

TRAKSTAR® 得勝

使用说明书
User's Manual

XR26



数字调音台

DIGITAL MIXER

承蒙惠购本公司产品，甚表感谢！

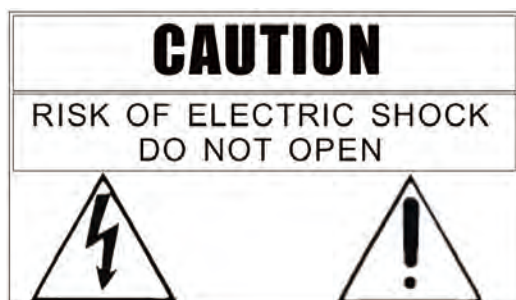
安装及正式使用本产品前，请务必通读此说明书，以便使您全面了解本设备，并熟练掌握如何正确使用本设备。当您读完本说明书后，请把它妥善保存好，以备今后查用。

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

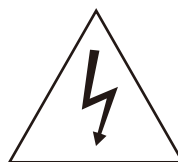
请阅读这些简明的规则，违反这些规则可能会导致危险。在本手册中提供了有关安全事项的更详细信息。请仔细查阅。



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！

1 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。



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。
- 请勿将本设备安放在潮湿处或暴露在雨中。

- 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。

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。

- 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。

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。



- 本产品仅适用于非热带气候条件下安全使用。

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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。

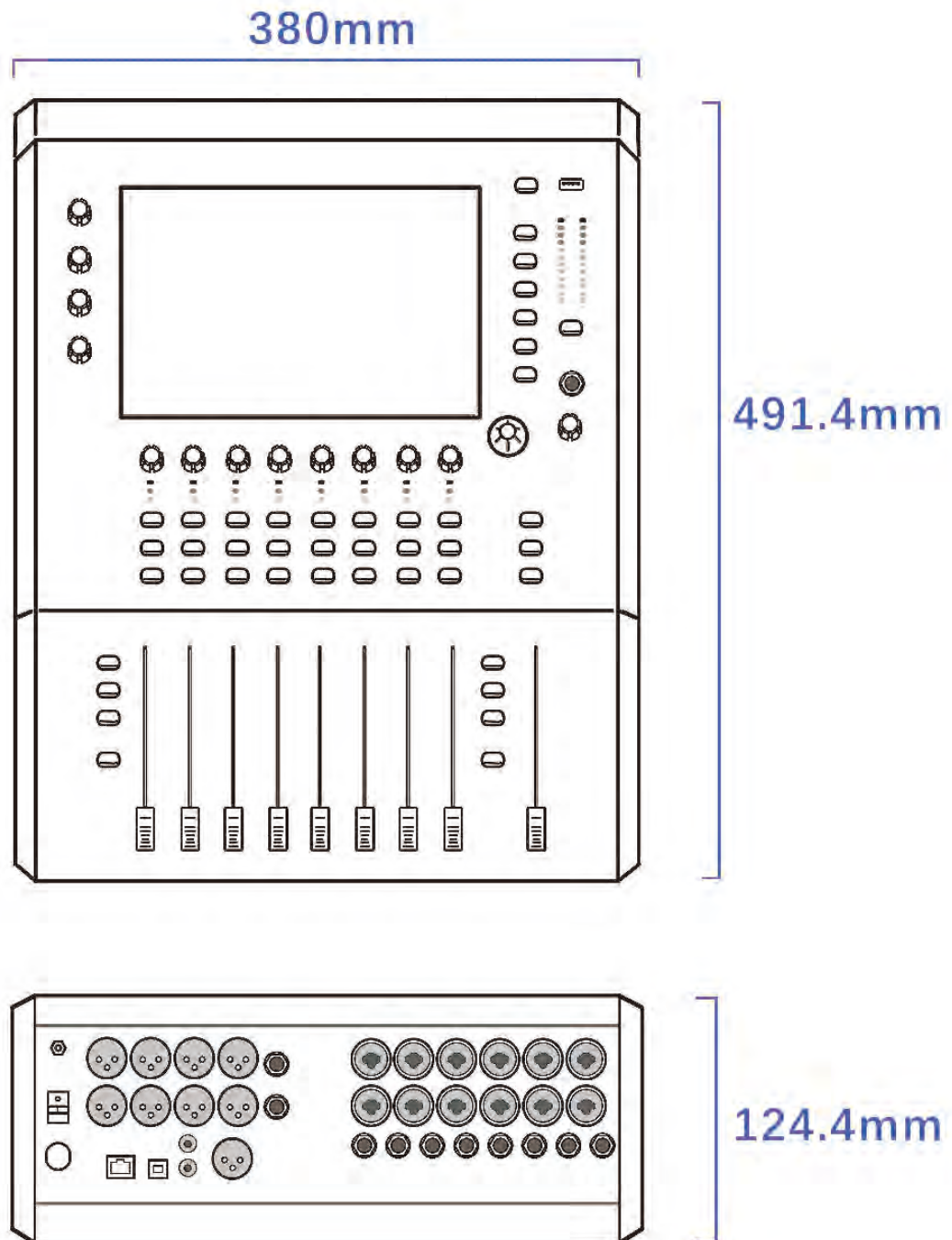
主要特点

- 26通道输入包括：12路麦克风输入、2路立体声输入、3路数字立体声输入（S/PDIF、USB声卡、USB播放）。
- 12路总线设计、8路BUS输出通道、1路立体声主输出、3路立体声数字输出（S/PDIF+AES/EBU、USB声卡、USB录音）。
- 所有话筒输入通道具有独立的+48V电源及高品质话放，并通过软件实现操作控制。
- 所有输入通道具有独立的低切、PEQ、压缩器、降噪器处理。
- 所有输出通道具有独立的高低切、PEQ、压缩器处理。
- 主输出通道具有独立的31段GEQ处理，可支持镜像方式发送到电动推子控制。
- 所有输入和输出通道都可以自由LINK为立体声状态。
- 具有DCA编组管理功能。
- 所有通道标号可以自定义名称及颜色。
- 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个总效果静音编组按键。
- 所有输入输出通道可支持任意的自由复制。
- 支持不限数量的用户场景存储及调用功能，所有场景均可通过U盘进行导入和导出。
- 具有用户自定义密码保护功能，密码保护对本地操作及移动端访问同时有效。
- 10寸高清的1920*1080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，4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。

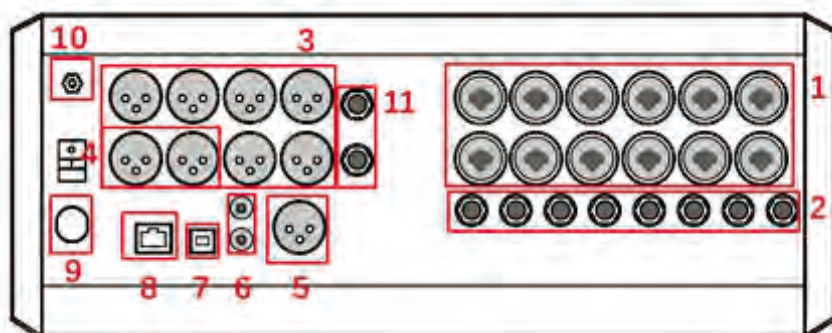
技术指标

硬件指标		功能指标	
输入通道	26通道输入：12路话筒；4路单声道；2路立体声；3路数字立体声	效果器	2路独立效果器通道 效果类型包括：Hall、Room、Plate、Church、Delay、Chorus、Flanger
输出通道	12通道输出：主输出L/R；6路BUS输出；监听输出/L/R；耳机输出L/R		
录音接口	双轨USB声卡	门限	阈值Threshold：-80~0dB
	双轨U盘录音存储		衰减Range：-80~0dB
输入增益	话筒增益-20~+70；线路增益-20~+70		启动时间Attack：1ms~120ms
输入和输出阻抗	话筒/线路输入：5kΩ		释放时间Release：10ms~4000ms
	输出：200Ω		保持时间Hold：1ms~2000ms
频率响应	20Hz~20kHz：±0.5	压缩器	阈值Threshold：-60~0dB
总谐波失真加噪声THD+N	-20dBFS @ 1kHz：<0.01%		压缩比Ratio：1:1~1000:1
噪音	噪音电平（20/20k带通）：-85dBu		启动时间Attack：1ms~120ms
	噪声电平（A计权）：-88dBu		释放时间Release：10ms~4000ms
动态范围	-107dB		保持时间Hold：1ms~2000ms
串音	通道间隔度（+4dBu 1k）：-96dB		补偿增益Makeup Gain：-20dB~+20dB
相位差	通道间相位差（+4dBu 1k）：<0.1°		软拐点可控
等效噪声	-122dBu	通道均衡器	4频段参数均衡器
延迟	<3ms		每个频段频率：20Hz~20kHz
采样率	48K		Q：0.05~15
USB	最大电流：500mA		增益：-20dB~+20dB
幻像电源	+48V，软件控制管理	通道滤波器	类型可选：PEQ，HPF，LPF，HSF，LSF
电源	功耗（典型值）：<65W		HPF：20Hz~20kHz
	电压范围：100~240VAC自动感应	LPH：20Hz~20kHz	参量均衡器
交流频率：47~63Hz		31段GEQ，20Hz~20kHz，±15dB	
运行条件	温度范围：-20°C~55°C	静音编组	3个可编程静音编组
			2个总效果静音编组

结构与尺寸



接口说明



1. 组合输入接口

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。此调音台拥有12个组合输入接口。

2. 6.35mm TRS 输入接口

用于连接平衡模拟线路输入信号。此调音台拥有8个6.35mmTRS输入接口，其中包含4个单声道 (Mono) 模拟输入接口和两对立体声 (Stereo) 模拟输入接口。

3. BUS 母线XLR输出接口

BUS 1至BUS 6母线的平衡输出接口，接口采用XLR插口。此调音台拥有6个BUS输出接口。

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 XLR输出接口

用于输出AES/EBU数字信号的XLR接口。

6. SPDIF同轴输入/输出接口

用于输入、输出SPDIF数字音频信号，上侧为SPDIF信号输入接口，下侧为SPDIF信号输出接口。

7. USB Host 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。

8. 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。

9. 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。

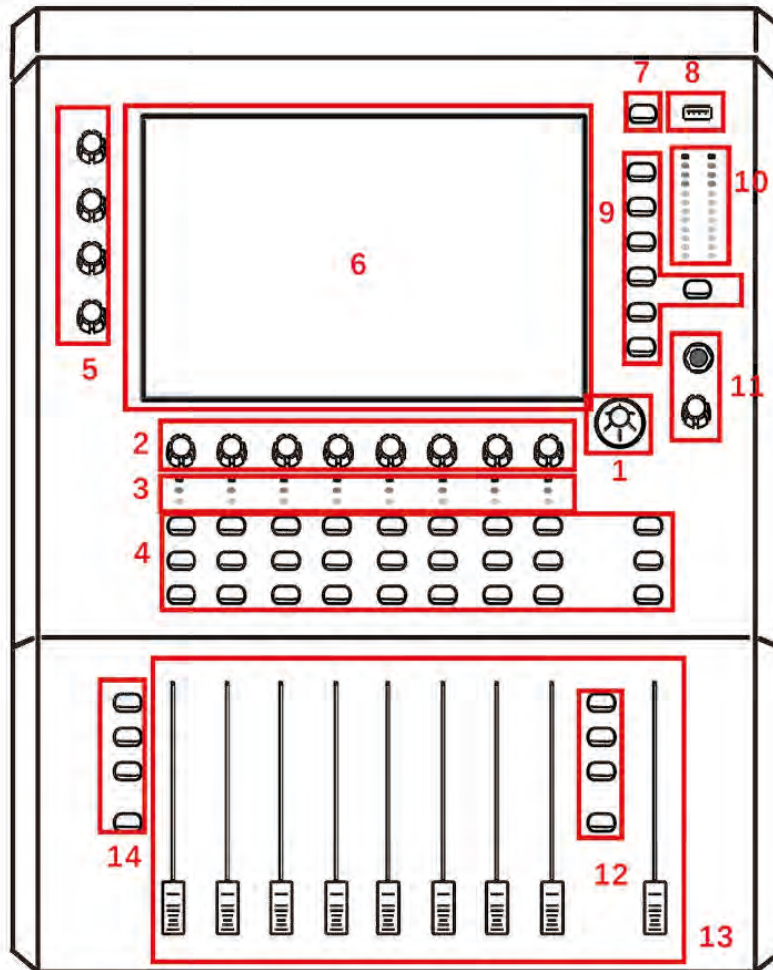
10. 天线接口

用于安置调音台WIFI 天线。在未安装天线的情况下，调音台将无法通过WIFI 热点信号进行远程控制。

11. 监听输出接口

立体声监听 (Monitor) 的平衡输出接口。

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 $> -40\text{dBFS}$ ，当黄灯亮起时表示输入电平 $> -20\text{dBFS}$ ，当红灯亮起时输入电平 $> 0\text{dBFS}$ 。

4. 通道按钮

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. 录放音按钮

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：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、母线输出层。

13. 推子

推子 Fader用于控制该通道的发送量。

14. 静音编组按钮

用于静音相应的通道编组。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1/2/3静音按钮控制，FX通道有专门的FX静音按钮，位于1/2/3静音按钮下。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。

软件更新

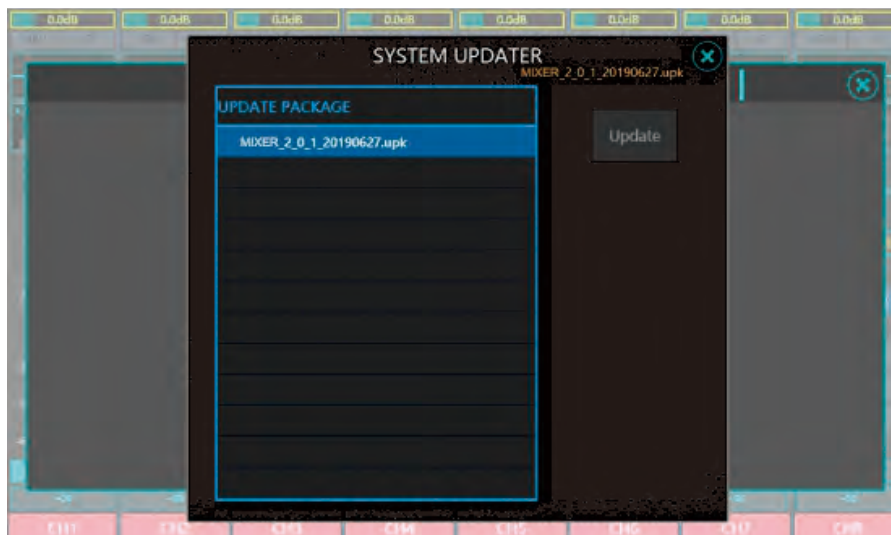
您可以与本产品的经销商联系，以取得最新版本的软件。

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文件，并确认；



6. 大约等待3分钟，调音台将重新启动并更新完毕。

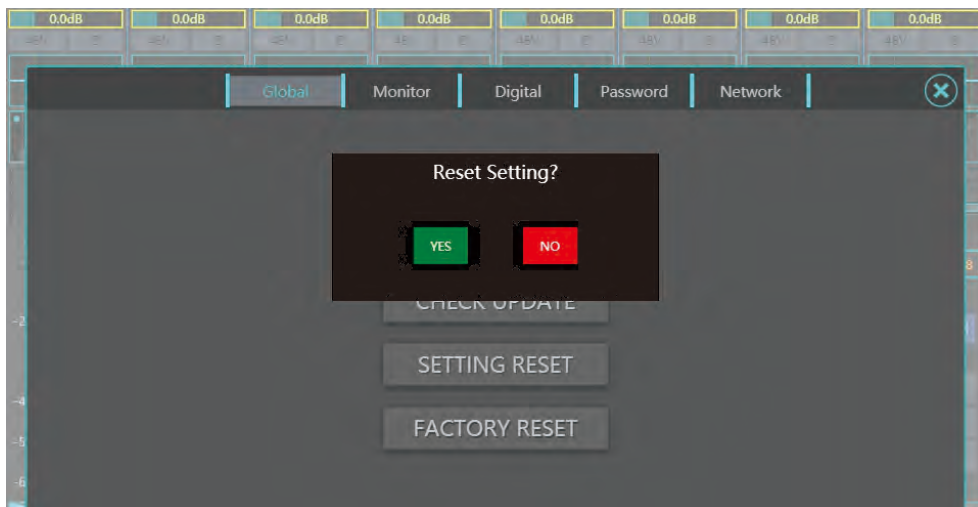
注意：1. 更新过程中切勿中断电源；

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

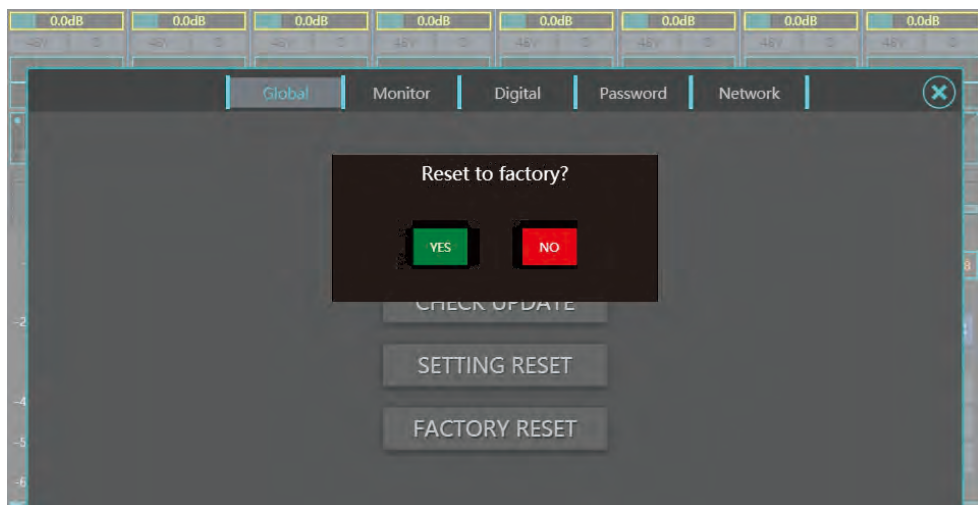
调音台提供2种级别的恢复设置。一种是还原所有通道的设置参数，另一种是清除所有用户数据、完全恢复为出厂设置。

1. 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。

2. 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送给面板上的 MONITORPHONES 耳机监听插口和背板上的 MONITOR OUTPUT 扬声器监听插口，您可以通过这些插口获得监听母线的信号。

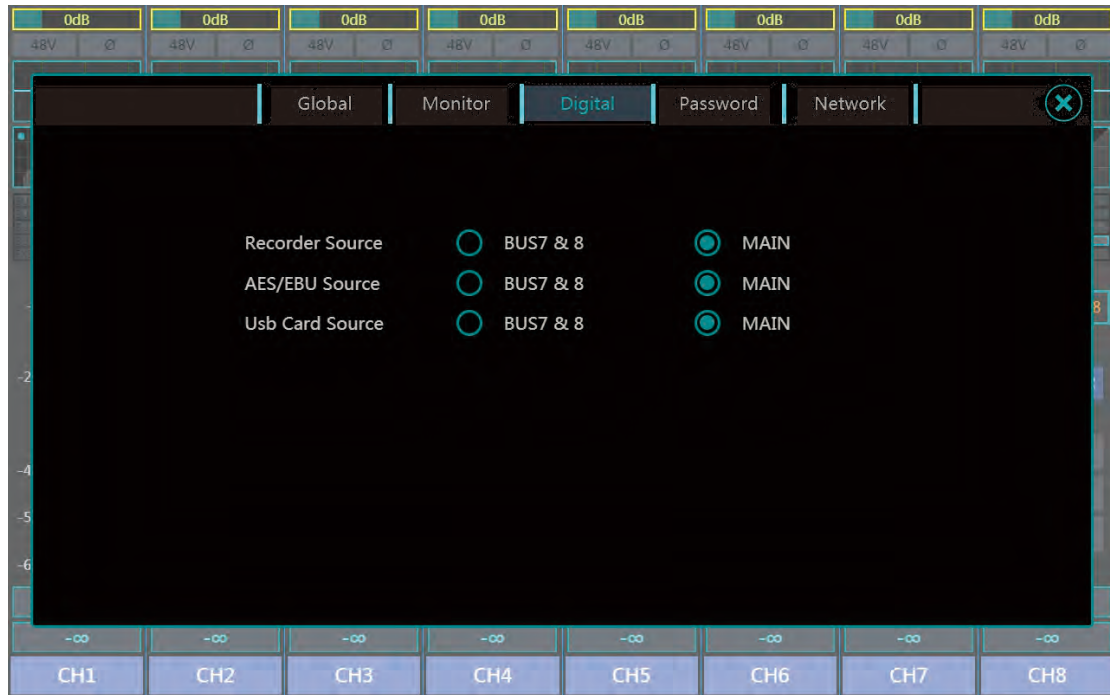
您可以通过调音台面板上的 SOLO 按键将相应通道加入监听母线中，这时，面板右上侧的主输出电平表会变为监听母线电平表，电平表下方的 CLEAR 按钮会变为红色，表示现在有通道启用 SOLO 监听功能。您可以在 MENU-MONITOR 页面选听 SOLO 的通道推子前 (PFL) / 推子后 (AFL) 的信号，Channel Solo 对应输入通道，BUS Solo 对应输出通道。

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

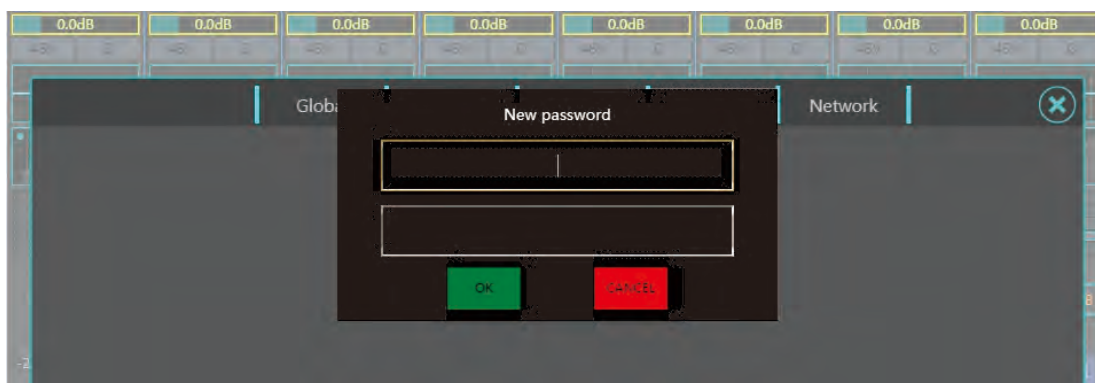
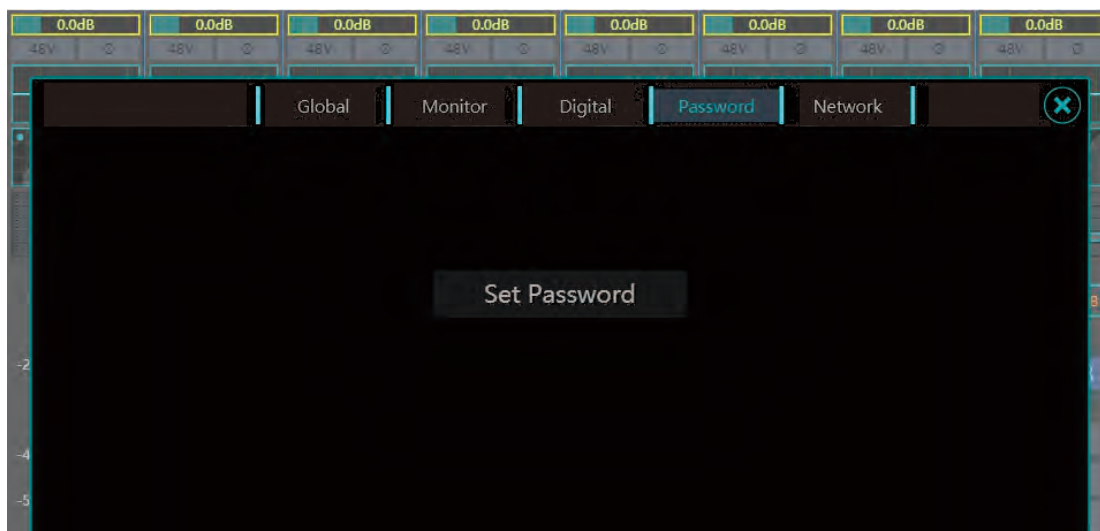


本产品的数字输出通道可以选择不同的来源信号。

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 声卡、U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。



若想要设置密码，您可以在Menu-Passwrd 页面单击Set Password按钮。密码设置成功后调音台会跳转至密码输入页面，输入正确密码后点击确认键即可正常使用。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。

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。

* 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：

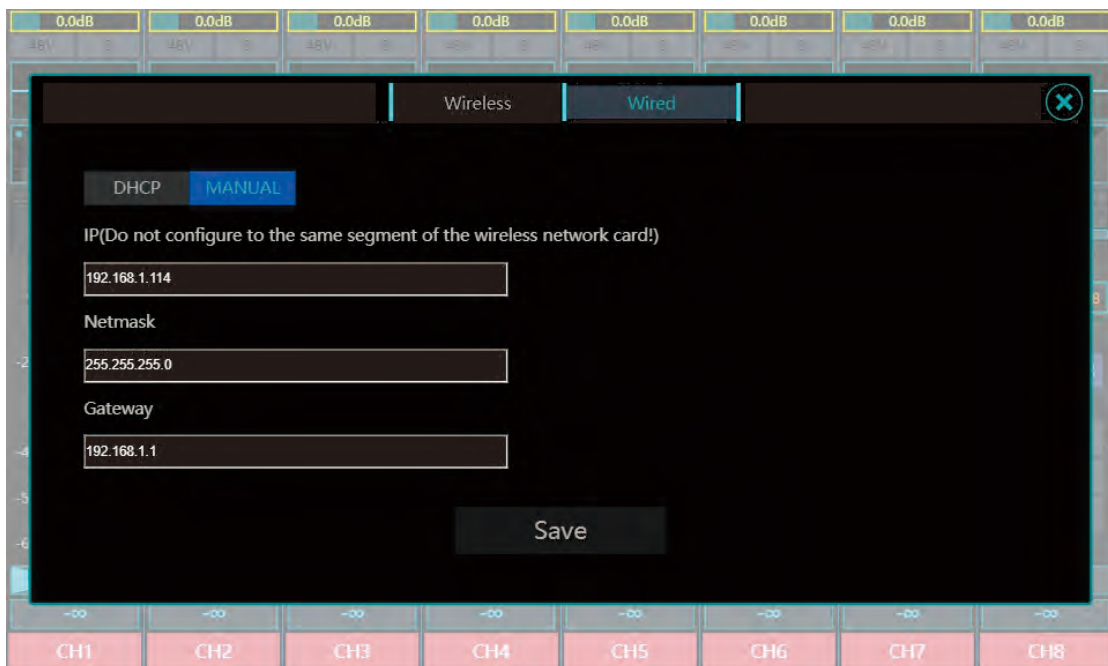
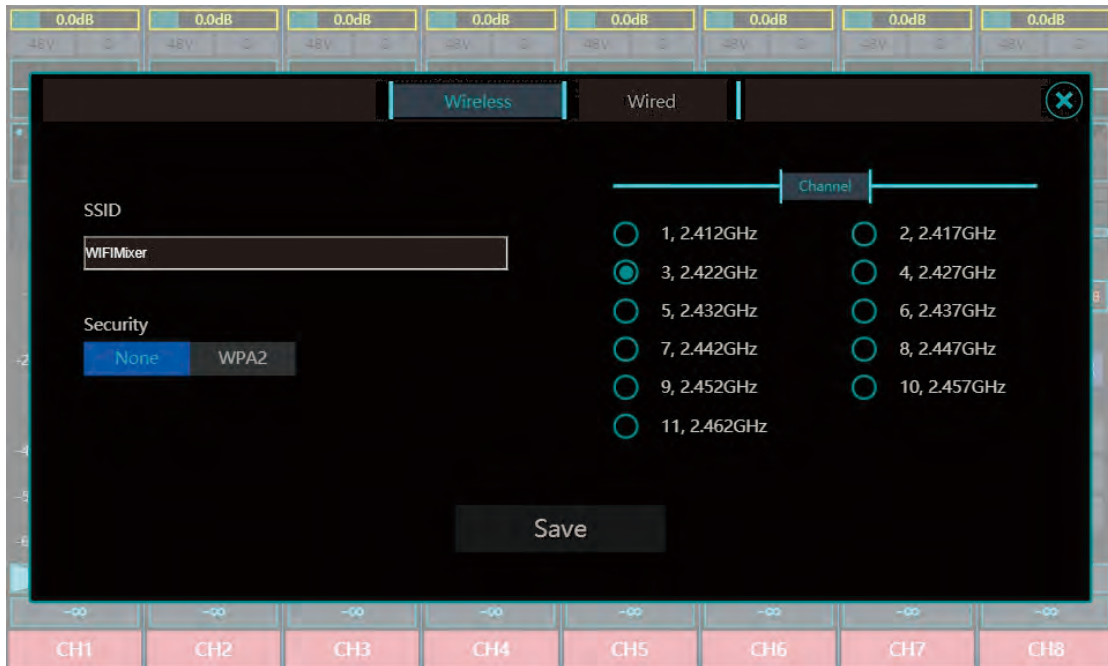
打开电脑的网络设置，设置电脑LAN网关为“192.168.1.1”，设置LAN的子网掩码为“255.255.255.0”。

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。

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。

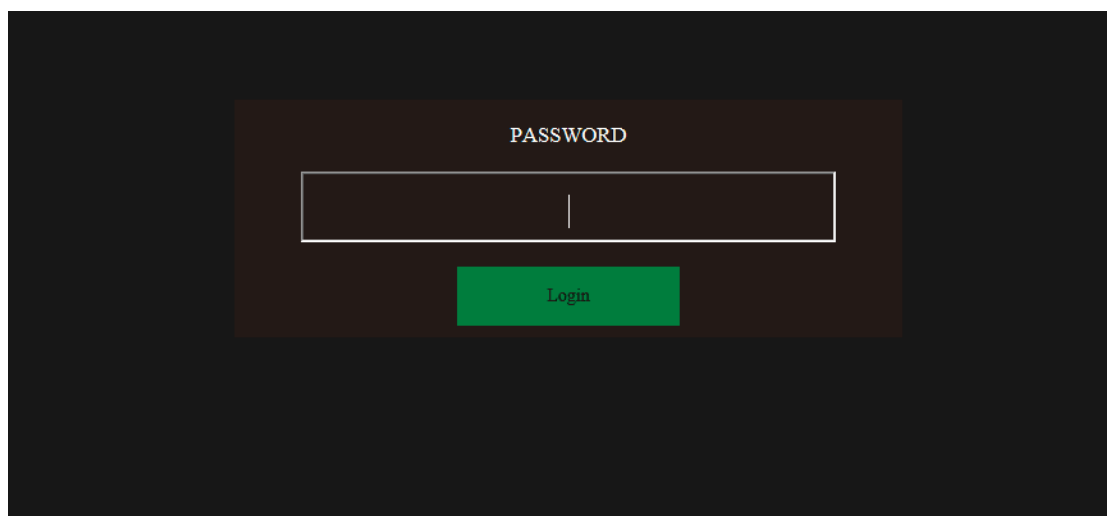
有线连接（Wired）

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（Gateway）。

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。

登陆界面

当您设置了密码时，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。



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、PAN值、推子衰减值、通道名称。

通道增益值和通道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通道增益值和通道PAN值间。

MENU 菜单设置界面



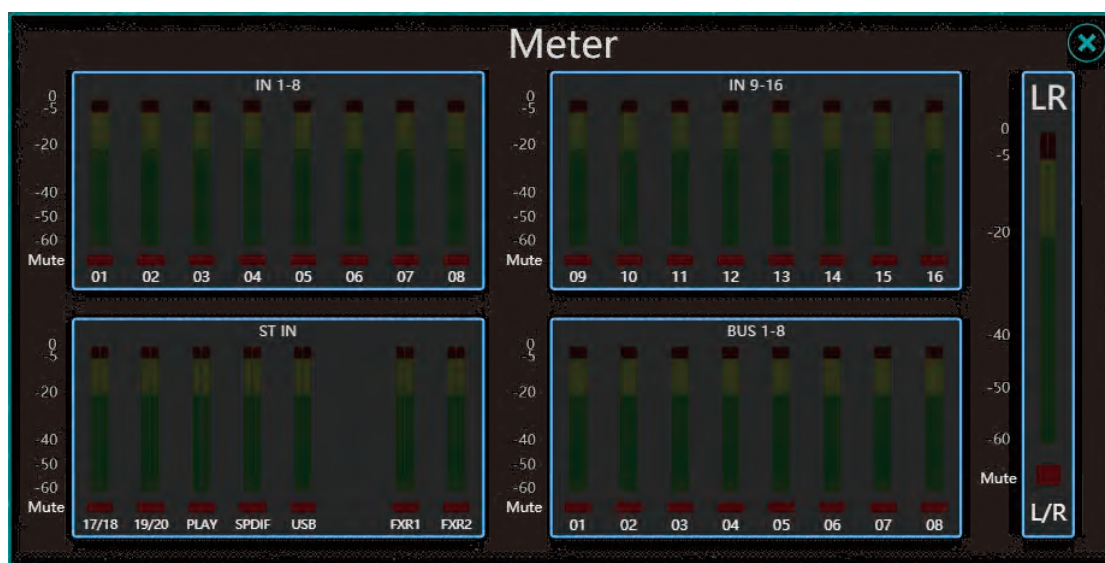
按下 MENU 按钮后，您将进入菜单设置页面。该页面包括了Global、Monitor、Digital、Password、Network 子页面，您可以在这些页面下更新或重置调音台、调整监听设置、调整数字输出源、设置调音台密码以及调整网络连接设置。

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。

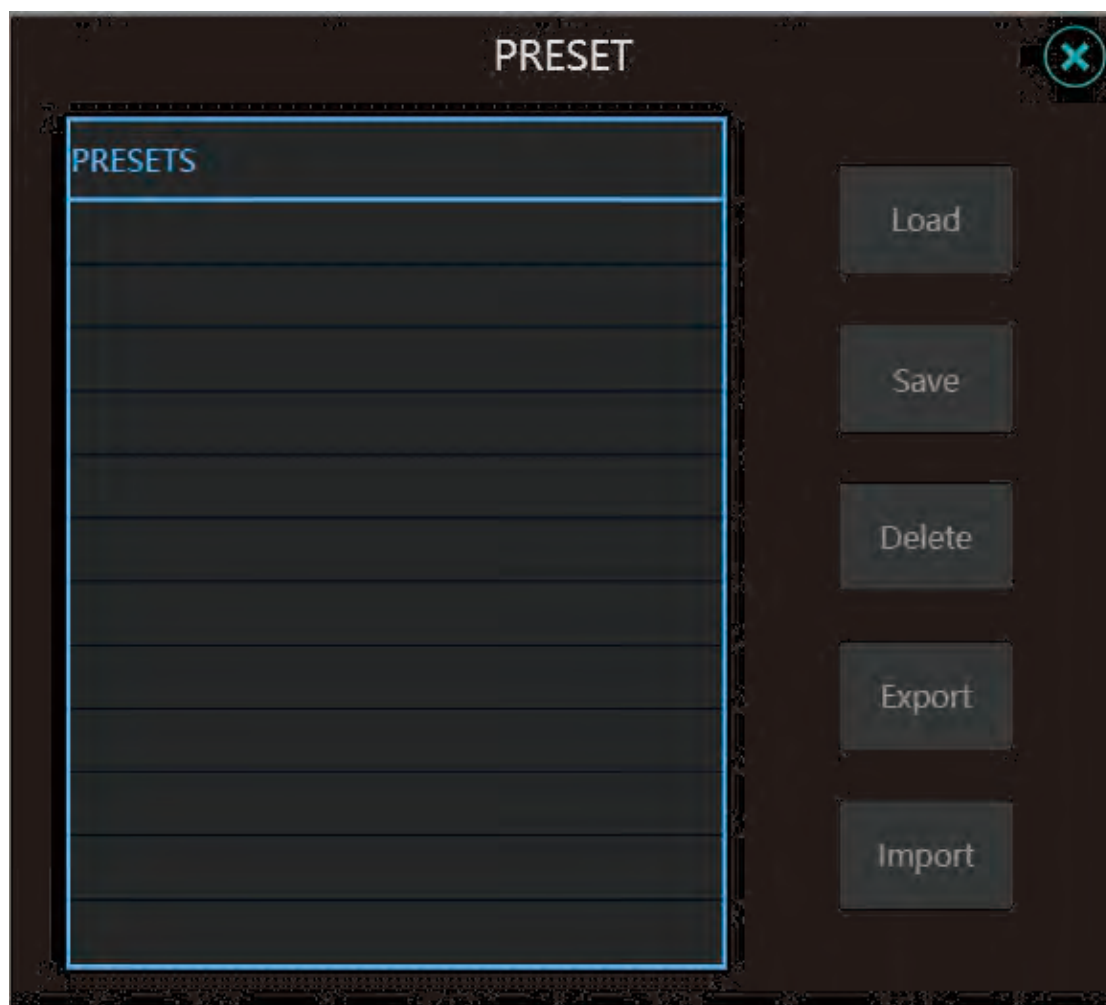
FACTORY RESET 可以将调音台重置为出厂设定。（注：会重置网络设定和清除调音台内的预设文件，重置为出厂设置前请先备份文件。）

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、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/快照界面

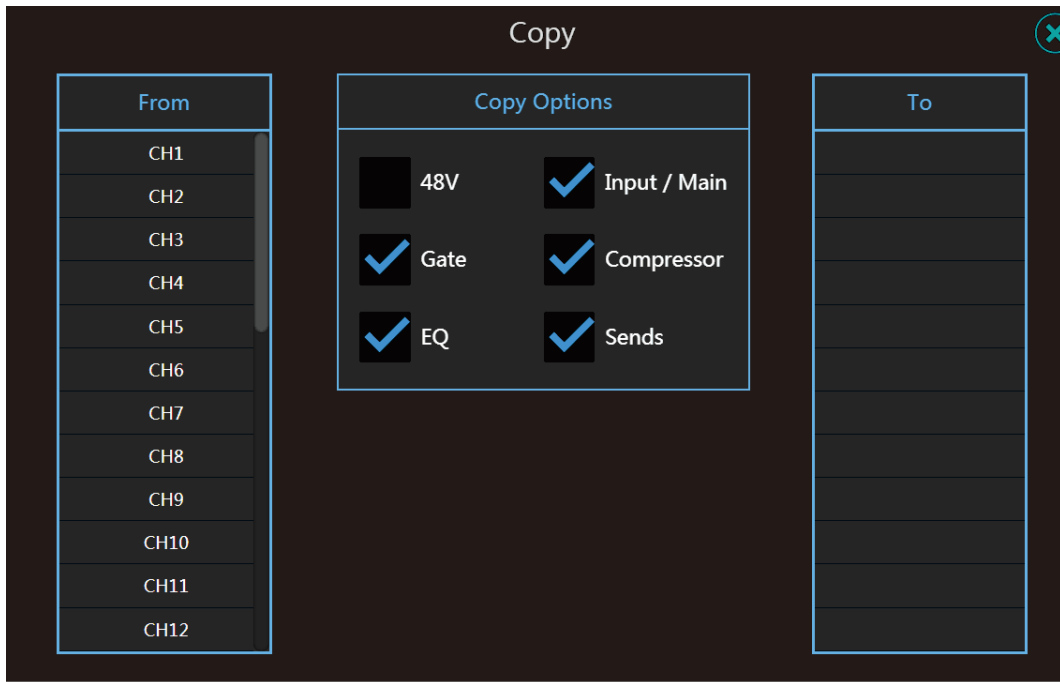


按下 PRESET 按键，您将进入预设/快照界面。这个界面显示了调音台所有的预设设置。选择左侧预设并按下Load 可应用该预设；单击Save 按键可以储存调音台当前的设置；选择左侧预设并按下Delete 可将该预设删除；在插入U 盘的情况下，可以使用Export 按键和 Import 按键将预设文件导入和导出U 盘。



按下 Import 按键后将进入U 盘储存预设列表，您可以按下Load按键直接将应用U 盘内预设到调音台，也可以按下Import 键将预设文件先导入到调音台以便以后使用。

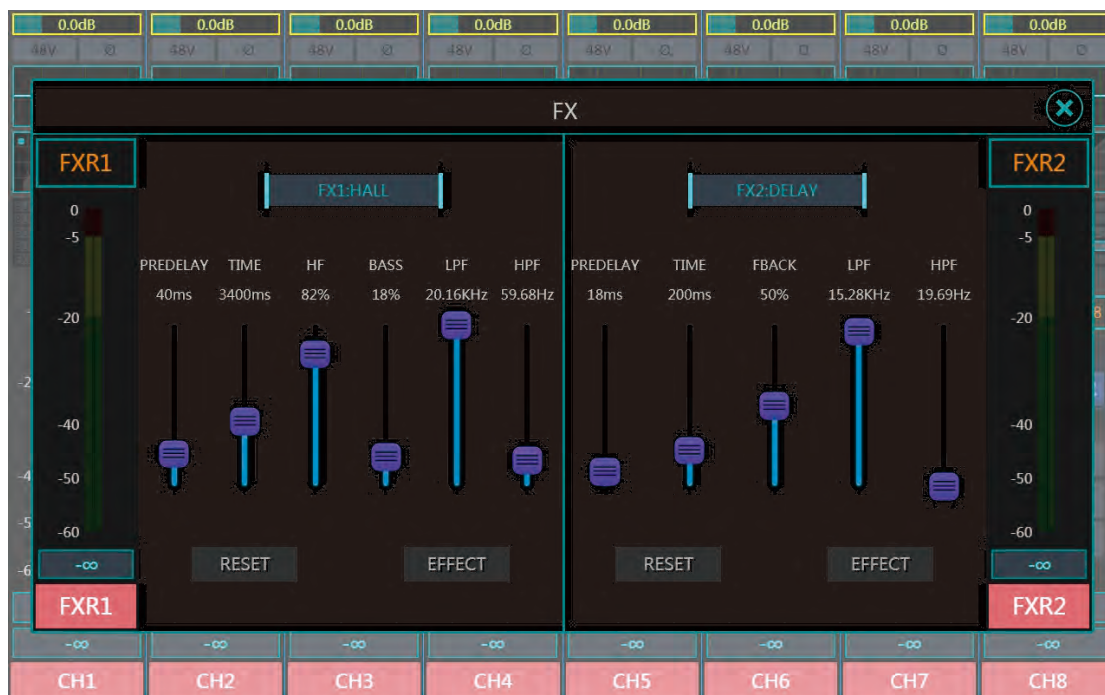
COPY 通道复制界面



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。

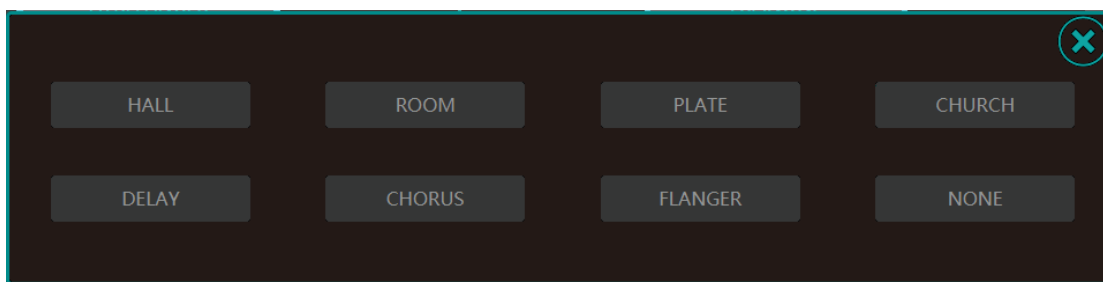
先选择左侧列表的通道，右侧列表将会出现能够接受粘贴的通道，在中间的 Copy Options 一栏中设置好复制的参数后单击 COPY 按键即可成功复制通道。

EFX效果器设置页面



按下 EFX 按钮后，您将进入效果器设置页面。

点击RESET 按钮可以将各个效果器的参数恢复为各自的推荐值；点击EFFECT 按钮可以进入效果器选择界面，进入可以看见调音台提供的7种效果器和效果器停用选项（即NONE 按键）。



本产品拥有两个效果器通道，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。调音台包含的常用效果器有各种混响Reverb、延时Delay、和声Chorus 等等。

若您想为调音台的某些通道加入效果，您可以将这些通道发送至相应的效果器通道，效果器通道会将加入效果的信号送至母线。您可以见FX 通道的编辑界面，在Sendto 一栏下选择将效果器通道的信号发往哪些母线。

1. 混响类 (HALL、ROOM、PLATE、CHURCH)

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4种混响效果器，分别是HALL大厅混响、ROOM房间混响、PLATE钢板混响、CHURCH教堂混响。

大厅混响：通常能带来巨大的空间感，其高频衰减非常明显，衰减时间通常也是最长的。

房间混响：带来的空间感觉更为直观，让人明显感觉到空间的存在。

钢板混响：较为华丽，其高频衰减不明显，不易出现较大的空间感。

教堂混响：与大厅混响类似，但是高频衰减稍微放缓。

本产品开放以下混响Reverb参数供调整：

PREDELAY：预延时（毫秒），即原始声发出后到混响声发出前的时间段。

TIME：混响时间（毫秒），即混响尾部衰减所花的时间。混响时间是空间类型的听觉指标，大型反射空间的混响时间比小型吸音空间更长。

HF：高频阻尼，通过设置高频阻尼，您可以调出更加自然的混响。

BASS：低音增益，给混响信号添加低音有助于增厚被混响算法削弱的音频。您还可以使用这个参数来令有时会被混响掩盖的低频更清晰。

LPF：低通滤波器频率。较高的频率设置会增加高频响应，产生更亮的混响；较低的频率设置会产生更暗的混响。

HPF：高通滤波器频率。削减低频，减少“隆隆”声和不想要的浑浊。

2. 延时Delay

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。

本产品开放以下延时Delay参数供调整：

PREDELAY：预延时（毫秒），即原始声发出后到混响声发出前的时间段。

TIME：延时的时间长度，以毫秒为单位。

FEEDBACK：由延迟输出信号反馈到延迟输入来控制延迟重复的次数。这样就产生了一系列延迟重复，每次略微衰减，直到听不见为止。设置越高，重复次数越多；设置较低，重复次数越少。注意，设置过高时将会产生重复播放、无限循环现象。

LPF：低通滤波器。通过调节该低架滤波器的截止频率来减少高频含量，高于该值的频率会被过滤/删除。

HPF：高通滤波器频率。削减低频，减少“隆隆”声和不想要的浑浊。

3. 和声Chorus

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。

本产品开放以下合唱Chorus参数供调整：

DETUNE：偏离原始信号的音高量。

DENSITY：调整合唱效果的密度。合唱密度越高，结果就越厚和越丰富。

LPF：低通滤波器。通过调节该低架滤波器的截止频率来减少高频含量，高于该值的频率会被过滤/删除。

HPF:高通滤波器频率。削减低频，减少“隆隆”声和不想要的浑浊。

4. 珐琅/镶边Flanger

镶边效果器通过调整延迟声的音调，使声音上下摇晃而产生杂音感，让音色更加起伏。镶边效果器的通常原理是在合唱效果器中增加一个反馈回路，通过叠加原信号和不断变化的反馈信号产生梳状滤波的效果，从而达到镶边的主观感受。

本产品开放以下珐琅/镶边Flanger参数供调整：

SPEED：指调制速度。主要用于调整镶边的颤音的变化速度。

DEPTH：指调制深度。主要用于调整镶边的颤音的变化范围。

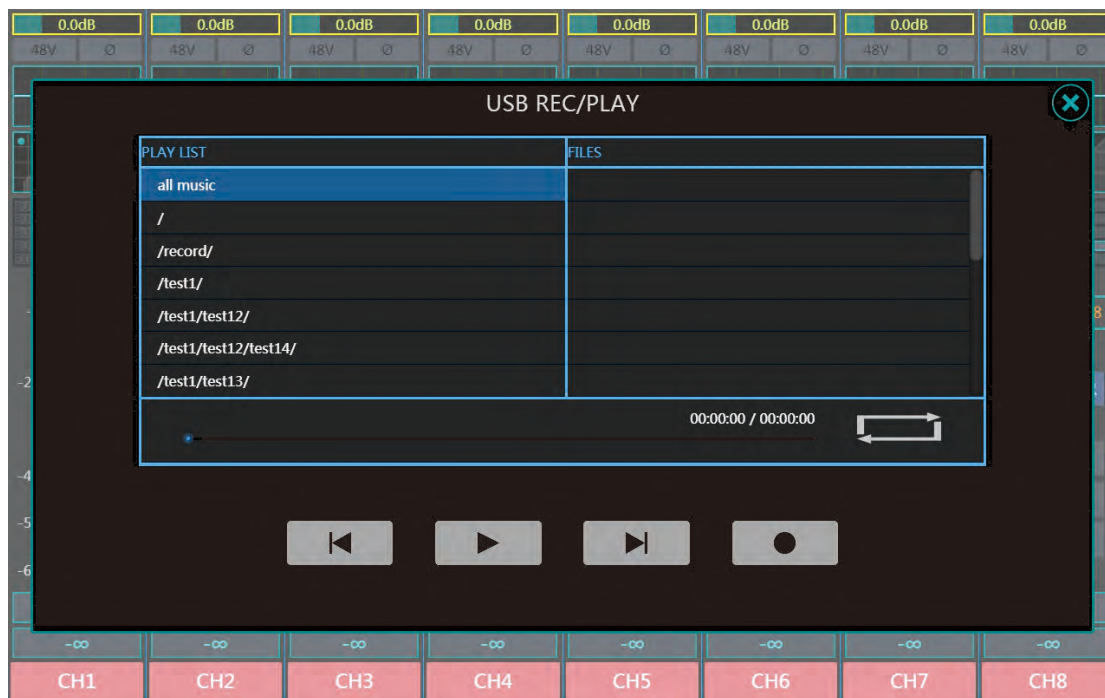
DELAY：延时。用于调整效果声与原声的延迟时间。

PHASE：用于调整反馈声与原声的相位差。

FEED：反馈量。该值越大镶边效果越明显。

DIRECT：直达声。用于调整效果声中直达声的音量的大小。

录放音界面



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：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。

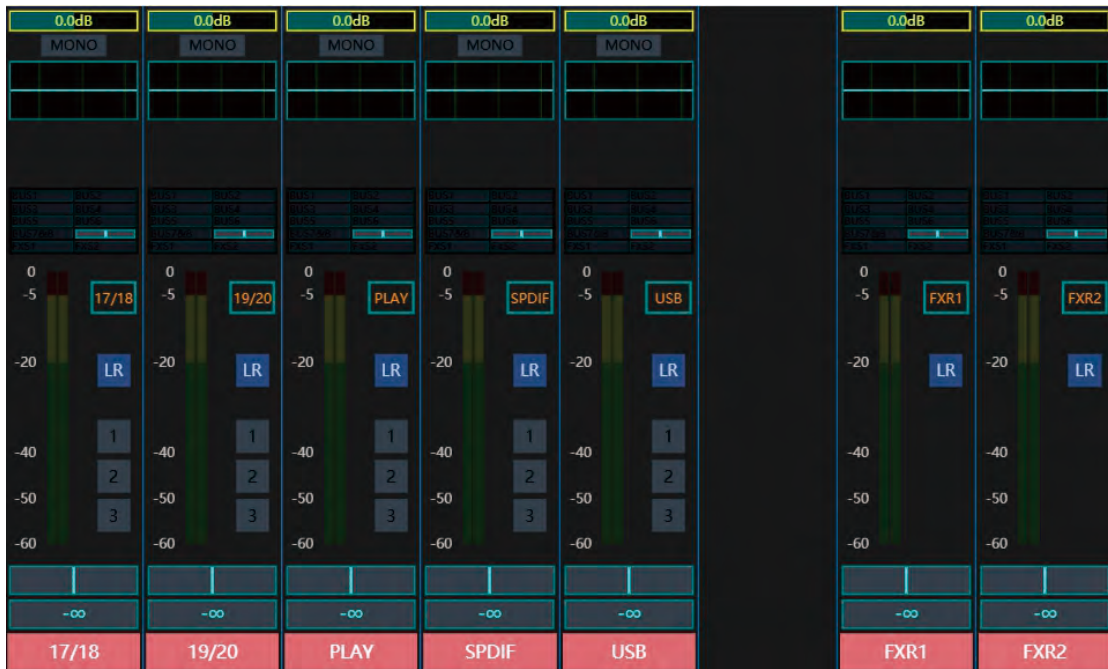
调音台通道



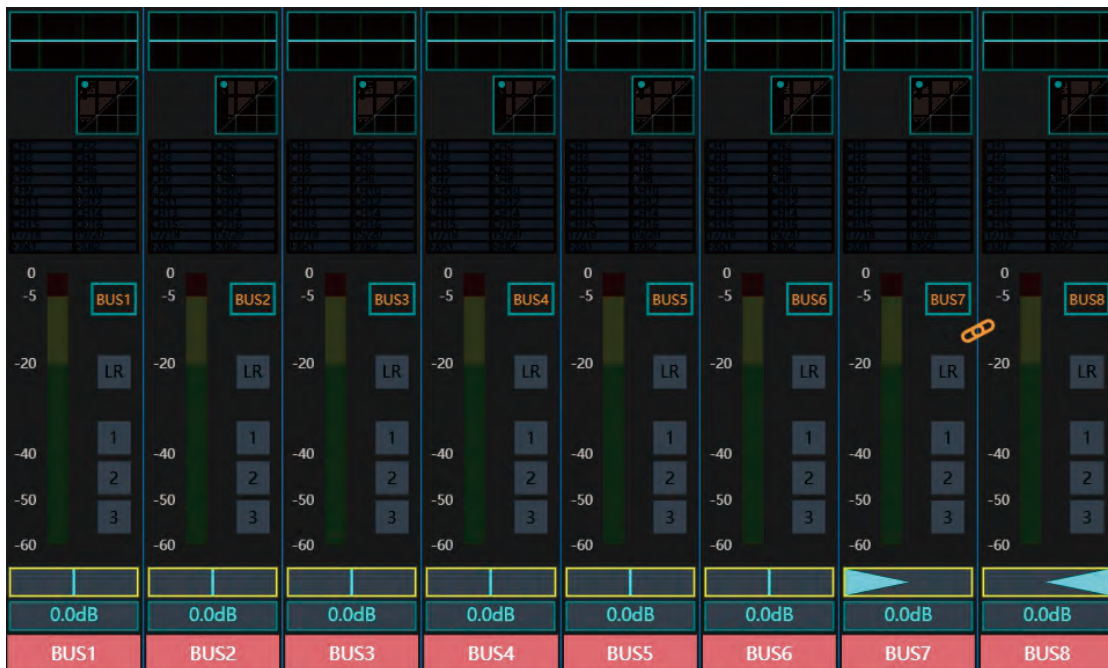
IN1-8 层包含8 个MIC/LINE IN 模拟输入通道。



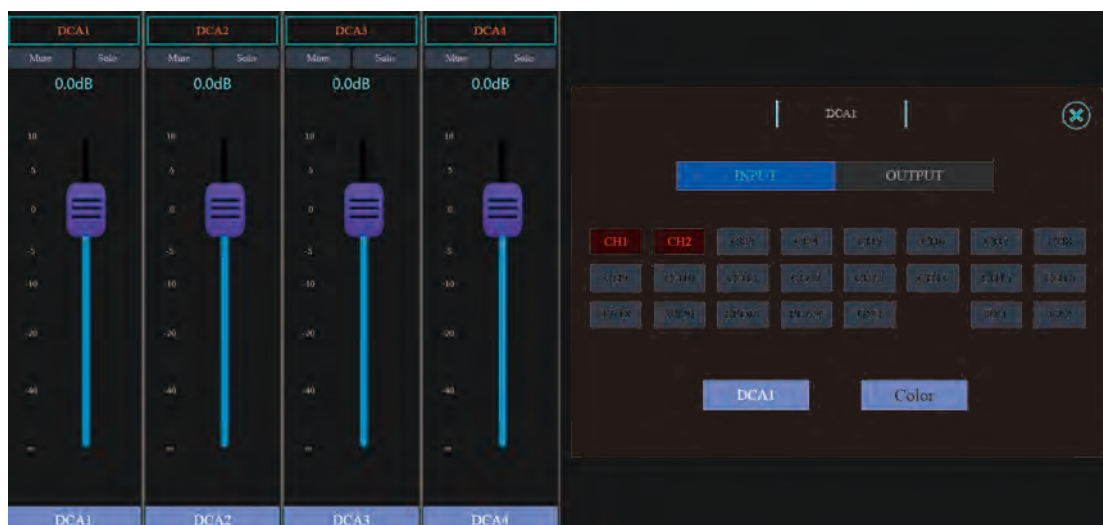
IN9-16 层包含4 个MIC/LINE IN 模拟输入通道和4 个LINE IN 模拟输入通道。



ST IN 层包含2 对立体声模拟输入通道、1个PLAY U 盘播放通道、1个SPDIF 输入通道、1个USB 声卡输入通道、2 个FX 效果器通道。



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。其中BUS1-6 母线拥有自己的物理输出插口。BUS7-8 母线默认为一对立体声SUB 总线，并默认为AES/EBU 数字通道输出。



DCA编组功能：DCA:第二次按下BUS/DCA按键，将进入DAC1-4通道的操作页面，按下相应DCA通道的选择按键，可以对每个DCA通道控制的任意输入或输出通道进行编组管理，并接受该DCA通道的统一管理，使用户的操作更简单更方便。



MASTER 母线立体声通道是主立体声（左/右）输出通道。



MASTER通道除了拥有自己的EQ 功能以外，还拥有独立的31 段GEQ 图示均衡器功能，点击GEQ 按键进入该功能界面如上。

单击ON可启用图示均衡器，单击PRESET可储存和导入图示均衡器预设，单击RESET可重置图示均衡器设置。

可以通过屏幕的虚拟推子或主旋钮调节选中的频率参数，也可以通过点击图示均衡器上的20Hz~100Hz、125Hz~630Hz、800Hz~4kHz、5kHz~20kHz 四个频率段按键，将该频率段的参数映射到物理推子上，并通过物理推子对相应频段的增益提升和衰减进行调节。

DSP功能

当您单击屏幕上的通道或按下通道的SEL 按钮后，您将进入该通道的通道编辑页面。该页面下包含了通道最基本的编辑功能和DSP功能。

Channel 页面



Channel 页面包含Input 栏、Main 栏和Sendto 栏。

Input 栏内可以打开/关闭通道的反相/幻象供电/立体声开关。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；立体声开关（LINK）可以将相邻的单/双数通道共同绑定为一对立体声通道。

Main 栏包含母线发送按钮LR、静音编组Mute Group 按钮和Pan值条。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。

Sendto 栏显示了该通道给哪些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，推子上方的按钮显示发送信号取自虚拟发送推子前还是虚拟发送推子后。若发送给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，用于本通道调节发送给对应绑定立体声的左右均衡。

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。您可以拖动动态图形上的“T”球。

RANGE：调整衰减值。该参数决定被衰减的信号的值。

ATTACK：调整噪声门瞬态。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。

EQ页面

EQ页面显示了通道的均衡器参数。均衡器调整特定频率的音频信号的幅度。



输入通道的EQ处理功能由四波段参数均衡器和高通滤波器（HPF）组成。



输出通道的EQ处理功能由四波段参数均衡器、高通滤波器（HPF）和低通滤波器（LPF）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均衡器频段球：均衡器频段控制的可拖动图形“球”，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，单击按钮可以为该段均衡选择其他类型的均衡类型，可选择类型包括高通、低通、高架、低架、PEQ等五种类型可选。

HPF球：高通滤波器控制的可拖动图形“球”，拖动该图形元素来控制，左/右调节截止频率。

LPF球：低通滤波器控制的可拖动图形“球”。拖动该图形元素来控制。左/右调节截止频率。

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。

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：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。

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。

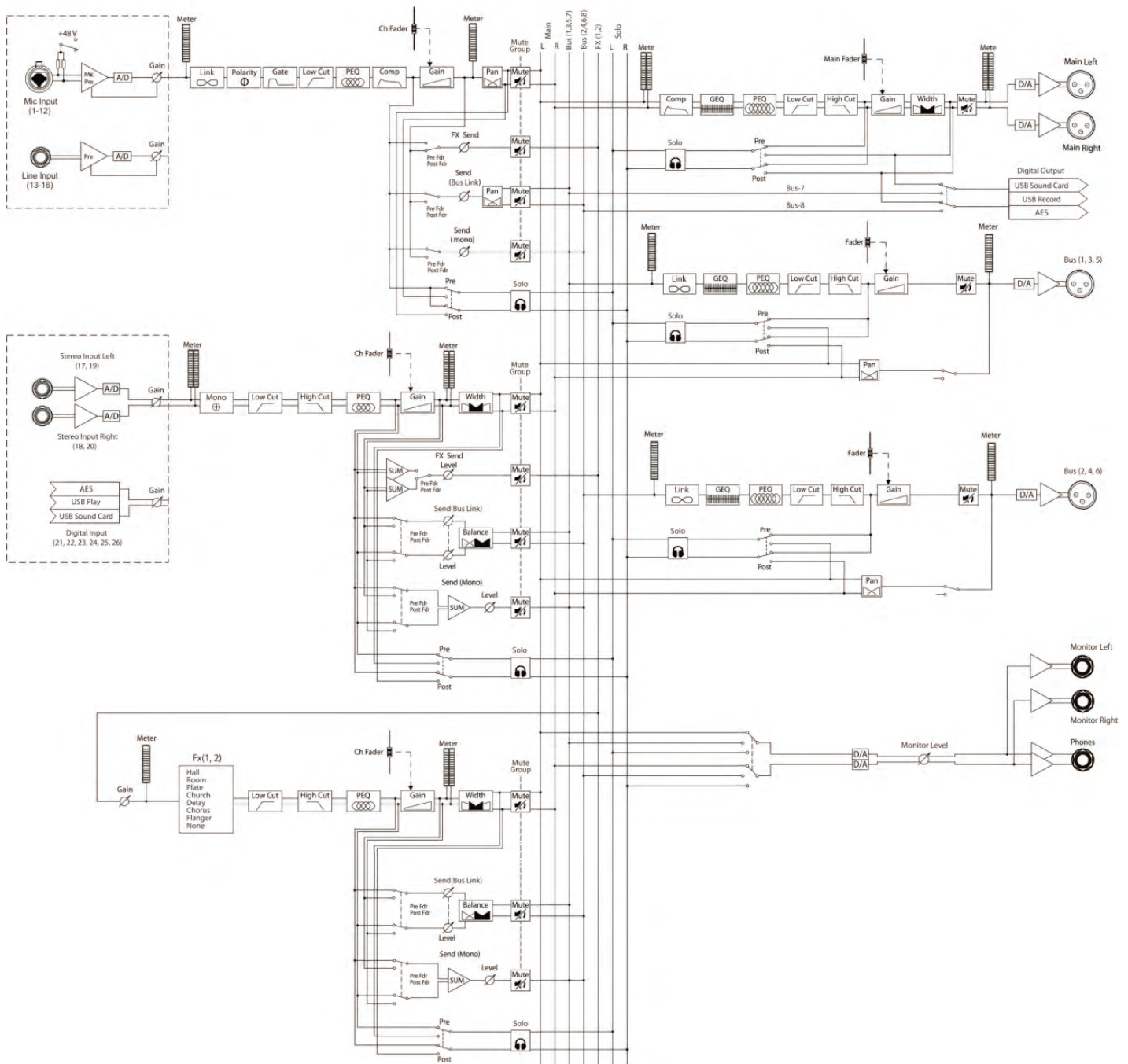
MUTE 静音与静音编组

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，也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。



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

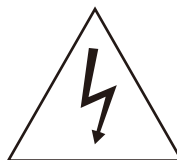
Please read these concise rules. Violating these rules may cause dangers. More detailed information on safety matters is provided in this manual. Please check it carefully.



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 others around 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.
- Install the device in a well-ventilated place.
- Do not place the device in a humid place or expose it to rain.
- Do not place beverages, food, and fire sources on the device to prevent liquid, solid residues and open flames from damaging it.

Operation / Placement

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

1. Introduction

2. Property indicators

Basic properties

Interface

Technical indicators

3. Hardware Structure and Installation

Structure and Dimension

Interface Description

Operation Panel Description

4. Software Control

Software Update

Factory Reset

Monitoring Settings

Digital Output Channel Settings

Account Settings

Network Connections

5. Operation

1. Login Interface

2. Channel Status Interface

3. MENU Setting Interface

4. METER Interface

5. PRESET / Snapshot Interface

6. Channel Copy Interface

7. EFX Effector Setting Page

8. Record and Play Interface

9. Mixer Channel

10. DSP Function

Input

Bus Send to

Noise Gate

EQ

Compressor

11. MUTE and Mute Group

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 features to 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

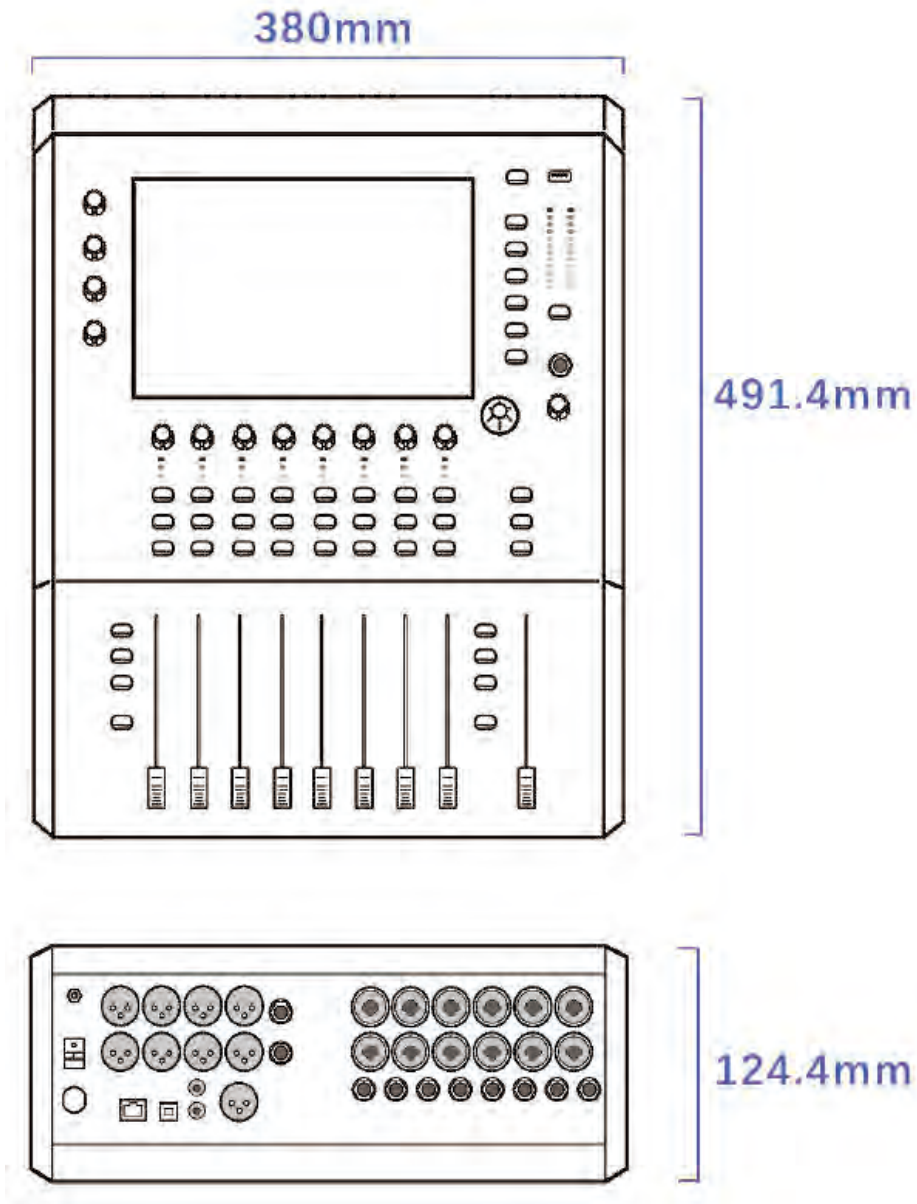
- 26-channel input includes: 12 microphone inputs, 2 stereo inputs, 3 digital stereo inputs (S / PDIF, USB sound card, USB playing).
- 12-circuit bus designs, 8-circuit BUS output channels, 1-circuit stereo main output, 3-circuit stereo digital outputs (S / PDIF + AES / EBU, USB sound card, USB recording).
- All microphone input channels have independent + 48V power supply and high-quality voice amplifier, and realize operation control through software.
- All input channels have independent low-cut, PEQ, compressor, noise reducer processing.
- All output channels have independent high and low cut, PEQ, compressor processing.
- The main output channel has independent 31-segment GEQ processing, which can support to send to the electric fader control in mirror mode.
- All input and output channels can be freely linked to stereo state.
- The names and colors of all channel labels can be customized.
- There are two built-in independent professional stereo effectors, with independent sending bus and multiple effect types to select.
- 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.
- All input and output channels can support any free copy.
- It supports an unlimited number of user scene storage and invoking functions, and all scenes can be imported and exported via U disk.
- It has user-defined password protection function, which is effective for both local operation and mobile access.
- The 10-inch high-definition 1920 * 1080 capacitive touch screen supports multi-point touch operation.
- It has 9 high-precision 100MM electric faders and 4 page turning management buttons.
- The 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.

Technical indicators

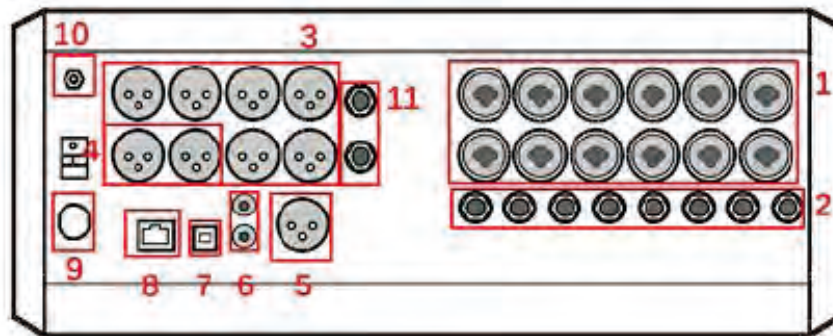
Hardware Indicators		Functional Indicators	
Input channel	26 channel input: 12 channel microphone; 4 mono channel;2 stereo; 3 digital stereo	Effector	2 independent effector channels
			Effect types include: Hall, Room, Plate, Church, Delay, Chorus Flanger
Output channel	12 channel output; Main output L/R; 6 BUS outputs; Monitor output /L/K; Headphone output L/R	Threshold	Threshold: -80~0dB
Recording interface	Dual-track USB sound card		Range : -80~0dB
	Double-track U disk recording storage		Attack : 1 ms~ 120 ms
Input gain Input and output impedance	Microphone gain -20~+70; Line gain -20~+20 Microphone / line input: 5kΩ Output: 200Ω		Release: 10ms ~ 4000 ms
		Hold: 1 ms~ 2000 ms	
Frequency Response	20Hz~20kHz: +/-0.5	Compressor	Threshold: -60dB~+0dB
Total Harmonic Distortion plus Noise THD+N	-20dBFS @ 1kHz: <0.01		Ratio:1:1~ 1000:1
Noise	Noise level(20/20k band-pass): -85dBu		Attack : 1 ms~ 120 ms
	Noise level(A): -88 dBu		Release: 10 ms ~ 4000 ms
Dynamic Range	-107dB		Hold: 1 ms~ 2000 ms
Crosstalk	Isolation between channels(+4dBu lk) : -96dB		Makeup Gain: -20dB~+20dB
Phase Difference	Phase difference between channels(+4dBu lk) : <0.1°	Channel equalizer	Controllable soft turning point
Equivalent Noise	-122dBu		4-band parametric equalizer
Delay	< 3ms		Frequency per frequency band : 20Hz~20kHz
Sampling Frequency	48K		Q: 0.05~ 15
USB	Maximum current: 500mA	Gain: -20dB~+20dB	
Phantom Power	+48V, Software control management	Channel filter	Types,optional: PEQ, HPF, LPF, HSF, LSF
			HPF: 20Hz~20kHz LPF: 20Hz~20kHz
Power	Power consumption (typical value): <65W	Parameter Equalizer	31 GEQ, 20Hz~20kHz> ±15dB
	Voltage Range: 100~240VAC Auto-induction AC Frequency: 47~63Hz		
Operating Condition	Temperature range: -20 ~55 °C	Mute group	Three programmable mute group
			1 total effect mute group

Hardware structure and installation

STRUCTURE AND DIMENSION



INTERFACE DESCRIPTION



1. 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 +48Vphantom power. This mixer has 12 combined input interfaces.

2. 6.35mm TRS input interface

It is used to connect balanced analog line input signal. This mixer has eight 6.35mm TRS inputs, including four mono analog inputs and two pairs of stereo analog input interface.

3. BUS XLR output interface

The balanced output interface from BUS 1 to BUS 6 adopts XLR socket. This mixer has 6 BUS output interfaces.

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

It is used for the XLR interface for outputting AES / EBU digital signals.

6. SPDIF coaxial input / output interface

It is used to input and output SPDIF digital audio signals. The upper side is the SPDIF signal input interface and the lower side is the SPDIF signal output interface.

7. USB Host sound card interface

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

8. 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.

9. 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.

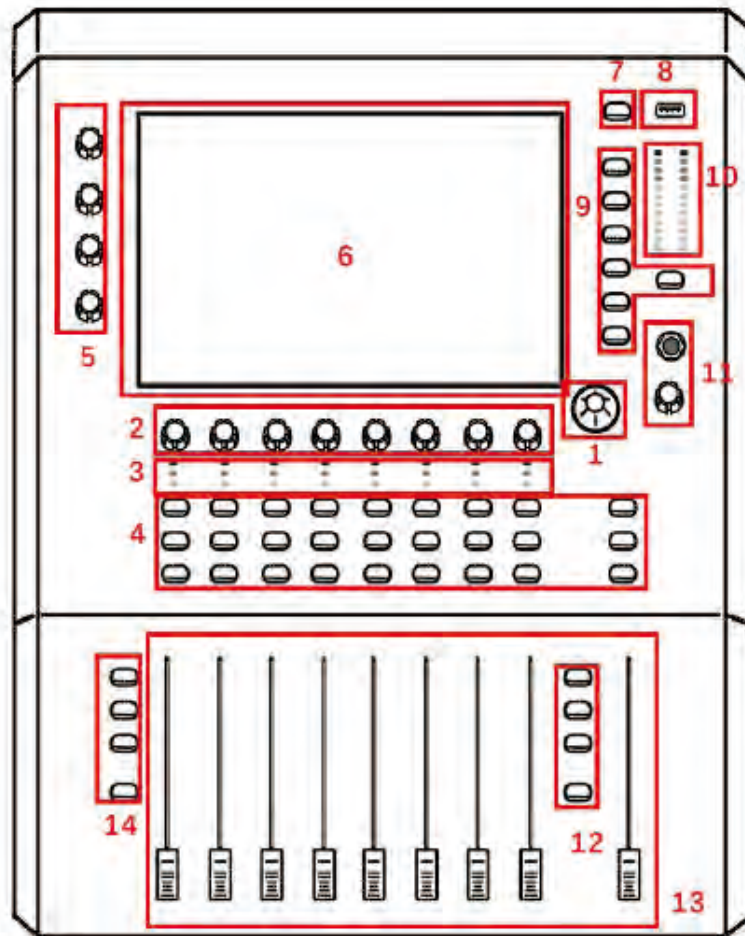
10. Antenna interface

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.

11. 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 adjustable 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 $> -40\text{dBFS}$ when the green light is on, the input level is $> -20\text{dBFS}$ when the yellow light is on, and the input level is $> 0\text{dBFS}$ 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 1/2/3 mute buttons.

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.

SOFTWARE UPDATE

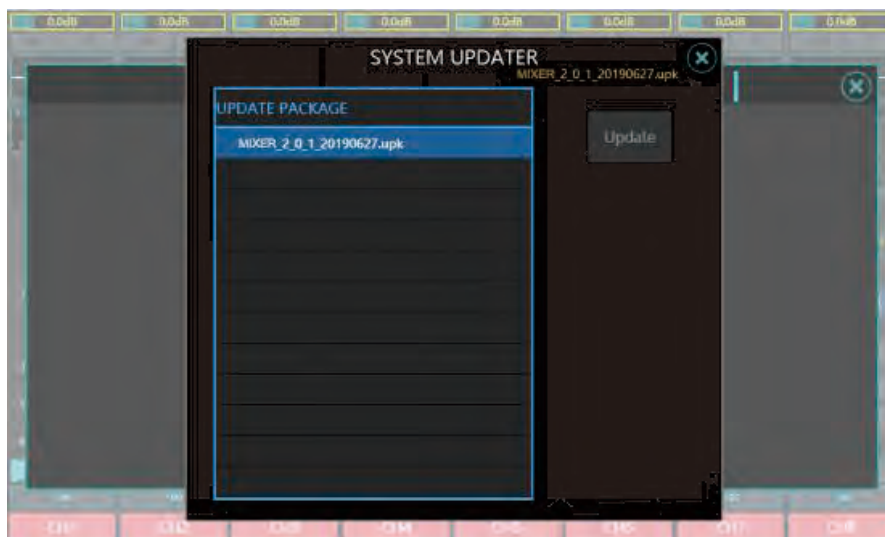
You can contact the distributor of this product to obtain the latest software version.

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;



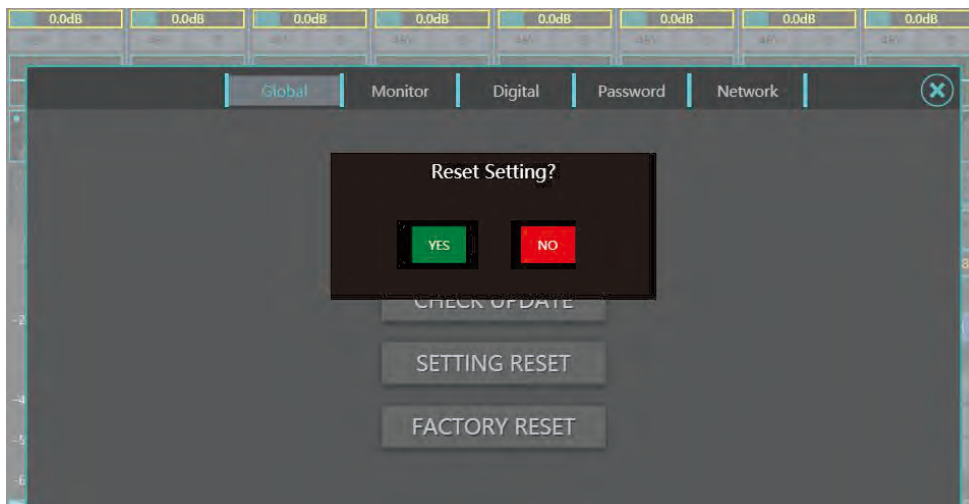
6. Wait about 3 minutes, the mixer will restart and update is complete.

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

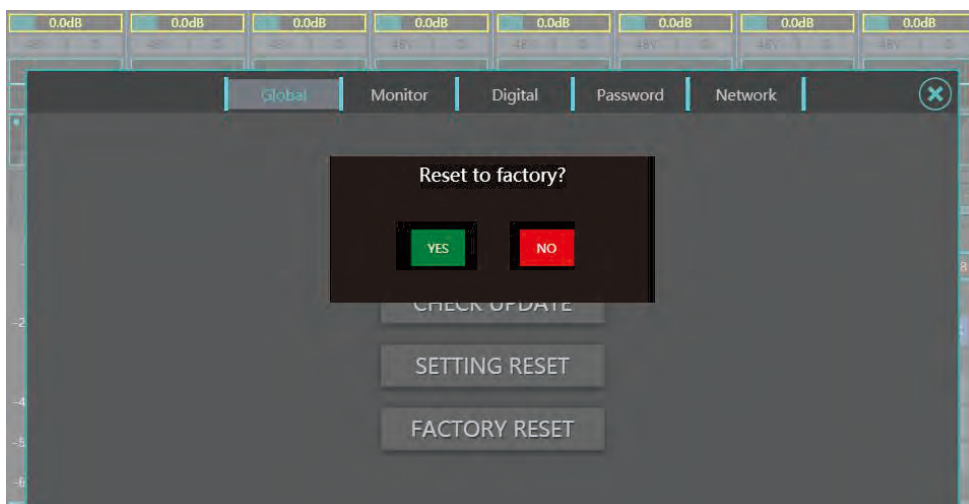
The mixer provides 2 levels of restoring settings. One is to restore the setting parameters of all channels, and the other is to clear all user data and completely restore the factory settings.

Restore all channel settingsL:



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 MONITOR OUTPUT speaker monitor socket on the back panel. You can obtain the signal of the monitor bus through these sockets.

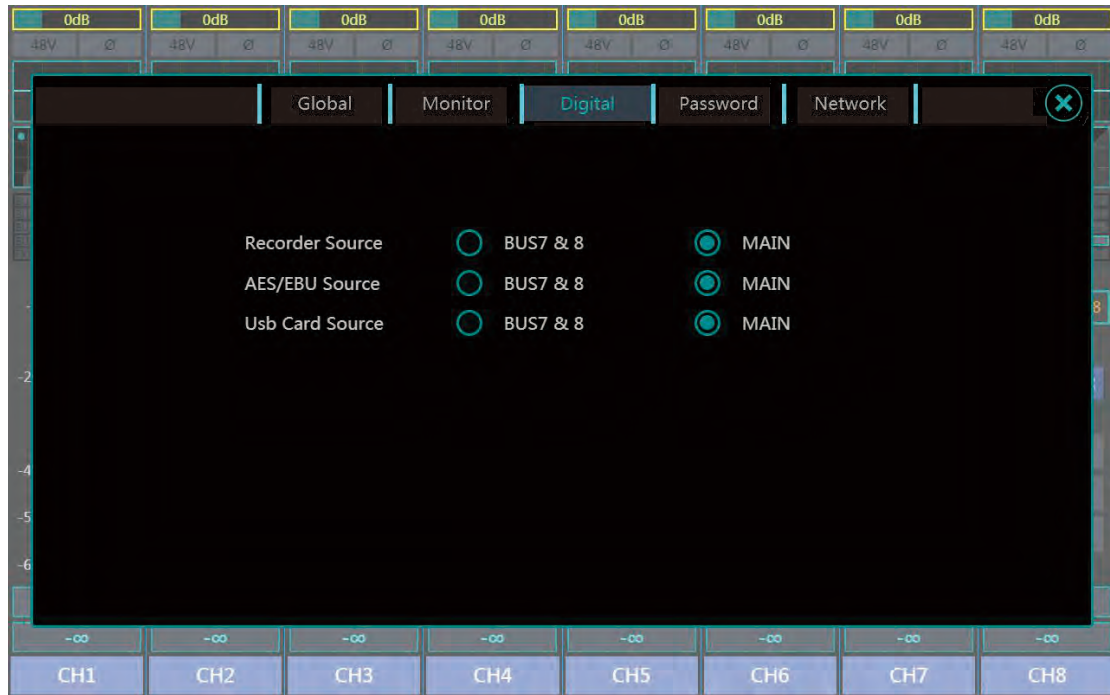
You can add the corresponding channel to the monitor bus through the SOLO button on the mixer panel. At this time, the main output level meter on the upper right side of the panel will become the monitor bus level meter, and the CLEAR button below the level meter will change to red, indicating that there 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.



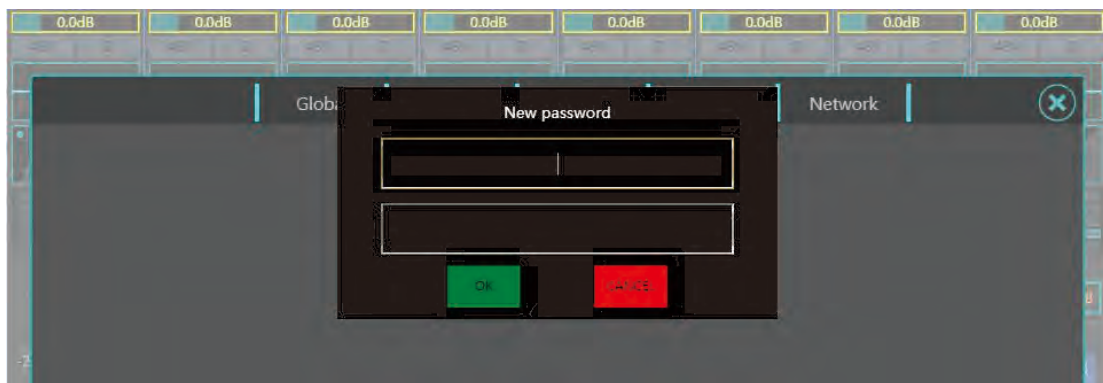
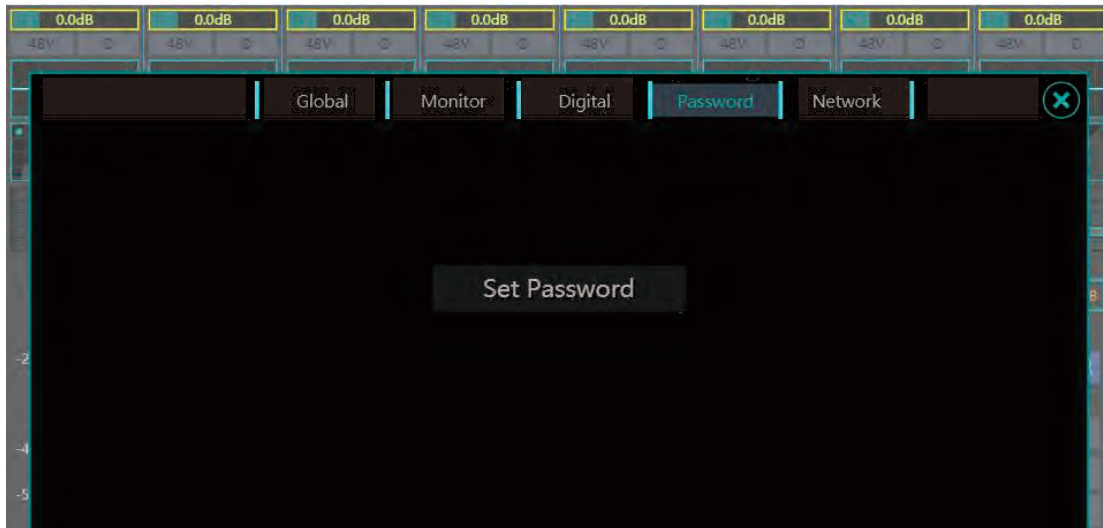
Digital Output Channel Settings



The digital output channel of this product can choose different source signals. You can send the signal of BUS7 & 8 or MASTER channel to the specified digital output channel and recording channel (AES / EBU, USB sound card, USB flash drive recording) as the source signal on the MENU-Digital page.

Account Settings

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



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.

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 "WiFi Mixer".

Enter the wireless IP address of the mixer in the mobile browser, the default address is "192.168.2.1".

- **LAN wired connection:**

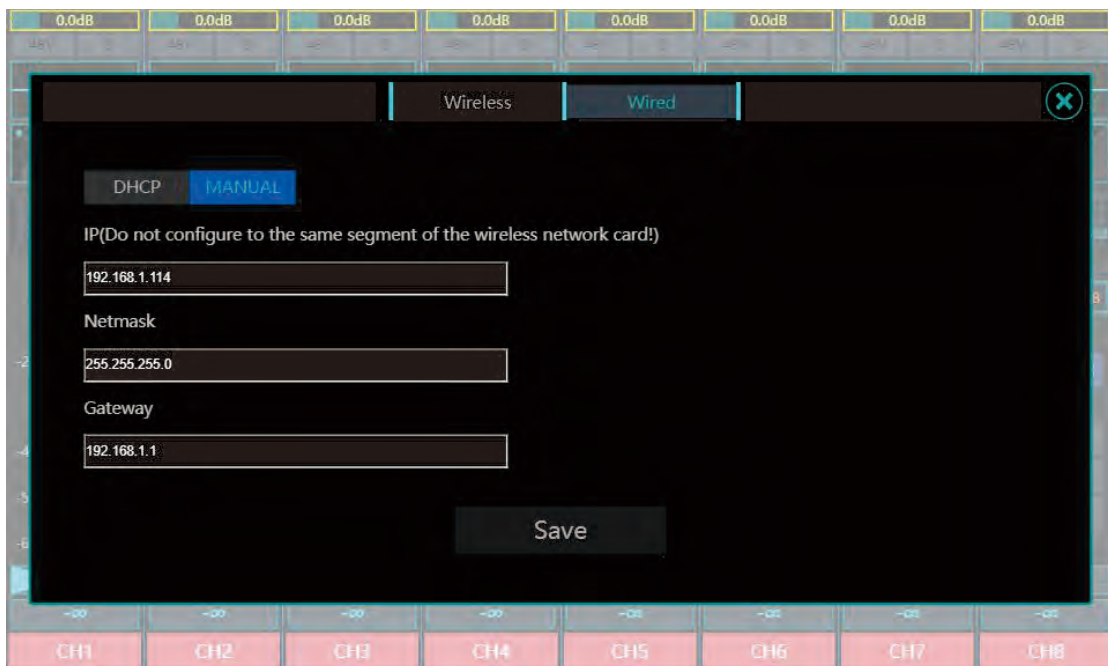
Open the computer's network settings, set the computer's LAN gateway as "192.168.1.1" and the LAN subnet mask as "255.255.255.0".

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.

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) is 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.

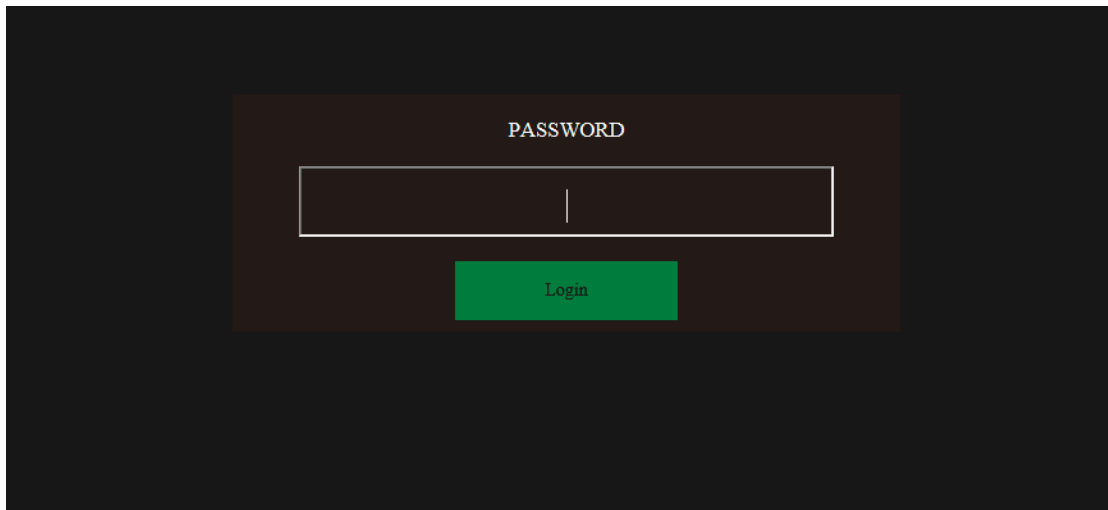
Wired connection

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.



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.

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

MENU Setting Interface



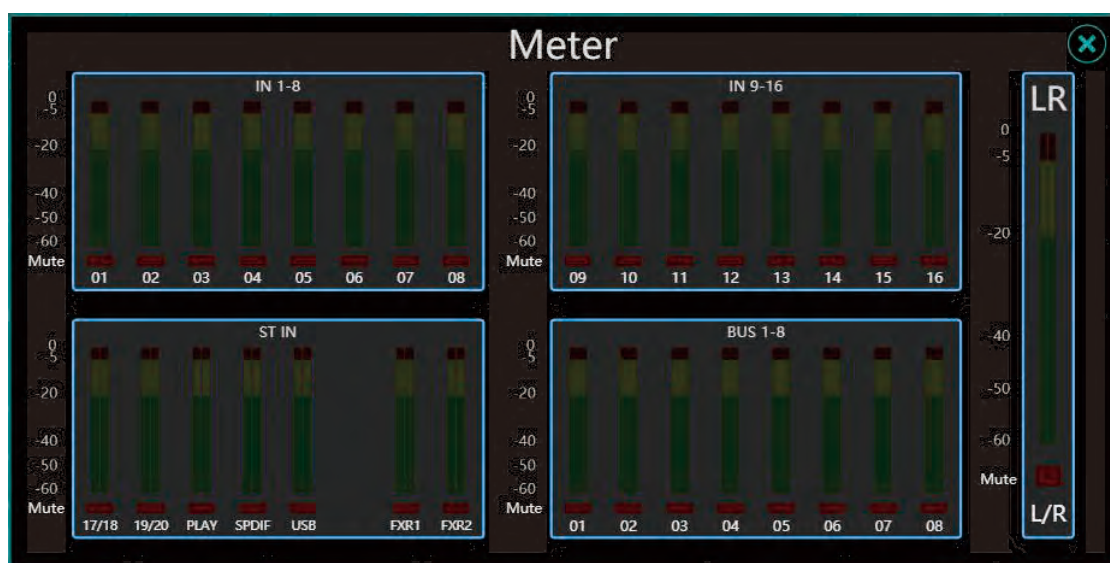
After pressing the MENU button, you will enter the menu setting page. This page includes the Global, Monitor, Digital, Password, and Network subpages, and you can update or reset the mixer, adjust monitoring settings, adjust digital output sources, set mixer passwords, and adjust network connection settings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

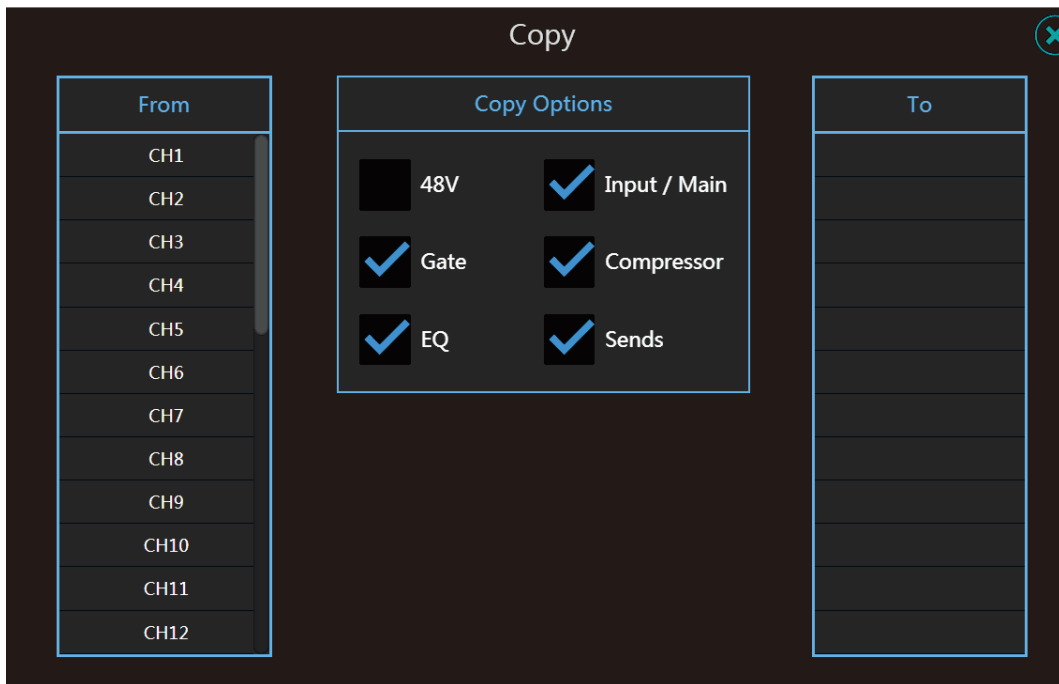


When pressing the PRESET button, you will enter the preset / snapshot interface. This interface displays all the presets of the mixer. Select the preset on the left and press Load to apply the preset; click the Save button to save the current settings of the mixer; select the preset on the left and press Delete to delete the preset; when a USB flash drive is inserted, you can use the Export button and the Import button to import and export preset files to the USB flash drive.



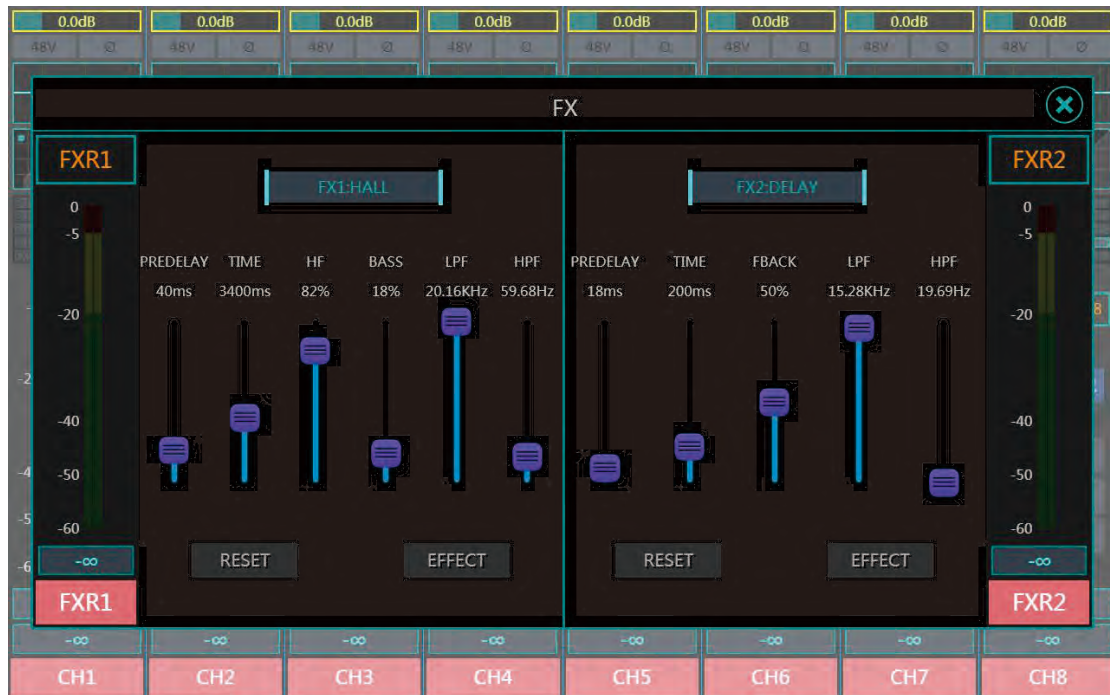
After pressing the Import button, you will enter the list of USB flash drive storage presets. You can press the Load button to directly apply the preset from the USB flash drive to the mixer, or you can press the Import button to import the preset file to the mixer for later use.

Channel Copy Interface

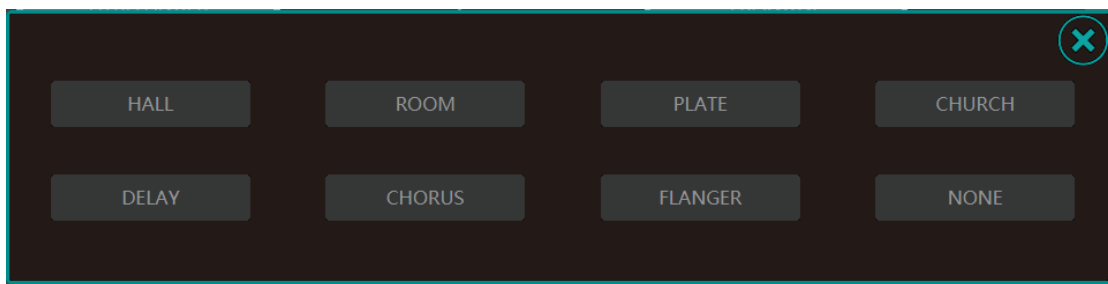


After pressing the COPY button, you will enter the channel copy interface. You can copy the channel settings from the list on the left to the channels on the right. First select the channel on the left list, and the right list will display the channel that can accept the pasted channel. Set the copied 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. Click the RESET button to restore the parameters of each effector to their recommended values; click the EFFECT button to enter the effector selection interface, and enter the 7 effector and deactivation options (i.e., the NONE button) provided by the mixer.



This product has two effector channels. You can select the effector you need for the two channels on the effector setting page and adjust the effector parameters. Common effector included in the mixer includes various reverbs, delays, chorus, and so on. If you want to add effects to some channels of the mixer, you can send these channels to the corresponding effector channel, and the effector channel will send the signal with added effect to the bus. You can see the editing interface of the FX channel, and choose to send the signal of the effector channel to which bus under the Send to column.

1. Reverb (HALL, ROOM, PLATE, CHURCH)

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 4 kinds of reverb effectors, namely HALL reverb, ROOM reverb, PLATE reverb and CHURCH reverb.

HALL reverb usually brings a sense of huge space; its high frequency attenuation is very obvious, and the attenuation time is usually the longest;

ROOM reverb brings more intuitive sense of space, making people feel the existence of space clearly;

PLATE reverb is more gorgeous; its high frequency attenuation is not obvious, and it is not easy to produce a sense of huge space;

CHURCH reverb is similar to HALL reverb, but the high frequency attenuation slows slightly.

The product provides the following reverb parameters for adjustment:

PREDELAY: Pre-delay (milliseconds), that is, the time period from the original sound is made to before the reverb sounds.

TIME: Reverb time (milliseconds), that is, the time it takes for the attenuation of the tail of the reverb. Reverb time is a spatial type of auditory indicator. The reverb time of a large reflection space is longer than that of a small sound absorption space.

HF: High-frequency damping. By setting high-frequency damping, you can tune out a more natural reverb.

BASS: Bass gain. Adding bass to the reverb signal helps thicken the audio that is attenuated by the reverb algorithm. You can also use this parameter to make the low frequencies that are sometimes obscured by reverb clearer.

LPF: Low-pass filter frequency. Higher frequency settings increase the high frequency response and produce a brighter reverb; lower frequency settings produce a darker reverb.

HPF: High-pass filter frequency. It cuts low frequencies and reduces "rumbling" and unwanted turbidity.

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 opens the following Delay parameters for adjustment:

PREDELAY: Pre-delay (milliseconds), that is, the period from the original sound is made to before the reverb sounds.

TIME: The duration of delay in milliseconds.

FEEDBACK: The delay output signal feeds back the delay input to control the number of delay repeats. This creates a series of delay repetitions, and each slightly weakens until it becomes inaudible. The higher the setting, the more repetitions; the lower the setting, the less repetitions. Note that if the setting is too high, it will repeat playing and produce infinite loop.

LPF: Low-pass filter. By adjusting the cut-off frequency of the low shelf filter, it can reduce the high frequency content, and frequencies higher than this value will be filtered / deleted.

HPF: High-pass filter frequency. It cuts low frequencies and reduces "rumbling" and unwanted turbidity.

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 opens the following Chorus parameters for adjustment:

DETUNE: The pitch deviating from the original signal.

DENSITY: Adjust the density of the chorus effect. The higher the chorus density, the thicker and richer the result.

LPF: Low-pass filter. By adjusting the cut-off frequency of the low shelf filter, it can reduce the high frequency content, and frequencies higher than this value will be filtered / deleted.

HPF: High-pass filter frequency. It cuts low frequencies and reduces "rumbling" and unwanted turbidity.

4. Ename / Flanger

The flanger effect adjusts the pitch of the delayed sound to make the sound shake up and down and produce a noise, and make the sound more fluctuant. The general principle of the flanger effect is to add a feedback loop to the chorus effector, and generate a comb filtering effect by superimposing the original signal and the changing feedback signal, so as to achieve the subjective feeling of flanger.

This product opens the following Enamel / Flanger Flange parameters for adjustment:

SPEED: It refers to the modulation speed. It is mainly used to adjust the changing speed of the flanged vibrato.

DEPTH: It refers to the modulation depth. It is mainly used to adjust the changing range of flanged vibrato.

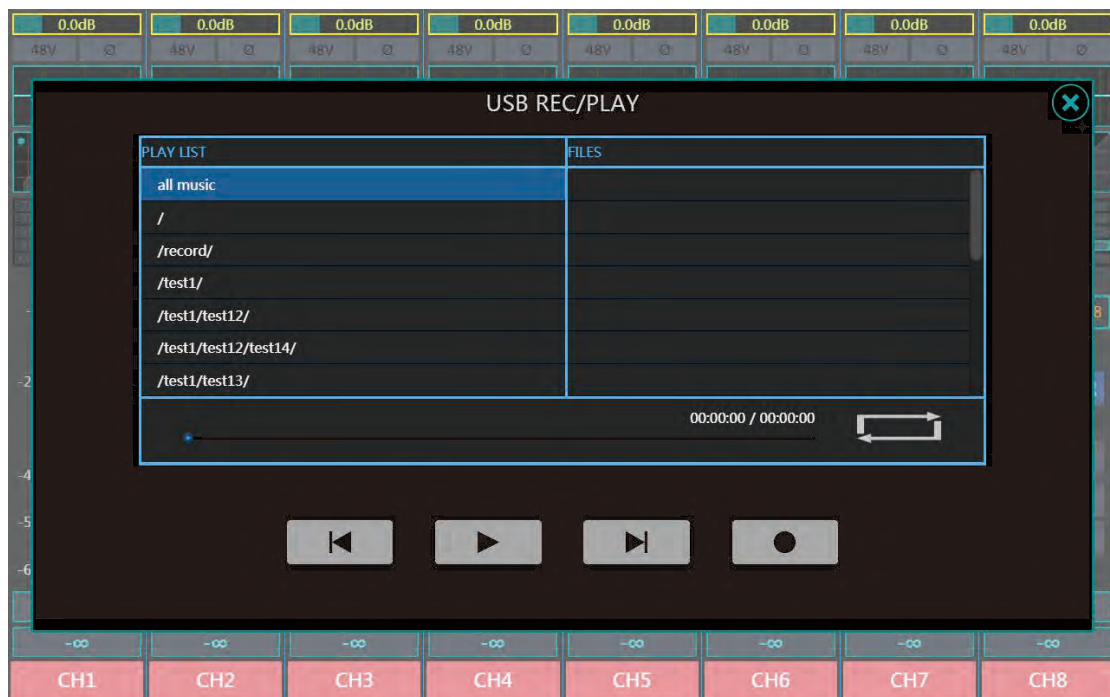
DELAY: Delay. It is used to adjust the delay time between the effect sound and the original sound.

PHASE: It is used to adjust the phase difference between the feedback sound and the original sound.

FEED: The amount of feedback. The larger the value, the more obvious the flanger effect.

DIRECT: Direct sound. It is used to adjust the volume of the direct sound in the effect sound.

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.

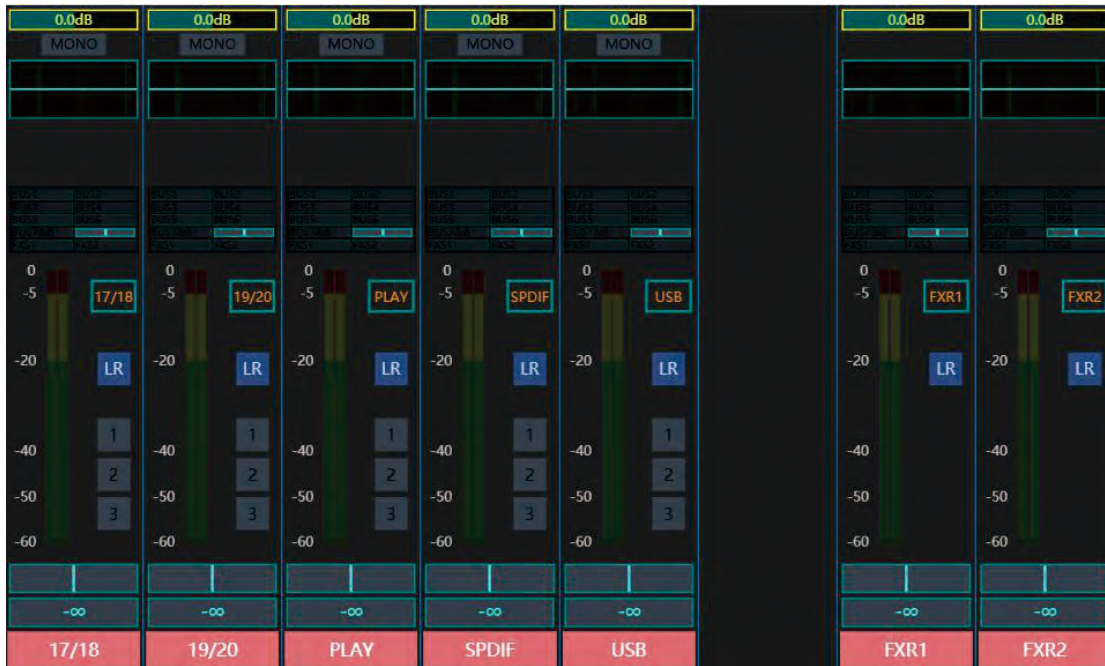
Mixer Channel



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



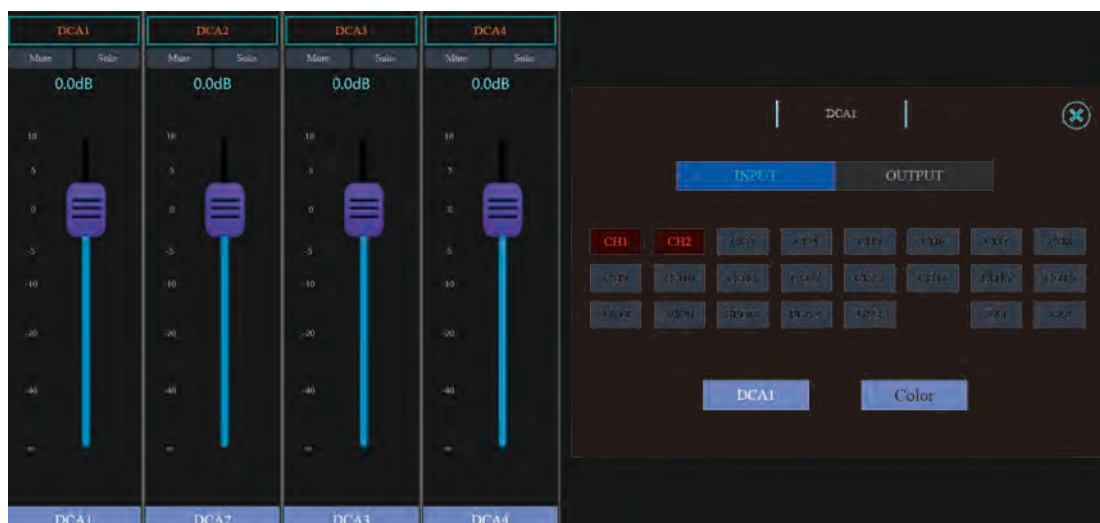
The IN9-16 layer contains 4 MIC / LINE IN analog input channels and 4 LINE IN analog input channels.



The ST IN layer contains 2 pairs of stereo analog input channels, a PLAY USB flash drive play channel, 1 SPDIF input channel, 1 USB sound card input channel, and 2 FX effector channels.



The BUS1-8 layer contains 8 buses. All buses can be set as single-channel AUX output or linked as stereo SUB channel output. BUS1-6 bus has its own physical output socket. The BUS7-8 bus defaults to a pair of stereo SUB buses and defaults to AES / EBU math channel output.



DCA Marshalling Function: Press the BUS/DCA button for the second time to enter the operation page of DCA1-4 channel and press the selection button of corresponding DCA channel. Any input or output channels controlled by each DCA channel can be organized and managed, and the unified management of this DCA channel can be accepted, making the operation easier and more convenient for users.



The MASTER bus stereo channel is the master stereo (left / right) output channel.



In addition to its own EQ function, the MASTER channel also has an independent 31-band GEQ graphic equalizer function. Click the GEQ button to enter the function interface as above. Click ON to enable the graphic equalizer, click PRESET to save and import the graphic equalizer presets, and click RESET to reset the graphic equalizer settings. You can adjust the selected frequency parameter through the virtual fader or the main knob on the screen, or you can click the four frequency band buttons of 20Hz ~ 100Hz, 125Hz ~ 630Hz, 800Hz ~ 4kHz, 5kHz ~ 20kHz on the equalizer on the equalizer in the figure to map the parameters of the frequency band to the physical fader, and adjust the gain boost and attenuation of the corresponding frequency band through the physical fader.

DSP Function

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.

Channel page



The Channel page contains an Input column, a Main column, and a 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 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.

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.

EQ page

The EQ page displays the equalizer parameters of the channel. An equalizer adjusts the amplitude of an audio signal at a specific frequency.



The EQ processing function of the input channel consists of a four-band parametric equalizer and a high-pass filter (HPF).



The EQ processing function of the input channel consists of a four-band parametric equalizer and a high-pass filter (HPF).

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. .

HPF Sphere: A draggable graphic "sphere" controlled by high-pass filter. Drag the graphic element to control. Adjust the cutoff frequency left / right.

LPF Sphere: A draggable graphic "sphere" controlled by low-pass filter. Drag the graphic element to control. Adjust the cutoff frequency left / right.

Preview of band equalization parameters: The parameters of the four-band band equalizer will be displayed in the lower part of the window in four blocks. Each block includes three knobs, an equalizer type button on the upper left, and an equalizer segment number label on the upper right. The middle knob is the Q value: the Q value is a parameter used to set the bandwidth of the equalizer function. The lower the Q, the wider the frequency band. The knob on the left is the frequency value: this value represents the center frequency of the band of equalization. The knob on the right is the Gain value: This value represents the amount of enhancement or attenuation of the selected equalizer band. The upper left corner uses icons to indicate the type of equalizer currently in use.

Compressor page



The compressor page displays the compressor parameters of the channel. The compressor will reduce the signal level over a certain threshold.

ON: Noise gate switch.

RESET: Reset to the default value.

PRESETS: Call up the standard preset management pop-up box to save / load the compressor presets.

THRESHOLD: Adjust the threshold of the compressor. You can drag the "T" ball on the motion graphic.

RATIO: Adjust the compression ratio. This parameter determines how much the compressor will attenuate the signal after it exceeds the threshold.

ATTACK: Adjust the compressor transient. This parameter is the speed at which the compressor responds and reaches the attenuation value set by the RATIO parameter.

HOLD: Adjust the compressor hold time.

RELEASE: Adjust the compressor release time. This is the speed at which the compressor returns to the "non-attenuation" level when the signal level drops below the threshold level.

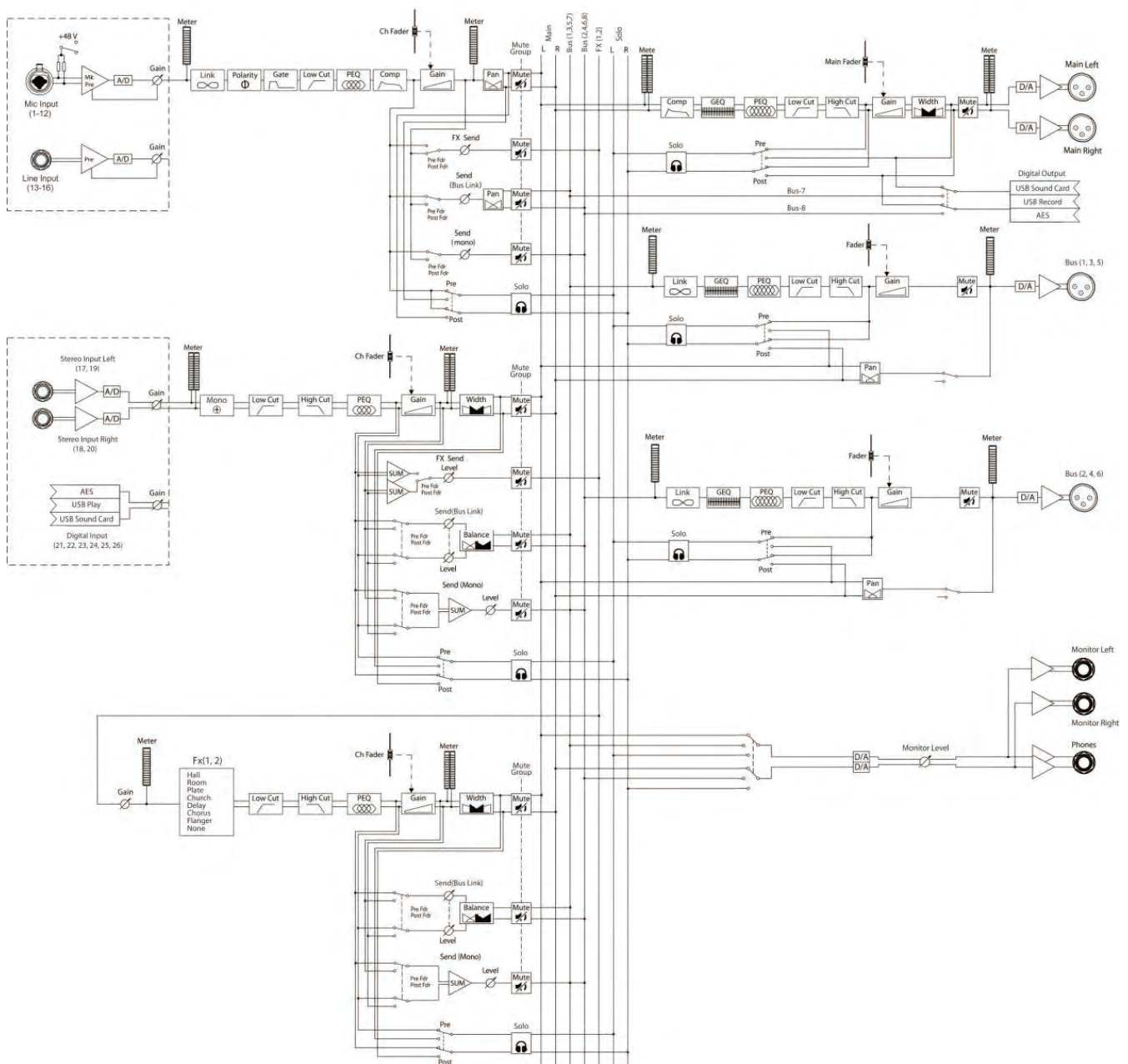
MUTE and Mute Group

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.

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.



注意事项：

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