。调音台会弹出升级列表 ，此时可选择升级包进行调音台系统升级。

　　SETTING RESET 可以重置调音台所有参数。

　　FACTORY RESET 可以将调音台重置为出厂设定。（注：会重置网络设定和清除调音台内的预设文件 ,重置为出厂设置前请先备份文件。）

METER 电平表界面

    当按下 METER 按钮，您将进入电平表界面。该界面左侧显示 了 IN1-8 、 IN9-16 、 ST IN、 FX1＆2、 BUS 1-8 四层通道的输入电平， 右侧显示了母线 MASTER 的电平 。当一个通道被静音 （即启用 MUTE 功能）时，电平表下方的红灯会亮起。

PRESET 预设及快照界面
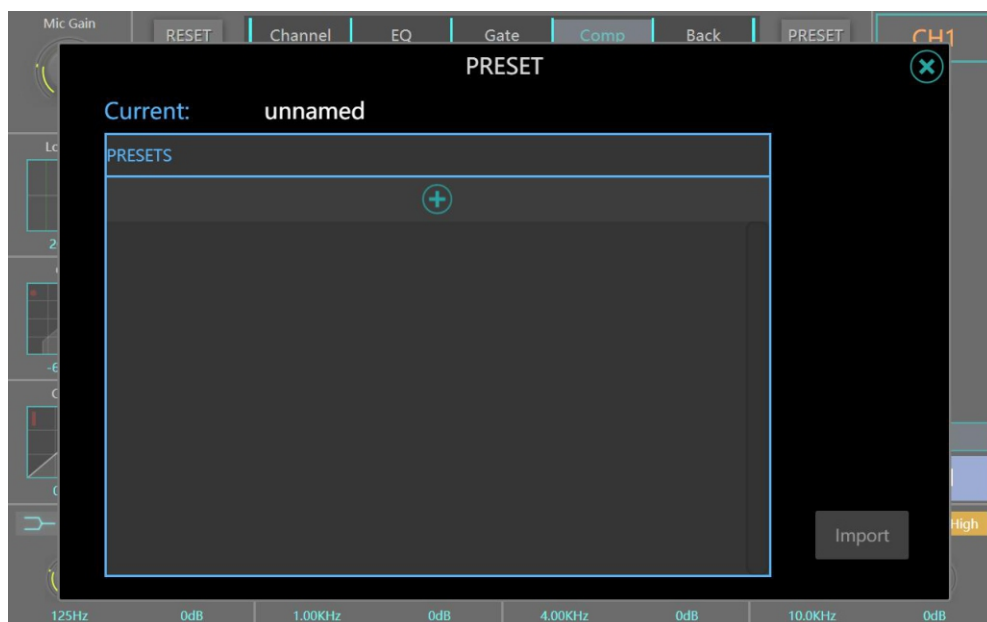
　　按下 PRESET 按键，您将进入预设 /快照界面 。这个界面显示了调音台所有的预设设置。点击 "＋" 按键可以添加新的预设文件；
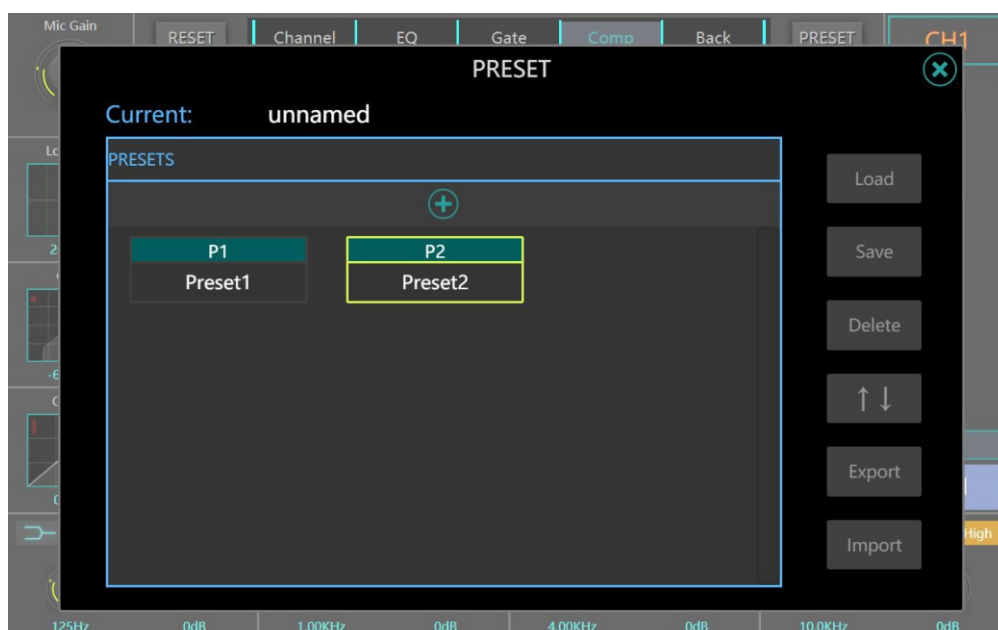
　　点击 Load 按键可以对选中的预设文件进行加载；
　　点击 Save 按键可以将当前调音台的状态存储到选中的预设文件 ；

点击 Delete 可以将选中的预设文件删除；

双击预设文件可以修改该预设的名称；

选泽 "↑↓" 可以对预设文件的顺序进行管理 ，可以上 /下移动或置顶/置底预设文件的显示位置；

在插入 U 盘的情况下，可以通过 Export （导入）和 Import （导出）按键将预设文件由 U 盘导入到本机，或者由本机导出到 U 盘。
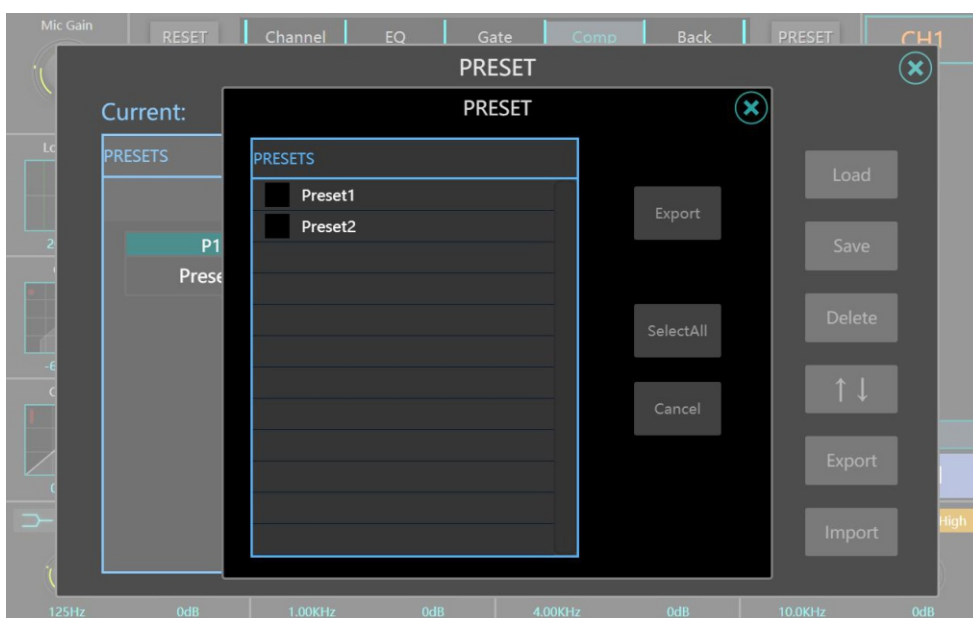
COPY 通道复制界面

　　按下 COPY 按键后，您将进入通道复制界面。您可以将左侧列表的通道设置复制到右侧的通道。

　　先选择左侧列表的通道　　，右侧列表将会出现能够接受粘贴的通道　　　，在中间 的 Copy Option s 一栏中设置好复制的参数后单　　击 COPY 按键即可成功复制通道。
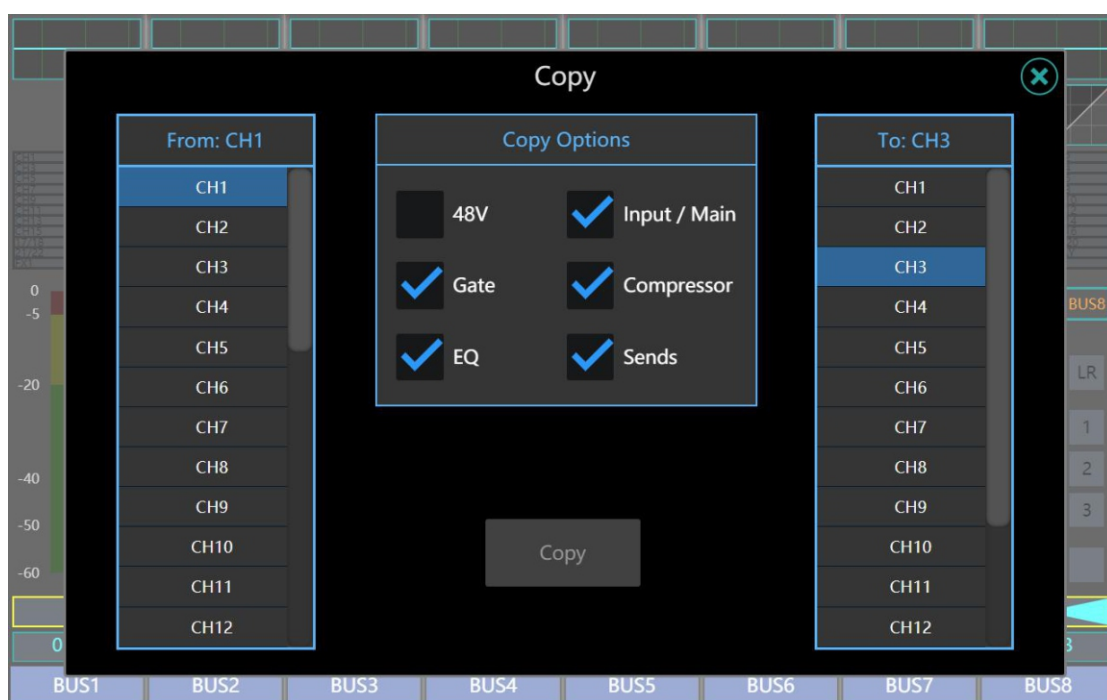
EFX 效果器设置页面

　　按下 EFX 按钮后，您将进入效果器的设置页面。本产品拥有两个独立的效果器通道 ，您可以在效果器设置页面为两个通道选择您所需要的效果器，并调整效果器参数。。

　　注意：点击效果器的 RESET 按钮可以将这个效果器的参数恢复为出厂推荐值；

　　点击 EFFECT 按钮可以进入效果器选择界面 ，可以看到调音台提供了三大类（Reverb 混响类 、Delay 延时类 、Chorus 合唱类）、合计15 种效果器可供选择使用。

　　注意： TAP 按键为 Delay 效果器时间参数的外部联动开关，当打开此开关后， Delay 时间参数将同步接收面板按键设置及管理。
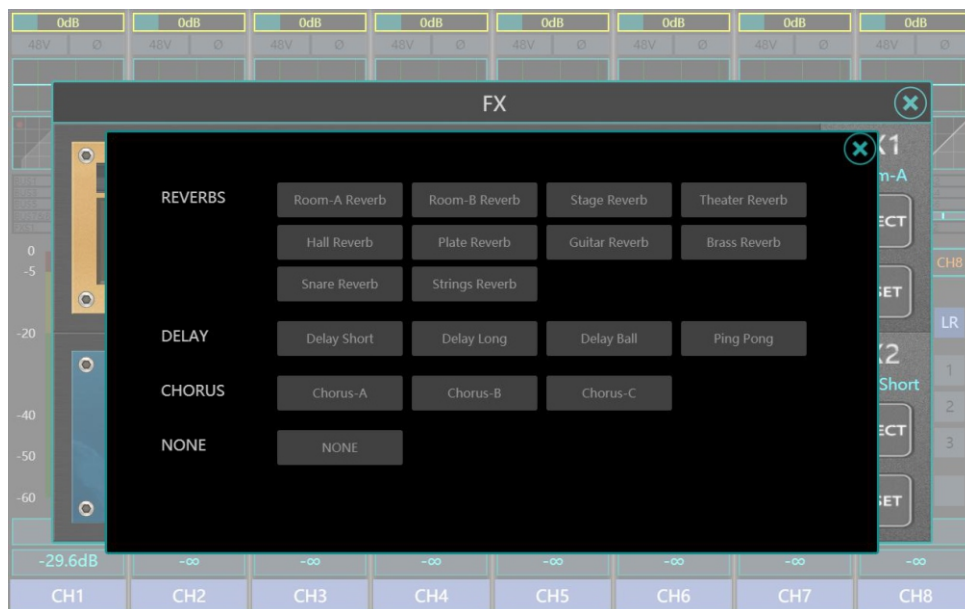
1. Reverb 混响类

混响是声音在一个封闭空间中产生的复杂效果。混响受空间特征影响，包括其大小、形状和内壁材料。混响是声响体验的必不可少的自然组成部分。

本产品包含以下8种混响效果：
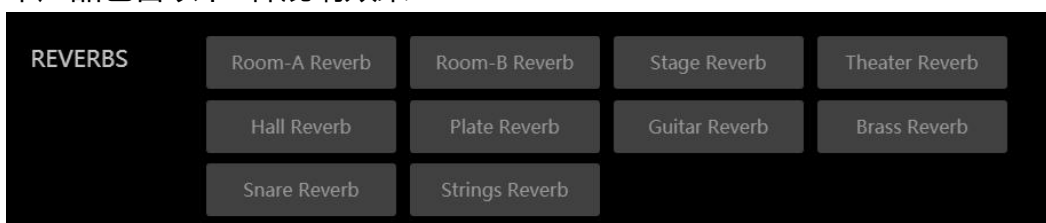
2. Delay 延时类

延时是在声音第一次出现后很短时间内将其重复。当输出送回到输入（反馈）时，延时会变成回声。这样会将单个重复变成一系列重复，每个都比上一次更弱一点，从而形成延时效果。

本产品包含以下4种延时效果器：
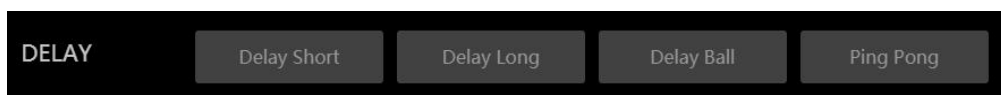
3. Chorus 和声类

合唱将两个或更多信号结合起来，其中一个不受影响，而另一个信号的音高则随时间产生非常轻微变化，从而产生丰富、丰满的声音。合唱常用于增厚音轨，并增加吉他的质感。合唱也可以小心用于增厚人声音轨。

本产品包含以下 3 种合唱效果器：

| CHORUS | Chorus-A | Chorus-B | Chorus-C |
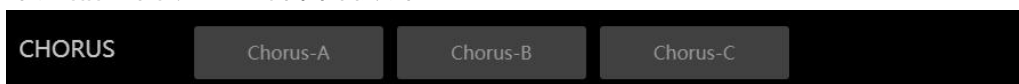
录音及播放界面
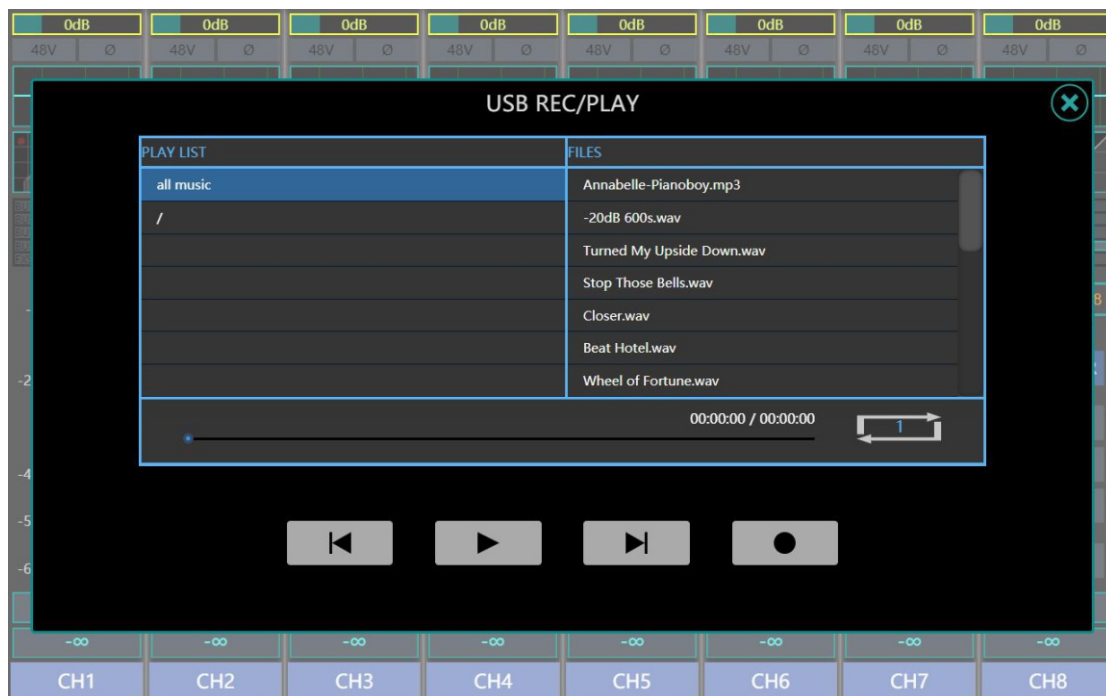
按下右上角 REC/PLAY 界面，您将进入录放音界面 。当插入 U 盘时，界面左侧列表将显示 U 盘内音乐文件（ mp3、wav 格式）。单击列表文件可选择音乐 ，再单击播放键可播放 ,音乐信号将送 入 ST IN 层 PLAY 通道。

右数第一个按钮可以进行录音，调音台可以将选择的信号录 为 wav 文件并存入 U 盘中。

注意 : 录音和播放功能不可以同时使用 ,部分 U 盘读写速度较慢 ,请确认存储完毕后再拔出 U 盘，避免文件损坏。

调音台通道层界面

1、IN 1- 8 层包含 8 个 MIC/LINE IN 模拟输入通道。

2、IN9 -16 层包含 8 个 MIC IN 模拟输入通道

3、 ST IN 层包含所有立体声输入通道。

此层包括 3 对立体声模拟输入通道、 1 个 PLAY U 盘播放通道 、一个 USB 声卡输入通道、 2 个 FX 效果器通道。
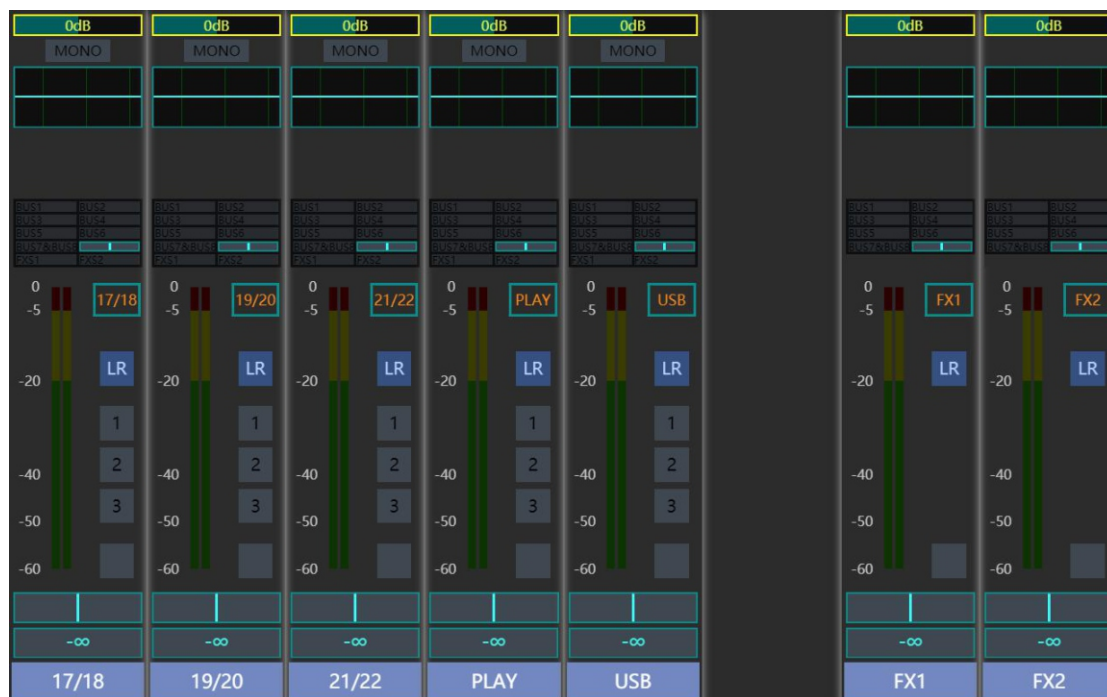
4、 DCA 层包含 8 个 DCA 控制总线

此层包含 8 的可独立编程的 DCA 控制总线。
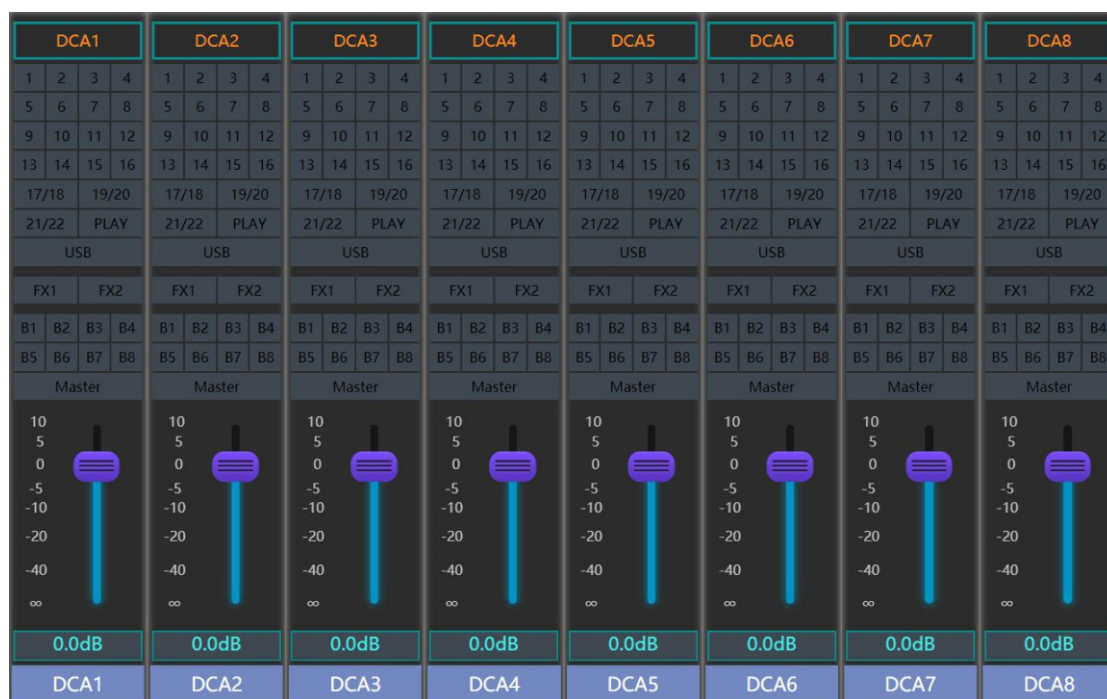
点击屏幕上通道位置或按该通道的 "SEL" 按键，可以进入该 DCA 通道的编辑页面，每个 DCA 通道都可以指定任意多个输入或输出进行编组，并同步管理。
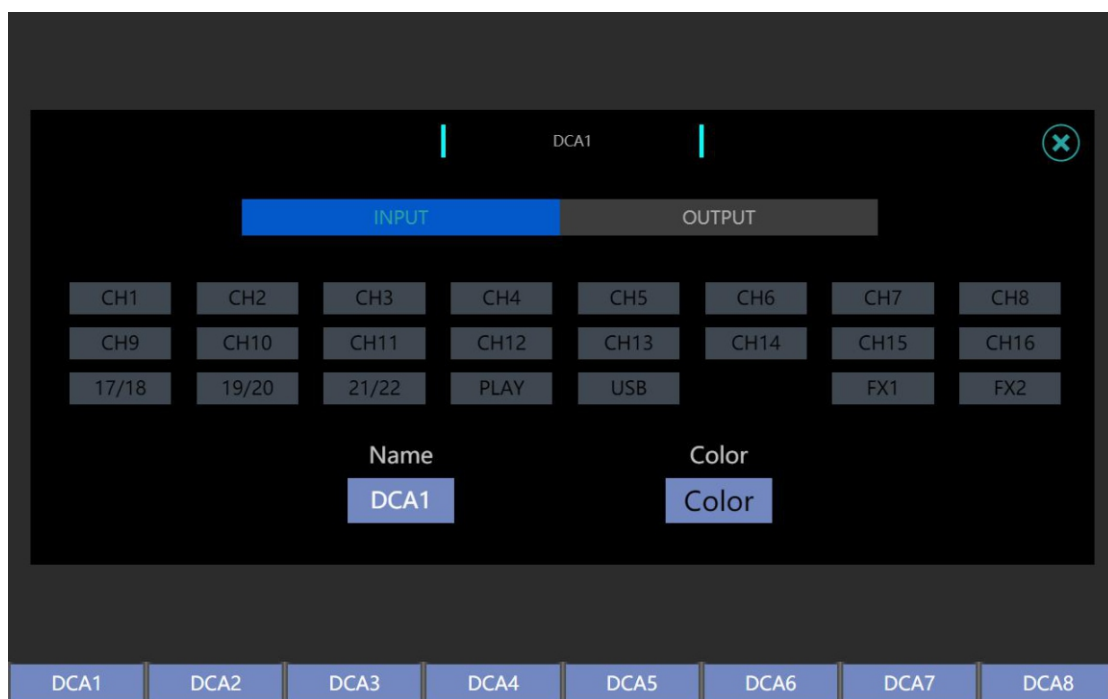
注意 ：任何一个输入和输出通道 ，同时只可以编入一个 DCA 通道中。另外输入或输出通道不可以同时编入一个 DCA 通道中。

5、 BUS1-8 层包含 8 个 BUS 母线。

所有 BUS 总线都可以设置为单通道 AUX 输出或者 LINK 为立体声的 SUB 通道输出 。BUS7-8 母线出厂默认为一对立体声 SUB 总线 ，并可选择同步输出到三个数学输出通道（ AES/EBU 、USB 声卡、 U 盘录音）。

通道编辑处理功能

当您单击屏幕上的通道显示区域或按下相关通道的 SEL 按钮后 ，您将进入该通道的通道编辑页面 。该页面包含了此通道里所有的编辑及处理功能。

输入通道编辑页

输入通道编辑页面包 含 Inpu t 栏、Mai n 栏和 Channel Prese t 栏。

Input 栏内可以打开 /关闭通道的反相 /幻象供电 /Link 开关 。反相开关将通道信号相位偏转 180°；幻象供电开关为 Mic 通道独有 ，可以给有需要的电容话筒提供电源 ；LINK 开关可以将相邻的单 /双数通道共同绑定为一对联动的或立体声的通道。

Input 栏内可以调节话放增益的大小，还可以编辑通道的显示名称和颜色。

Mai n 栏包含母线发送按 键 LR、静音编 组 Mute Grou p 按钮 和 Pa n 值控制条。母线发送按钮点亮时表示该通道将给 MASTER 通道发送信号；在 Mute Group 内点亮相应按钮表示将该通道编入相应静音编组； Pan 值条可以调节通道的左右均衡。

通过 Channel Preset 栏的按键可以对通道预设进行管理
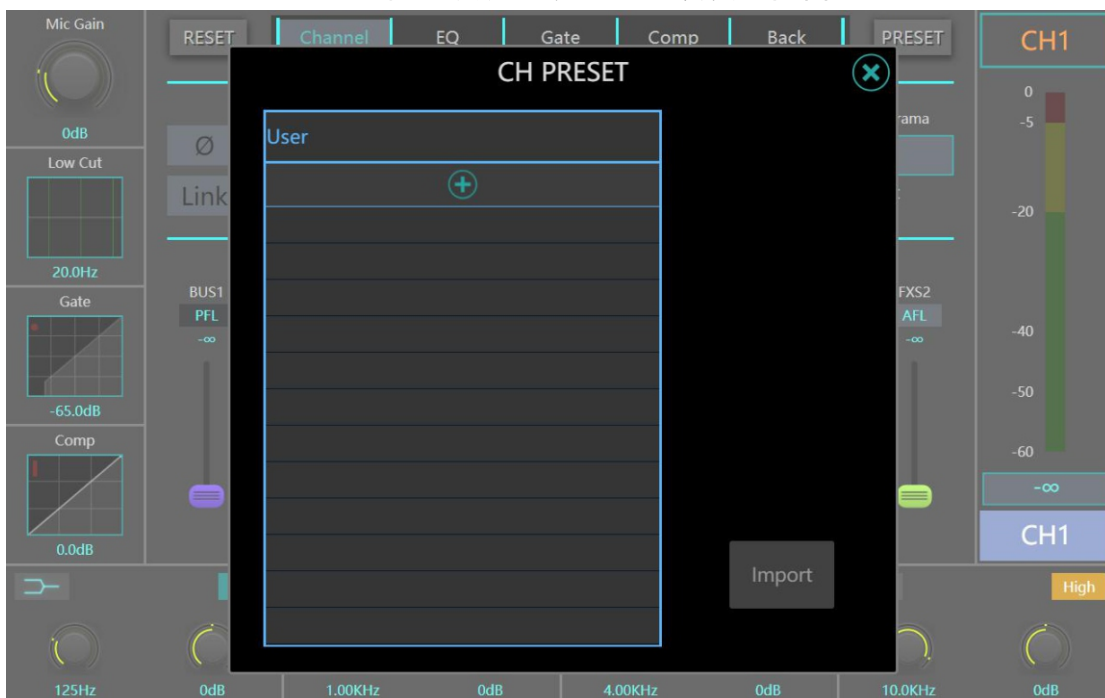
通过 Channel Prese t 栏的 PRESE T 按键可以将当前通道数据存为通道预设文件，并可以进行存储、调用、删除、导入、导出等操作 。

通过 Channel Preset 栏的 RESER 按键可以将该通道恢复为出厂默认状态。

输出通道编辑页

输出通道编辑页面包 含 Inpu t 栏、Mai n 栏和 Channel Prese t 栏。

Input 栏内可以打开 /关闭通道的反相 / Link 开关。反相开关将通道信号相位偏转 180°; LINK 开关可以将相邻的单 /双数通道共同绑定为一对联动的或立体声的通道。

Input 栏内可以调节通道延时的时间，还可以编辑通道的显示名称和颜色。

Mai n 栏包含母线发送按 键 LR、静音编 组 Mute Grou p 按钮 和 Pa n 值控制条。母线发送按钮点亮时表示该通道将给   MASTER 通道发送信号；在 Mute Group 内点亮相应按钮表示将该通道编入相应静音编组； Pan 值条可以调节通道的左右均衡。

通过 Channel Prese t 栏的 PRESE T 按键可以将当前通道数据存为通道预设文件，并可以进行存储、调用、删除、导入、导出等操作   。

通过 Channel Preset 栏的 RESER 按键可以将该通道恢复为出厂默认状态。

主输出通道编辑页

主通道编辑页面包含   Input 栏、 Main 栏。

Input 栏内可以打开 /关闭通道的反相开关 。反相开关将通道信号相位偏转 180°。

Input 栏内可以调节主通道延时的时间。

Main 栏包含静音编组   Mute Group 按钮和 Pan 值控制条。 在

Mute Group 内点亮相应按钮表示将该通道编入相应静音编组； Pan 值条可以调节通道的左右均衡。

　　通过 Channel Prese t 栏的 PRESE T 按键可以将当前通道数据存为通道预设文件，并可以进行存储、调用、删除、导入、导出等操作 　　　　 。

　　通过 Channel Preset 栏的 RESER 按键可以将该通道恢复为出厂默认状态。

噪声门 Gate 页面
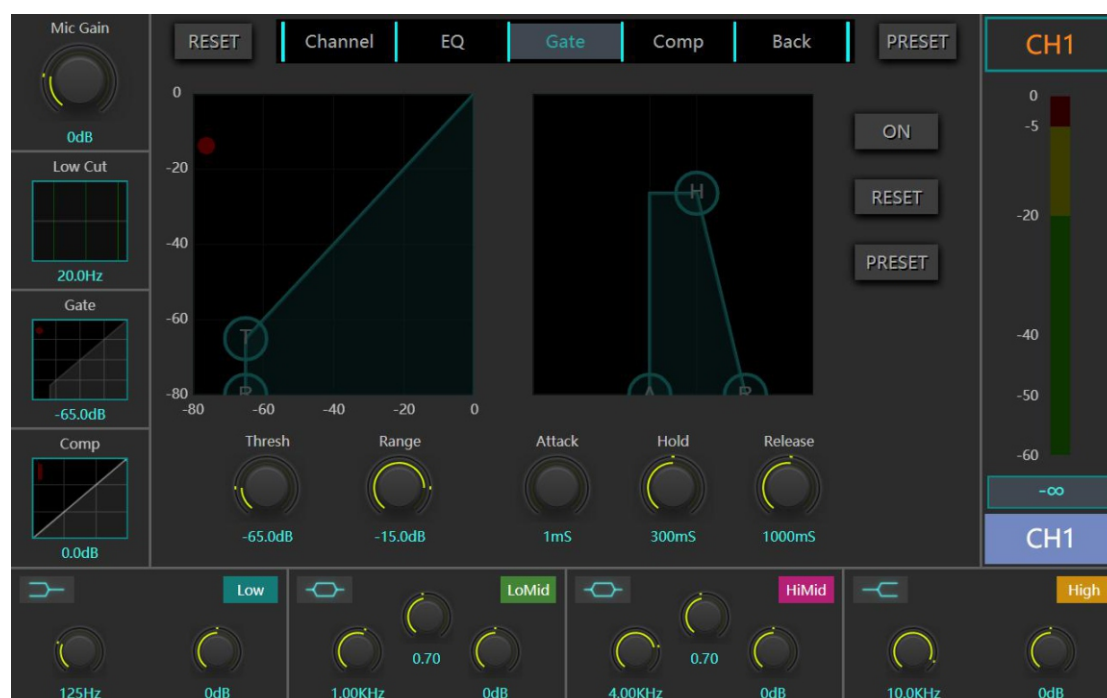
　　噪声门页面显示了该通道的噪声门参数。噪声门限 　　　 使用阈值来确定其"开放"（超过 Threshold）或"关闭"（Threshold 以下）状态。当门关闭时，信号电平会被降低或完全切断。门限可以用于降低音源（乐器/人声）不出声时话筒拾取到的环境噪声。

ON：噪声门开关。

RESET：重置为默认值。

PRESETS：调出标准预设管理弹出框，保存/加载噪声门预设。

THRESHOLD：调节噪声门的阈值。

RANGE：调整衰减值。该参数决定被衰减的信号的衰减值。

ATTACK：调整噪声门启动时间。该参数是噪声门作出反应并达到对RANGE参数设置的衰减值的速度。

HOLD：调整噪声门压缩保持时间。

RELEASE：调整噪声门释放时间。这是当信号电平提高到高于阈值水平时噪声门返回到"不衰减"电平的速度。

　　通过编辑页的　　PRESET　按键可以将当前数据存为噪声门预设文件，并可以进行存储、调用、删除、导入、导出等操作。

　　通过编辑页的　RESER 按键可以将该噪声门恢复为出厂默认状态　　　。

压缩器 Compressor页面
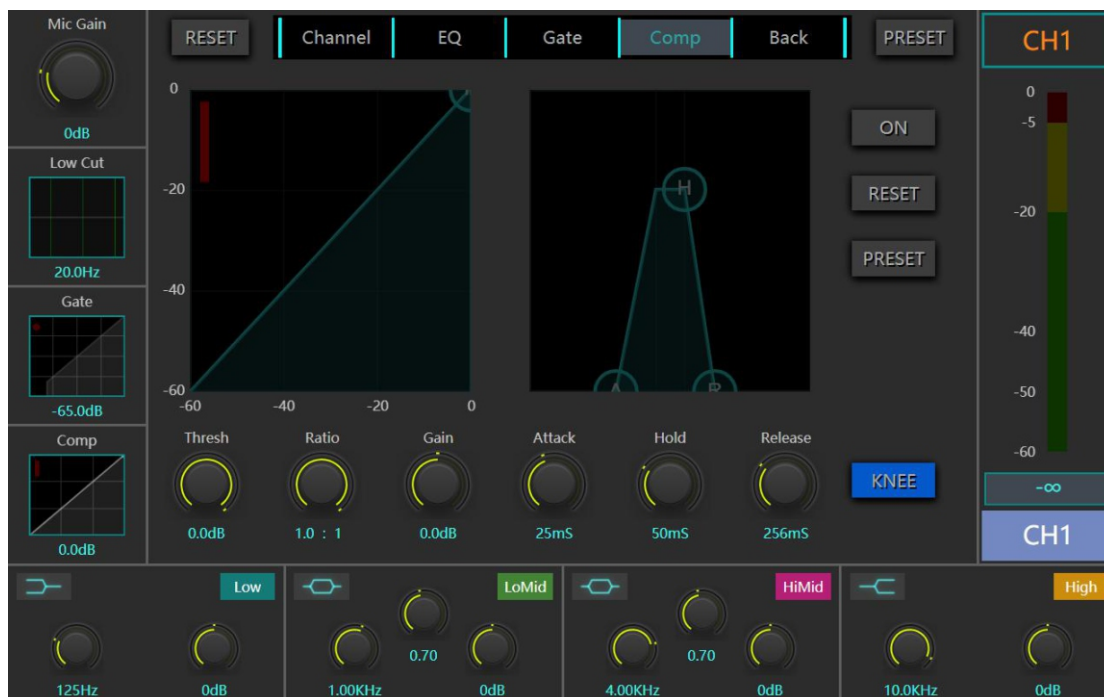
　　压缩器页面显示了通道的压限器参数。　　　　压缩器会降低超过特定阈值的信号电平。

ON：压缩器开关。

RESET：重置为默认值。

PRESETS：调出标准预设管理弹出框，保存/加载压限器预设。

THRESHOLD：调节压限器的阈值。您可以拖动动态图形上的"T"球。

RATIO：调整压缩比。该参数决定信号超过阈值后压缩器会将其衰减多少。

GAIN：压缩器输出增益控制。

ATTACK：调整压限器瞬态。该参数是压限器作出反应并达到对RATIO参数设置的衰减值的速度。

HOLD：调整压限器压缩保持时间。

RELEASE：调整压限器释放时间。这是当信号电平下降到低于阈值水平时压缩器返回到"不衰减"电平的速度。

KNEE：软拐点开关。

　　通过编辑页的　 PRESET 　按键可以将当前数据存为压缩器预设文件，并可以进行存储、调用、删除、导入、导出等操作。

　　通过编辑页　的 RESE R 按键可以将该压缩器恢复为出厂默认状态　　　　 。

参量均衡器 PEQ页面

输入通道PEQ功能由四段参数均衡器和低切滤波器（Low Cut）组成。

ON：均衡器开关。

RESET：重置为默认值（即均衡器"归零"，频率及 Q 值重置为默认值）。

PRESETS：调出标准预设管理弹出框，保存/加载均衡器预设。

L/LM/HM/H均衡器区域：均衡器频段控制参数可拖动图形实现。拖动该图形元素来控制。上/下调节阈值、左/右调整频率。点击下面的**L/LM/HM/H**字母按钮可以开启或旁路该段均衡功能。字母按钮下面的图标显示了当前使用的均衡类型，单击按钮可以弹出菜单选择不同的均衡器类型，可选择的类型包括高通、低通、高架、低架、PEQ等五种类型可选。

Low Cut参数：高通滤波器控制的可拖动图形和物理旋钮实现，可以根据需要调节相应的截止频率值。

频段均衡参数预览：四段频段均衡器的参数将分为四块显示在窗口的下方，每块包括三个旋钮、一个左上方的均衡器类型按钮和一个右上方的均衡器段数标签。**中间的旋钮是Q值**：Q值是用来设置均衡功能处理的频带宽度的参数。Q越低，频带越宽。**左侧的旋钮是频率值**：该值表示该段均衡的中心频率。**右侧的旋钮是Gain值**：该值表示所选的均衡器频段的增强或衰减量。左上角则用图标的方式

表示当前使用的均衡器类型。

通过编辑页 的 PRESE T 按键可以将当前数据存 为 PEQ 预设文件 ，并可以进行存储、调用、删除、导入、导出等操作。

通过编辑页的 RESER 按键可以将该 PEQ 恢复为出厂默认状态。

分频器 Crossover 页面

BUS输出和主输出通道的分频器功能由独立的低切滤波器（Low Cut）和高切滤波器（High CUT）组成。

LC按键：为低切滤波器（Low Cut）的控制开关，点击按键下方图形按键，将弹出可供选择的滤波器类型，支持Butterworth -12dB/oct、Butterworth -24dB/oct、Linkwitz-Riley -12dB/oct、Linkwitz-Riley -24dB/oct四种类型可选。
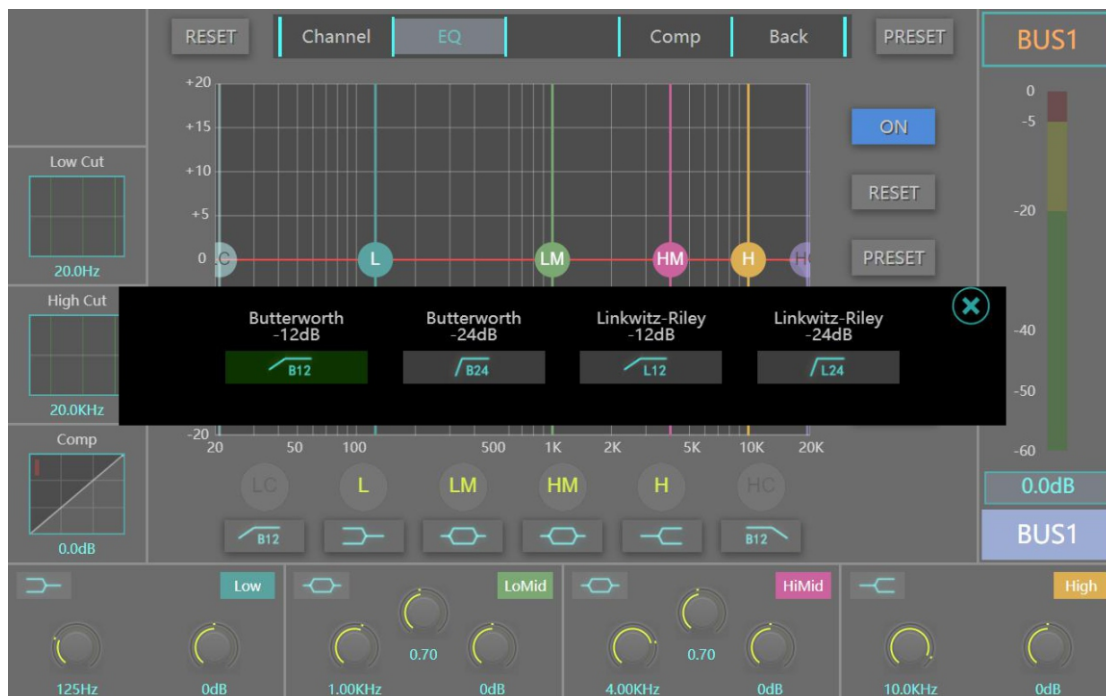
HC按键：为高切滤波器（High Cut）的控制开关，点击按键下方图形按键，将弹出可供选择的滤波器类型，支持Butterworth -12dB/oct、Butterworth -24dB/oct、Linkwitz-Riley -12dB/oct、Linkwitz-Riley -24dB/oct四种类型可选。

Low Cut频率参数：通过屏幕左侧的Low Cut频率旋钮或操作图形曲线，可以控制分频器的低频切点频率。

High Cut频率参数：通过屏幕左侧的High Cut频率旋钮或操作图形曲线，可以控制分频器的高频切点频率。

31 段均衡器　GEQ 页面

　　BUS输出和主输出通道均具有31段GEQ功能。点击EQ页面的"GEQ"按键直接弹出操控页面。

注意：均衡器虚拟推子上方的 4 个频段按键可以将屏幕上该频段虚拟推子的参数映射到面板的物理推子上，并实现联动及更精准快速的调节。

注意：所有8个BUS通道共享两个独立可插入式的31段GEQ功能，出厂默认

设置在BUS1和BUS2通道，可以通过"Insert"插入按键选择切换到其他BUS通道。

延时器　Delay　页面

BUS输出和主输出通道均具有独立的延时器功能。每个通道延时器最大延时时间达到735ms。

输入通道 SENDS 控制页面

　　输入通道的 Sends 页面显示了该通道给哪些 BUS 或效果通道发送了多少量的信号 ，调节虚拟发送推子可以调节发送量 ，推子上方的按钮可以设置该发送信号取自通道的推子前还是推子后 。若发送去的通道是一对绑定的立体声通道 ，则虚拟发送推子上方会出现一个对应的 Pan 值条，用于调节发送给对应绑定立体声的左右平衡值。

　　注意：发送推子下方的按键可以将屏幕上虚拟的发送推子映射到面板的物理推子上，并实现联动及更精准快速的调节。

输出通道 SENDS 控制页面

　　输出通道的 Send From 栏显示了该通道接收了哪些通道发送来的信号，以及接收信号量的大小，调节虚拟发送推子可以调节接收量，推子上方的按钮可以设置该接收信号取自该通道的推子前还是推子后。

　　注意：发送推子下方的按键可以将屏幕上虚拟的发送推子映射到面板的物理推子上，并实现联动及更精准快速的调节。

MUTE 静音与静音编组

每个通道推子上方都有 MUTE 按钮，该按钮能够使对应通道静音。

每个通道能在通道编辑界面-Channel 页面-Main 栏下编入对应的静音编组。当调音台左下的静音编组按钮点亮时，编组内的通道就会被静音。

FX 有专门的 FX 组静音按钮，它无法被编入其他静音编组。

"ALL MUTE" 按键为总输出静音按键，他可以快速实现所有输出通道的静音功能，它无法被编入其他静音编组。

当长按左下的某一个静音编组按钮（1、2 或 3 按钮）时，调音台会将此时的静音状态保存至该按钮对应的静音编组下。例如：当静音 4、5、8 通道时，长按静音编组 2 按钮，则 4、5、8 通道就会直接编入静音编组 2 中。

调音台系统方框图

调音台网络控制代码表

1、设置通道静音

固定起始位	操作标志	操作项目	通道类型	通道标号	值
Nctrl	SET	MUTE	IN	1~16	ON/OFF
			OUT	1~8	
			FX	1~2	
			STIN	1~5	
			STOUT	1	
			DCA	1~8	

例：命令 "Nctrl SET MUTE IN 3 ON" 代表：设置单声道输入通道 3 为静音状态

2、设置通道增益

固定起始位	操作标志	操作项目	通道类型	通道标号	动作标识	值
Nctrl	SET	GAIN	IN	1~16	+	1~6 (对当前通道加多少dB)
			OUT	1~8		
			FX	1~2	−	1~6 (对当前通道减多少dB)
			STIN	1~5		
			STOUT	1	=	-80 ~10 (对目标通道赋值到多少dB)
			DCA	1~8		

例：命令 "Nctrl SET GAIN OUT 3 + 1" 代表：将单声道输出通道 3 的推子增益增加 1 dB，假如原来为 5dB，现在变为 6dB
例：命令 "Nctrl SET GAIN OUT 3 - 1" 代表：将单声道输出通道 3 的推子增益减小 1 dB，假如原来为 5dB，现在变为 4dB
例：命令 "Nctrl SET GAIN OUT 3 = 1" 代表：将单声道输出通道 3 的推子增益设置为 1 dB，假如原来为 5dB，现在变为 1dB

3、调用场景预设

固定起始位	操作标志	操作项目	值
Nctrl	SET	PRESET	1 ~100

例：命令 Nctrl SET PRESET 1 代表：加载场景编号为 1 的场景

4、询问当前场景预设

固定起始位	操作标志	操作项目
Nctrl	GET	PRESET

例：命令 "Nctrl GET PRESET 代表：获取最后一次加载的场景的场景编号,

5、回码当前场景预设

固定起始位	操作项目	值
Nctrl	PRESET	1 ~100

例：回码信息为 "Nctrl PRESET 3" 代表：最后一次加载的场景的场景编号为 3

6、询问当前静音状态

固定起始位	操作标志	操作项目	通道类型	通道标号
Nctrl	GET	MUTE	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			DCA	1~8

例：命令 "Nctrl GET MUTE STIN 1" 代表：获取立体声输入通道 1 的当前静音状态,

7、回码当前静音状态

固定起始位	操作项目	通道类型	通道标号	值
Nctrl	MUTE	IN	1~16	ON/OFF
		OUT	1~8	
		FX	1~2	
		STIN	1~5	
		STOUT	1	
		DCA	1~8	

例：回码信息为 "Nctrl MUTE STIN 1 OFF" 代表立体声输入通道 1 为 未静音状态

8、询问当前增益状态

固定起始位	操作标志	操作项目	通道类型	通道标号
Nctrl	GET	GAIN	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			DCA	1~8

例：命令 "Nctrl GET GAIN IN 5" 代表：获取单声道输入 5 的当前推子值,

9、回码当前增益状态

固定起始位	操作项目	通道类型	通道标号	值
Nctrl	GAIN	IN	1~16	-80 ~10
		OUT	1~8	
		FX	1~2	
		STIN	1~5	
		STOUT	1	
		DCA	1~8	

例：回码信息为 "Nctrl GAIN IN 5 -20" 则代表单声道输入 5 的当前推子增益为 -20dB

10、询问当前电平表状态

固定起始位	操作标志	操作项目	通道类型	通道标号
Nctrl	GET	VU	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			ALL	空

例：命令 "Nctrl GET VU OUT 1" 代表：获取单声道输出通道 1 的电平表,
例：命令 "Nctrl GET VU STOUT 1" 代表：获取立体声输出通道 1 的电平表,

11、回码当前电平表状态

固定起始位	操作项目	通道类型	通道标号	值
Nctrl	VU	IN	1~16	-120 ~ 0
		OUT	1~8	
		FX	1~2	
		STIN	1~5	-120 ~ 0,-120 ~0
		STOUT	1	
		ALL	空	一次性顺序回码所用通道电平

例：回码信息为 "Nctrl VU OUT 1 -32" 则代表单声道输出通道 1 的电平表为 -32
例：回码信息为 "Nctrl VU STOUT 1 -32, -30" 则代表立体声输出通道 1 的左声道电平表为 -32，右声道为 -30

获取全部电平回码信息表		
命令	Nctrl GET VU ALL	
返回值	Nctrl VU ALL IN组:OUT组:FX组:STIN组:STOUT组	
格式说明	IN组	从头至尾依次是 "通道1电平,通道2电平,通道3电平......通道16电平"
	OUT组	从头至尾依次是 "通道1电平,通道2电平,通道3电平......通道8电平"
	FX组	从头至尾依次是 "通道1电平左声道,通道1电平右声道,通道2电平左声道,通道2电平右声道"
	STIN组	从头至尾依次是 "通道1电平左声道,通道1电平右声道,通道2电平左声道,通道2电平右声道......通道5电平左声道,通道5电平右声道"
	STOUT组	从头至尾依次是 "通道1电平左声道,通道1电平右声道"
例	Nctrl VU ALL -120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120:-120,-120,-120,-120,-120,-120,-120,-120:-120,-120,-120,-120:-120,-120,-120,-120,-120,-120,-120,-120,-120,-120:-120,-120	

Thank you very much for purchasing our products!

Before installing and officially using this product, please read this manual thoroughly to fully understand this device and be proficient in how to use it properly. After you have read this manual, please keep it in a safe place for future reference.

Based on the product strategy of continuous development, some newly added or modified functions about this device may not be included in this manual, please pay attention to relevant supplementary instructions.

For other information about this product, please call your service provider.

Safety Matters

Please read these concise rules. Violating these rules may cause dangers. More detailed information on safety matters is provided in this manual. Please check it carefully.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN
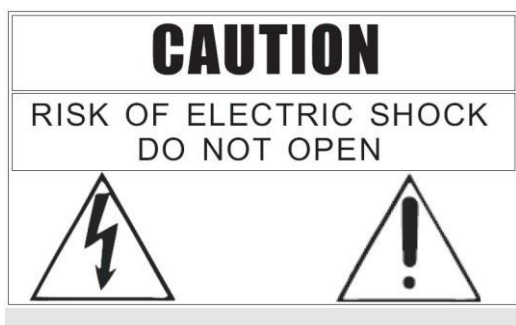
Note: There are no user-available spare parts inside the machine! To prevent electric shock, do not remove the cover by yourself! It should be repaired by a professional if necessary!

Warning: To prevent the risk of fire or electric shock, do not expose this machine to rain or moisture!

● Graphic symbol description
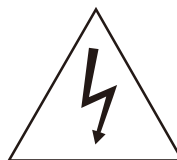
The lightning graphic with an arrow in an equilateral triangle is intended to remind the user of the presence of uninsulated "dangerous voltages" in the case, which may be sufficient to pose a risk of electric shock to persons.

The graph with exclamation mark in equilateral triangle means there are important operation and maintenance instructions in the machine accessories, please refer to the operating manual.

⚠! Warning!

In order to avoid possible personal injury due to electric shock, short circuit,damage, fire or other dangers, be sure to observe the following basic precautions.These precautions include but are not limited to the following cases:

Important Safety Matters

- Read these instructions and keep them, and follow all instructions.
- Pay attention to all warnings on the device or in the manual.

Power / Power Line

- Use only the voltage specified by this device. The required voltage is printed near the power connector of this device.
- Turn off the power switch of the device before plugging or unplugging the power connector.
- Do not place the power cord near heat sources, do not bend or damage the power cord excessively, do not put heavy objects on the power cord, and do not place it in a place where it may be stepped on or crushed.

Do Not Open

- There are no user-available spare parts inside the device. Do not disassemble or modify it in any way.
- In case of special abnormal conditions, it must be overhauled by a professional approved by the manufacturer.

Warning about Humidity

- Do not use the device in a humid environment. Do not place containers filled with liquids near the device to prevent liquid from splashing in.
- Clean only with a dry cloth.
- Never plug or unplug the power plug with wet hands.

To avoid possible personal injury, equipment, or property damage to you or othersaround you, be sure to observe the following basic precautions. These precautions include but are not limited to the following:

Device Connection

- Be sure to connect to a properly grounded power source.
- When connecting this device to other external devices, use a connection cable approved by the manufacturer.
- Be sure to disconnect all connecting cables before moving the device.

Operation / Placement

- Do not use the device with the protective case open.
- Before operating this device, you can prevent static electricity by discharging electricity.

- Install the device in a well-ventilatedplace.
- Do not place the device in a humid placeor expose it to rain.
- Do not place beverages, food, and firesources on the device to prevent liquid, solid residues and open flames from damaging it.

Other Matters

- Do not use the headphones at high volume for a long time, otherwise it may cause hearing damage.
- Avoid using excessive force when operating buttons, knobs, and other parts of this device.
- To avoid possible noise, do not use mobile phones nearby.

Contents

This digital mixer is designed with professional live performance as the standard. It is used for sound amplification in ballrooms, music halls, stage performances, live audio program recording and other application environments, with powerful function meet the needs of the most demanding professionals. This product is flexible, portable and easy to operate, which ensures professional mixing effects and can help less experienced users to quickly obtain high-quality effects.

This digital mixer has cross-platform compatibility with iOS, Android, Windows, Mac OS and Linux devices. It can be remotely controlled by mobile phone, tablet, or computer connected with the WIFI / hotspot signal of the mixer, and can also be remotely controlled by connecting the mix to the computer with network cable.

The user right management system of this digital mixer can open different function rights and presets to different users, which can avoid accidents caused by misuse when used by multiple people.

Main features

- 26-channel input includes: 16 microphone inputs, 3 stereo inputs, 2 digital stereo inputs (USB sound card, USB playing).
- 14-circuit bus designs, with 8 independent editing DCA channels.
- 8-circuit BUS output channels, 1-circuit stereo main output, 1-circuit stereo monitor output, 3-circuit stereo digital outputs (AES / EBU, USB sound card, USB recording).
- All input channels have independent low-cut, PEQ, compressor, noise gate, phase processing.
- All microphone input channels have high-quality programmable digital gain control and independent phantom power control.
- All BUS output channels have independent X-over, PEQ, compressor, delay processing, and support 2 independent 31-segnebt GEQ processing.
- The stereo main output channel has independent X-over, PEQ, compressor and delay processing, also with independent 31-segment GEQ processing.
- All input and output BUS channels can be freely linked to stereo state.
- The names and colors of all channel labels can be customized.
- All input and output channels PEQ, compressor, noise gate, with independent default store recall function, also support import and export functions through USB flash disk.
- All input and output channels with independent channel preset function, support channel preset and recall function, all channel preset support import and export functions through USB flash disk.
- Built-in 2 professional stereo effector, With independent send bus, a variety of effect types to choose from.
- There is a built-in U disk player, which supports real-time stereo recording and play function.
- There is built-in USB sound card, which supports real-time recording and play function connected with PC.
- There are 3 programmable mute group buttons and 1 total effect mute group button, 1 BUS output mute key.
- Users can store and invoke scenarios. All scenarios can be imported and output using a USB flash drive.
- With independent administrator password and user password protection can be customized, the system can be managed by permission, the administrator password protection is valid for both local operations and mobile access.
- The 10-inch high-definition 1280 * 800 capacitive touch screen supports multi-point touch operation.
- 9 high-precision 100MM electric faders and 5 page turning management buttons.

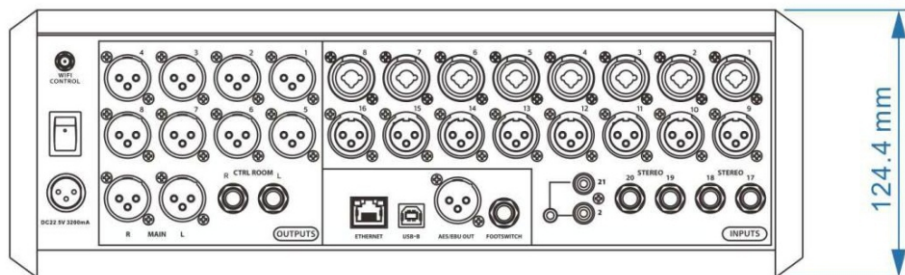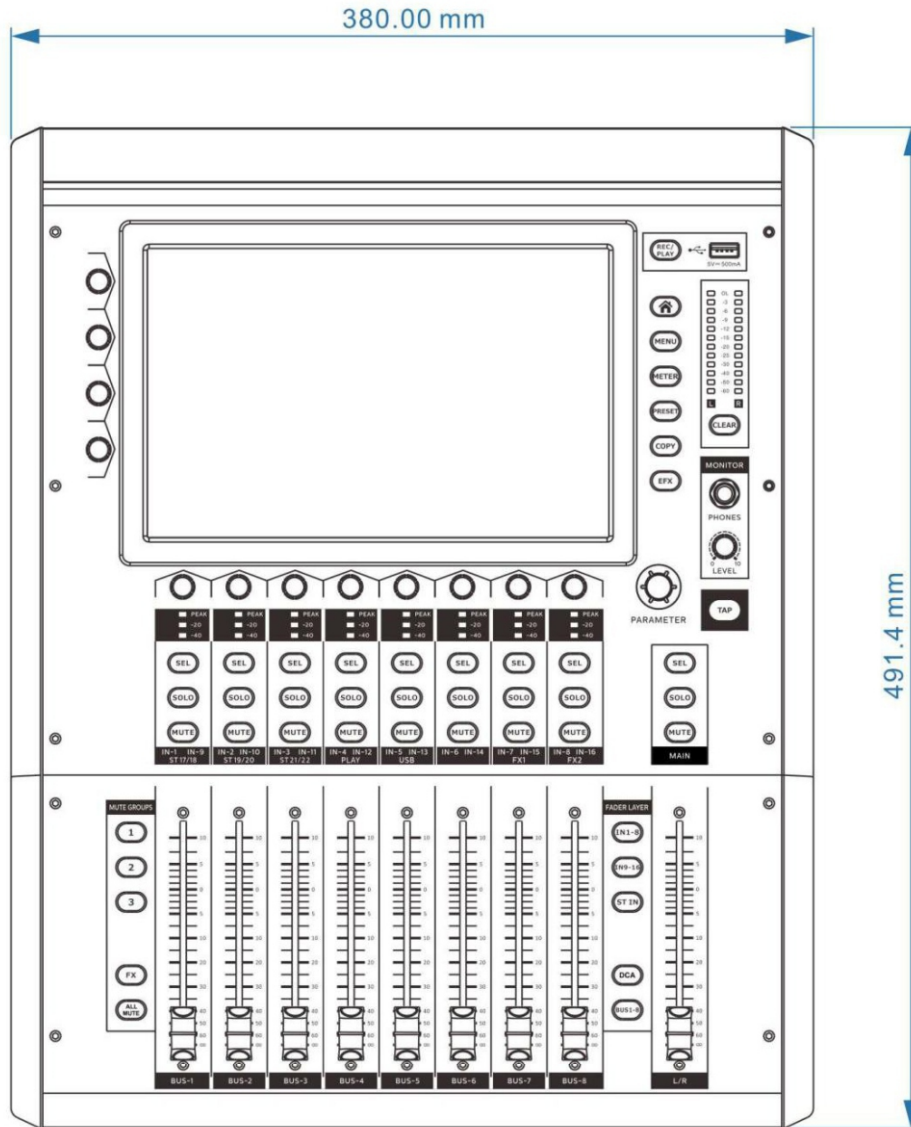- Built-in web server based on HTML5 technology has built-in Wi-Fi hotspot, and the cross-platform supports access from various mobile terminals such as IOS, Android, Windows, etc., and supports multi-screen interaction and full-featured operation.
- Support control management protocol and system integration applications .
- It can be fitted with the specified support and can be installed on the standard cabinet.

Hardware Indicators		Functional Indicators	
Input channel	26 channel input;	DCA marshalling	8 separate programmable DCA channels
	16 channel microphone;		Support all input/output channel
	3 stereo;		allocation and management
	2 digital stereo(U disk broadcast, USB sound card input)	Effector	2 independent effector channels
			8 Reverb effect, each kind 7 parameters adjusted
Output channel	12 channel output;		4 Delay effect, each kind 5 parameters adjusted
	Main output L/R; 8 BUS outputs;		3 Chorus effect, each kind 6 parameters adjusted
	Monitor output ;	Threshold	Threshold: -80~ 0dB
	Headphone output L/R		Range : -80~ 0dB
Recording interface	Dual-track USB sound card		Attack : 1 ms~ 120 ms
	Double-track U disk recording storage		Release: 10ms ~ 4000 ms
Input gain	Microphone gain -20~+70;		Hold: 1 ms~ 2000 ms
	Line gain -20~+20	Input/Output Compressor	Threshold: -60dB~+0dB
Input and output impedance	Microphone / line input: 5kΩ		Ratio:1:1~ 1000:1
	Output: 200Ω		Attack : 1 ms~ 120 ms
Frequency Response	20Hz~20kHz: +/-0.5		Release: 10 ms ~ 4000 ms
Total Harmonic Distortion plus Noise THD+N	-20dBFS @ 1kHz: <0. 01%		Hold: 1 ms~ 2000 ms
			Makeup Gain: -20dB~+20dB
			Controllable soft turning point
Noise	Noise level(20/20k band-pass): -84dBu	Input/Output equalizer	4-band parametric equalizer
Dynamic Range	-107dB		Frequency per frequency band : 20HZ~20kHz
Crosstalk	Isolation between		Q: 0.05~ 15
	channels(+4dBu 1k) : -96dB		Gain: -20dB~+20dB
Phase Difference	Phase difference between		Types,optional: PEQ, HPF, LPF, HSF, LSF
	channels(+4dBu 1k) : <0.1°	Input filter	HPF: 20Hz~20kHz(-12dB/oct)
Equivalent Noise	-122dBu		LPH: 20Hz~20kHz(-12dB/oct)
Delay	< 3ms	Output frequency divider	HPF: 20Hz~20kHz,slop -12dB~24dB/oct adjustable
Sampling Rate	48K;24Bit		types optional: Butterworth/Linkwitz-Riley
USB	Maximum current: 500mA		LPF: 20Hz~20kHz,slop -12dB~25dB/oct adjustable
Phantom Power	+48V, Software control management		types optional: Butterworth/Linkwitz-Riley
Power	Power consumption	31 band graphic equalizer	4*31 GEQ, 20Hz~20kHz> ±15dB
	(typical value): <65W		2*31 GEQ at main channel; 2*31 GEQ
	Voltage Range:		can be freely assigned to any BUS output channel
	100~240VAC	Output delay	Delay time: 0-735ms
	Auto-induction	Mute marshalling	3 programmable mute marshalling
	AC Frequency: 47~63Hz		1 total effect mute marshalling
Operating Condition	Temperature range:-20 ~55 ° C		1 total output mute marshalling

STRUCTURE AND DIMENSION

INTERFACE DESCRIPTION
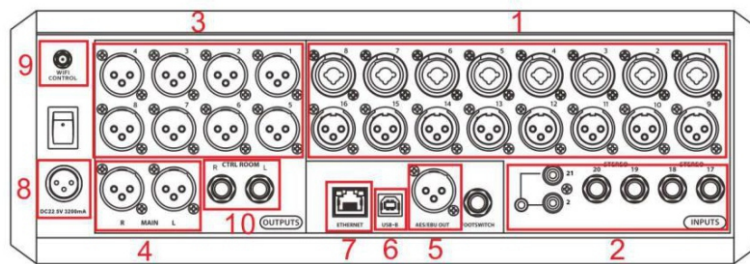
1. **1-16 Combined input interface**

   It is used to connect a microphone or balanced analog line input signal. The XLR interface is used to connect a microphone, and the 6.35mm TRS in-line interface is used to connect balanced line signals. These interfaces can provide + 48V phantom power. Channels 1-8 are combined input interfaces, and channels 9-16 are XLR interfaces.

2. **17-22 channel 6.35mm TRS and RCA stereo input interface**

   Used to connect stereo analog input signals.The product has two pairs of 6.35mmTRS stereo input interfaces and a pair of RCA stereo input interfaces.

3. **BUS XLR output interface**

   Balanced output interface of BUS 1 to BUS 8. XLR jack is used for the interface.

4. **MASTER bus XLR output interface**

   The main output is a balanced output interface of the MASTER L / R signal, and the interface uses XLR socket.

5. **AES / EBU XLR output interface**

   XLR interface for outputting AES/EBU digital signals.

6. **USB-B sound card interface**

   It is used to connect with a PC as an external USB sound card, can realize two-way stereo audio transmission with the PC.

7. **RJ-45 network interface**

   It is used to directly connect this product to a computer or switch, and manage and operate this product through the network access.

8. **Power interface**

   It is used to power the mixer. Note: Before plugging or unplugging the power supply, please make sure that the power switch above the interface is turned off.

9. **Antenna interface**

   It is used for WIFI antenna of the mixer. Without installing the antenna, the mixer will not be able to perform remote control via WIFI hotspot signals.

10. **Monitoring output interface**

    The balanced output interface of stereo monitor

OPERATION PANEL DESCRIPTION
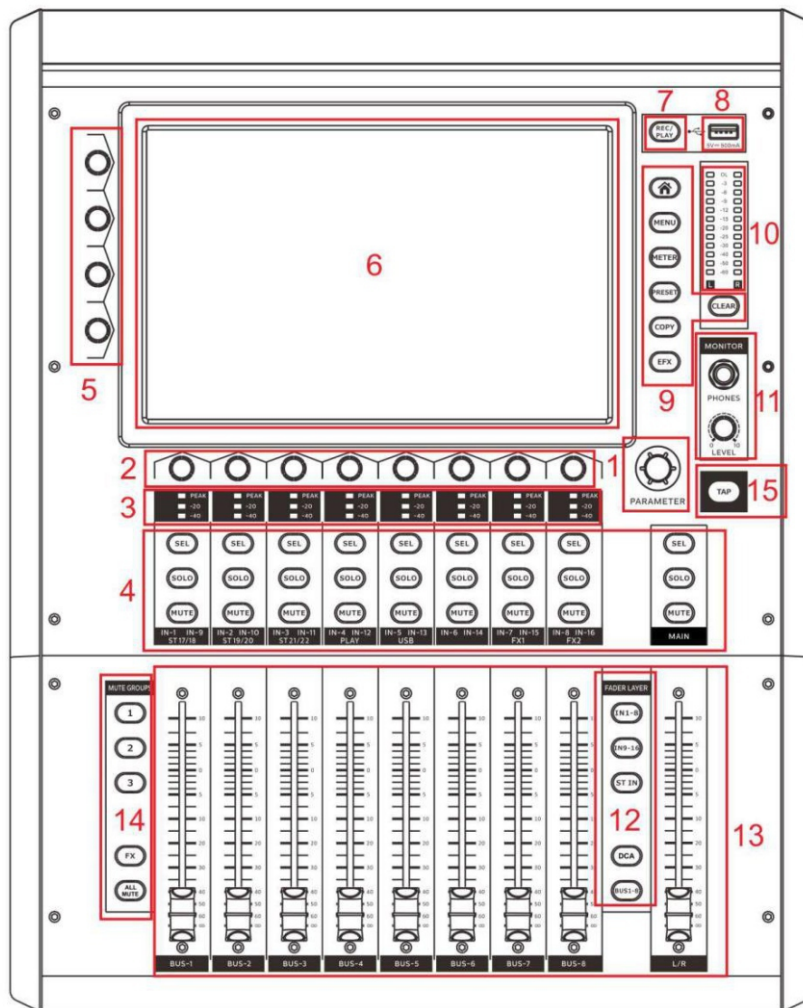
1. **Main encoder knob**

   It is used to quickly adjust the selected corresponding function parameters (such as EQ gain, dynamic parameters, channel-sent parameters, etc.). Most of the adjust able parameters of the mixer can be adjusted through the main encoder knob when selected.

2. **Channel encoder knob**

   In the channel overview page, the gain and phase parameters of the channel can be directly adjusted, and the parameters managed can be switched by the encoder buttons.

   The EQ parameters can be quickly adjusted in the channel editing page.

3. **Channel level indicator**

   It is used to quickly and intuitively display the channel input level status. The input level is> -40dBFS when the green light is on, the input level is> -20dBFS when the yellow light is on, and the input level is> 0dBFS when the red light is on.

4. **Channel button**

   The SEL (Select) button is used to select the channel corresponding to this button and enter the channel edit page of the channel;

   The SOLO button is used to monitor the corresponding channel of the button in the monitoring channel (Note: all input channels can use the SOLO button together, and all output channels can use the SOLO button together, but the input channel and output channel cannot use the SOLO button at the same time);

   The MUTE button is used to mute the corresponding channel of the button.

5. Quick adjustment knob of the channel parameter

It is used to quickly adjust common parameters in the channel editing interface. In the channel editing interface of the input channel, the knobs adjust channel Gain, EQ low-cut filter Low Cut, channel threshold value Gate, and channel pressure limit Comp from top to bottom.

6. Screen

It is used to monitor the various working states of the mixer and set the parameters of the mixer through the touch screen. The basic operation method is introduced in detail in the chapter "Basic Operation".

7. Record and Play button

It is used to enter the recording and playing (PLAY / REC) interface of the USB flash drive, and to browse and operate the contents of the USB flash drive through folders.

8. USB flash drive socket

It is used for playing, recording, and software updates. The mixer can read the music inside the USB flash drive (supports mp3, wav format), and can also read the update files inside the USB flash drive and update the mixer system.

Note: Some USB flash drives may have states of slow reading / storing. After reading / storing, the files will be displayed in the list on the left side of the recording and playing interface; after recording, please confirm that the recorded files have been completely stored before plugging and unplugging the USB flash drive to avoid file damage.

9. Mixer button

The functions of the buttons from top to bottom are: return to the main page, open the menu setting interface, open the level meter overview interface, open the preset interface, open the channel copy interface, and open the effector setting interface; the function of the button on the lower side of the main output level meter is to clear all SOLO channels in the monitoring channel.

10. Main output level meter

This level meter is the main output VU meter, and its level indication is not controlled by the output volume adjustment knob. When a channel has the SOLO function enabled, the level meter will become a monitor bus level meter.

11. Headphone monitor interface and monitor channel volume knob

It is used for headphone monitoring. On the Monitor page of the Menu interface, the monitoring channel without Solo and the channel front / back monitoring can be selected.

12. Layer switch button

It is used to switch the layer controlled by the current fader. From top to bottom: CH1 ~ 8 layer, CH9 ~ 16 layer, Stereo stereo / Digital digital / FX effector channel layer, and bus output layer.

13. Fader

The fader is used to control the sending volume of this channel.

14. Mute group button

It is used to mute the corresponding channel group. In the Channel page of the channel editing interface of each channel, the mute group of each channel can be set. All non-FX channels can be programmed into 1/2/3 mute groups and controlled by corresponding 1/2/3 mute buttons.

The FX channel has a dedicated FX mute button located under the FX1 and FX2 mute buttons.

All Mute marshalling key used for quick muting of all output channel .

Noted: When pressing and holding any one of the mute 1/2/3 buttons for more than 3 seconds, the mute status of each channel in the current status can be memorized into the group button at one time.

15. TAP Delay setting button

Special external setting key for Delay effector's time parameter. Pressing this key continuously can set the Delay time of FX1 and FX2 quickly.

SOFTWARE UPDATE

You can contact the distributor of this product to obtain the latest software version.

Software upgrade method: (USB flash drive upgrade)

1. Copy the upgrade package file (extension: .upk) to the root directory of the USB flash drive;
2. Turn on the mixer;
3. Connect the USB flash drive to the USB port of the mixer;
4. Click Check Update in the Menu-Global interface;

5. The operation interface automatically searches and displays all updateable data packages and version information in the USB flash drive, click on the data package files that need to be upgraded and confirm;
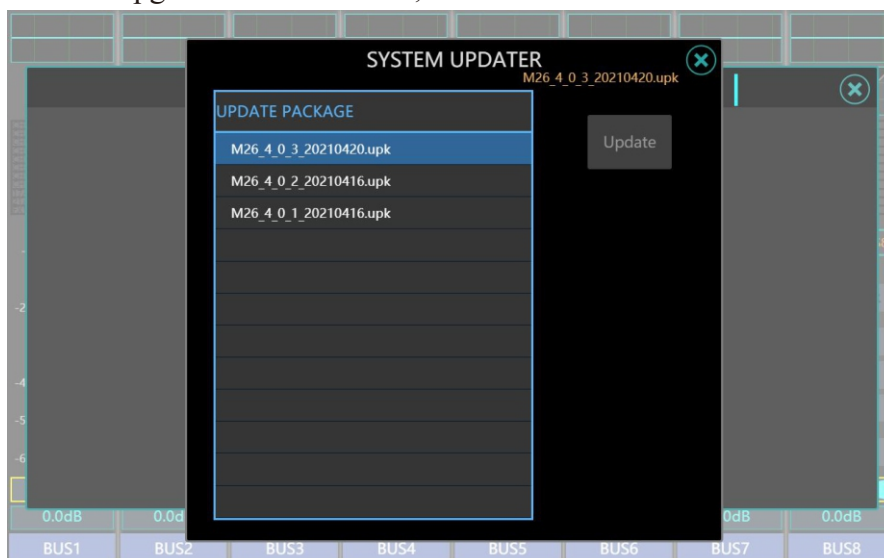
6. Wait about 1-2 minutes, the mixer will restart and update is complete. Note: 1. Do not cut the power during the update process;
2. Before updating, please back up all user data to a USB flash drive to prevent data loss after the update.

FACTORY RESET

The mixer provides 2 levels of restoring settings. One is to restore the setting parameters of all channels, another one is to clear all user data and completely restore the factory settings.

Restore all channel settings:
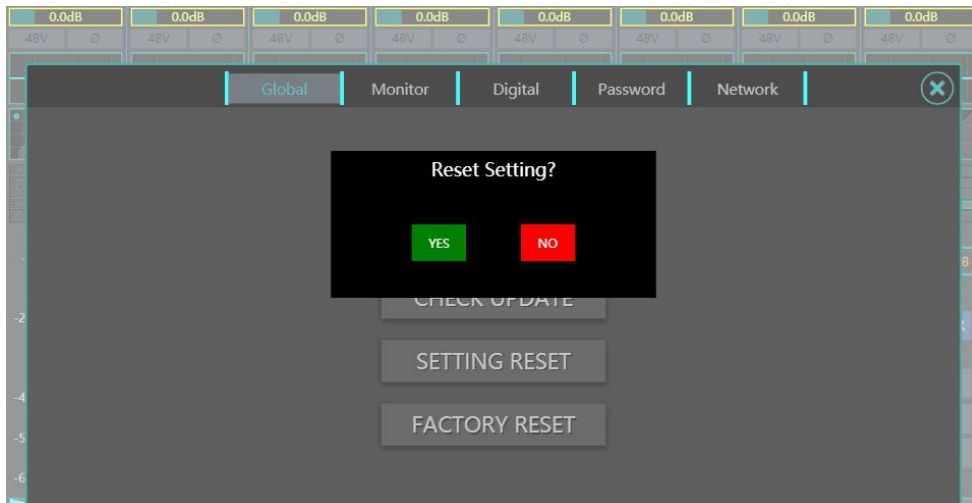
Click Setting Reset on the menu-global interface of the mixer to restore the settings of all channels of the mixer, including all input channels, bus channels and effector channels.

Factory Reset:
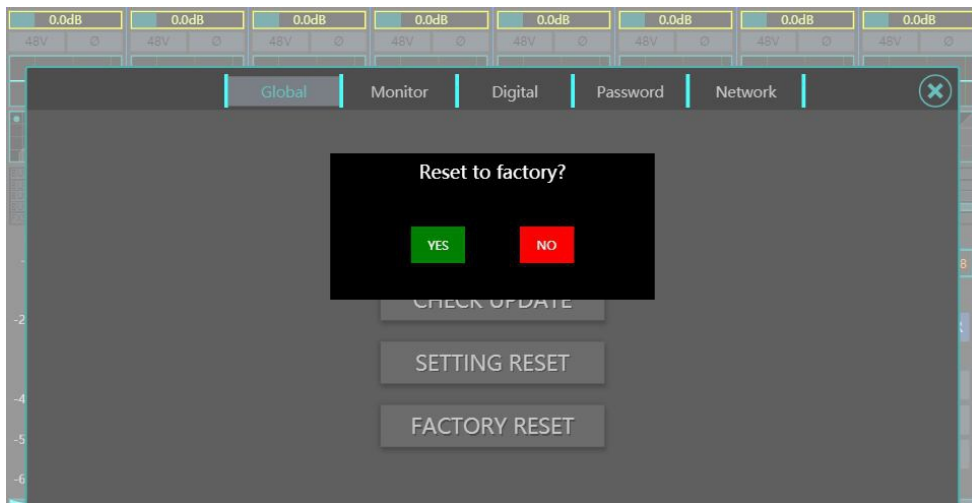
Click Factory Reset on the Menu-Global interface of the mixer to completely restore the factory settings of the mixer, including all channel settings, network settings, preset parameters and scenes, user files, user passwords, etc.
Note: The mobile connection may be interrupted due to the restoration of the network settings. Just reset the mixer network and reconnect.

Monitoring Settings

This product includes a professional monitor selection system. The built-in monitor bus of the mixer sends signals to the MONITOR PHONES headphone monitor socket on the panel and the CTRL ROOM listen for the left and right channel output of the system on the back panel. You can obtain the signal of the monitor bus through these sockets.

You can add the corresponding channel to the monitor bus through the SOLO button on the mixer panel. At this time, the main output level meter on the upper right side of the panel will become the monitor bus level meter, and the CLEAR button below the level meter will change to red, indicating that there are channels enabling SOLO monitoring. You can select SOLO's pre-fader (PFL) / post- fader (AFL) signals on the MENU-MONITOR page. Channel Solo corresponds to the input channel and BUS Solo corresponds to the output channel.

All input channels (MIC / LINE / SPDIF / AESEBU / STEREO / PLAY, etc.) can be enabled with the SOLO function to join the monitor bus, and all output
channels (BUS / MASTER) can also be enabled with the SOLO function to join the monitor
bus; however, the input channels and output channels cannot be added to join the monitor
bus together.

When there is no channel to enabling the SOLO function, you can select the
default channel sent to the monitor bus on the MENU-Monitor page.
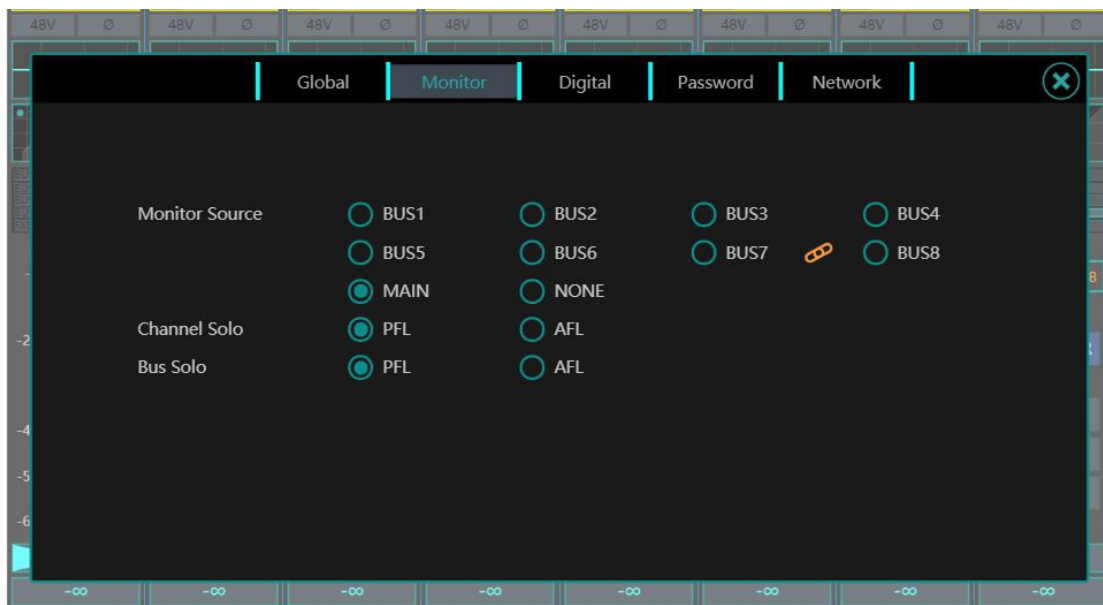
Digital Output Channel Settings
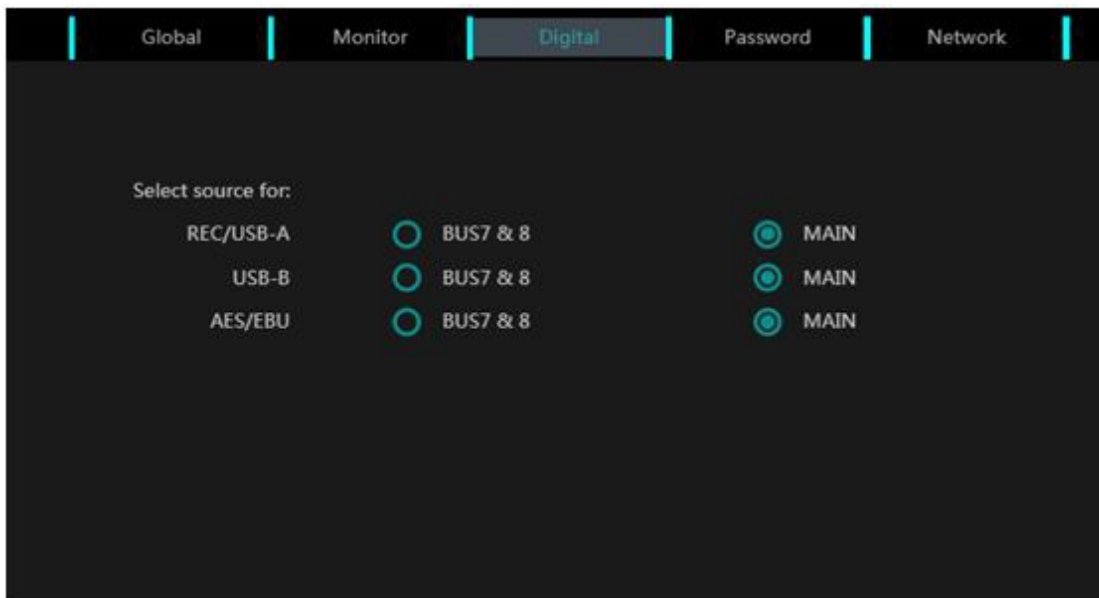
The digital output channel of this product can choose different source signals.

You can send the signal of bus7&8 or MASTER channel as the source signal to the specified Digital output channel on the menu-Digital page and recording channels (AES/EBU, USB-B sound card, REC/USB-A disk recording).

Account Settings

This product has built-in account password system, which can prevent playing accidents caused by accidentally touching the mixer. This product has no password by default.

1. Setting the Administrator password
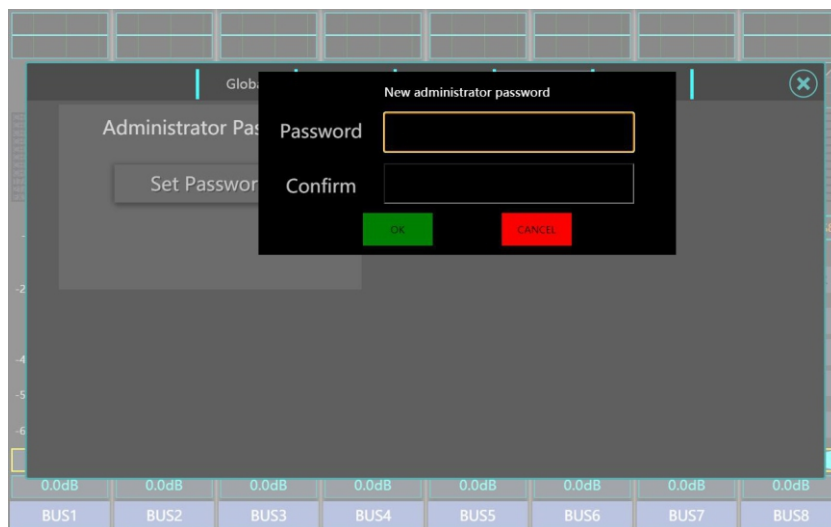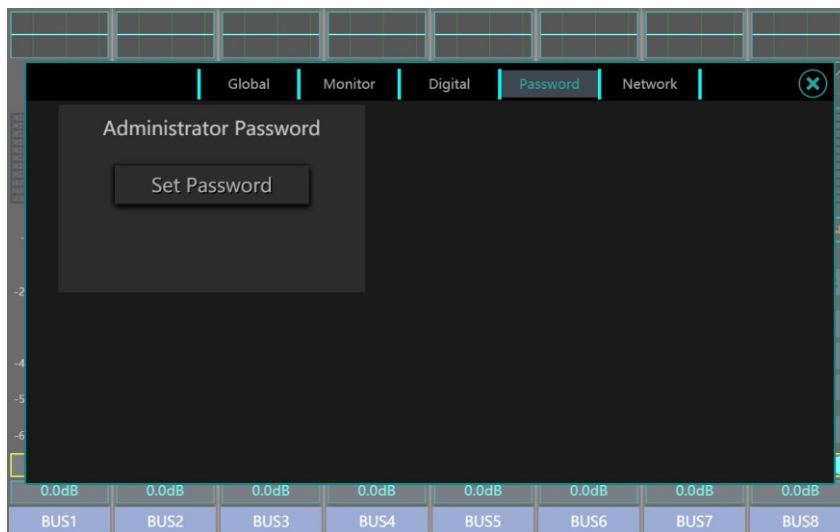
To set a password, you can click the Set Password button on the Menu-Password page. After the password is set successfully, the mixer will jump to the password entering page. After entering the correct password, click the OK button to use it normally.

If you want to cancel or edit the password, you can click the Delete Password / Modify button on the Menu-Password page and enter the original password to operate.

2. **Setting user password**

   After the administrator password is set, the user password setting page is displayed. You can set a user password as required.

   Note: The level of the user password is lower than that of the administrator password. The administrator can select the permission of the user to use the password.
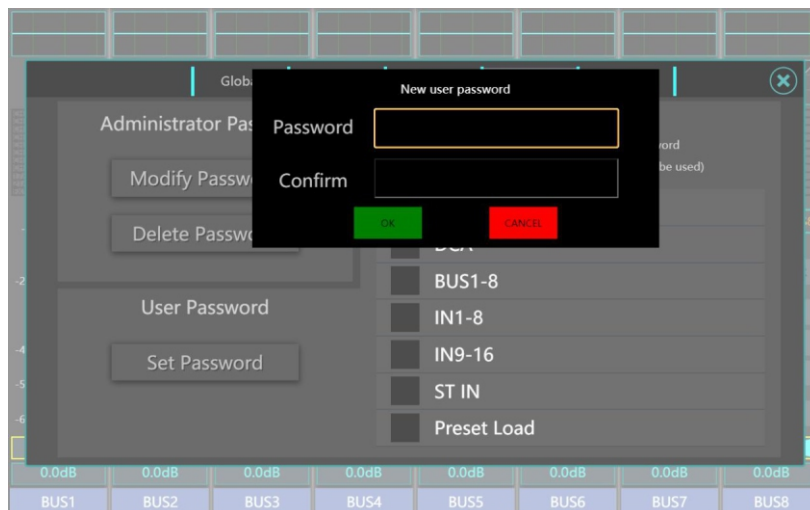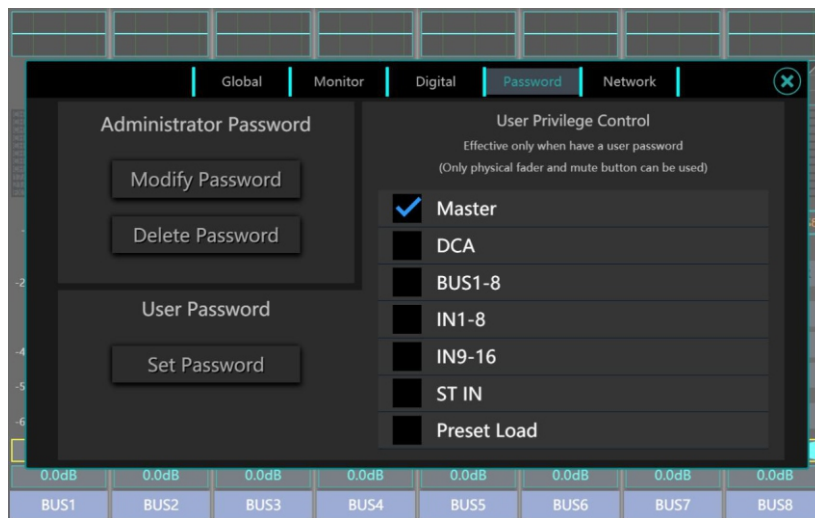
Network Connections

You can use the mobile terminal to connect through the WIFI of the mixer, or directly connect to the computer with a network cable through the LAN port of the mixer to achieve remote control of the mixer. After connecting, enter the mixer's IP address in the browser on the mobile terminal or computer to load and use the control software on the web page.

• **WiFi wireless connection method:**

  Choose to log in the WiFi hotspot of the mixer. The default name is "WIFIMixer". Enter the wireless IP address of the mixer in the mobile browser, the default address is "192.168.2.1".

• **LAN wired connection:**

  Open the computer's network settings, set the computer's LAN gateway as "192.168.1.1" and the LAN subnet mask as "255.255.255.0".

  Enter the wired IP address of the mixer in the browser of computer. The default address is "192.168.1.114"
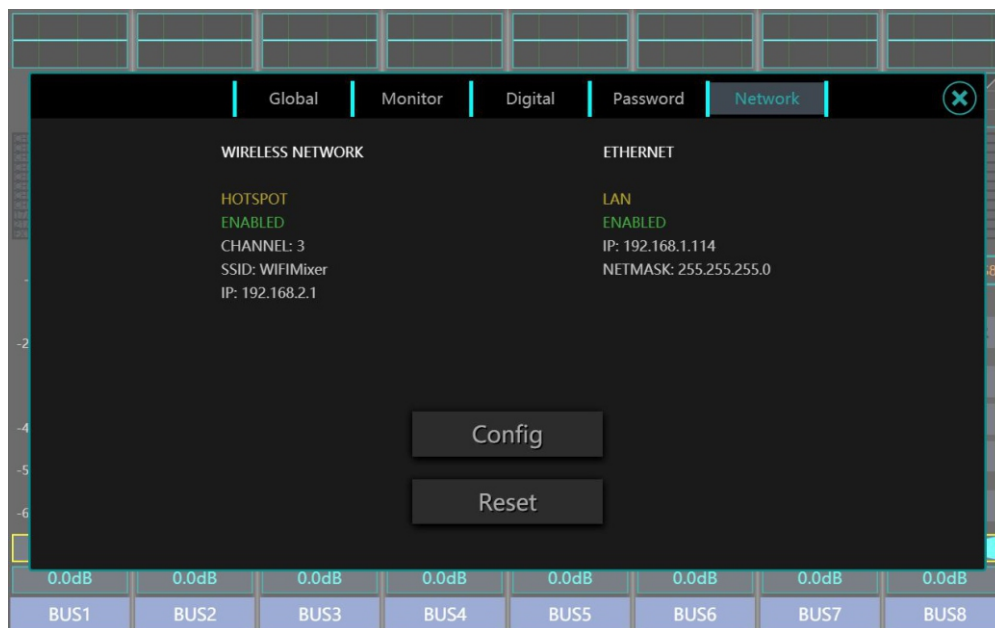
On the Menu-Network page, you can easily view the current network settings status. Click the CONFIG button to change the settings, and click the Reset button to reset the network settings to the initial state.

On the CONFIG page of the network, you can set the wireless / wired network connection of the mixer on the Wireless and Wired sub-pages. After setting, click the Save button to save.

Wireless connection

On the wireless connection page, you can set the WIFI network name (SSID) and network password (Security) of the mixer, and adjust the channel of the mixer.
There are two options for mixer WIFI encryption: None / WPA2. When selecting None, the hotspot has no password and can be connected directly. When selecting WPA2, you need to enter the WIFI password of the mixer.

Note: The "SWITCH" can turn off the WIFI hotspot function.

Maximux Number of connections is used to manage the maximum number of simultaneous connections for a user.

This product provides 11 wireless channels from 2.412GHz to 2.462GHz for your use. According to different management domains, multiple channels can be selected in the Wi-Fi wireless spectrum range, for example, Europe (ETSI) is 13 and North America (FCC) if 11. Third-party software can help choose a Wi-Fi channel. Since the wireless network environment on the scene when using the mixer may be very complicated, if the currently used channel is very crowded, it will cause delays in the control of the mixer. At this time, it is recommended that you choose another channel.
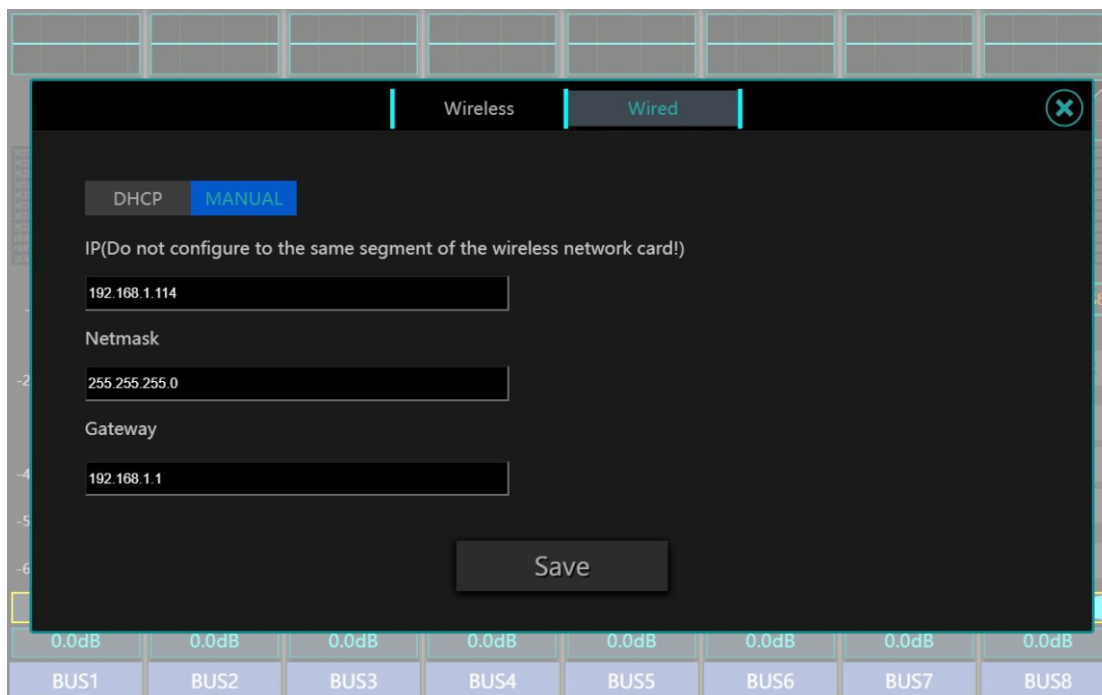
Wired connection

On the wired connection page, you can set the mixer's connection method as DHCP / Manual, as well as the IP address, netmask, and gateway of the wired network connection.

When you select Dynamic IP Assignment (DHCP), the mixer automatically assigns the IP, subnet mask, and gateway. If you select Manual IP Assignment, you need to fill in these fields yourself. Consult your network administrator to understand manual IP assignment.

Login Interface

When you set a password, the mixer will first enter the password entering page after startup, and you can use it normally after you enter the password correctly. For details on password settings, refer to 4. Software Control-Account Settings.
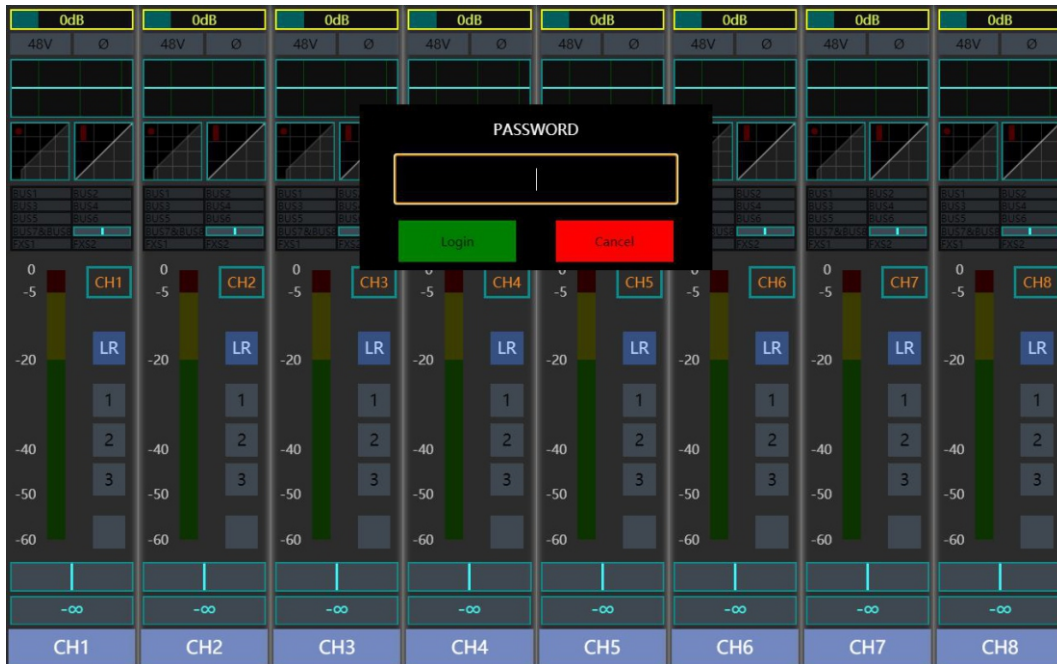
Note: When entering the system without entering the password or the user has insufficient permission, the system will display the locked state as shown in the following figure. In this state, the audio input and output of the system still work normally, but operations cannot be performed, and the system will prompt for entering the password.
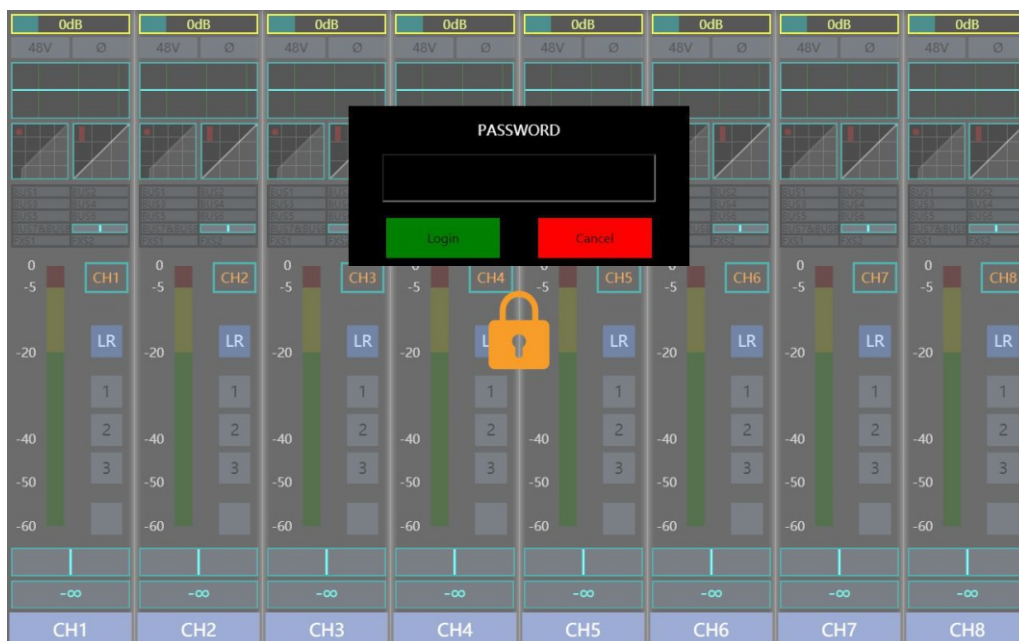
Overview Interface

This is the channel overview page that the mixer first enters. It displays the overview information of each channel. From top to bottom, it is channel gain, MIC channel phantom power switch, reverse switch, EQ curve, noise gate curve, and compressor curve, channel send volume, channel input level meter, channel ID, MASTER bus send switch, mute group, PAN value, fader attenuation value, channel name.

Noted:The channel gain value and channel PAN value can be adjusted directly through the channel knob on the overview interface. Press the channel knob to switch between the channel gain value and the channel PAN value.

MENU Setting Interface
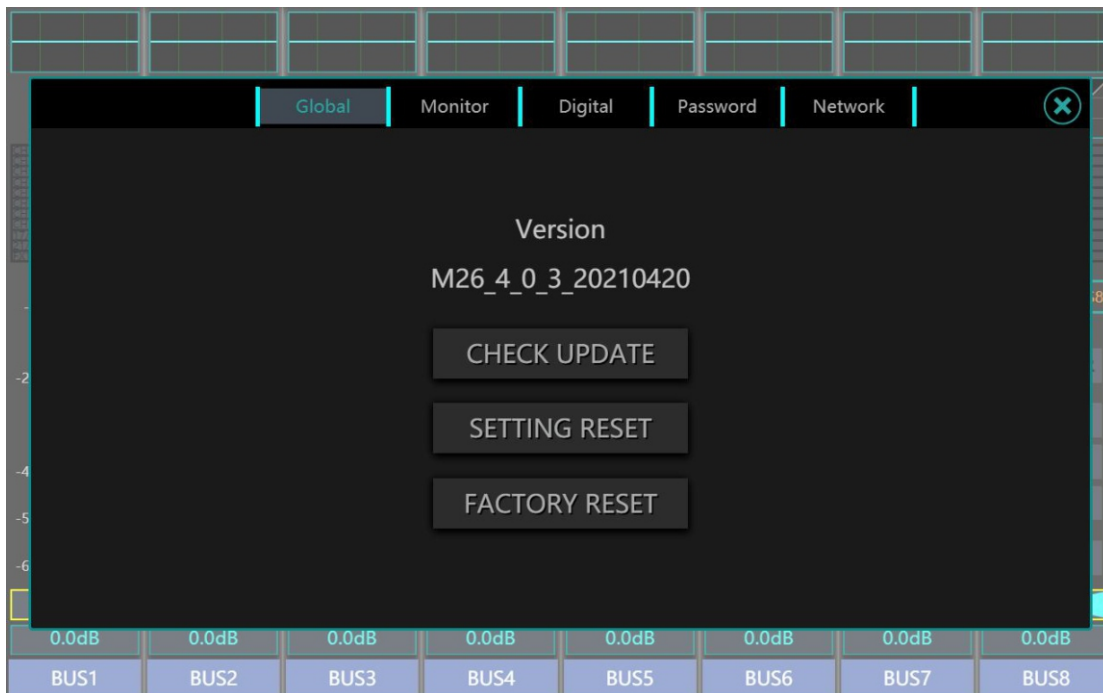
After pressing the MENU button, you will enter the menu setting page. This page includes the Global, Monitor, Digital, Password, and Network subpages, and you can update or reset the mixer, adjust monitoring settings, adjust digital output sources, set mixer passwords, and adjust network connection settings on these pages.

Insert the USB flash drive into the mixer and click CHECK UPDATE to check the upgrade files in the USB flash drive. The mixer will pop up the upgrade list. At this time, you can choose an upgrade package to upgrade the mixer system.

SETTING RESET can reset all mixer parameters.

FACTORY RESET can reset the mixer to factory settings. (Note: It will reset the network settings and clear the preset files in the mixer. Please backup the files before resetting to the factory settings.)

METER Interface

When pressing the METER button, you will enter the meter interface. The left side of this interface displays the input levels of the four-layer channels of IN1-8, IN9-16, ST IN, FX1&2, and BUS 1-8, and the right side displays the level of the bus master.

When a channel is muted (i.e. the MUTE function is enabled), the red light below the level meter will be on.

PRESET / Snapshot Interface
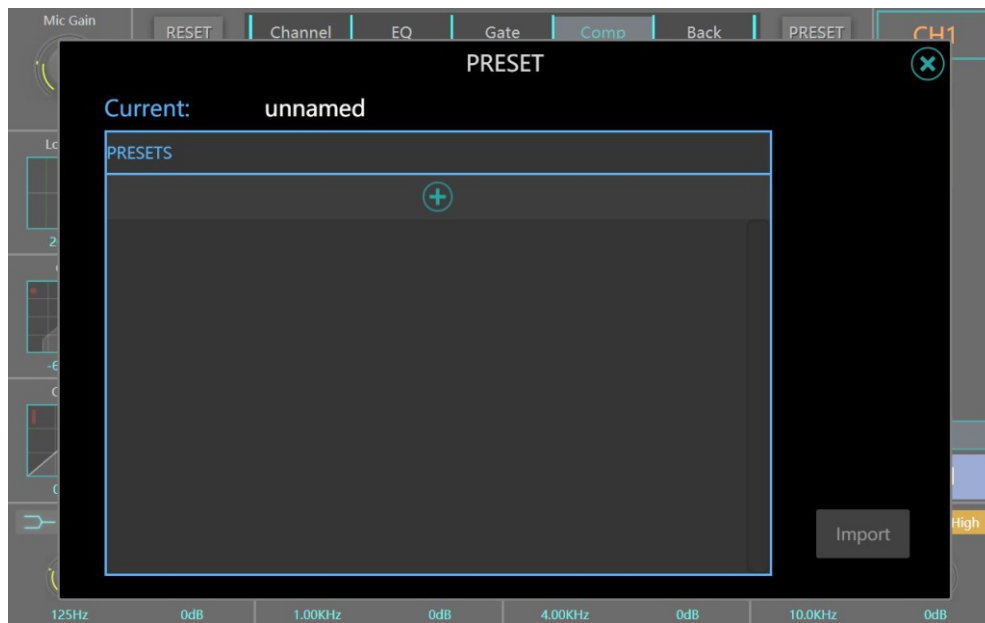
When pressing the PRESET button, you will enter the preset / snapshot interface. This interface displays all the presets of the mixer. Click the "+" button to add a new preset file;
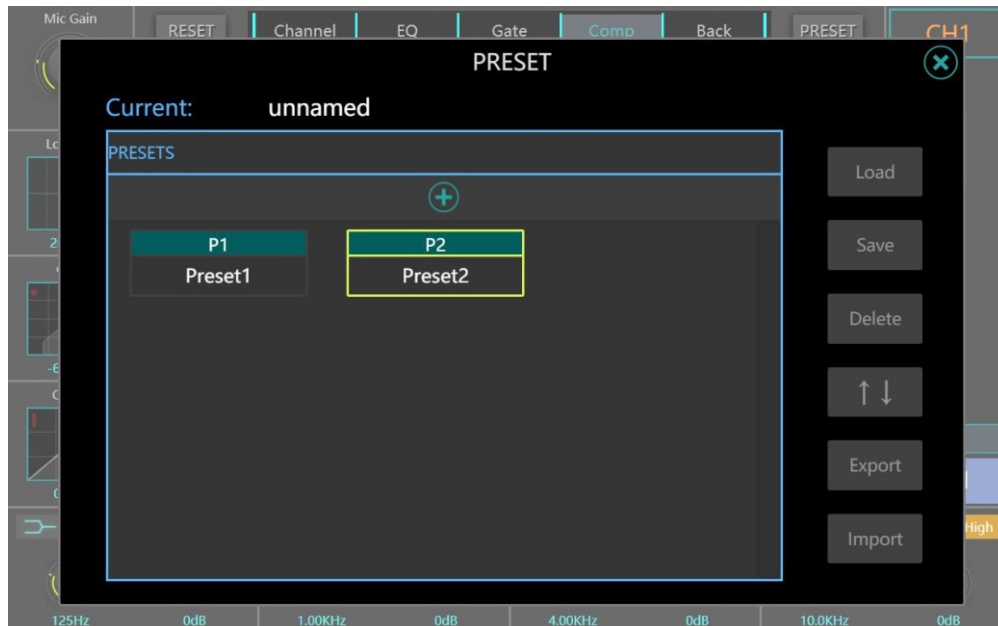
Click the Load button to Load the selected preset file.

Click the Save button to Save the current status of the mixer to the selected preset file;

Click Delete to Delete the selected default file.

Double-click the default file to change the name of the default.

Select "↑ ↓" to manage the sequence of preset files. You can move up/down or set the display position of preset files at the top/bottom.

When a USB flash drive is inserted, the default file can be imported from the USB flash drive to the local computer or exported from the local computer to the USB flash drive by using the Export and Import buttons.
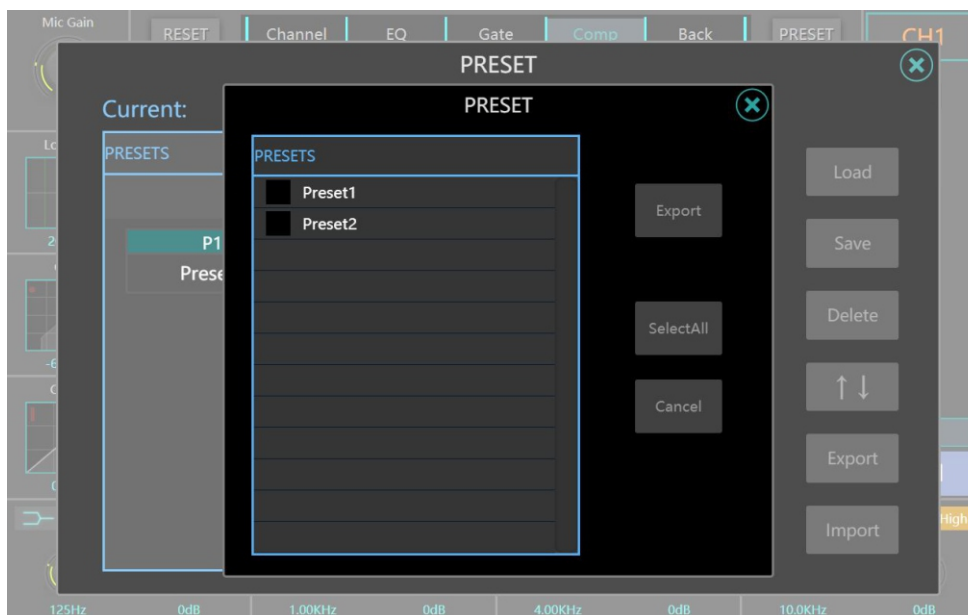
Channel Copy Interface

After pressing the COPY button, you will enter the channel copy interface. You can copy the channel settings from the list on the left to the channels on the right.
First select the channel on the left list, and the right list will display the channel that can accept the pasted channel. Set the copied parameters in the Copy Options column in the middle and click the COPY button to successfully copy the channel.
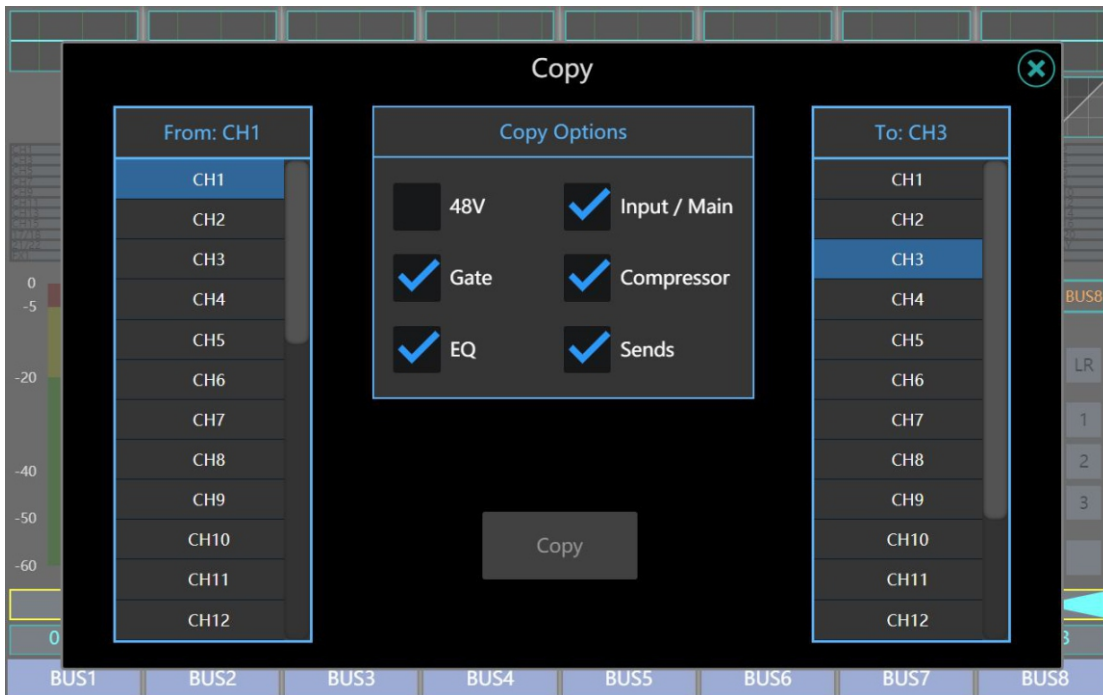
EFX Effector Setting Page

After pressing the EFX button, you will enter the effector settings page.This product has two separate effector channels, you can select the effector you need for both channels in the effector Settings page, and adjust the effector parameters.
Note: Click the RESET button of the effector to restore the parameters of the effector to factory recommended values.

Click the "EFFECT" button to enter the EFFECT selection interface. It can be seen that the mixer provides three categories (Reverb, Delay, Chorus) and a total of 15 effects for selection.
Note: TAP button is the external linkage switch of the Delay effector time parameter. When this switch is turned on, the Delay time parameter will be synchronously set and managed by the panel button.

1. Reverb

Reverb is the complex effect of sound in an enclosed space. Reverb is affected by spatial characteristics, including its size, shape, and interior wall materials. Reverb is an essential natural part of the sound experience.

This product contains the following 8 reverberation effects:

REVERBS				
	Room-A Reverb	Room-B Reverb	Stage Reverb	Theater Reverb
	Hall Reverb	Plate Reverb	Guitar Reverb	Brass Reverb
	Snare Reverb	Strings Reverb		
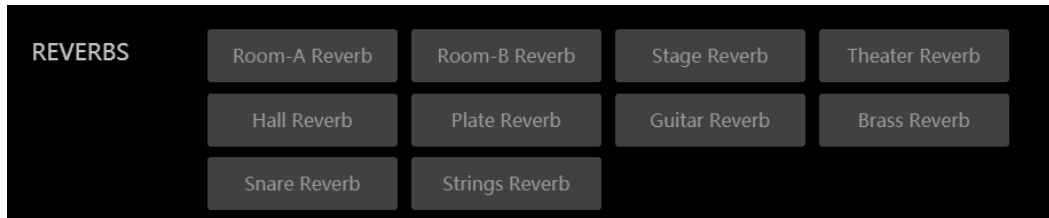
2. Delay

Delay is a short period of repetition after the sound first appears. When the output returns to the input (feedback), the delay becomes an echo. This turns a single repetition into a series of repetitions, and each is a bit weaker than the previous one, creating a delay effect.

This product contains the following 4 kinds of delay effect device:

DELAY				
	Delay Short	Delay Long	Delay Ball	Ping Pong
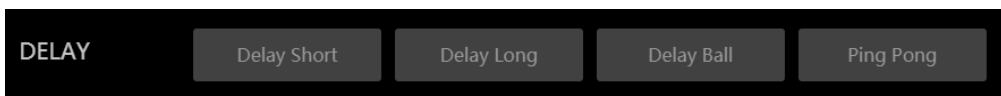
3. Chorus

Chorus combines two or more signals, one of which is unaffected, while the pitch of the other signal changes very slightly over time, resulting in rich and full sound. Chorus is often used to thicken the soundtrack and increase the texture of the guitar. Chorus can also be used carefully to thicken vocal tracks.

This product contains the following 3 types of chorus effects:

CHORUS			
	Chorus-A	Chorus-B	Chorus-C
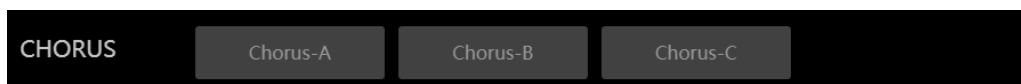
Record and Play Interface

Press the REC / PLAY interface in the upper right corner, you will enter the record and play interface. When a USB flash drive is inserted, the list on the left side of the interface will display the music files in the USB flash drive (mp3, wav format). Click the list file to select music, and then click the Play button to play. The music signal will be sent to the PLAY channel of ST IN layer.

The first button from the right can be used for recording. The mixer can record the selected signal as a wav file and store it in a USB flash drive.

Note: Some USB flash drives are slow in reading and writing. Please confirm the storage before removing the USB flash drive to avoid file damage.

Mixer Channel

1. The IN1-8 layer contains 8 MIC / LINE IN analog input channels.

2. The IN9-16 including 8 MIC IN analog input channels

3. The ST IN layer contains all stereo input channels.

This layer includes 3 pairs of stereo analog input channels, 1 PLAY U disk playback channel,

1 USB sound card input channel, 2 FX effects channel.

4. The DCA layer contains eight DCA control buses

This layer contains 8 independently programmable DCA control buses.
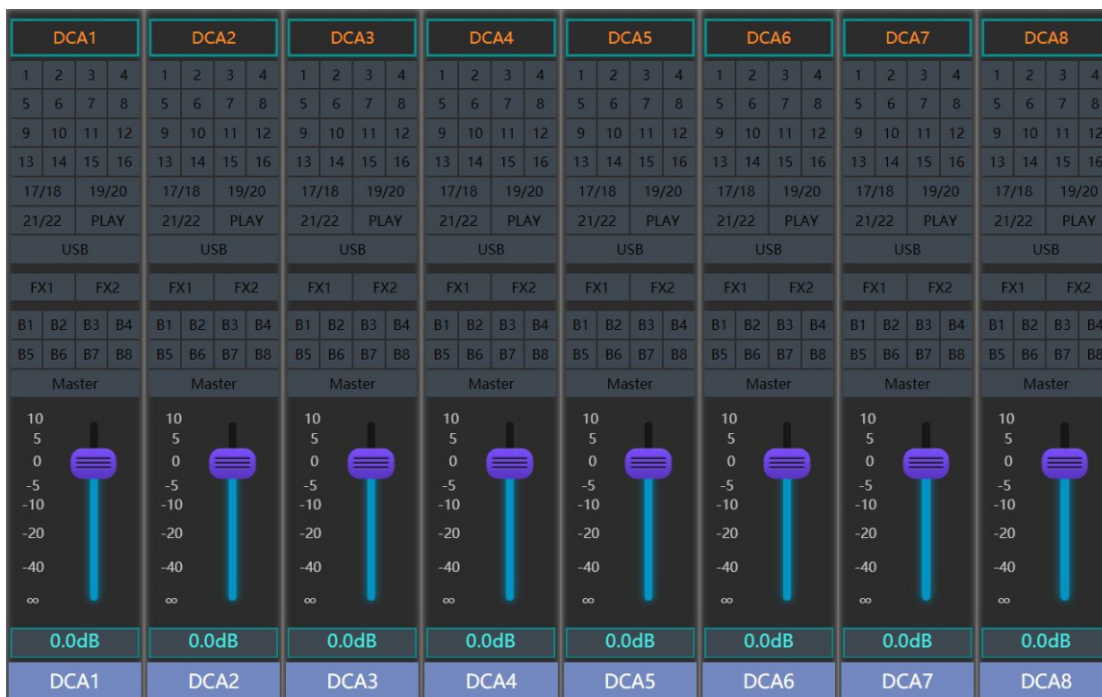
Click the channel location on the screen or press the "SEL" button of the channel to enter the editing page of the DCA channel. Each DCA channel can specify any number of inputs or outputs for grouping and synchronized management.
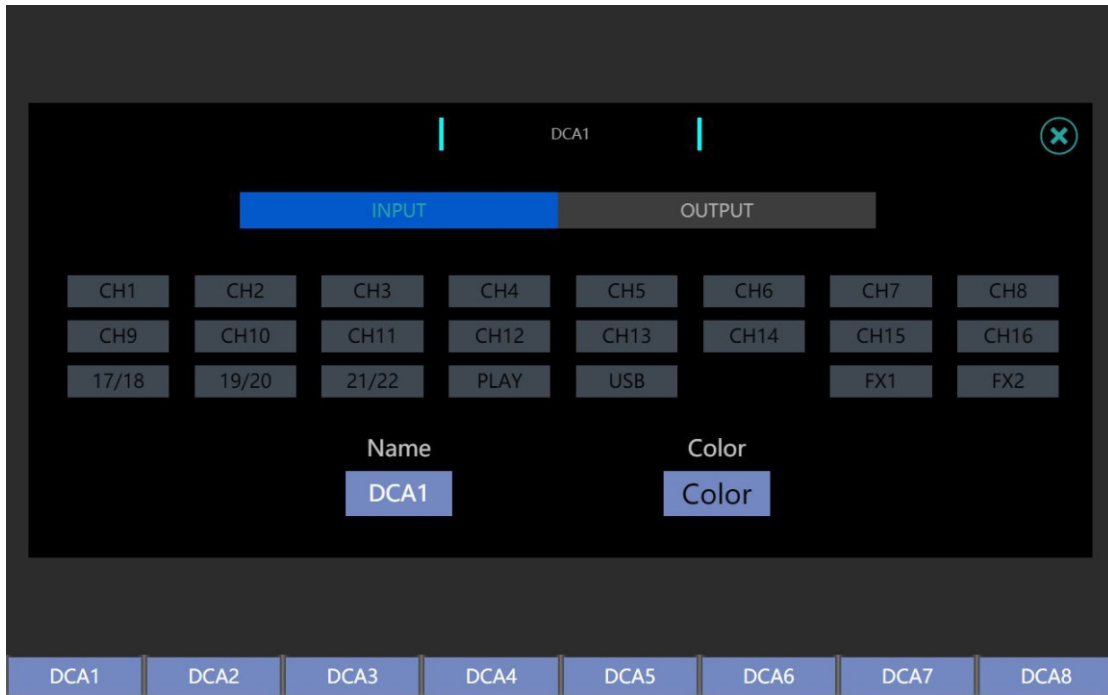
Note: Either input or output channel can be programmed into only one DCA channel at a time.In addition, input or output channels cannot be programmed into a DCA channel simultaneously.

5. Bus1-8 Layers contain eight BUS buses

All BUS can be set to single channel AUX output or LINK to stereo SUB channel output.Bus7-8 bus has a pair of stereo SUB buses by default, and can choose to synchronize output to three mathematical output channels (AES/EBU, USB sound card, and USB flash drive recording).

When you click a channel on the screen or press the channel's SEL button, you will enter the editing page of the channel. This page contains the most basic editing functions and DSP functions of the channel.

Input channel edit page

The input channel page contains Input column, Main column, and Send to column.
The Input column can turn on / off the channel's phase-reversal / phantom power / stereo switch. The phase-reversal switch deflects the phase of the channel signal by 180°; the phantom power switch is exclusive to the Mic channel, which can provide power to the condenser microphones in need; the stereo switch (LINK) can bind the adjacent odd / even channels together into one pair of stereo channels.

The Input bar allows you to adjust the amplifier gain and edit the channel display name and color.

The Main column contains the bus send button LR, the Mute Group button and the Pan value bar. When the bus send button is lit, it means that the channel will send signals to the MASTER channel; when the corresponding button is lit in the Mute Group, it means that the channel is grouped into the corresponding mute group; the Pan value bar can adjust the left and right equalization of the channel.

The Send to column displays sending how many signals to which channels. Adjusting the virtual send fader can adjust the send volume. The button above the fader displays whether the send signal is taken before the virtual send fader or after the virtual send fader. If the channel to be sent is a pair of bound stereo channels, a corresponding Pan value bar will appear above the virtual send fader, which is used to adjust the left and right equalization of the corresponding stereo channel.

Note: The button below the send fender can map the virtual send fender on the screen to the physical fender on the panel, and realize linkage and more accurate and fast adjustment.
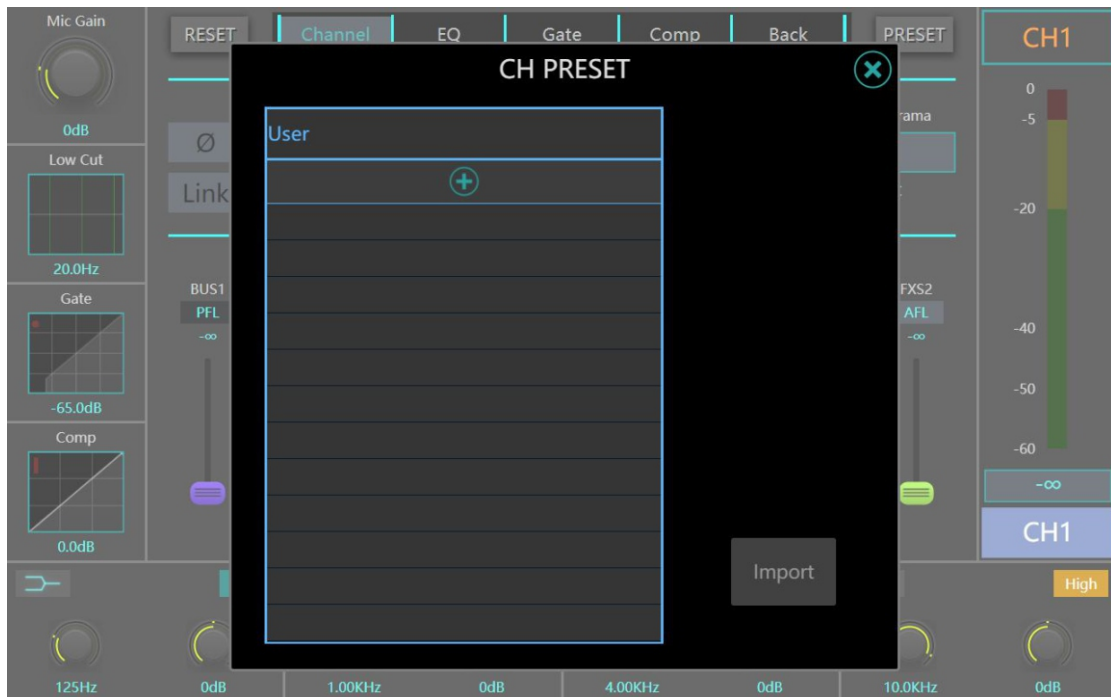
The current channel data can be saved as a channel PRESET file by using the PRESET key on the channel edit page, and operations such as saving, calling, deleting, importing, and exporting can be performed.

The channel can be restored to factory default status via the RESER button on the channel edit page

Output channel edit page

The output channel page contains Input column, Main column, and Send to column. The Input column can turn on / off the channel's phase-reversal and LINK switch. The phase-reversal switch deflects the phase of the channel signal by 180°; the stereo switch (LINK) can bind the adjacent odd / even channels together into one pair of stereo channels.

The Input can adjust the amplifier gain and edit the channel display name and color.

The Main column contains the bus send button LR, Mute Group button and Pan value bar. When the bus send button is lit, it means that the channel will send signals to the MASTER channel; when the corresponding button is lit in the Mute Group, it means that the channel is grouped into the corresponding mute group; the Pan value bar can adjust the left and right equalization of the channel.

The Send to column displays sending how many signals to which channels. Adjusting the virtual send fader can adjust the send volume. The button above the fader displays whether the send signal is taken before the virtual send fader or after the virtual send fader.

The current channel data can be saved as a channel PRESET file by using the PRESET key on the channel edit page, and operations such as saving, calling, deleting, importing, and exporting can be performed.

The channel can be restored to factory default status via the RESER button on the channel edit page.

Note: The button below the send fender can map the virtual send fender on the screen to the physical fender on the panel, and realize linkage and more accurate and fast adjustment.

Main output channel edit page

The Main channel edit page contains the Input bar and Main bar.

Channel inverting switch can be turned on/off in the Input bar.The inverting switch deflects the channel signal phase by 180°.

The Input bar can adjust the main channel delay time.

The Main bar contains the Mute Group button and Pan value control bar.Lighting the corresponding button in Mute Group means that the channel is grouped into the corresponding Mute Group;Pan value bar can adjust the left and right balance of the channel.

Noise Gate page
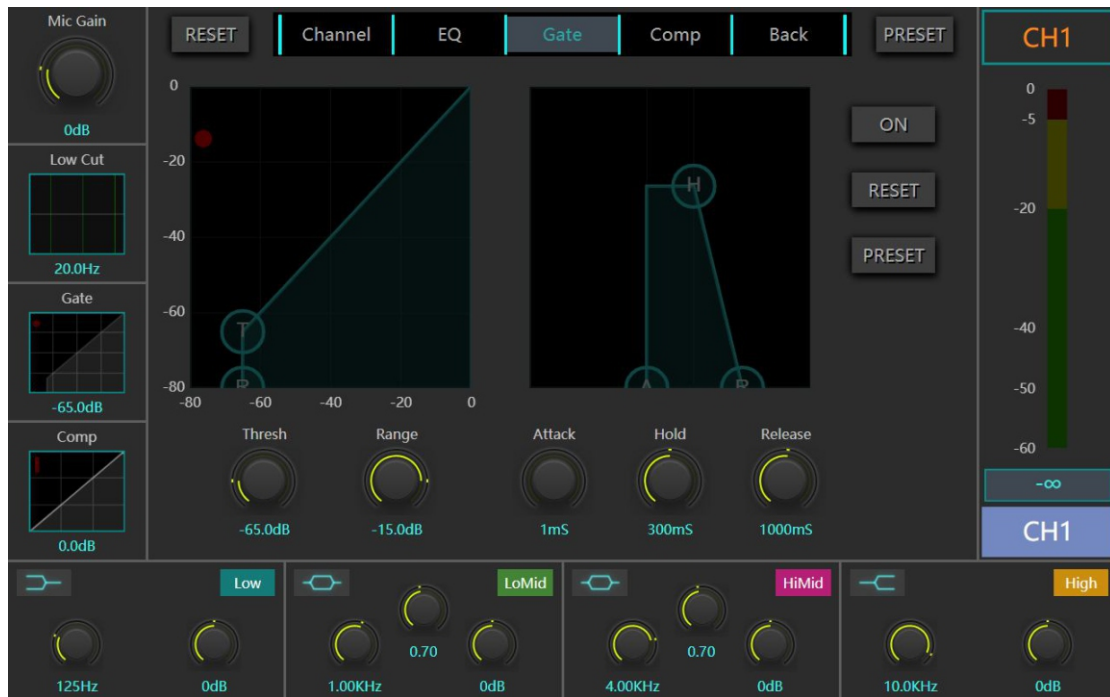
The Noise Gate page displays the noise gate parameters of the channel. The noise threshold uses a threshold to determine its "open" (over Threshold) or "closed" (below Threshold) status. When the door is closed, the signal level is reduced or cut off completely. The threshold can be used to reduce the ambient noise picked up by the microphone when the sound source (instrument / vocal) is silent.

ON: Noise gate switch.
RESET: Reset to the default value.
PRESETS: Call up the standard preset management pop-up box, save / load the noise gate preset.
THRESHOLD: Adjust the threshold of the noise gate. You can drag the "T" ball on the motion graphic.
RANGE: Adjust the attenuation value. This parameter determines the attenuation value of the attenuated signal.
ATTACK: Adjust the noise gate transient. This parameter is the speed at which the noise gate responds and reaches the attenuation value set by the RANGE parameter.
HOLD: Adjust the compression holding time of the noise gate.
RELEASE: Adjust the noise gate release time. This is the speed at which the noise gate returns to the "non-fading" level when the signal level rises above a threshold level.

You can save the current data as a noise gate PRESET file by editing the PRESET key on the page, and perform operations such as saving, calling, deleting, importing, and exporting.

The gate can be restored to factory default status by pressing the RESER button on the edit page.

Compressor page
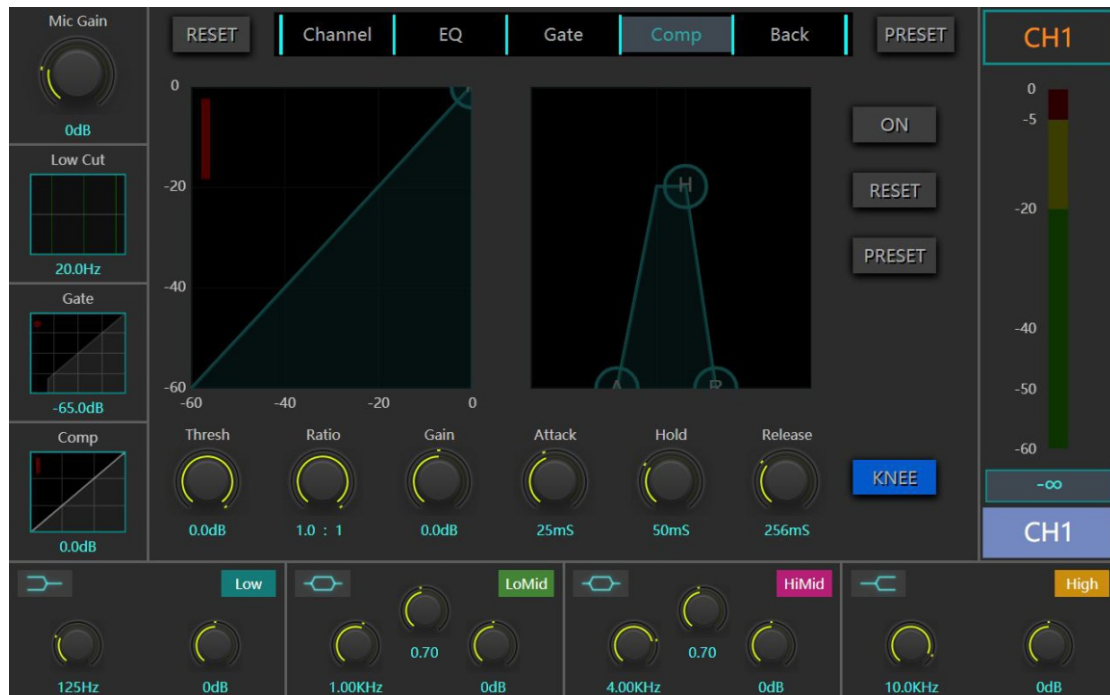
The compressor page displays the pressure limiter parameters for the channel.The compressor lowers the signal level above a certain threshold.

ON: Compressor switch.
RESET: Reset to the default value.
PRESETS: Pull up the standard Preset management pop-up and save/load the limiter preset.
THRESHOLD: Adjusts the THRESHOLD of the voltage limiter.You can drag the "T" ball on the dynamic graph.
RATIO: Adjust the compression RATIO.This parameter determines how much the compressor will attenuate the signal after it exceeds a threshold.
GAIN: Compressor output GAIN control.
ATTACK: Adjust the voltage limiter transients.This parameter is the rate at which the voltage limiter responds to reach the attenuation value set to the RATIO parameter.
HOLD: Adjust the compression HOLD time of the limiter.
RELEASE: Adjust the pressure limiter RELEASE time.This is the rate at which the compressor returns to the "unattenuated" level when the signal level drops below the threshold level.
KNEE: Soft inflection switch.

By editing the PRESET key on the page, you can save the current data as the PRESET file of the compressor and perform operations such as saving, calling, deleting, importing, and exporting.

You can restore the compressor to factory default by editing the RESER button on the page.

PEQ page

The input channel PEQ function consists of a 4 band parameter and Low Cut.

ON: Equalizer switch.

RESET: Reset to the default value (that is, the equalizer "returns to zero", and the frequency and Q value are reset to the default values).

PRESETS: Call up the standard preset management pop-up box, save / load the equalizer preset.

L / LM / HM / H Equalizer Band Ball: Draggable graphic "ball" controlled by equalizer band. Drag the graphic element to control. Adjust the threshold up / down and adjust the frequency left / right. Click the L / LM / HM / H letter button below to enable or bypass the equalization function of this band. The icon below the letter button shows the type of equalization currently used. Click the button to select other types of equalization for this band of balance. The selectable types include five types: high pass, low pass, high shelf, low shelf, and PEQ.

Low Cut parameter: the draggable graphics and physical knob controlled by the high pass filter can be realized, and the corresponding cut-off frequency value can be adjusted according to the need.

Band equalization Parameter Preview: The parameters of four band equalization devices are displayed in four blocks at the bottom of the window. Each block contains three knobs, an equalizer type button in the upper left corner, and an equalizer segment number TAB in the upper right corner.

The middle knob is the Q value: the Q value is the parameter used to set the bandwidth of the equalization function.The lower the Q, the wider the band.The left knob is the frequency value: this value represents the center frequency of the equalization of the segment.The right knob is the Gain value: this value indicates the enhancement or attenuation of the selected equalizer frequency band. In the upper left corner, an icon indicates the type of equalizer currently in use.

You can save the current data as a PEQ PRESET file by editing the PRESET key on the page, and perform operations such as saving, calling, deleting, importing, and exporting.
The PEQ can be restored to factory default status by pressing the RESER button on the Edit page .

Crossover page

The frequency divider function of the BUS output and main output channels consists of independent Low Cut and High Cut filters.

LC buttons: Is the control switch of Low Cut filter. Click the graph button below the key, and the filter type available for selection will pop up.Supports four types of butterworth-12 dB/oct, Butterworth-24 dB/oct, Linkwitz-RILEY -12dB/ oct, and Linkwitz-RILEY -24dB/ oct.

HC buttons: Is the control switch of High Cut filter. Click the graph button below the key, and the filter type available for selection will pop up.Supports four types of butterworth-12 dB/oct, Butterworth-24 dB/oct, Linkwitz-RILEY -12dB/ oct, and Linkwitz-RILEY -24dB/ oct.

Low Cut Frequency parameter: The Low Cut frequency knob on the left side of the screen or the graph curve can be used to control the Low frequency tangent frequency of the frequency divider.

High Cut Frequency parameter: You can control the frequency of the High frequency Cut point of the divider by using the High Cut frequency knob on the left side of the screen or by operating the graph curve.

31 equalizer GEQ pages

Both the BUS output channel and the main output channel have 31 GEQ functions.Click the "GEQ" button on the EQ page to pop up the control page directly.

Note: The four frequency band buttons above the equalizer virtual fader can map the parameters of the virtual fader in this frequency band on the screen to the physical fader on the panel, and realize linkage and more accurate and fast adjustment.

Note: All 8 BUS channels share two independent pluggable 31-segment GEQ functions. The factory default Settings are on BUS1 and BUS2 channels. You can switch to other BUS channels by using the **Insert** button.

Delay page

Both the BUS output and main output channels have independent time-delay functions.The maximum delay time of each channel delay device is 735ms.

Input channel SENDS control page

The input channel SENDS page shows the channel sends how many signals to which BUS or effect channel. Adjust the virtual send fader to adjust the number of sent signals. The button above the fader can set whether the send signal is sent before or after the fader of the channel.

If the channel to be sent is a pair of bound stereo channels, a corresponding Pan value bar will appear above the virtual sending fader, which is used to adjust the left and right balance values sent to the corresponding bound stereo channels.

Note: The button below the send fender can map the virtual send fender on the screen to the physical fender on the panel, and realize linkage and more accurate and fast adjustment.

Output channel SENDS control page
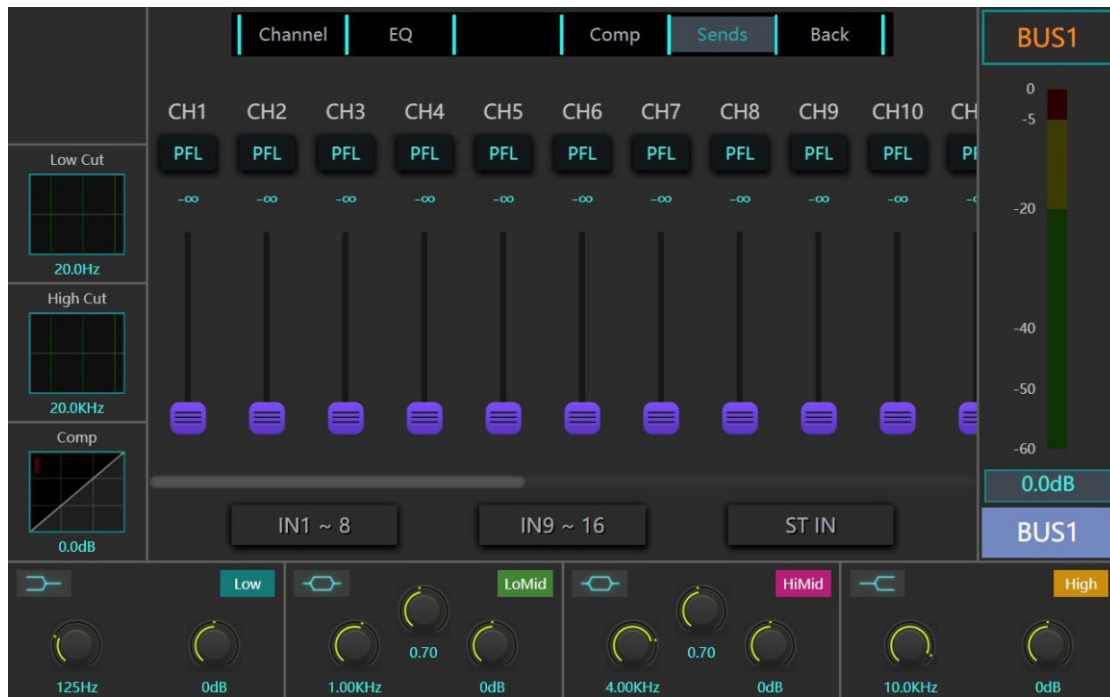
Output channel Send From column shows the signal sent by which channel and the size of the received semaphore. Adjusting the virtual sending fender can adjust the received amount. The button above the fender can set whether the received signal is taken From the fender before or after the fender of the channel.

Note: The button below the send fender can map the virtual send fender on the screen to the physical fender on the panel, and realize linkage and more accurate and fast adjustment.

MUTE and Mute Group

There is a MUTE button above each channel fader, which can mute the corresponding channel.

Each channel can be programmed into the corresponding mute group in the channel editing interface - Channel page - Main column. When the mute group button on the bottom left of the mixer is lit, the channels in the group are muted.

FX has a dedicated FX group mute button, and it cannot be programmed into other mute groups.

"ALL MUTE" button is the total output mute button, it can quickly achieve the mute function of all output channels, and can not be marshaled into other mute marshals.

When you long press one of the mute group buttons (button 1, 2 or 3) at the bottom left, the mixer will save the mute status at this time to the mute group corresponding to the button. For example: when mute channels 4, 5, and 8, long press the mute group 2 button, then the channels 4, 5, and 8 will be directly programmed into mute group 2.

1、Setting Mute

Fixed starting bit	Operation sign	Operation items	Channel type	Channel label	value
Nctrl	SET	MUTE	IN	1~16	ON/OFF
			OUT	1~8	
			FX	1~2	
			STIN	1~5	
			STOUT	1	
			DCA	1~8	

Example：order "Nctrl SET MUTE IN 3 ON" : Set mono input channel 3 to mute

2、Setting Gain

Fixed starting bit	Operation sign	Operation items	Channel type	Channel label	Action identification	value
Nctrl	SET	GAIN	IN	1~16	+	1~6（Add dB to the current channel）
			OUT	1~8		
			FX	1~2	−	1~6（Subtract dB from the current channel）
			STIN	1~5		
			STOUT	1	=	-80 ~10（The dB value assigned to the target channel）
			DCA	1~8		

Example：order "Nctrl SET GAIN OUT 3 + 1": Increase the fader gain of mono output channel 3 by 1dB, if originally 5dB, now is 6dB
Example：order "Nctrl SET GAIN OUT 3 - 1" Subtract the fader gain of mono output channel 3 by 1dB, if originally 5dB, now is 4dB
Example：order "Nctrl SET GAIN OUT 3 = 1" Set the fender gain of mono output channel 3 to 1dB, if originally 5dB, now is 1dB

3、Call Scene preset

Fixed starting bit	Operation sign	Operation items	Value
Nctrl	SET	PRESET	1 ~100

Example：order Nctrl SET PRESET 1   load scenario number 1

4、Access current scenario preset

Fixed starting bit	Operation sign	Operation items
Nctrl	GET	PRESET

Example：order "Nctrl GET PRESET" : Get the scene number of the last loaded scene

5、Return code Specifies the current scenario

Fixed starting bit	Operation items	Value
Nctrl	PRESET	1 ~100

Example order "Nctrl PRESET 3" : The scene number of the last loaded scene is 3

6、Access current Mute status

Fixed starting bit	Operation sign	Operation items	Channel type	Channel label
Nctrl	GET	MUTE	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			DCA	1~8

Example order "Nctrl GET MUTE STIN 1"   get stereo input channel 1 mute status.If the server return order is"Nctrl MUTE STIN 1 OFF": stereo inout channel is unmute status.

7、Return current code mute status

Fixed starting bit	Operation items	Channel type	Channel label	Value
Nctrl	MUTE	IN	1~16	ON/OFF
		OUT	1~8	
		FX	1~2	
		STIN	1~5	
		STOUT	1	
		DCA	1~8	

8、Access current Gain status

Fixed starting bit	Operation sign	Operation items	Channel type	Channel label
Nctrl	GET	GAIN	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			DCA	1~8

Example order "Nctrl GET GAIN IN 5": Gets the current fader value for mono input 5, If the server return order is "Nctrl GAIN IN 5 -20": the current fender gain representing mono input 5 is -20dB

9、Return current code Gain status

Fixed starting bit	Operation items	Channel type	Channel label	Value
Nctrl	GAIN	IN	1~16	-80 ~10
		OUT	1~8	
		FX	1~2	
		STIN	1~5	
		STOUT	1	
		DCA	1~8	

10、Access the current level meter status

Fixed starting bit	Operation sign	Operation items	Channel type	Channel label
Nctrl	GET	VU	IN	1~16
			OUT	1~8
			FX	1~2
			STIN	1~5
			STOUT	1
			ALL	Empty

Example order "Nctrl GET VU OUT 1" get mono output channel 1 level meter, if the server return order is "Nctrl VU OUT 1 -32" : mono output channel 1 level is -32
Example order "Nctrl GET VU STOUT 1" : get stereo outout channel 1 level meter, if the server return order is "Nctrl VU STOUT 1 -32, -30" : stereo output channel 1 left level is -32, right level is -30

11、Return current code level meter status

Fixed starting bit	Operation items	Channel type	Channel label	Value
Nctrl	VU	IN	1~16	-120 ~ 0
		OUT	1~8	
		FX	1~2	
		STIN	1~5	-120 ~ 0,-120 ~0
		STOUT	1	
		ALL	空	Channel level used for one-time sequential return code

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Get all level back code information table		
Order	Nctrl Get VU ALL	
Returned value	Nctrl VU ALL IN, OUT, FX, STIN, STOUT	
Format specification	IN	From beginning to end: channel 1 level, channel 2 level......channel 16 level.
	OUT	From beginning to end: channel 1 level, channel 2 level......channel 8 level.
	FX	From beginning to end: channel 1 level left sound , channel 1 level right sound, channel 2 level left sound, channel 2 level right sound.
	STIN	From beginning to end: channel 1 level left sound , channel 1 level right sound......channel 5 level left sound, channel 5 level right sound.
	STOUT	From beginning to end: channel 1 level left sound , channel 1 level right sound
Example	Nctrl VU ALL -120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120,-120:-120,-120,-120,-120,-120,-120,-120,-120:-120,-120,-120:-120,-120,-120,-120,-120,-120,-120,-120,-120,-120:-120,-120	