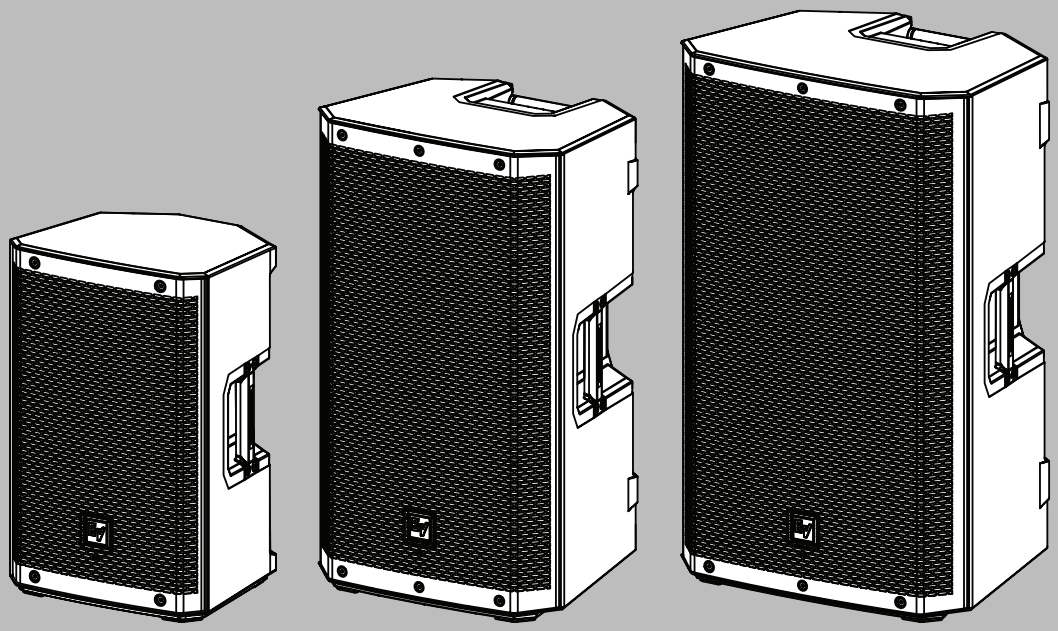
Electro-Voice

ZLX-G2 Full-range loudspeaker

ZLX-8-G2, ZLX-12-G2, ZLX-15-G2, ZLX-8P-G2, ZLX-12P-G2, ZLX-15P-G2



zh-CHS 安装手册

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1 安全标准

1.1 重要安全说明

<table>
<tr>
<td>

警告：为了降低火灾和电击风险，应避免设备被雨水打湿或受潮
AVIS: RISQUE DE CHOC ELECTRIQUE, NE PAS OUVRIR.
警告：电源插座或AC插头用作断路装置。断路装置应保持操作简便性。
警告：只能连接到带保护接地的电源插座。
警告：为降低电击风险，请勿拆下外盖（或后盖），因为设备内部没有用户可维修的部件。维修服务请咨询有关合格人员。</td>
<td> </td>
<td>内含带箭头闪电符号的等边三角形用于提醒用户：产品箱体内部存在未绝缘的“危险电压”，其能量级别足以对人造成电击伤害。</td>
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<td> </td>
<td>内含感叹号的等边三角形用于提醒用户：产品随附的文档资料中介绍了重要的操作和维护（保养）说明，请仔细阅读。</td>
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<td>内含星号的等边三角形用于告知用户有关设备的必要安装或拆卸说明或系统相关的硬件使用。</td>
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</table>

1. 阅读并保存这些安全说明。遵循所有说明并留意所有警告。
2. 从www.electrovoice.com下载最新版本的安装手册，获取安装说明。

信息
请参阅《安装手册》查看说明。

3. 遵循所有安装说明并留意以下警示标志：

注意!
包含附加信息。未遵守“注意”通常不会导致设备损坏或人员受伤。

小心!
如果未遵守此警示，可能会造成设备损坏、财产损失或人员受伤。

危险!
电击风险。

4. **只能使用干软布清洁。-** 清洁前从插座上取下本设备的插头。请勿使用液体清洁剂或喷雾清洁剂。
5. **冷凝 -** 为了避免冷凝，当设备从温度较低的地方转移到温度较高的地方时，等待几个小时再打开设备电源。
6. 不要将本设备暴露在滴水或溅水的环境下，并且不要在本设备上放置装有液体的物体（如花瓶）。

危险!
为降低火灾和触电风险，应避免设备被雨水打湿或受潮。

7. **不要阻塞各个通风孔。遵照制造商的说明进行安装。-** 外壳上的开口（如有）用于通风，以确保设备可靠运行并防止设备过热。不得阻塞或盖住这些开口。此设备不应采用嵌入式安装，除非提供适当通风或遵守制造商的说明。

8. 请勿在靠近热源的地方安装，例如，散热器、贮热器、火炉或其它生热装置（包括放大器）或阳光直射的区域。
9. 不要将裸露的火源如点燃的蜡烛放在设备上。
10. **电源线选项**:

- **电源插头**
  - 使用在安全机构注册的3针电源插头。
  - 使用经认证[1]符合EN 50075/IEC 60083标准的C5式2针电源插头（可见新加坡《消费者保护（安全要求）注册计划》信息，附录S）。
- **软线**
  - 使用经认证[1]符合相关IEC标准的双层绝缘软线。

    [1]经IECEE CB体系成员认证。
- **设备连接器**
  - 使用经认证[1]符合IEC 60320标准的设备连接器。

    [1]经IECEE CB体系成员认证。

11. **不要破坏极化或接地型插头的安全功效。** - 极性插头配有两个接线片，其中一片比另一片宽。接地型插头配有两个接线片以及一个接地插脚。宽接线片或接地插脚均用于保护您的人身安全。如果提供的插头无法插入插座，请联系电工更换老式插座。
12. 由市电供电的设备应连接到具有保护性接地连接的电源插座。必须安装随时可操作的外置电源插头或全极电源开关。
13. 要将本设备完全断电，则必须拔掉电源线插头。

警告! 为防止触电，请先断开所有电源连接，再安装系统。

14. 在雷雨期间或长期不用时，请拔下本设备电源插头。
15. 请勿踩踏或挤压电源线，特别注意保护插头、便捷插座以及设备接出点位置。

危险!

过载 - 请勿让插座和延长电线负荷过重；否则，可能导致火灾或电击。

16. **仅用制造商指定的附件/配件。-** 安装各种设备均应遵循制造商的说明，并且应使用制造商推荐的安装附件。
17. **仅使用制造商指定的或者设备附带的推车、托台、三角架、支架或桌台**。- 使用推车时，请小心移动装有设备的推车，避免翻倒而造成人身伤害。停止过猛、用力过度和表面不平整均可能会导致装有电器的推车翻倒。

小心!

对于本扬声器，没有评估三脚架的安全性。检查三脚落地支架的规格，确保其可支撑扬声器的重量。

18. 只能由合格的人员根据适用的当地规定进行系统安装和维修。用户不得维修内部部件。
19. 若高度超过2米，设备掉落时可能会造成人身伤害。因此应采取预防措施。
20. **替换部件 -** 需要更换部件时，维修人员应使用制造商指定的替换部件，或与原部件具有相同特性的部件。擅自使用其它部件进行更换可能导致火灾、遭受电击或发生其它危险。
21. 设备电源保险丝只能使用相同类型的产品进行更换。
22. **安全检查 -** 维修本设备之后，请让维修人员执行安全检查，以确保本设备能正常工作。

1.2 预防措施

- 如果晴天在户外使用Electro-Voice扬声器，请将扬声器放在背阴处或有遮挡的区域。扬声器功率放大器带有保护电路，当达到相当高的温度时，保护电路会暂时关闭扬声器。在炎热的天气中，当扬声器受到阳光直射时，可能会出现这种情况。
- 请勿在温度低于0°C (32°F)或高于+35°C (95°F)的环境中使用Electro-Voice扬声器。
- Electro-Voice扬声器很容易产生足以让正常覆盖距离内的所有人听力永久受损的声压级。应小心避免长时间暴露在声压级超过90 dB的环境中。为了防止听力损伤，请不要长时间收听高音量。

1.3 吊挂

警告!

各种设备的吊挂都存在潜在危险，只能由充分了解高空吊挂技术和法规的人员来执行。Electro-Voice强烈建议在吊挂所有的扬声器时都应考虑当前所有的国家/地区以及地方的法律和法规。安装人员有责任确保所有扬声器都按照该要求进行安装。扬声器吊挂完成后，Electro-Voice强烈建议至少按每年一次的频率或根据法律法规的要求对该系统进行检查。如果发现存在薄弱或损坏的迹象，应立即采取补救措施。用户有责任确保墙壁、天花板或结构能够支撑所有吊挂其上的设备。用于吊挂与Electro-Voice无关的扬声器的各种硬件由其他方负责。

警告!

不要以本手册或Electro-Voice安装指南中明确说明的方式之外的任何方式悬挂本产品。悬挂任何物体（扬声器）都可能有危险，只应由充分了解在空中悬挂物体的技术、材料和法规的人员来执行。只能使用Electro-Voice手册和安装指南中所述的附件和硬件悬挂Electro-Voice扬声器。**不要使用把手来悬挂扬声器。Electro-Voice扬声器上的把手仅供相关人员临时运输之用。纤维绳、钢丝绳、电缆等物体或其他类型的材料不能用于从把手悬挂扬声器。**用于吊挂与Electro-Voice无关的扬声器的所有硬件由其他方负责。

警告!

您可以自行决定是否将非授权配件或附件与此产品或各种Electro-Voice产品搭配使用。使用非授权配件或附件可能会造成产品故障，导致人身伤害或死亡。
用户需承担所有责任，同时这还可能导致保修失效。

2 产品注册

注册您的ZLX-G2：electrovoice.com/register

3 说明

感谢您选择Electro-Voice便携式扬声器系统。请仔细阅读本手册，了解EV系统具备的所有功能，从而充分利用其性能。
ZLX-G2是Electro-Voice畅销专业音频扬声器系列的新一代产品。ZLX-G2传承了上一代的出众性能，输出更高、频率范围更宽、设计稳健，同时改进了连接性能。新一代产品推出了众多新功能，包括远程控制、混音功能和无线立体声流媒体传输。
ZLX-G2系列包括有源型号和无源型号，均提供15英寸、12英寸和新增的紧凑型8英寸两分频配置。
复合外壳的设计经过改进，可实现55度监听角度。15英寸和12英寸版本包括较低的23度“回听”角，具有更高的灵活性。
所有有源型号均配有带内置数字混音器和FX的POWERED BY DYNACORD放大器。通过蓝牙连接的Electro-Voice QuickSmart Mobile应用程序可以轻松地控制混音器和所有扬声器功能。
感谢您选择Electro-Voice便携式扬声器系统。请仔细阅读本手册，了解EV系统具备的所有功能，从而充分利用其性能。
全新ZLX-G2专业音频扬声器系列是Electro-Voice的新一代畅销扬声器，提高了同类产品的性能和功能标准。
ZLX-G2系列包括有源型号和无源型号，均提供15英寸、12英寸和新增的8英寸低音单元尺寸。
ZLX-G2扬声器提供出色的声学输出效果。Electro-Voice获得专利的信号同步换能器(SST)折流板设计确保实现改进的低音、小巧的尺寸，乃至全功率覆盖。
ZLX-G2系列具有55度监听角度。12和15英寸型号还额外提供“回听”25度监听角度。
ZLX-8P-G2-US使用行业标准NL4连接。两个NL4连接器并联，穿过所有引脚。
为了获得优异的声学效果和性能，建议ZLX-8P-G2-US与Dynacord DSP功率放大器一起使用。该功率放大器根据SONICUE的EV扬声器数据库中的适当扬声器设置进行编程。
ZLX-G2系列附件包括保护套、用于安装12英寸和15英寸型号的U型支架，以及兼容所有型号的通用壁挂支架。

集成和兼容性

ZLX-G2与Electro-Voice的所有其他便携式扬声器以及市面上的大多数其他扬声器兼容。ZLX-G2在通用信号电平上使用XLR和TRS或NL4等行业标准连接，可与市场上的其他产品兼容。
ZLX-G2包含多个特定于Electro-Voice的低频扬声器预设，可用于调整增益和时间校准，实现全面的声学优化。借助这项功能，ZLX-G2可与其他Electro-Voice产品系列的低频扬声器，如ELX200、EKX、ETX，一起整合到大型音频系统中，从而充分发挥出色性能。
此外，DSP中还提供通用高通(HP)滤波器。用户可以在ZLX-G2扬声器上设置适当的HP滤波器，与具有相应低通(LP)滤波器设置的第三方低频扬声器一起使用。然而，第三方设备无法使用Electro-Voice低频扬声器预设中设置的增益和时间校准参数。用户必须在第三方低频扬声器中单独调整这些设置。调整不当可能会导致扬声器系统的声学性能不佳。

附件

ZLX-G2系列提供精选附件作为补充。
- 保护套适用于所有尺寸的扬声器。
- “U”型墙壁支架可以垂直和水平安装12英寸和15英寸型号。
- 8英寸型号可使用带有短臂的通用立杆安装墙壁支架，并且仅限于垂直方向安装。此外，还提供具有较长臂的第二个通用连杆安装支架，可适配Electro-Voice系列中的其他扬声器型号。

3.1 简短信息

本手册适用于以下产品:

CTN	说明
ZLX-8P-G2-US	8"两分频有源扬声器，美式电源线
ZLX-12P-G2-US	12"，两分频有源扬声器，美式电源线

CTN	说明
ZLX-15P-G2-US	15"，两分频有源扬声器，美式电源线
ZLX-8P-G2-EU	8"两分频有源扬声器，欧式电源线
ZLX-12P-G2-EU	12"，两分频有源扬声器，欧式电源线
ZLX-15P-G2-EU	15"，两分频有源扬声器，欧式电源线

CTN	说明
ZLX-8-G2	8"两分频无源扬声器
ZLX-12-G2	12"，两分频无源扬声器
ZLX-15-G2	15"，两分频无源扬声器

CTN	说明
ZLX-8-G2	8"两分频无源扬声器
ZLX-12-G2	12"，两分频无源扬声器
ZLX-15-G2	15"，两分频无源扬声器

3.2 系统特性

有源扬声器

- **高品质立体声蓝牙流式传输**
  蓝牙立体声流式传输和连接，可实现真正的无线立体声(TWS)设置。用户还通过蓝牙以无线方式配对和连接到一个立体声系统中的两个ZLX-G2有源扬声器，以传输音乐流媒体。
- **采用QuickSmart Mobile应用程序和Electro-Voice的直观用户界面，使用简便**
  ZLX-G2有源扬声器采用Electro-Voice的直观QuickSmart DSP，带有单个编码器和按键界面，可以简单、快速地进行设置。ZLX-G2可以通过蓝牙与安装了QuickSmart Mobile应用程序的移动设备配对，使您轻松地远程控制所有音频和混音功能。QuickSmart Mobile应用程序允许以任意组合对多达六个启用蓝牙的扬声器进行配对和分组，包括EVERSE、ELX200和EVOLVE系列。
- **采用POWERED BY DYNACORD技术，内置数字4通道混音器**
  ZLX-G2有源扬声器采用内置4通道混音器，具有FX、EQ、自动反馈抑制和强切功能。该混音器包含两个XLR/TRS多功能插孔，**INPUT 1** (XLR)上具有24 V幻象电源，同时**INPUT 2**可兼容Hi-Z乐器（¼英寸Hi-Z连接器）。混音器还包括立体声蓝牙。
- **全彩液晶显示屏**
- **在监听模式和双监听角度下轻松控制访问**
  采用改进的倾斜箱体设计，可实现55度监听角度，占用空间更小，最多可节省两英尺舞台空间。放大器面板位于监听位置，易于操作。较低的23度回听位置为15英寸和12英寸型号提供了第二个监听方向。

无源扬声器

- ZLX-G2是Electro-Voice畅销专业音频扬声器系列的新一代产品
- 提高了最大声压级输出，扩展了频率响应
- 稳固且符合人体工程学的设计，确保日常耐用性和便携性
- 推荐与Dynacord DSP功率放大器一起使用
- SONICUE集成 - 优化扬声器设置以充分发挥性能
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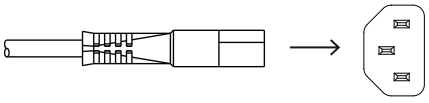
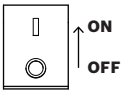
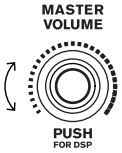
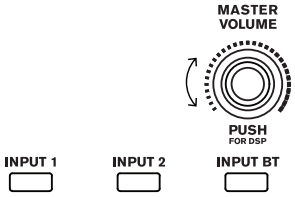
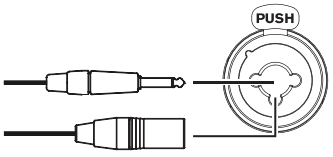
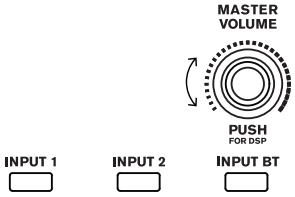
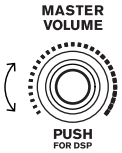
4 快速安装

Electro-Voice家族中的ZLX系列扬声器系统是完全集成的音响系统，搭载精心匹配的电子元件和换能器。利用这些产品，用户只需使用少量电缆和外部电子设备就能快速轻松地搭建高质量的音响系统。

全频有源扬声器

型号：ZLX-8P-G2-US、ZLX-12P-G2-US、ZLX-15P-G2-US、ZLX-8P-G2-EU、ZLX-12P-G2-EU和ZLX-15P-G2-EU。

步骤	图示
1. 将交流电源线从带接地的插座连接到**MAINS IN 电源输入**.	
2. 将电源开关切换到**ON**.	
3. 使用**MASTER VOLUME** 旋钮将音量调节到0 dB。	
4. 按下输入选择软键以选择**INPUT 1** 或**INPUT 2**（如果使用XLR或¼英寸（6.35毫米）电缆）。使用**MASTER VOLUME** 旋钮将**INPUT LEVEL** 调节到**MUTE**. 根据需要对每个输入通道执行此操作。	
5. 使用XLR、TRS或TS电缆将音频源连接到**INPUT 1** 或**INPUT 2**.确保音频源是**MUTE** 或处于低电平，然后再进行连接。建立连接后，将音源输出音量增大到合理水平。 确保源未被削波。	
6. 调节**INPUT LEVEL**：使用**MASTER VOLUME** 旋钮进行调节，直到信号峰值刚好低于最大电平，或者直到达到所需的输出。如果出现**PK** 或**PEAK** 指示，则将电平调低，直到**PK** 或**PEAK** 指示消失。 再次按下输入选择软键以退出通道菜单。 如果还使用了其他输入，请对其他输入执行相同的过程。调整每个输入的输入电平以达到所需的混音。	
7. 使用**MASTER VOLUME** 旋钮调节音量，直到从扬声器获得所需的输出。	

5 对QuickSmart Mobile应用程序进行配对

EV QuickSmart Mobile应用程序适用于平板电脑和智能手机，可通过Apple App Store和Google Play Store下载。

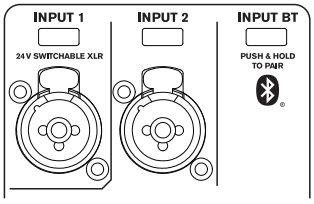
注意!
经设计，EV QuickSmart Mobile应用程序仅查找具有蓝牙控制功能的Electro-Voice扬声器。
EV QuickSmart Mobile应用程序不显示其他类型的蓝牙设备，例如手机、笔记本电脑、平板电脑或耳麦。

在将EV QuickSmart Mobile应用程序与Electro-Voice扬声器配对之前，请执行以下操作:

1. 确保在智能手机或平板电脑上启用蓝牙。
2. 确保在扬声器上启用配对模式。

将扬声器置于配对模式以进行控制和流式传输，请执行以下操作:

1. 按住**INPUT BT**，直到LCD上显示**Pairing Mode On**和4位数字的ID。
   配对模式可以通过LCD菜单分别针对控制和流式传输启用。
   扬声器保持控制配对模式约2分钟。如果控制配对失败，请重复执行此步骤。



2. 导航到移动设备的蓝牙设置菜单，找到具有匹配的4位数字ID的ZLX-G2扬声器并确保与该扬声器配对。
   这会将移动设备与ZLX-G2扬声器配对，从而进行音频流式传输。
3. 继续执行下一步，针对控制进行配对。

注意!
对于运行Android 11或更早版本的Android设备，请确保启用位置服务。Electro-Voice不会收集、存储或跟踪用户位置数据或个人信息。

初次配对

1. 打开EV QuickSmart Mobile应用程序。
2. 屏幕上将显示**Select your Speakers**。
   EV QuickSmart Mobile应用程序将查找启用了蓝牙的可用Electro-Voice扬声器。
   此时屏幕上将显示可用的扬声器。
3. 点击要与该应用程序配对的扬声器。
   选定扬声器的下方将显示一条线，确认它被选中。
4. 重复上一个步骤，直到选择了所有的所需扬声器。
5. 点按**CONNECT**按钮。
6. 应用程序将与所选扬声器连接。
   您的iOS/iPadOS/Android设备上将显示一条请求与每个设备配对的消息，必须接受该消息。

注意!
如果出现“蓝牙连接失败”消息，请确保扬声器中启用了控制配对模式。

7. 在设备上点按**PAIR**以接受与扬声器的配对。
   应用程序最多可以连接六个扬声器。

后续配对

要将其他扬声器与EV QuickSmart Mobile应用程序配对，请执行以下操作：

1. 点按EV QuickSmart Mobile应用程序图标。
2. 屏幕上将显示**选择您的扬声器**。
   EV QuickSmart Mobile应用程序将查找启用了蓝牙的可用Electro-Voice扬声器。此时屏幕上将显示可用的扬声器。
3. 点击要与该应用程序配对的扬声器。
   选定扬声器的下方将显示一条线，确认它被选中。
4. 重复上一个步骤，直到选择了所有的所需扬声器。
5. 点按**CONNECT**按钮。
   应用程序将与所需扬声器连接。
   应用程序最多可以连接六个扬声器。

6 三脚架、立杆安装和落地监听音箱操作

6.1 三脚架或立杆安装

ZLX便携式扬声器安装在三角落地支架或低频扬声器上方的连接杆上。

在三角落地支架上安装扬声器

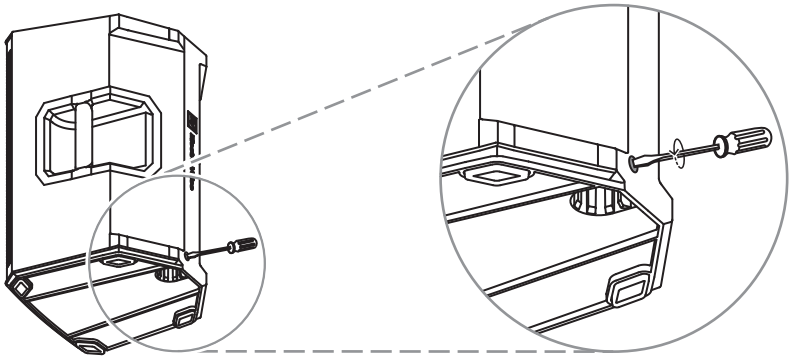
小心!
对于本扬声器，没有评估三脚架的安全性。检查三脚落地支架的规格，确保其可支撑扬声器的重量。

小心!
请勿堆叠其他扬声器。

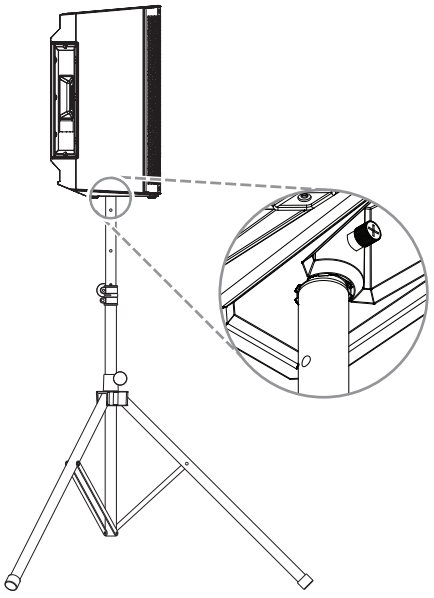
小心!
对于较重的扬声器，建议由两人或多人来提举和放置。一个人提举和放置较重的扬声器可能造成人身伤害。

若要在三角落地支架上安装扬声器，请执行以下操作:

1. 将三角落地支架放在平坦稳定的平面上。
   - 将三角落地支架的支脚完全展开。
   - 请不要尝试让支架立得过高，这样将损坏三角落地支架的结构。
   - 若支架原本设计为只能安装单台扬声器，则请勿尝试安装多台扬声器。
2. 松开固定螺丝。



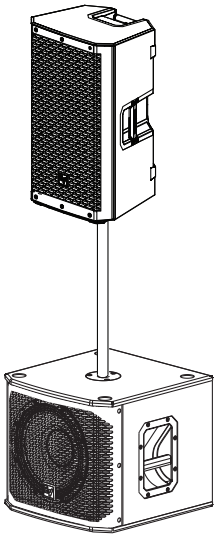
图片 6.1: 8英寸型号



图片 6.2: 12英寸和15英寸型号

3. 请用两只手提举扬声器。
4. 将扬声器底部的连接杆顶帽套到连接杆上。
5. 拧紧固定螺丝，将扬声器固定到连接杆上。

在立杆上安装扬声器



小心!
对于较重的扬声器，建议由两人或多人来提举和放置。一个人提举和放置较重的扬声器可能造成人身伤害。

若要在连接杆上安装扬声器，请执行以下操作:

1. 将低频扬声器放在平坦、稳定的平面上。
2. 将连接杆插入低频扬声器顶部的多功能连接杆顶帽。
3. 如果您使用螺纹连接杆安装，请顺时针方向转动连接杆以使其固定至低频扬声器。
   或者
   如果您不使用螺纹连接杆安装，请继续下一步。

4. 松开固定螺丝。
5. 请用两只手提举扬声器。
6. 将扬声器底部的连接杆顶帽套到连接杆上。
7. 拧紧固定螺丝，将扬声器固定到连接杆上。

小心!
请勿堆叠其他扬声器。

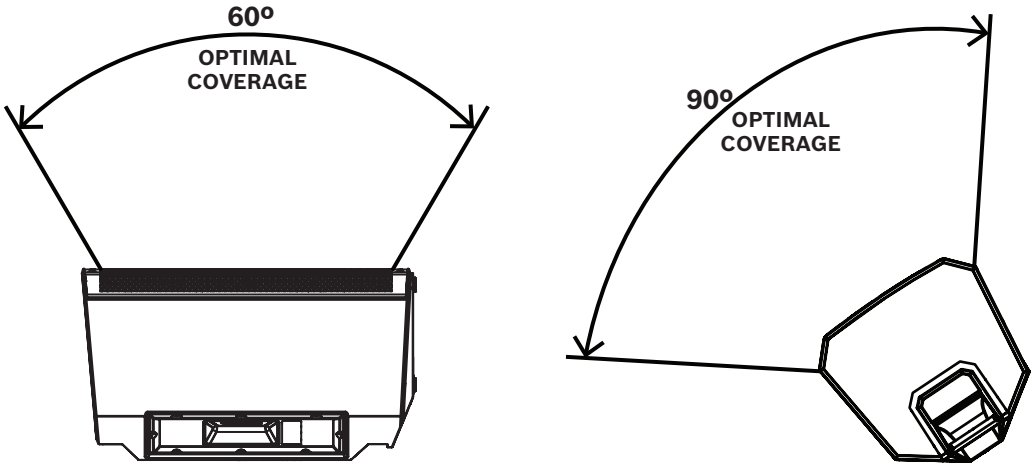
6.2 落地监听音箱和回听

ZLX-G2扬声器如果以两个一体化监听角度之一放置，则可用作落地监听音箱或用于回听位置。

将扬声器设置为落地监听音箱

要将扬声器设置为落地监听音箱，请执行以下操作:

1. 将扬声器放在平坦稳定的平面上。
2. 安全地布设电缆以防止对表演者、制作团队和观众造成人身伤害。
3. 在DSP控制菜单中将扬声器位置设置为**MONITOR**。



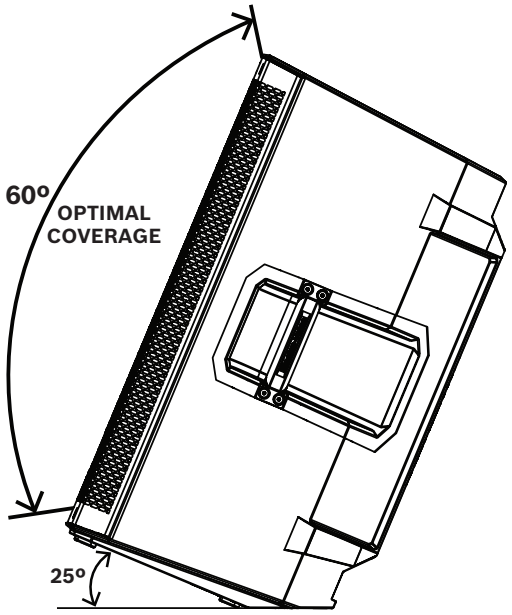
图片 6.3: 监听音箱位置的理想覆盖范围（左侧为侧视图，右侧为前视图）

将扬声器设置为反冲位置

回听监听位置仅适用于12英寸和15英寸ZLX-G2信号。

要将扬声器设置为反冲位置，请执行以下操作:

1. 将扬声器放在平坦稳定的平面上。
2. 向后倾斜扬声器，使其固定在反冲位置。
3. 安全地布设电缆以防止对表演者、制作团队和观众造成人身伤害。
4. 在DSP控制菜单中将扬声器位置设置为**KICKBACK**。



图片 6.4: 回听位置的理想覆盖范围

注意!
尽可能使用扎线或胶带固定电缆。

7 放大器DSP

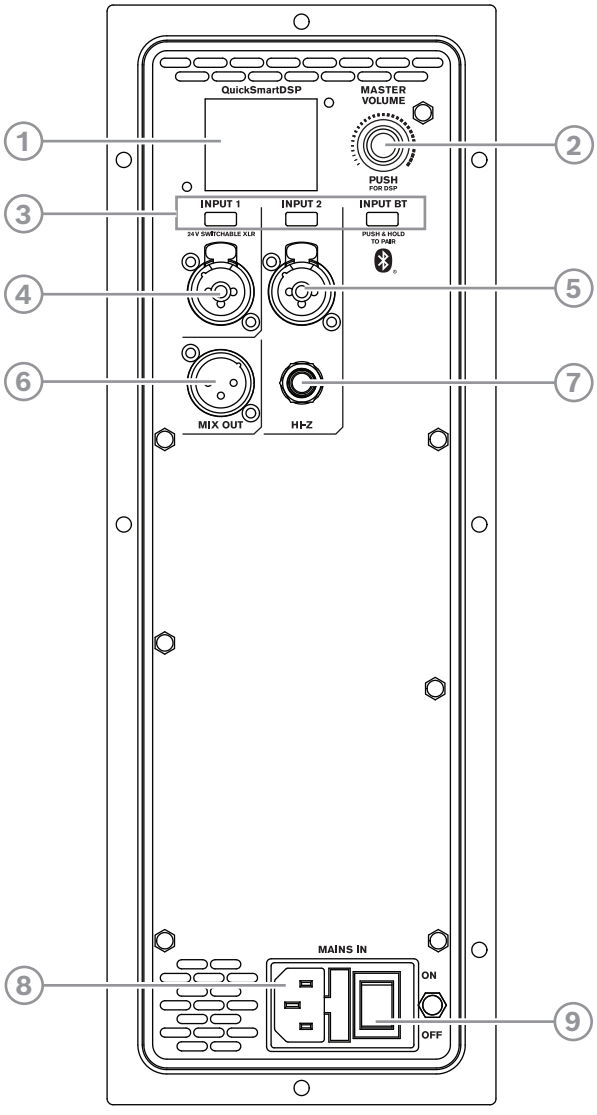
ZLX-G2有源扬声器采用内置4通道混音器，具有FX、EQ、自动反馈抑制和强切功能。混音器包含两个XLR/TRS多功能插孔，**INPUT 1** (XLR)上具有24V幻象电源。**INPUT 2**包括一个用于乐器或高阻抗话筒的非平衡¼英寸Hi-Z连接器。混音器还包括立体声蓝牙。

7.1 放大器DSP控制

功率放大器拥有多种控制和连接器，以确保扬声器系统具有最广泛的用途。

扬声器控制和监视界面

这些DSP控制菜单选项适用于ZLX-G2。

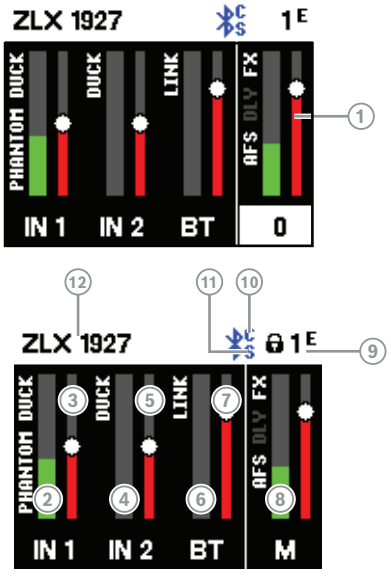


1. **LCD** - DSP控制和监视界面。
2. **MASTER VOLUME** - 调整音量并导航DSP控制菜单。
   DSP - 滚动浏览菜单并选择可用选项。按下**MASTER VOLUME**旋钮可进入DSP控制菜单。
3. **输入选择软键** - 按下软件可选择输入并访问该通道的DSP控制菜单。第二次按下软件可取消选择通道并返回到主DSP。
4. **INPUT 1** - 用于混音台、乐器或话筒等信号源的平衡输入。可使用¼英寸TRS或XLR连接器建立连接。XLR连接器可切换到24V幻象电源。

5. **INPUT 2** - 用于混音台、乐器或话筒等信号源的平衡输入。可使用¼英寸TRS或XLR连接器建立连接
6. **MIX OUT** - XLR输出将混合的所有输入信号或立体声左声道或立体声右声道信号发送到其他扬声器或低频扬声器。
7. **Hi-Z** - 高阻抗连接，通过¼英寸TS电缆连接乐器或高阻抗话筒。与INPUT 2共享。
8. **MAINS IN** - AC连接通过IEC连接器建立。
9. **POWER** - 用于打开(**ON**)或关闭(**OFF**)扬声器电源的开关。当打开(**ON**)电源时，在大约三秒后，LCD屏幕将亮起。

7.2 系统状态

正常

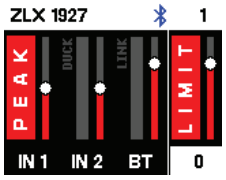


1. 指示系统的总增益（以dB为单位）。范围为-80 dB至+10 dB，以1 dB为增量。
2. **IN 1** - VU音量表显示INPUT 1到放大器INPUT 1连接器的信号电平。如果显示**PHANTOM**，则表示打开了24 V幻象电源。
3. **IN 1**的输入电平控制。
4. **IN 2** - VU音量表显示INPUT 2到放大器INPUT 2连接器的信号电平。
5. **IN 2**的输入电平控制。
6. **BT** - VU音量表显示INPUT BT到放大器的信号电平，该电平来自蓝牙流式传输连接。
7. **BT**的输入电平控制。
8. **M** - VU音量表显示MAIN主输出的信号电平。
9. **Status display** - 交替显示以下状态：
   1 - 指示所选的预设编号。提供五种用户定义的预设。
   E - 已编辑。指示预设未保存。如果保存了预设，则不显示**E**。
   Lock status - 表示已锁定LCD显示屏和控件。按**MASTER VOLUME**旋钮或通道选择软键可以解锁。
10. **C** - 控制应用程序。可用的选项是：
    关闭 - 禁用
    闪烁 - 配对模式
    常亮 - 已连接
11. **S** - 音频流式传输。可用的选项是：
    关闭 - 禁用
    闪烁 - 配对模式(120s)
    常亮 - 已连接

12. 通过蓝牙配对的扬声器的4位数字ID。

系统保护

当系统超过建议的使用范围时，系统保护限幅器就会在LCD显示屏上显示输入**PEAK (PK)**或输出**LIMIT**。

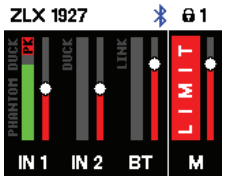


PEAK (PK)

PEAK (PK)指示输入到扬声器的信号太强，导致信号削波。

如果显示**PEAK (PK)**:

- 请降低**INPUT GAIN**和/或混音器或声源设备上的信号。



LIMIT

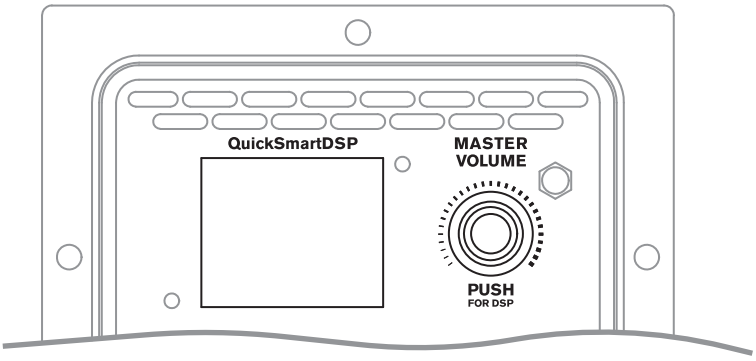
LIMIT可保护扬声器免受可能导致失真的短期峰值和长期过载损害。当屏幕上显示**LIMIT**时，限幅器处于活动状态。

如果经常或持续显示**LIMIT**指示:

- 减小输出音量(**MASTER VOLUME**)。强烈建议执行此操作。

7.3 DSP控制

利用集成的DSP控制菜单，用户可以在扬声器上选择多个DSP系统设置。



访问DSP控制菜单

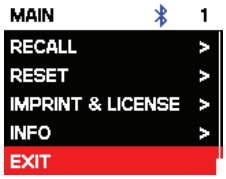
要访问DSP控制菜单，请执行以下操作:

1. 按下**MASTER VOLUME**旋钮。
   此时将出现DSP控制菜单。
2. 使用**MASTER VOLUME**旋钮，滚动浏览菜单项。
3. 按下**MASTER VOLUME**旋钮以选择要修改的菜单项。
   此时，光标将移动到DSP控制菜单右侧的参数。
4. 使用**MASTER VOLUME**旋钮，滚动浏览参数。
5. 按下**MASTER VOLUME**旋钮以确认所选参数。
   设置将进行保存。光标将回到DSP控制菜单左侧的菜单项。
6. 重复步骤2至步骤5以修改其他DSP和系统设置。
7. 选择**EXIT**以返回主屏幕。

7.3.1 扬声器DSP控制菜单

扬声器DSP控制菜单选项适用于ZLX-G2扬声器。

参考输出列表, 页面 *52*查看完整的菜单列表。



EXIT（退出）菜单

EXIT菜单用于返回主屏幕。

注意！

在30秒钟无动作后，显示屏将回到主屏幕。

MODE（模式）菜单

MODE菜单用于配置扬声器发送的声音的类型。

该项可选择：**MUSIC**、**LIVE**、**SPEECH**和**CLUB**。

- **MUSIC** - 用于录制音乐的播放。
- **LIVE** - 用于现场扩声应用场合。
- **SPEECH** - 用于人声语言应用场合。
- **CLUB** - 用于播放需要更多低音响应的录制的电子音乐。
- **FRFR** - 全范围平坦响应，与吉他分析硬件一起使用。

默认值为**MUSIC (音乐)**。

LOCATION（位置）菜单

LOCATION菜单用于针对不同的边界优化扬声器。

此选择的可选项包括：**TRIPOD**、**KICKBACK**、**MONITOR**和**WALL**。

- **TRIPOD** - 在将扬声器放在三脚架或立杆上时使用。
- **KICKBACK** - 在将扬声器放在后部倾斜反冲位置时使用。此设置补偿了将扬声器放在平坦稳定水平表面上时产生的低频提升。
- **MONITOR** - 在将扬声器放在倾斜监听面的监听位置时使用。此设置补偿了将扬声器放在平坦稳定水平表面上时产生的低频提升。
- **WALL** - 在使用安装支架（安装支架附件单独出售）将扬声器安装到墙壁上时使用。此设置补偿了将扬声器靠近墙壁放置时产生的低频提升。

默认值为**TRIPOD (三脚架)**。

SUB（低频）菜单

SUB菜单用于选择与低频扬声器共同使用时的高通频率。

此选择的可选项包括：**OFF**、**80 Hz**、**100 Hz**、**120 Hz**、**150 Hz**、**ELX118SP**、**ETX-15SP**、**ETX18-SP**、**80 Hz和ZXA1-SUB**。**100 Hz**、**120 Hz**和**150 Hz**这几个选项是用于与其他低音扬声器配套使用时的一般高通设置。**ELX200-12SP**、**ELX200-18SP**、**EKX-15SP**和**EKX-18SP**设置专门针对低频扬声器进行了优化（包括通过延时来实现理想叠加效果）。

默认值为**OFF**。

TREBLE控件

TREBLE控件用于针对不同的应用场合或个人喜好调整扬声器的高频效果。该参数控制高频搁架滤波器。

默认值为**0 dB**。

MID控件

MID控件用于针对不同的应用场合或个人喜好调整扬声器的中频效果。
默认值为**0 dB**。

BASS控件

BASS控件用于针对不同的应用场合或个人喜好调整扬声器的低频效果。该参数控制低频搁架滤波器。
默认值为**0 dB**。

MAIN GEQ菜单（默认）

MAIN GEQ菜单用于针对不同的应用场合或个人喜好调整扬声器的频率响应。有七种不同的EQ滤波器，集中在以下频率：63、160、400、1.0K，2.5K，6.0K和12K Hz。
每个滤波器的范围是-12 dB至+12 dB。
每个滤波器的默认值为**0 dB**。

MAIN PEQ（混音输出）菜单

MAIN PEQ用于针对不同的应用场合或个人喜好调整扬声器的频率响应。有七种均衡滤波器。
可在以下类型中选择滤波器类型：
PEQ - 参数均衡滤波器，使用具有三个控件的波峰/波谷钟形滤波器调整声音波形。
- **Q** - 品质因数，定义滤波器的带宽。**Q**越低，带宽越宽，**Q**越高，带宽越窄。
- **FREQ** - 选择EQ滤波器的中心频率。
- **GAIN** - 设置均衡滤波器的增加或减少量。

LOW/HI SHELF - 使用搁架滤波器调整声音波形，该滤波器可使用以下两个控件应用于低频或高频响应：
- **FREQ** - 设置滤波器的中心频率。对于**LOW SHELF**滤波器，滤波器的**GAIN**在所选频率以上逐渐减小。对于**HIGH SHELF**滤波器，滤波器的**GAIN**在所选频率以下逐渐减小。
- **GAIN** - 设置信号在**FREQ**设置以下或以上的增加或减少量。

LOW/HI PASS - 带通滤波器，仅通过所选频率以上或以下的信号，从而调整声音波形。
- **FREQ** - 设置带通滤波器的转角频率。对于**HI PASS**滤波器，高于所选频率的所有频率都将通过。低于设置的频率将逐渐减小。对于**LOW PASS**滤波器，低于所选频率的所有频率都将通过。高于所选频率的频率将逐渐减小。

FX和FX ENABLE

FX控件用于选择要应用于FX发送的所需效果（例如混响、合唱、延迟等）。FX发送音量通过INPUT 1和INPUT 2 FX控件独立控制。**FX ENABLE**可全局打开(**ON**)或关闭(**OFF**)该效果。可通过脚踏开关切换**FX ENABLE**的状态。

AFS（自动反馈抑制）

使用具有拾音器的话筒或乐器时，可以启用12波段自动反馈抑制(AFS)以减少不需要的反馈频率。当扬声器发出的声音进入话筒或拾音器并由扬声器放大后再次播放时，便会发生反馈。高音量或长时间的反馈可能会损害听力和损坏设备。
该项可选择**OFF**和**ON**。

减少反馈

要减少反馈，请执行以下操作：
1. 按照您的表演要求设置扬声器和话筒或乐器。遵循适当的话筒放置和使用惯例：
   - 请勿将话筒直接放在扬声器前面。请参见话筒用户手册，以了解话筒的拾音和抑制模式。
   - 避免在话筒附近放置乐谱架、平板电脑或其他大型扁平物体，此类物体可能对话筒造成音频反射。

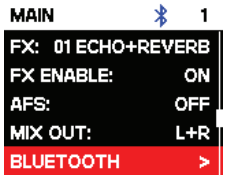
- 在讲话、唱歌或放置乐器时使用适当的话筒技术，避免造成过大的输入增益。例如，表演时嘴部过于靠近话筒。
- 针对应用场合使用适当的输入通道**PRESET**：**LOW CUT 80 Hz**、**LOW CUT 120 Hz**、**VOCAL MIC**、**VOICE FILTER**、**SPEECH**、**ACOUSTIC GUITAR**等。请参见INPUT DSP控制菜单。
- 请勿在讲话或唱歌时用手罩住话筒头。请按照话筒制造商的建议，仅握住话筒的手柄或主体。

2. 在DSP控制菜单中或在QuickSmart Mobile应用程序的FX部分启用自动反馈抑制(AFS)。这会在**INPUT 1**和**INPUT 2**上启用**AFS**。
3. 缓慢调高扬声器的输出，并开始对话筒或乐器进行声音检查。
4. 当您听到反馈音时，请等待几秒时间让自动反馈抑制(AFS)检测并减少反馈。
5. 继续声音检查，直到不再产生反馈音。

MIX OUT（混音输出）菜单

MIX OUT菜单用于选择应在**MIX OUT**处输出哪个信号，以及哪个信号应由扬声器播放。

- **L+R** - 所有输入的左右信号进行叠加。**MIX OUT**输出叠加音频信号，并由扬声器播放（默认值）。
- **L** - 只有所有输入的左声道信号才在**MIX OUT**处输出。扬声器只播放右声道信号。
- **R** - 只有所有输入的右声道信号才在**MIX OUT**处输出。扬声器只播放左声道信号。



BLUETOOTH菜单

BLUETOOTH菜单用于设置扬声器的蓝牙功能。

ON/OFF - **ON/OFF**菜单控制扬声器上是启用还是禁用蓝牙功能。

CONTROL PAIR - **CONTROL PAIR**菜单用于启用QuickSmart Mobile无线控制和监控应用程序。该项可选择：ON或OFF。

默认值为**OFF**。

AUDIO PAIR - **AUDIO PAIR**菜单用于将音频从启用蓝牙功能的设备流式传输到扬声器系统。该项可选择：**PAIRING**、**ON**或**OFF**。

默认值为**OFF**。

LINK SPEAKERS

LINK SPEAKERS功能允许通过蓝牙以真正的无线立体声方式连接两个ZLX-G2扬声器，仅用于蓝牙音频流传输。

要链接两个ZLX-G2扬声器，请执行以下操作：

1. 通过蓝牙功能将一个ZLX-G2扬声器与移动设备配对。有关配对说明，参见对*QuickSmart Mobile* 应用程序进行配对, 页面 *13*。
2. 在两个ZLX-G2扬声器中，导航到主DSP菜单中的**BLUETOOTH**菜单。
3. 在两个ZLX-G2扬声器中，选择**LINK SPEAKERS**。
   在两个ZLX-G2扬声器之间建立连接时，LCD显示屏将显示**LINKING SPEAKERS**。建立连接后，菜单将显示**UNLINK SPEAKERS**。
   在**LINKING SPEAKERS**下面的**BLUETOOTH**菜单中，将会显示立体声通道选项。
4. 为每个ZLX-G2扬声器选择相应的立体声通道选项：**L+R**（单声道）、**L**或**R**。
   注意：从听众角度来说，这是立体声像，也称为House L和R。

LED菜单

LED菜单显示电源开启情况并指示限幅状态。该项可选择：**ON**、**OFF**或**LIMIT**。

- **ON** - 在电源开关设置为ON时打开LED。
- **OFF** - 关闭LED。

– **LIMIT** - 正常工作时关闭LED。LED短暂闪烁表示限幅器正在工作。短时间闪烁不是严重问题，因为集成的限幅器会有效控制失真。LED常亮表示声音受到了负面影响。如果LED一直亮起，请查看背板LCD屏幕以了解更多信息。强烈建议降低输出音量。

默认值为**ON**。

LCD DIM（屏幕暗度）菜单

LCD DIM菜单用于在显示屏处于空闲状态30秒钟后让其变暗。该项可选择：**ON**或**OFF**。
默认值为**ON**。

BRIGHT菜单

BRIGHT菜单用于确定LCD的亮度。
范围为1（最暗）至10（最亮）。
默认值为**5**。

CONTRAST（对比度）菜单

CONTRAST菜单用于根据照明条件增减LCD屏幕的可见度。
范围为1（较低对比度）至10（较高对比度）。
默认值为**5**。

STORE（存储）菜单

利用**STORE**菜单，您可以创建多达五个自定义用户设置。该项可选择：**BACK**、**1**、**2**、**3**、**4**和**5**。

注意!
自定义用户设置名称可组合使用字母数字字符（包括空格）。字母数字字符范围为A - Z和0 - 9。
名称字段长度为12个字符。

存储自定义用户设置

要存储自定义用户设置，请执行以下操作：

1. 在DSP控制菜单中，滚动到**STORE**。
2. 按下**MASTER VOLUME**旋钮以选择**STORE**。
   此时将显示**STORE**屏幕。
3. 按下**MASTER VOLUME**旋钮以选择**1**。
   此时会显示**Enter name for 1**屏幕。
4. 使用**MASTER VOLUME**旋钮滚动浏览字符。
   此时将显示若干字符。
5. 按下**MASTER VOLUME**旋钮以选择所需的字符。
6. 转动**MASTER VOLUME**旋钮以输入下一个字符。
   继续选择字符，直到输入所需的名称。
7. 使用**MASTER VOLUME**旋钮滚动到**SAVE**。
8. 按下**MASTER VOLUME**旋钮以选择**SAVE**。
9. 重复步骤3至8以存储更多自定义用户设置。
10. 选择**EXIT (退出)**以返回主屏幕。

RECALL（调用）菜单

利用**RECALL**菜单，您可以检索多达五个自定义用户设置。该项可选择：**BACK**、**1**、**2**、**3**、**4**和**5**。此外，设置**6**可以用来调用一个默认设置。此设置不能用于存储用户设置。

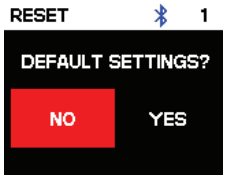
调用自定义用户设置

要调用自定义用户设置，请执行以下操作：

1. 在DSP控制菜单中，滚动到**RECALL**。
2. 按下**MASTER VOLUME**旋钮以选择**RECALL**。
   此时将显示**RECALL**屏幕。
3. 按下**MASTER VOLUME**旋钮以选择**1**。
   如此便会加载所选项。
4. 加载预设后，菜单将返回主屏幕。

RESET（重置）菜单

RESET菜单用于将扬声器重置为原始出厂设置。该项可选择：**NO**或**YES**。



重置系统

要将系统重置为原始出厂设置，请执行以下操作：

- 在DSP控制菜单中，选择**RESET**。
  此时将显示**DEFAULT SETTINGS?**消息。
- 选择**YES**。
  此时将显示**ERASE USER PRESETS?**消息。
- 选择**YES**。

注意!

RESET菜单项用于将扬声器恢复为原始出厂默认设置。

INFO（信息）菜单

INFO菜单用于显示固件版本。

参阅

– 输出列表, 页面 *52*

8 输入和混音器操作

8.1 INPUT DSP控制菜单

扬声器INPUT DSP控制菜单选项适用于ZLX-G2有源扬声器。
参考输入列表, 页面 *55*查看完整的菜单列表。

要控制混音器通道，请执行以下操作：
1. 按下输入选择软键以选择输入通道。
   选择后，软键将会亮起。
2. 使用**MASTER VOLUME**旋钮调整音量。
3. 按下**MASTER VOLUME**旋钮以进入该输入通道的DSP控制菜单。
4. 再次按下输入选择软键以取消选择进行控制的输入通道。
   该软键将不再亮起。

输入控制调整

建议在调节**INPUT LEVEL**和EQ时多加小心。通常，微小的变化便足以使整体音效达到理想效果。

要调整传入声音，请执行以下操作：
- 将所有EQ控件均设置为**0 dB**或**FLAT**。
- 避免将EQ控件设置到极端位置。
- 首先自然地重现声音。
- 依靠受过音乐训练的耳朵辨别。

INPUT LEVEL控制

INPUT LEVEL控件可将传入信号的灵敏度调整为混音器的内部操作音量。

要获得良好的信号输入音量，请执行以下操作：
1. 通过**MASTER VOLUME**旋钮将音量(**VOL**)设置为**MUTE**。
2. 按下输入选择软键并使用**MASTER VOLUME**旋钮将**INPUT LEVEL**设置为**MUTE**。
3. 将声源（话筒、乐器等）连接到所选输入。
4. 以预期最高音量水平启动声源。直接（靠近）对着话筒尽可能大声地唱歌或讲话。
5. 在播放声源或对着话筒唱歌的同时：
   - 使用输入选择软键选择输入通道并使用**MASTER VOLUME**旋钮增加**INPUT LEVEL**，使其在音量最高时不会显示**PEAK (PK)**。再次按下输入选择软键取消选择该输入通道。
   - 提高**MASTER VOLUME**，直到从扬声器获得所需的输出。这是基本的通道设置。

如果需要进一步调整通道的EQ设置，请再次执行这些步骤。声音调整过程作出的更改也会影响通道的整体音量。

24V（仅限INPUT 1）

+24V直流幻象电源仅在**INPUT 1**的XLR连接器上可用。幻象电源可用于为某些设备供电，如DI盒和电容式话筒（非驻极体）。使用前请查询设备的用户手册。TRS连接器上没有幻象电源。幻像电源是可切换的。

注意!

对于不需要幻像电源的设备（例如，动圈话筒、混音器输出等），请关闭幻象电源（默认值）。

注意!
在激活幻象电源的情况下，切勿将移动设备连接到**INPUT 1**。

PRESET
输入**PRESET**可调整EQ和压缩器设置，以便开始调整不同输入类型的声音。

COMP控制
COMP控件可控制板载压缩器，从而在操作过程中调整输入信号的处理。压缩器可用于**INPUT 1**和**INPUT 2**。

▸ 使用**COMP**控件可同时调整压缩器阈值和压缩比。

在0至100范围内调整**COMP控件**会产生以下效果:
– 低于阈值的增益将从0 dB增加到+6 dB。
– 压缩比将从1:1增加到8:1。
– 压缩器将按压缩器设置成比例减小音频信号的动态范围。

一旦信号超过某个阈值，信号就会被压缩。大幅度的输入音量变化仅会导致小幅度的输出音量变化。缩小动态范围通常可以更轻松地录制或混合音频信号。建议从中低等压缩幅度(25-40)开始，并在必要时缓慢提高。

TREBLE/MID/BASS控制
输入通道的EQ部分可对三个频段内的输入音频信号进行大幅度调整:
– **TREBLE**控件 - 使钹声和人声的高音更高，音色更通透。
– **MID**控制 - 增加此电平可提供更高的音域输出，降低此电平有助于减少声反馈。
– **BASS**控件 - 使底鼓更具力度或使人声更具厚度。

FX
FX控件用于设置您在该通道上需要的效果幅度。使用**FX**控件，您可以轻松地为乐器组或人声组分配效果。

要确定所需的声效音量，请执行以下操作:
1. 将控件设置为最小值。
2. 单独逐渐增加音量，直到得到所需的声效。

PAN
PAN控件可调整立体声设置中立体声L或立体声R扬声器输出的信号大小。单声道（单扬声器）设置不使用**PAN**。

DUCKER
每当所选MIC/LINE输入（**INPUT 1**或**INPUT 2**）处检测到信号时，**DUCKER**可降低其他输入上的信号音量。如果未在所选MIC/LINE输入处检测出信号，则其他输入上的信号音量将恢复为之前设置的音量。

DUCKER可用于在有背景音乐时讲话:
– 当所选MIC输入上检测到信号时，其他输入通道上的音乐音量将会降低。
– 当所选MIC输入上不再检测到信号时，音乐将恢复为之前的音量。

启用DUCKER

要启用DUCKER，请执行以下操作：

1. 选择**INPUT 1**和/或**INPUT 2**。
2. 调整**DUCKER**水平，设置所选输入通道的检测阈值。当在所选输入通道检测到信号时，其他输入的信号将减少12 dB。典型值为-10至-20 dB。

下表说明了**DUCKER**操作逻辑。**DUCKER**设置是**INPUT 1**和/或**INPUT 2**上所选的检测阈值。强切通道是降低了12 dB的输入信号。

	INPUT 1	**INPUT 2**	**降低的通道**
DUCKER SETTING	-1 dB - -40 dB	OFF(关)	INPUTS 2和BT
	OFF(关)	-1 dB - -40 dB	INPUTS 1和BT
	-1 dB - -40 dB	-1 dB - -40 dB	INPUT BT
	OFF(关)	OFF(关)	无

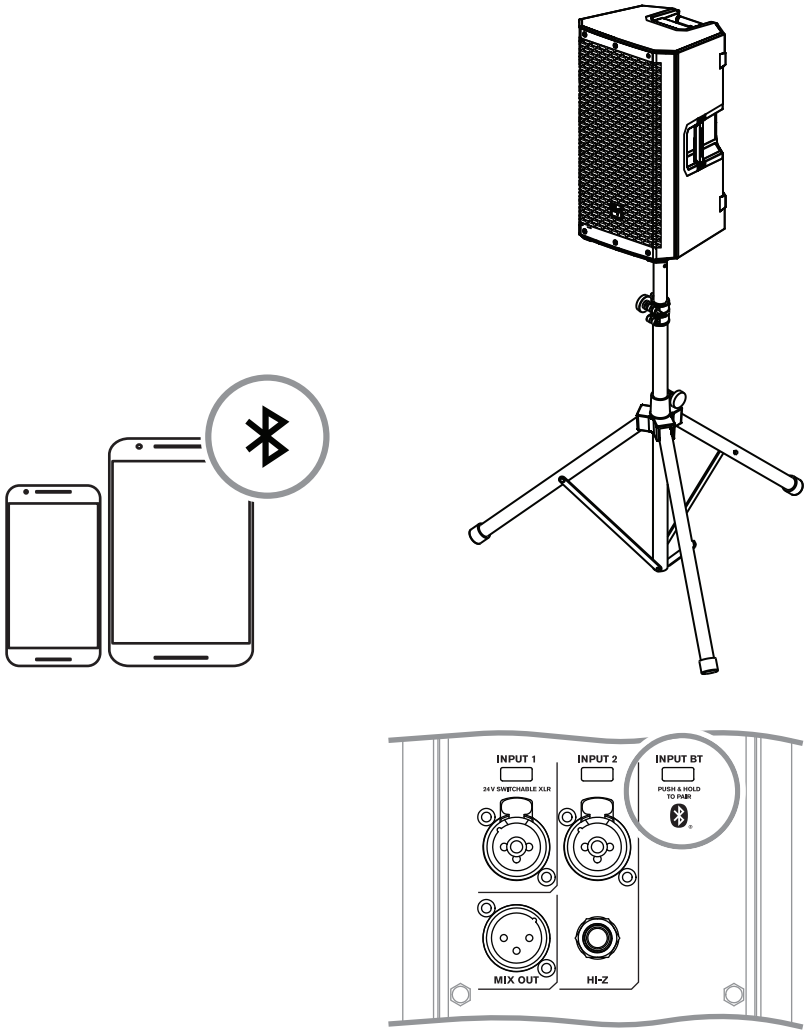
参阅

– 输入列表, 页面 *55*

9 推荐配置

9.1 有源扬声器

9.1.1 连接移动设备

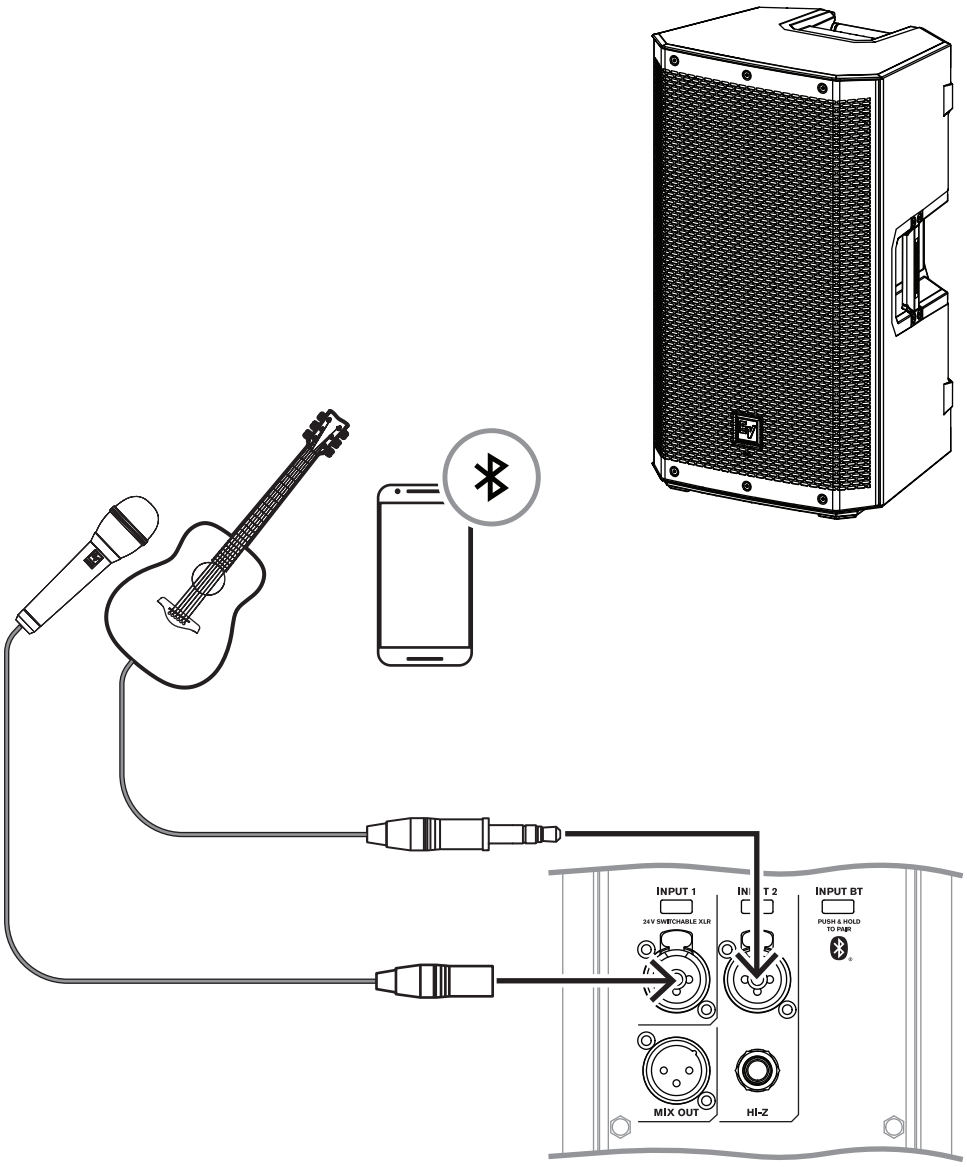


注意!
箭头的方向表示信号路径。

MODE	MUSIC
LOCATION（位置）	TRIPOD
SUB（低频）	OFF

表格 9.1: 三脚架上扬声器的DSP设置

9.1.2 街头音乐家音效



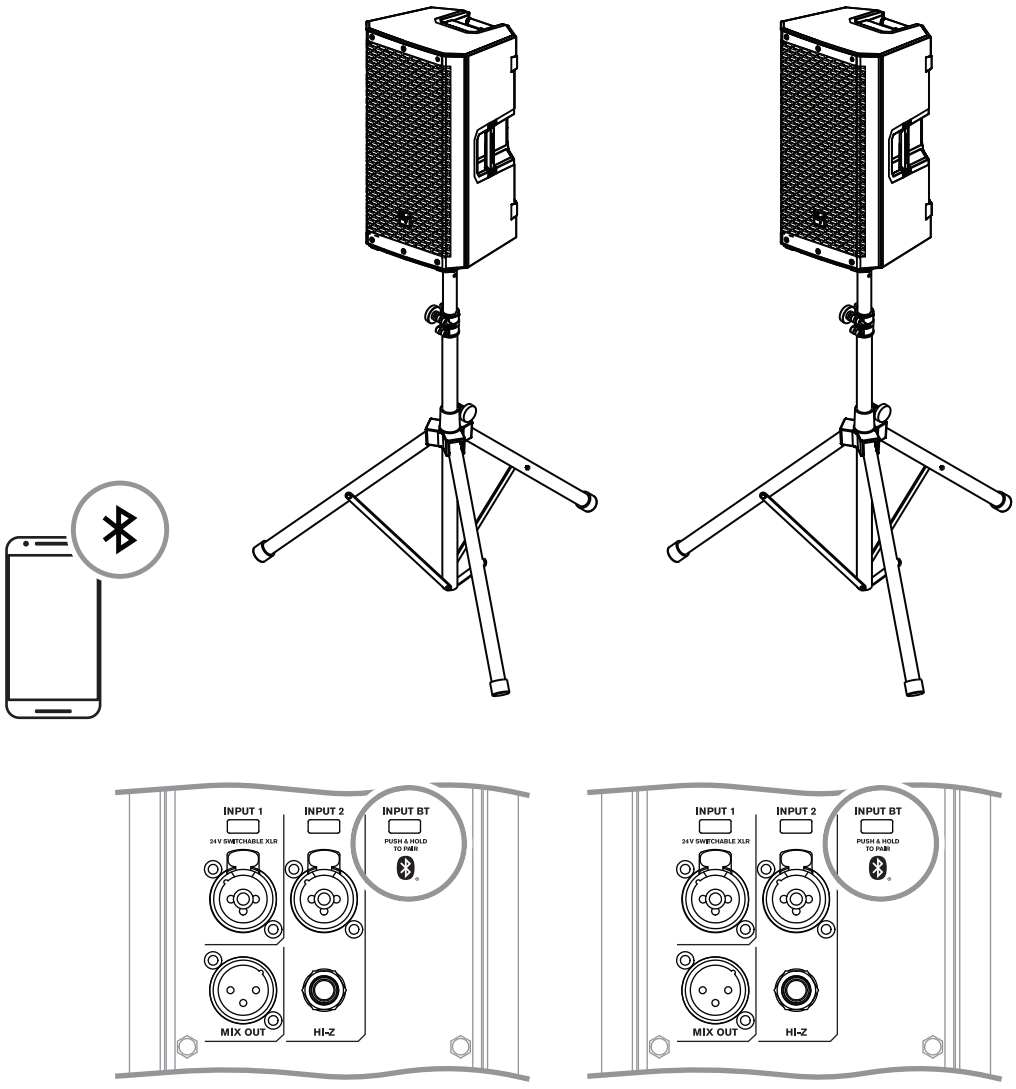
注意!
箭头的方向表示信号路径。

MODE	LIVE
LOCATION（位置）	KICKBACK
SUB（低频）	OFF

INPUT 1 PRESET	VOCAL MIC
INPUT 2 PRESET	ACOUSTIC GTR

表格 9.2: 反冲位置扬声器的DSP设置

9.1.3 蓝牙真无线立体声(TWS)



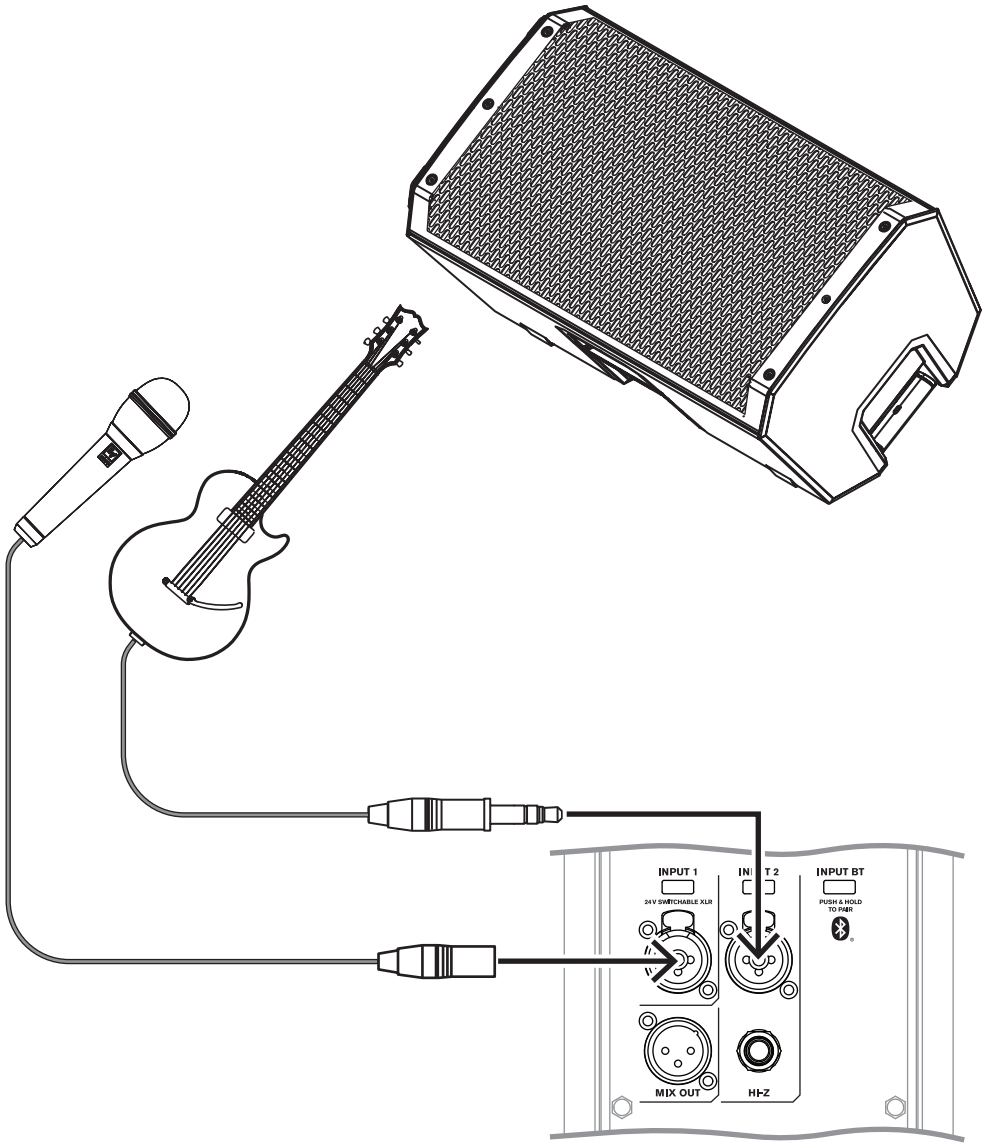
MODE	MUSIC
LOCATION（位置）	TRIPOD
SUB（低频）	OFF
INPUT PRESET	NONE

表格 9.3: 三脚架上扬声器的DSP设置

要通过TWS连接两个扬声器，请执行以下操作：

1. 通过蓝牙功能将一个扬声器连接到流式传输设备。
2. 在两个扬声器的**BLUETOOTH**控制菜单中选择**LINK SPEAKERS**。

9.1.4 用作监听音箱



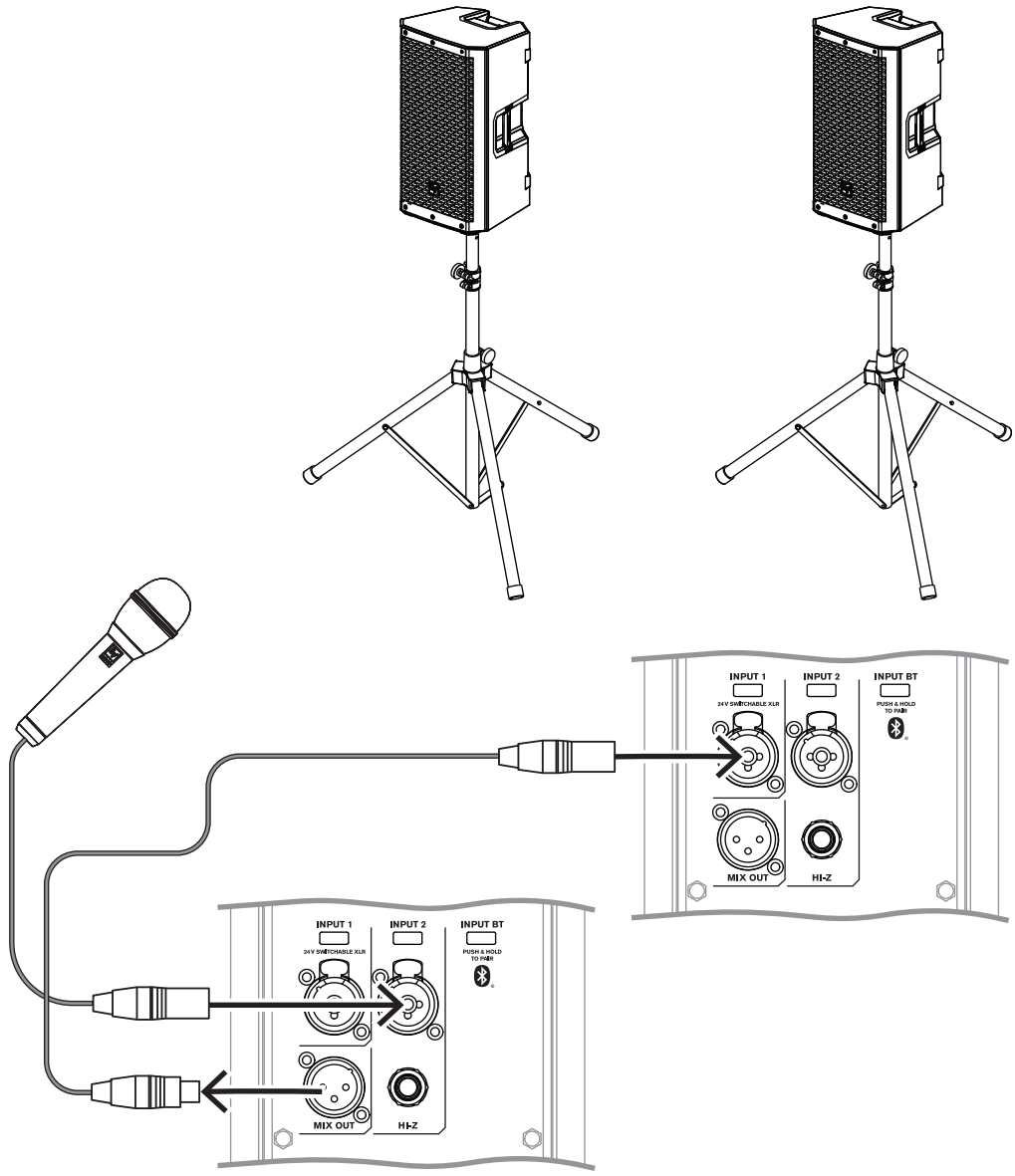
注意!
箭头的方向表示信号路径。

MODE	LIVE
LOCATION（位置）	MONITOR（监听）
SUB（低频）	OFF
INPUT 1 PRESET	VOCAL MIC
INPUT 2 PRESET	ELECTR GUIT

表格 9.4: 作为监听器的扬声器的DSP设置

9.1.5 菊花链全频扬声器系统

LINE和MIC输入电平控制可用于INPUT 1和INPUT 2。12点位置表示单位增益（无增益或衰减），零(0)左侧的范围用于调整线路电平，而零(0)右侧的范围用于调整话筒电平。



注意!
箭头的方向表示信号路径。

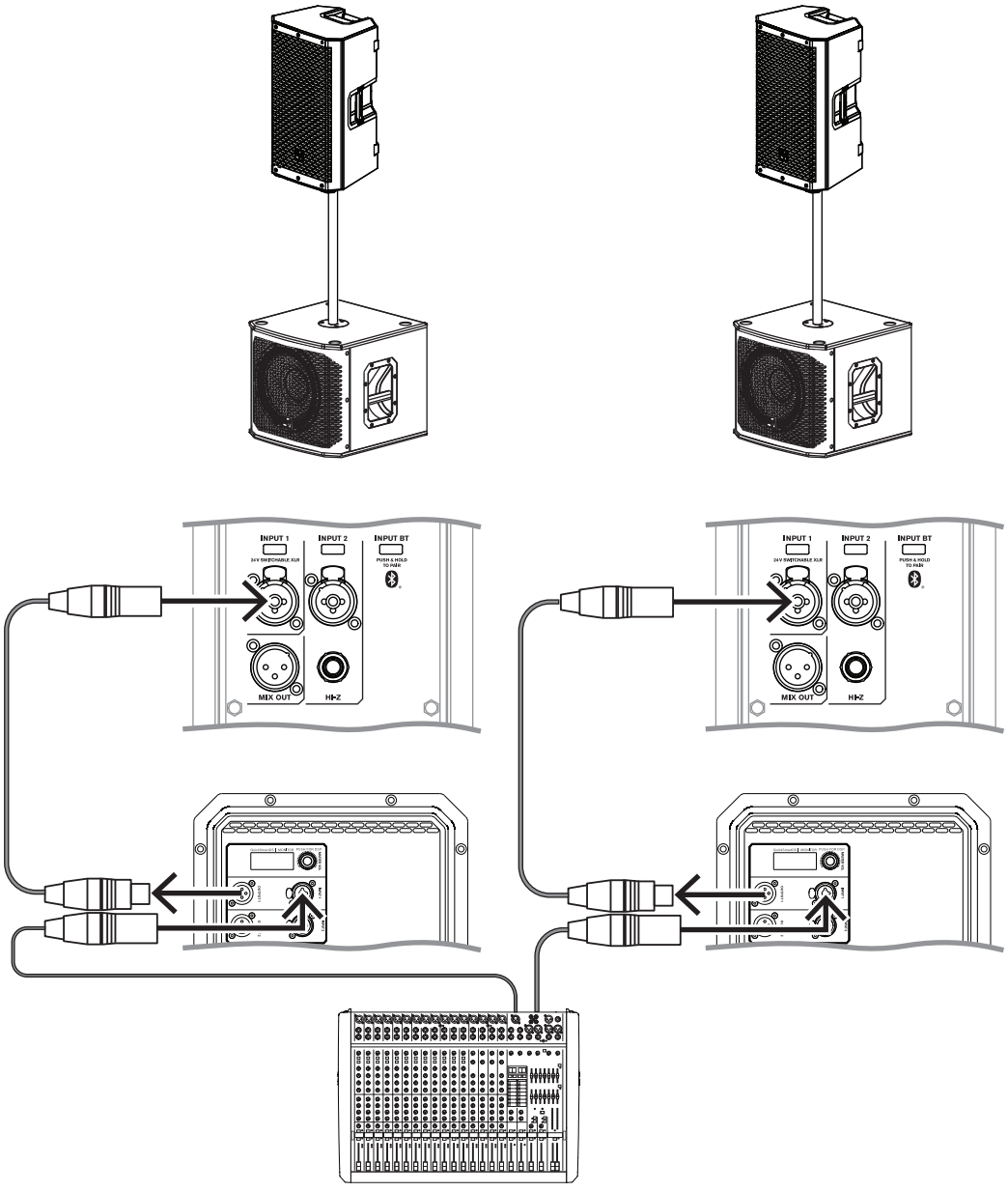
模式 (Mode):	人声 (Speech)
位置 (Location):	立杆
低音 (Sub):	Off

表格 9.5: 三脚架上扬声器的 DSP 设置

9.1.6 将全频扬声器系统与低音扬声器进行堆叠

配置包括:

– ZLX-8P-G2、ZLX-12P-G2或ZLX-15P-G2扬声器。
– ELX200-18SP低音扬声器。



注意!
箭头的方向表示信号路径。

	ZLX-12P-G2	ELX200-18SP
模式:	现场	现场
位置 (Location):	立杆	不适用
低频:	ELX200-18SP	不适用

	ZLX-12P-G2	ELX200-18SP
低通:	不适用	ZLX-12P-G2

表格 9.6: 堆叠的扬声器和低音扬声器的DSP设置

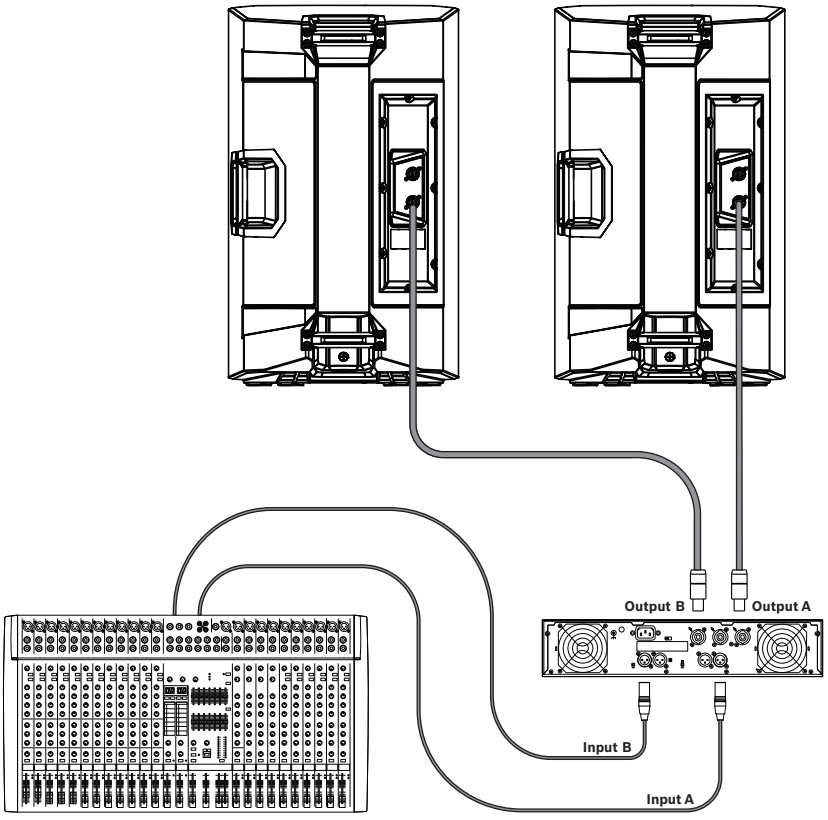
9.2 无源扬声器

小心!
为了获得优异的声学效果和性能，建议ZLX-G2与Dynacord DSP功率放大器搭配使用，该功率放大器根据SONICUE的EV扬声器数据库中的适当扬声器设置进行编程。若未能使用合理的放大器和扬声器设置，可能会导致音效不佳，还可能导致永久性受损和保修失效。

9.2.1 使用全频音箱构成的基本立体声系统

配置包括:

- ZLX-8-G2、ZLX-12-G2或ZLX-15-G2扬声器。
- Dynacord L1800FD放大器，使用SONICUE的适当扬声器设置进行编程。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未使用（直通）

小心!
不要超出功率放大器的最大额定负载。

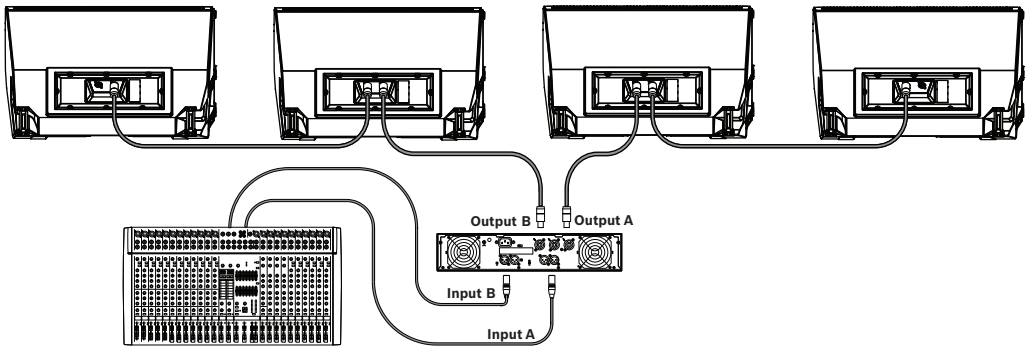
功率放大器负载（每个输出通道）		
扬声器数量	**额定**	**最低**
1	8 欧姆	7.2 欧姆
2	4欧姆	3.6欧姆
3	2.7欧姆	2.4欧姆
4	2欧姆	1.8 欧姆

9.2.2 使用全频音箱作为舞台返送监听音箱

配置包括:

– 多个ZLX-8-G2、ZLX-12-G2或ZLX-15-G2扬声器处于监听位置。

– Dynacord L1800FD放大器，使用SONICUE的适当扬声器设置进行编程。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未用

小心!

不要超出功率放大器的最大额定负载。

功率放大器负载（每个输出通道）		
扬声器数量	**额定**	**最低**
1	8 欧姆	7.2 欧姆
2	4欧姆	3.6欧姆
3	2.7欧姆	2.4欧姆
4	2欧姆	1.8 欧姆

9.2.3 将全频扬声器系统与低音扬声器进行堆叠

可能的配置:

– ZLX-12-G2扬声器与EKX-15S低频扬声器。

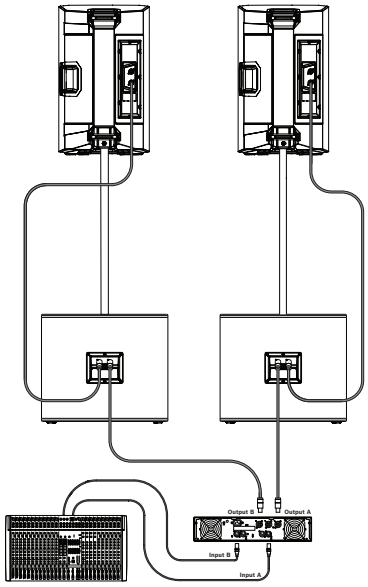
– Dynacord L1800FD放大器与来自混音器或处理器的35 Hz高通滤波器。

或

– ZLX-15-G2扬声器与EKX-18S低频扬声器。

– Dynacord L1800FD放大器与来自混音器或处理器的30 Hz高通滤波器。

此配置帮助用户在不使从用额外功放通道的情况下增加低频效果。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未使用（直通）

小心!

不要超出功率放大器的最大额定负载。

功率放大器负载（每个输出通道）		
超低频/全频音箱组合的数量	**额定**	**最低**
1	4 欧姆	3.8欧姆
2	2欧姆	1.9欧姆

9.3 无源扬声器

小心!

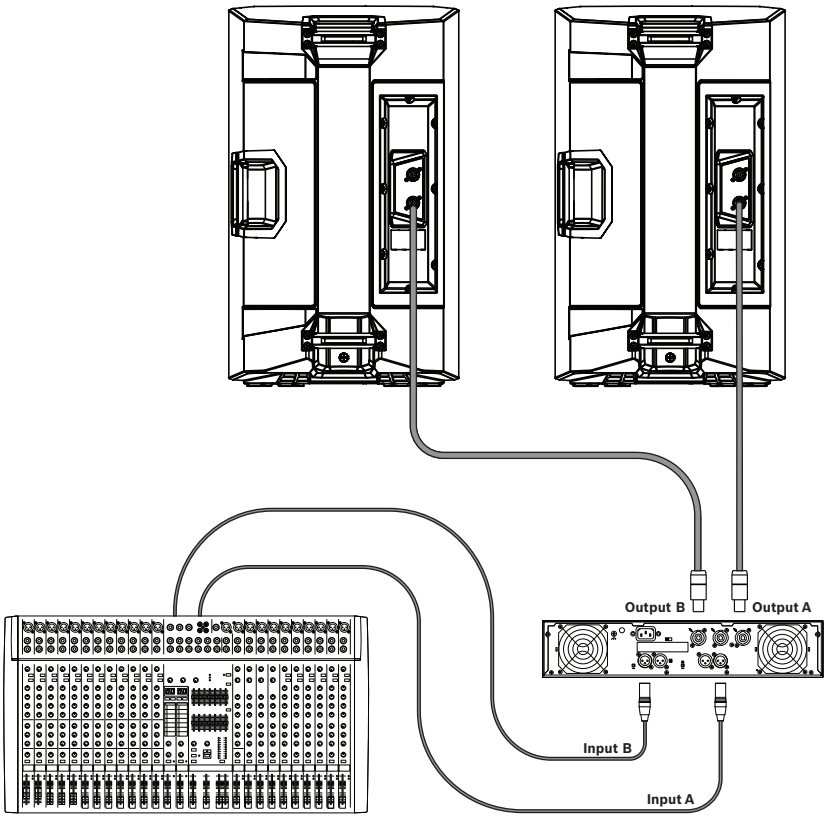
为了获得优异的声学效果和性能，建议ZLX-G2与Dynacord DSP功率放大器搭配使用，该功率放大器根据SONICUE的EV扬声器数据库中的适当扬声器设置进行编程。若未能使用合理的放大器和扬声器设置，可能会导致音效不佳，还可能导致永久性受损和保修失效。

9.3.1 使用全频音箱构成的基本立体声系统

配置包括:

– ZLX-8-G2、ZLX-12-G2或ZLX-15-G2扬声器。

– Dynacord L1800FD放大器，使用SONICUE的适当扬声器设置进行编程。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未使用（直通）

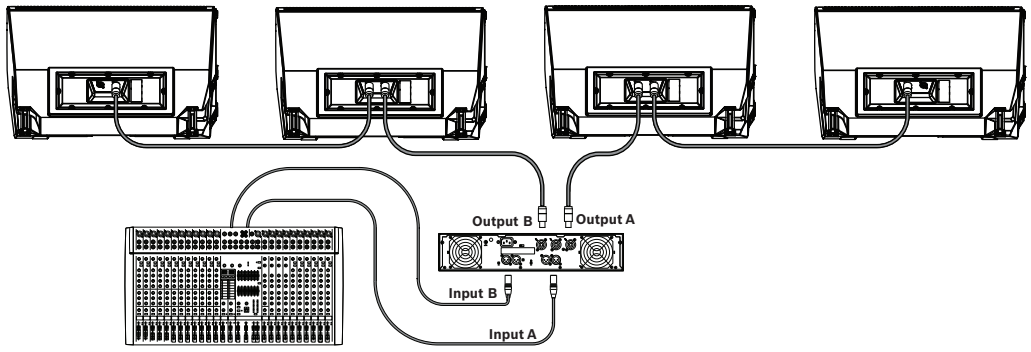
小心!
不要超出功率放大器的最大额定负载。

功率放大器负载（每个输出通道）		
扬声器数量	**额定**	**最低**
1	8 欧姆	7.2 欧姆
2	4欧姆	3.6欧姆
3	2.7欧姆	2.4欧姆
4	2欧姆	1.8 欧姆

9.3.2 使用全频音箱作为舞台返送监听音箱

配置包括:

– 多个ZLX-8-G2、ZLX-12-G2或ZLX-15-G2扬声器处于监听位置。
– Dynacord L1800FD放大器，使用SONICUE的适当扬声器设置进行编程。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未用

小心!
不要超出功率放大器的最大额定负载。

功率放大器负载（每个输出通道）		
扬声器数量	**额定**	**最低**
1	8 欧姆	7.2 欧姆
2	4欧姆	3.6欧姆
3	2.7欧姆	2.4欧姆
4	2欧姆	1.8 欧姆

9.3.3 将全频扬声器系统与低音扬声器进行堆叠

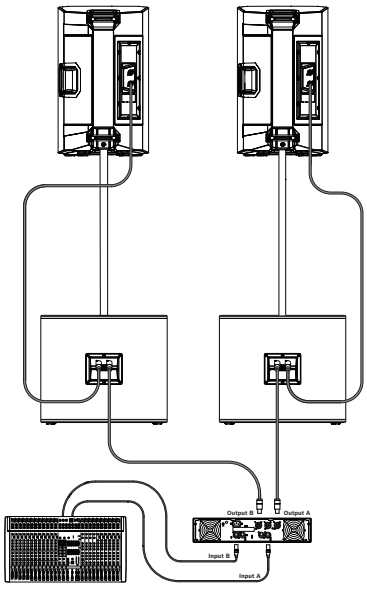
可能的配置:

– ZLX-12-G2扬声器与EKX-15S低频扬声器。
– Dynacord L1800FD放大器与来自混音器或处理器的35 Hz高通滤波器。

或

– ZLX-15-G2扬声器与EKX-18S低频扬声器。
– Dynacord L1800FD放大器与来自混音器或处理器的30 Hz高通滤波器。

此配置帮助用户在不使从用额外功放通道的情况下增加低频效果。



NL4引脚配置	
引脚1+和1-	使用
引脚2+和2-	未使用（直通）

小心!
不要超出功率放大器的最大额定负载。

功率放大器负载（每个输出通道）		
超低频/全频音箱组合的数量	**额定**	**最低**
1	4 欧姆	3.8欧姆
2	2欧姆	1.9欧姆

10 故障排除

10.1 无源扬声器

问题	可能的原因	操作(A)
1. 没有声音	功率放大器	核查所有电子设备是否均已接通、信号传输是否正确，音源是否开启、音量是否已调大等等。必要时进行较正/维修/更换。如果仍然没有声音，则可能是接线存在问题。
	接线	核查用来连接放大器的电缆是否正确。通过放大器播放一些低电平的内容。将测试扬声器与故障线路并联。如果声音消失或非常微弱，则线路中存在短路（可能由严重刮擦、挤压或错误连接造成）。使用测试扬声器，顺着线路测试每个连接处/接头，直到发现问题所在并修复问题。遵循正确的指向性。
	未连接声源	用万用表或电缆测试仪检查声源和扬声器之间的所有电缆。用已知良好的电缆更换任何可能有问题的电缆。
2. 低频响应不佳	扬声器连线极性不正确	当两只扬声器连接极性不正确时，低频将彼此产生声学抵消。仔细观察扬声器线缆上的接线标志或记号。确认功率放大器(+)端子已连接到NL4连接器的引脚1+，并且功率放大器(-)端子已连接到NL4连接器的引脚1-。
3. 间歇输出，例如破裂音或失真	连接故障	检查放大器和扬声器上的所有连接，确保干净、牢固。如果问题仍然存在，请检查接线。参阅问题1。
4. 持续噪音，例如嗡嗡声、嘶嘶声或蜂鸣声	音源或其他电子设备有缺陷	如果未播放任何节目源但杂音存在，则根据需要评估每个组件以发现问题。此时很有可能是因为信号通道中断。
	系统接地或接地环路不良	按照要求，检查并更正系统接地。
5. 话筒产生声反馈（**INPUT LEVEL** 放大时）	话筒位置过于靠近扬声器前部	安装扬声器时，尽可能让话筒位于其后部。如果在监听音箱位置使用扬声器，则将扬声器对准话筒的后部。
如果这些建议未能解决您的问题，请联系离您最近的Electro-Voice 经销商或Electro-Voice 分销商。		

10.2 无源扬声器

问题	可能的原因	操作(A)
1. 没有声音	功率放大器	核查所有电子设备是否均已接通、信号传输是否正确，音源是否开启、音量是否已调大等等。必要时进行较正/维修/更换。如果仍然没有声音，则可能是接线存在问题。
	接线	核查用来连接放大器的电缆是否正确。通过放大器播放一些低电平的内容。将测试扬声器与故障线路并联。如果声音消失或非常微弱，则线路中存在短路（可能由严重刮擦、挤压或错误连接造成）。使用测试扬声器，顺着线路测试每个连接处/接头，直到发现问题所在并修复问题。遵循正确的指向性。
	未连接声源	用万用表或电缆测试仪检查声源和扬声器之间的所有电缆。用已知良好的电缆更换任何可能有问题的电缆。

问题	可能的原因	操作(A)
2. 低频响应不佳	扬声器连线极性不正确	当两只扬声器连接极性不正确时，低频将彼此产生声学抵消。仔细观察扬声器线缆上的接线标志或记号。确认功率放大器(+)端子已连接到NL4连接器的引脚1+，并且功率放大器(-)端子已连接到NL4连接器的引脚1-。
3. 间歇输出，例如破裂音或失真	连接故障	检查放大器和扬声器上的所有连接，确保干净、牢固。如果问题仍然存在，请检查接线。参阅问题1。
4. 持续噪音，例如嗡嗡声、嘶嘶声或蜂鸣声	音源或其他电子设备有缺陷	如果未播放任何节目源但杂音存在，则根据需要评估每个组件以发现问题。此时很有可能是因为信号通道中断。
	系统接地或接地环路不良	按照要求，检查并更正系统接地。
5. 话筒产生声反馈（**INPUT LEVEL** 放大时）	话筒位置过于靠近扬声器前部	安装扬声器时，尽可能让话筒位于其后部。如果在监听音箱位置使用扬声器，则将扬声器对准话筒的后部。
如果这些建议未能解决您的问题，请联系离您最近的Electro-Voice 经销商或Electro-Voice 分销商。		

10.3 有源扬声器

问题	可能的原因	操作(A)
6. 没有声音	功率放大器	核查所有电子设备是否均已接通、信号传输是否正确，音源是否开启、音量是否已调大等等。必要时进行较正/维修/更换。如果仍然没有声音，则可能是接线存在问题。
	接线	核查用来连接放大器的电缆是否正确。通过放大器播放一些低电平的内容。将测试扬声器与故障线路并联。如果声音消失或非常微弱，则线路中存在短路（可能由严重刮擦、挤压或错误连接造成）。使用测试扬声器，顺着线路测试每个连接处/接头，直到发现问题所在并修复问题。遵循正确的指向性。
	增益不正确	核查所有声源是否均已接通。如果声源是电容话筒，请确保通过XLR将话筒插入**INPUT 1** 并在菜单中启用幻象电源。在LCD或应用程序中检查VU音量表。如果VU音量表上有信号，请将输入和增益控件提高到所需音量。如果VU音量表上没有信号，则检查布线。
	未连接声源	用万用表或电缆测试仪检查声源和扬声器之间的所有电缆。用已知良好的电缆更换任何可能有问题的电缆。
7. 低频响应不佳	激活了**SUB（低频）**菜单的分频频率	如果没有低频扬声器与系统一起使用，请选择**OFF(关)** 位置。
	SPEECH 模式已激活	在DSP控制菜单中，更改**MODE** 调节到**MUSIC**,**LIVE**或**CLUB**.请参见DSP控制 了解更多详情。
	输入**PRESET** 未设置为**FLAT**	在INPUT DSP控制菜单中，将**PRESET** 调节到**FLAT**.请参见INPUT DSP控制菜单 了解更多详情。
	EQ处于激活状态	在INPUT和DSP控制菜单中，使用低频重置所有EQ。请参见DSP控制 和INPUT DSP控制菜单 了解更多详情。

问题	可能的原因	操作(A)
8. 间歇输出，例如破裂音或失真	连接故障	检查放大器和扬声器上的所有连接，确保干净、牢固。如果问题仍然存在，请检查接线。参阅问题1。
9. 持续噪音，例如嗡嗡声、嘶嘶声或蜂鸣声	音源或其他电子设备有缺陷	如果未播放任何节目源但杂音存在，则根据需要评估每个组件以发现问题。此时很有可能是因为信号通道中断。
	系统接地或接地环路不良	按照要求，检查并更正系统接地。
	输入增益不适合话筒音量。	慢慢调高INPUT LEVEL以匹配话筒前置放大器。
	同时通过USB和3.5毫米插孔连接了移动设备。	如果扬声器通过3.5毫米音频输入插孔连接了移动设备并同时为其充电，则某些移动设备（例如笔记本电脑和手机）可能会引入接地回路。请通过蓝牙功能连接音频，或断开USB插孔连接。
10. 没有播放声音，话筒已连接到**INPUT 1** 或 **INPUT 2**	话筒需要幻象电源。	使用不需要幻象电源的动圈话筒。如果使用的是需要幻象电源的话筒，则需要通过XLR连接器将其连接到**INPUT 1** 并启用幻象电源。请参见INPUT DSP控制菜单 了解更多详情。
	输入增益太低	慢慢调高输入增益电平以匹配话筒前置放大器。
11. 声音失真，前**LED** 处于**OFF(关)**状态，LCD屏幕**LIMIT** 处于 **ON**	过高的**INPUT LEVEL**	调低**INPUT LEVEL** 或扬声器音量旋钮以防止出现限幅。
	增益结构不正确或音源输入（混音台/前置放大器）负载过大	使用LCD屏幕上的VU电平表指示器验证音频源电平控件是否正确。如果VU电平表指示恒定不变或系统指示**LIMIT**，则表示输入电平或音源电平过高。
12. 话筒产生声反馈（**INPUT LEVEL** 放大时）	自动反馈抑制处于 **OFF(关)**	在DSP控制菜单中启用自动反馈抑制。请参见DSP控制 了解更多详情。
	增益结构不正确	在混音台或输入源处降低话筒电平。如果话筒直接连接到扬声器，请降低扬声器上的**INPUT LEVEL** 。将话筒靠近音源放置将增大啸叫前增益。参阅问题6。
	MODE 设置为**MUSIC**	将**MODE** 调节到**LIVE** 或**SPEECH**.
	话筒位置过于靠近扬声器前部	安装扬声器时，尽可能让话筒位于其后部。如果在监听音箱位置使用扬声器，则将扬声器对准话筒的后部。
13. DSP控制菜单被锁定	菜单**LOCK** 功能已开启。LCD屏幕上显示锁定符号。	按下**MASTER VOLUME** 旋钮或输入选择软键进行解锁。
14. QuickSmart Mobile应用程序检测不到扬声器	启用蓝牙	确保在扬声器上启用蓝牙。对于Android：确保激活位置服务。 从iOS/Android的设备设置中删除扬声器（有时称为“忘记”）。 重新开始配对。 确保手机/平板电脑已安装所需的操作系统版本和最新更新。确保安装最新的QuickSmart Mobile应用程序。确保同一个扬声器上未连接其他手机/平板电脑。

问题	可能的原因	操作(A)
15. 扬声器对用户交互或断电后再重新通电没有反应	意外内部操作故障	确保扬声器已插入电源。拔掉电源并重新插入。 或 按住软键**INPUT 1** 和**INPUT 2** 至少10秒钟。
如果这些建议未能解决您的问题，请联系离您最近的Electro-Voice 经销商或Electro-Voice 分销商。		

11 技术参数

11.1 有源扬声器

	ZLX-8P-G2-EU 8"两分频有源扬声器，欧式电源线 ZLX-8P-G2-US 8”两分频有源扬声器，美式电源线	ZLX-12P-G2-EU 12"两分频有源扬声器，欧式电源线 ZLX-12P-G2-US 12”两分频有源扬声器，美式电源线	ZLX-15P-G2-EU 15"两分频有源扬声器，欧式电源线 ZLX-15P-G2-US 15”两分频有源扬声器，美式电源线
频率响应 (-3 dB) (Hz) [1]	58 Hz – 20,000 Hz	54 Hz – 18,500 Hz	48 Hz – 18,000 Hz
频率范围(-10 dB) (Hz) [1,2]	50 Hz – 20,000 Hz	48 Hz – 20,000 Hz	42 Hz – 20,000 Hz
1米处最大声压级(dB) [3]	126 dB	127 dB	129 dB
水平x垂直覆盖角度(°)	90° x 60°	90° x 60°	90° x 60°
分频频率(kHz)	1.40 kHz	1.40 kHz	1.40 kHz
额定功率(W)	1000 W	1000 W	1000 W
功耗(V, Hz)[4]	100 - 240 V~，50 - 60 Hz	100 - 240 V~，50 - 60 Hz	100 - 240 V~，50 - 60 Hz
低频换能器	WECA2088	WECA2128	WECA2158
低频换能器大小(英寸)	8 in	12 in	15 in
低频换能器磁性材料	铁氧体	铁氧体	铁氧体
高频换能器	DECA2516	DECA2516	DECA2516
高频换能器类型	压缩驱动单元	压缩驱动单元	压缩驱动单元
高频换能器大小 (in)	1.40 in	1.40 in	1.40 in
HF transducer magnet material	铁氧体	铁氧体	铁氧体
高频换能器振膜材质	钛	钛	钛
连接器类型	(2) XLR/TRS组合，(1) ¼英寸TS Hi-Z	(2) XLR/TRS组合，(1) ¼英寸TS Hi-Z	(2) XLR/TRS组合，(1) ¼英寸TS Hi-Z
材料	聚丙烯	聚丙烯	聚丙烯
格栅材料	粉末涂层钢	粉末涂层钢	粉末涂层钢
尺寸(高x宽x深) (毫米)	459.6 mm x 289.9 mm x 280.5 mm	621.1 mm x 356.2 mm x 356 mm	697.6 mm x 422.8 mm x 383.1 mm
尺寸(高x宽x深) (英寸)	18.09 in x 11.41 in x 11.04 in	24.45 in x 14.02 in x 14.01 in	27.46 in x 16.65 in x 15.08 in
	500 mm x 390 mm x 350 mm	670 mm x 420 mm x 405 mm	765 mm x 490 mm x 490 mm

1) 使用音乐DSP预设的全空间测量。

2)半空间测量。

3)最大声压级是在1米处使用最大输出下的宽带粉红噪声进行测量的。

4)额定电流为1/8功率。

	ZLX-8P-G2-EU 8"两分频有源扬声器，欧式电源线 ZLX-8P-G2-US 8”两分频有源扬声器，美式电源线	ZLX-12P-G2-EU 12"两分频有源扬声器，欧式电源线 ZLX-12P-G2-US 12”两分频有源扬声器，美式电源线	ZLX-15P-G2-EU 15"两分频有源扬声器，欧式电源线 ZLX-15P-G2-US 15”两分频有源扬声器，美式电源线
	19.69 in x 15.35 in x 13.78 in	26.38 in x 16.54 in x 15.94 in	30.12 in x 19.29 in x 19.29 in
重量(千克)	10.64 kg	14.82 kg	16.78 kg
重量(磅)	23.46 lb	32.67 lb	37 lb
装运重量(千克)	12.58 kg	16.86 kg	19.64 kg
装运重量(磅)	27.73 lb	37.17 lb	43.30 lb

11.2 无源扬声器

1)带建议的预设值

	ZLX-8-G2 8"两分频无源扬声器	ZLX-12-G2 12"两分频无源扬声器	ZLX-15-G2 15"两分频无源扬声器
频率响应 (-3 dB) (Hz) [1]	67 Hz – 20,000 Hz	69 Hz – 18,500 Hz	68 Hz – 18,000 Hz
频率范围(-10 dB) (Hz) [1]	55 Hz – 20,000 Hz	55 Hz – 20,000 Hz	53 Hz – 20,000 Hz
轴向灵敏度(dB SPL 1W/1m)	90 dB SPL 1W/1m	93 dB SPL 1W/1m	95 dB SPL 1W/1m
1米处最大声压级(dB) [1]	124 dB	125 dB	126 dB
高通频率(Hz)	60 Hz	48 Hz	40 Hz
分频频率(kHz)	2 kHz	2 kHz	2 kHz
水平x垂直覆盖角度(°)	90° x 60°	90° x 60°	90° x 60°
功率处理(连续) (W)	250 W	250 W	250 W
功率处理(峰值) (W)	1,000 W	1,000 W	1,000 W
额定阻抗(Ω)	8 Ω	8 Ω	8 Ω
低频换能器	WECA2088	WECA2128	WECA2158
低频换能器大小(英寸)	8 in	12 in	15 in
低频换能器磁性材料	铁氧体	铁氧体	铁氧体
高频换能器	DH-1K	DH-1K	DH-1K
高频换能器类型	压缩驱动单元	压缩驱动单元	压缩驱动单元
高频换能器大小 (in)	1.4 in	1.4 in	1.4 in
高频换能器振膜材质	钛	钛	钛
尺寸(高x宽x深) (毫米)	459.6 mm x 289.9 mm x 280.5 mm	621.1 mm x 356.2 mm x 356 mm	697.6 mm x 422.8 mm x 383.1 mm

	ZLX-8-G2 8"两分频无源扬声器	ZLX-12-G2 12"两分频无源扬声器	ZLX-15-G2 15"两分频无源扬声器
尺寸(高x宽x深) (英寸)	18.09 in x 11.41 in x 11.04 in	24.45 in x 14.02 in x 14.01 in	27.46 in x 16.65 in x 15.08 in
	500 mm x 390 mm x 350 mm	670 mm x 420 mm x 405 mm	765 mm x 490 mm x 490 mm
	19.69 in x 15.35 in x 13.78 in	26.38 in x 16.54 in x 15.94 in	30.12 in x 19.29 in x 19.29 in
重量(千克)	10.15 kg	14.26 kg	16.44 kg
重量(磅)	22.38 lb	31.44 lb	36.24 lb
装运重量(千克)	11.92 kg	16.26 kg	19.18 kg
装运重量(磅)	26.28 lb	35.85 lb	42.28 lb

11.3 无源扬声器

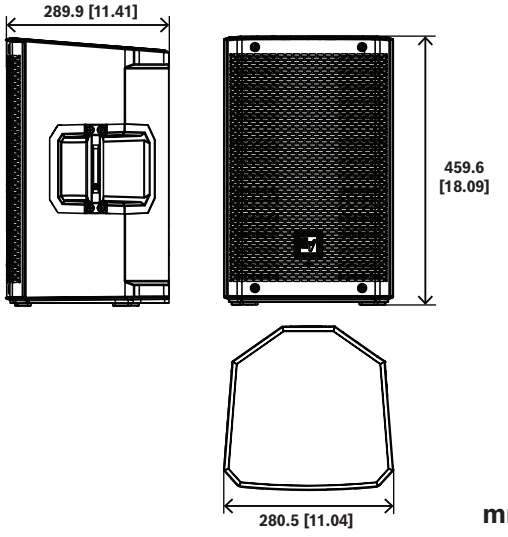
1)带建议的预设值

	ZLX-8-G2 8"两分频无源扬声器	ZLX-12-G2 12"两分频无源扬声器	ZLX-15-G2 15"两分频无源扬声器
频率响应 (-3 dB) (Hz) [1]	67 Hz – 20,000 Hz	69 Hz – 18,500 Hz	68 Hz – 18,000 Hz
频率范围(-10 dB) (Hz) [1]	55 Hz – 20,000 Hz	55 Hz – 20,000 Hz	53 Hz – 20,000 Hz
轴向灵敏度(dB SPL 1W/1m)	90 dB SPL 1W/1m	93 dB SPL 1W/1m	95 dB SPL 1W/1m
1米处最大声压级(dB) [1]	124 dB	125 dB	126 dB
高通频率(Hz)	60 Hz	48 Hz	40 Hz
分频频率(kHz)	2 kHz	2 kHz	2 kHz
水平x垂直覆盖角度(°)	90° x 60°	90° x 60°	90° x 60°
功率处理(连续) (W)	250 W	250 W	250 W
功率处理(峰值) (W)	1,000 W	1,000 W	1,000 W
额定阻抗(Ω)	8 Ω	8 Ω	8 Ω
低频换能器	WECA2088	WECA2128	WECA2158
低频换能器大小(英寸)	8 in	12 in	15 in
低频换能器磁性材料	铁氧体	铁氧体	铁氧体
高频换能器	DH-1K	DH-1K	DH-1K
高频换能器类型	压缩驱动单元	压缩驱动单元	压缩驱动单元
高频换能器大小 (in)	1.4 in	1.4 in	1.4 in
高频换能器振膜材质	钛	钛	钛
尺寸(高x宽x深) (毫米)	459.6 mm x 289.9 mm x 280.5 mm	621.1 mm x 356.2 mm x 356 mm	697.6 mm x 422.8 mm x 383.1 mm

	ZLX-8-G2 8"两分频无源扬声器	ZLX-12-G2 12"两分频无源扬声器	ZLX-15-G2 15"两分频无源扬声器
尺寸(高x宽x深) (英寸)	18.09 in x 11.41 in x 11.04 in	24.45 in x 14.02 in x 14.01 in	27.46 in x 16.65 in x 15.08 in
	500 mm x 390 mm x 350 mm	670 mm x 420 mm x 405 mm	765 mm x 490 mm x 490 mm
	19.69 in x 15.35 in x 13.78 in	26.38 in x 16.54 in x 15.94 in	30.12 in x 19.29 in x 19.29 in
重量(千克)	10.15 kg	14.26 kg	16.44 kg
重量(磅)	22.38 lb	31.44 lb	36.24 lb
装运重量(千克)	11.92 kg	16.26 kg	19.18 kg
装运重量(磅)	26.28 lb	35.85 lb	42.28 lb

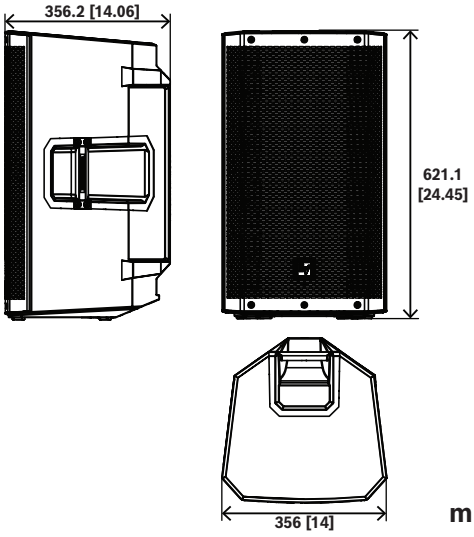
11.4 尺寸

8英寸型号



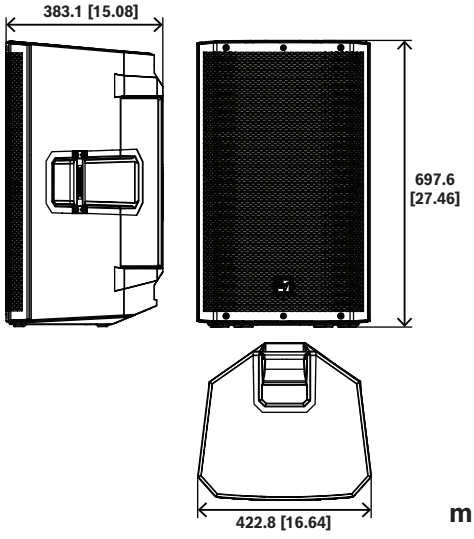
mm [in]

12英寸型号



mm [in]

15英寸型号



mm [in]

12 附录

12.1 保修信息

有关保修期和售后服务的信息，请访问：www.electrovoice.com/warranty

12.2 效果(FX)列表

注意：如有更改，恕不另行通知

值	名称（应用）	名称(LCD)
0	OFF	OFF
1	Echo+ReverbShort	ECHO+REVERB S
2	Reverb Room	REV ROOM
3	Reverb Concert Hall	REV CONCERT
4	Reverb Large Hall	REV HALL
5	Reverb Church	REV CHURCH
6	Reverb Room Soft	REV ROOM S
7	Reverb Concert Hall Soft	REV CONCERT S
8	Reverb Large Hall Soft	REV HALL S
9	Reverb Church Soft	REV CHURCH S
10	Reverb Cathedral Soft	REV CATHEDRAL S
11	Reverb Plate Medium	PLATE MEDIUM
12	Reverb Plate Long	PLATE LONG
13	Reverb Plate Medium Soft	PLATE MEDIUM S
14	Reverb Plate Long Soft	PLATE LONG S
15	Reverb+ChorusSlow	REV+CHORUS SLOW
16	Reverb+ChorusMedium	REV+CHORUS MEDIUM
17	Reverb+ChorusFast	REV+CHORUS FAST
18	Delay Short	DELAY SHORT
19	Delay Long	DELAY LONG
20	Delay Tap	DELAY TAP
21	Chorus Slow	CHORUS SLOW
22	Chorus Medium	CHORUS MEDIUM
23	Chorus Fast	CHORUS FAST
24	Chorus+Echo Slow	CHORUS+ECHO S
25	Chorus+EchoMedium	CHORUS+ECHO M
26	Chorus+Echo Fast	CHORUS+ECHO F
27	Slap Back+EchoSlow	SLAPBACK+ECHO S
28	Slap Back+EchoFast	SLAPBACK+ECHO F

值	名称（应用）	名称(LCD)
29	Doubling Narrow	DOUBLING NARROW
30	Doubling Wide	DOUBLING WIDE

12.3 输出列表

VOLUME		0 dB （默认值）
		MUTE,-80 dB-+10 dB, (1 dB)
	EXIT	
	MODE	MUSIC （默认值）
		LIVE
		SPEECH
		CLUB
		FRFR
	MAIN LEVEL	0 dB （默认值）
		MUTE,-80 dB-+10 dB, (1 dB)
	LOCATION	TRIPOD （默认值）
		KICKBACK
		MONITOR
	SUB	OFF （默认值）
		100 Hz
		120 Hz
		150 Hz
		ELX200-12SP
		ELX200-18SP
		EKX-15SP
		EKX-18SP
	DELAY	OFF （默认值）
		0.1 m - 100.0 m
	TREBLE	0 dB （默认值）
		-12 dB -+6 dB
	MID	0 dB （默认值）
		-12 dB -+6 dB

BASS		0 dB （默认值）
		-12 dB -+6 dB
MAIN PEQ	BACK	
	ENABLE ALL	ON （默认值）
		OFF
	RESET ALL	NO （默认值）
		YES
	PEQ #	1 （默认值）
		1 -7
	BYPASS	OFF （默认值）
		ON
	TYPE	PEQ （默认值）
		LOW SHELF
		HI SHELF
		LOW PASS
		HI PASS
	Q （仅限PEQ ）	0.7 （默认值）
		0.5 -10.0
	FREQ	120 Hz （默认值）
		50 Hz -20 kHz
	GAIN (PEQ,LOW SHELF 和 HI SHELF ）	0 dB （默认值）
		-12 dB -+6 dB
	RESET	NO （默认值）
		YES
	BACK	
MAIN GEQ	BACK	
	63 Hz	0 dB （默认值） -12 dB -+12 dB (1 dB)
	160 Hz	0 dB （默认值）
	400 Hz	-12 dB -+12 dB (1 dB)
	1 kHz	0 dB （默认值）
	2.5 kHz	-12 dB -+12 dB (1 dB)

		6 kHz	0 dB （默认值）
		12 kHz	-12 dB -+12 dB (1 dB)
		RESET	RESET ALL BANDS? YES/NO
		BACK	
	FX		01 （默认值）
			00 调节到30
	FX Delay TAP (FX 20)		427 ms （默认值）
			30 ms -550 ms
	FX ENABLE		ON （默认值）
			OFF
	AFS （自动反馈抑制）		OFF （默认值）
			ON
	MIX OUT		L + R （默认值）
			L
			R
	BLUETOOTH	BACK	
		BLUETOOTH	ON （默认值）
			OFF
		ID （4位数字的唯一设备编号）	
		CONTROL PAIR	
		AUDIO PAIR	
		LINK SPEAKERS	
		LINK ROUTE	L + R （默认值）
			L
			R
		BACK	
	LED		ON （默认值）
			OFF
			LIMIT
	DISPLAY	BACK	
		LCD DIM	ON （默认值）
			OFF
		BRIGHT	5 （默认值）

			1 -10
		CONTRAST	5 （默认值）
			1 -10
		BACK	
	STORE		BACK, 1, 2, 3, 4, 5,BACK
	RECALL		BACK、1、2、3、4、5、6（默认），BACK
	RESET	DEFAULT SETTINGS?	NO （默认值）
			YES
		ERASE USER PRESETS?	NO （默认值）
			YES
	INFO		[固件版本]
			©2023 Electro-Voice
	EXIT		

表格 12.7: 扬声器DSP控制菜单（MIXER模式）

12.4 输入列表

MIXER模式的INPUT DSP控制菜单

INPUTS 1 & 2		
LEVEL		0 dB （默认值）
		MUTE,-80 dB -+42 dB
	EXIT	
	24V (INPUT 1)	OFF （默认值）
		ON
	PRESET	FLAT （默认值）
		LOW CUT 80
		LOW CUT 120
		VOCAL MIC
		VOICE FILTER
		ND76 VOCAL
		RE520
		ND86 VOCAL
		ND96 VOCAL
		SPEECH

		ACOUST GUITAR
		ND66 A-GTR
		ELECTRIC GUITAR
		BASS GUITAR
		PERCUSSION
		LINE INPUT
	COMP	OFF （默认值）
		OFF,1 -100
	TREBLE	0 dB （默认值）
		-12 dB -+12 dB
	MID	0 dB （默认值）
		-12 dB -+12 dB
	BASS	0 dB （默认值）
		-12 dB -+12 dB
	FX	0 dB （默认值）
		-80 dB -+10 dB
	PAN	C （默认值）
		10 L - 10 R
	DUCKER	OFF （默认值）
		OFF,-1 --40
	EXIT	

表格 12.8: INPUTS 1和2 DSP控制菜单（MIXER模式）

INPUT BT		
LEVEL		0 dB （默认值）
		MUTE,-80 dB -+42 dB
	EXIT	
	TREBLE	0 dB （默认值）
		-12 dB -+12 dB
	MID	0 dB （默认值）
		-12 dB -+12 dB
	BASS	0 dB （默认值）
		-12 dB -+12 dB
	BAL （仅立体声操作）	C （默认值）
		10 L - 10 R

	BLUETOOTH	BACK	
		BLUETOOTH	ON （默认值）
			OFF
		ID （4位数字的唯一设备编号）	
		CONTROL PAIR	
		AUDIO PAIR	
		LINK SPEAKERS	
		BACK	
	EXIT		

表格 12.9: INPUT BT DSP控制菜单（MIXER模式）

12.5 监管信息

12.5.1 FCC信息

重要注意事项：请勿改装本设备！任何未经制造商明确许可的更改或改装均可能导致用户失去FCC授予的操作本设备的权利。

注意!

本设备经测试符合FCC规则第15部分中关于B类数字设备的限制规定。这些限制的目的是为了在居住区安装本设备时，可以提供合理的保护以防止有害干扰。本设备会产生、使用和辐射射频能量。此外，如果未遵照相关说明进行安装和使用，可能会对无线电通信造成干扰。但是，这并不能保证在某些特定的安装环境中绝对不会产生干扰。

如果本设备确实对无线电或电视接收造成了有害干扰，或者受到无线电、电视或通信设备的声音干扰，而这可以通过关闭和打开本设备来确定，则建议用户尝试采取以下一种或多种措施来排除干扰：

- 重新调整接收天线的方向和位置。
- 增加设备与接收器之间的距离。
- 将本设备的电源连接到与接收器不同的供电回路上。
- 咨询经销商或有经验的无线电/电视/通信设备技术人员。

本设备已经过FCC和IC以及FCC ID: ESV-ZLXG2和IC: 1249A-ZLXG2认证。

请注意，未经合规责任方明确许可，擅自改动或改装本设备可能会导致用户失去操作该设备的权利。

本设备在安装和操作时，辐射板与身体之间必须至少保持20厘米的距离。

本设备符合FCC规则的第15部分规定以及加拿大工业部免许可证RSS标准。本设备的操作必须满足以下两个条件：

(1) 本设备不会造成干扰，并且

(2) 本设备必须能够承受各种干扰，包括可能引起设备意外操作的干扰。

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence.L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

该设备包含符合加拿大创新、科学和经济发展部免许可RSS的免许可发射器/接收器。本设备的操作必须满足以下两个条件：

(1)本设备不会造成干扰

(2) 本设备必须能够承受各种干扰，包括可能引起设备意外操作的干扰。

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada.Le fonctionnement est soumis aux deux conditions suivantes: (1) Cet appareil ne doit pas causer d'interférences (2) Cet appareil doit accepter toutes les interférences, y compris celles susceptibles de provoquer un fonctionnement indésirable de l'appareil.

12.5.2 简化符合性声明(sDoC) - 欧洲(CE)和英国(UKCA)

BG	С настоящото Bosch Security Systems, LLC декларира, че този тип радиосъоръжение ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: www.electrovoice.com
CS	Tímto Bosch Security Systems, LLC prohlašuje, že typ rádiového zařízení ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.electrovoice.com
DA	Hermed erklærer Bosch Security Systems, LLC , at radioudstyrstypen ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.electrovoice.com
DE	Hiermit erklärt Bosch Security Systems, LLC , dass der Funkanlagentyp ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: www.electrovoice.com
EL	Με την παρούσα ο/η Bosch Security Systems, LLC , δηλώνει ότι ο ραδιοεξοπλισμός ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.electrovoice.com
EN	Hereby, Bosch Security Systems, LLC declares that the radio equipment type ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU is in compliance with Directive 2014/53/EU and the relevant statutory requirements. The full text of the EU declaration of conformity and the UK declaration of conformity are available at the following internet address: www.electrovoice.com
ES	Por la presente, Bosch Security Systems, LLC declara que el tipo de equipo radioeléctrico ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.electrovoice.com
ET	Käesolevaga deklareerib Bosch Security Systems, LLC , et käesolev raadioseadme tüüp ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU vastab direktiivi 2014/53/EL nõuetele. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: www.electrovoice.com
FI	Bosch Security Systems, LLC vakuuttaa, että radiolaitetyyppi ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.electrovoice.com

FR	Le soussigné, Bosch Security Systems, LLC , déclare que l'équipement radioélectrique du type ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.electrovoice.com
HR	Bosch Security Systems, LLC ovime izjavljuje da je radijska oprema tipa ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.electrovoice.com
HU	Bosch Security Systems, LLC igazolja, hogy a ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.electrovoice.com
IT	Il fabbricante, Bosch Security Systems, LLC , dichiara che il tipo di apparecchiatura radio ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.electrovoice.com
LT	Aš, Bosch Security Systems, LLC , patvirtinu, kad radijo įrenginių tipas ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.electrovoice.com
LV	Ar šo Bosch Security Systems, LLC deklarē, ka radioiekārta ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: www.electrovoice.com
MT	B'dan, Bosch Security Systems, LLC , niddikjara li dan it-tip ta' tagħmir tar-radju ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li ġej: www.electrovoice.com
NL	Hierbij verklaar ik, Bosch Security Systems, LLC , dat het type radioapparatuur ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: www.electrovoice.com
PL	Bosch Security Systems, LLC niniejszym oświadcza, że typ urządzenia radiowego ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.electrovoice.com
PT	O(a) abaixo assinado(a) Bosch Security Systems, LLC declara que o presente tipo de equipamento de rádio ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.electrovoice.com
RO	Prin prezenta, Bosch Security Systems, LLC declară că tipul de echipamente radio ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: www.electrovoice.com

SK	Bosch Security Systems, LLC týmto vyhlasuje, že rádiové zariadenie typu ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: www.electrovoice.com
SL	Bosch Security Systems, LLC potrjuje, da je tip radijske opreme ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.electrovoice.com
SV	Härmed försäkrar Bosch Security Systems, LLC att denna typ av radioutrustning ZLX-8P-G2-EU, ZLX-12P-G2-EU, ZLX-15P-G2-EU överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: www.electrovoice.com

12.5.3 CE/UKCA监管通知 - 有关设备使用的信息

该设备经过测试，符合B类辐射限制。产生的电磁干扰不超过无线电和电信设备或其他设备正常运行的上限。这意味着设备在住宅和商业环境中的使用不受限制。

12.5.4 认证

阿根廷:

证书编号:

巴西:

Após uma perturbação da rede elétrica, o ZLX-G2 pode entrar em estado de segurança.Neste caso, você deve desligar e ligar o dispositivo novamente.
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.
Para mais informações, consulte o site da ANATEL: www.anatel.gov.br.

柬埔寨:

TRC识别号:

马来西亚:

墨西哥:

“La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada”

IFETEL ID:

巴基斯坦:

Approved by PTA
TAC NO: 9.46/2022

韩国:

R-R-B6S-ESVEVERSE

기자재명칭:	특정소출력 무선기기(무선데이터통신시스템용 무선기기
모델명:	EVERSE 8
정격:	100-240 Vac，50-60 Hz，1000 W
수입업체(상호)명:	로버트보쉬코리아(유)
제조자:	Bosch Security Systems, LLC.
제조연월:	별도표기
제조국:	중국
A/S:	02-702-2846

해당 무선설비는 운용 중 전파혼신 가능성이 있음
해당 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없습니다。

泰国:

阿拉伯联合酋长国:

TDRA - UNITED ARAB Emirates

Dealer ID: DA45733/15
TA RTTE: ER10360/22
Model Name: EVERSE 8
Product Type: Bluetooth

12.5.5 Open Source Software licenses

12.5.5.1 Components overview

Component	Copyright	License
CMSIS	ARM Limited	Apache License 2.0
CMSIS Device	ARM Limited - STMicroelectronics	Apache License 2.0
STM32F4 HAL	STMicroelectronics	BSD-3-Clause
QTIL Firmware	Multiple	Multiple
QTIL Audio	Multiple	Multiple

12.5.5.2 The Licenses

CMSIS and CMSIS Device

Apache License
Version 2.0, January 2004
http://www.apache.org/licenses/

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换能器	X	O	O	O	O	O
显示屏	X	O	O	O	O	O
电缆和导线	O	O	O	O	O	O
塑料材料	O	O	O	O	O	O
金属材料	X	O	O	O	O	O
木质和纸质材料	O	O	O	O	O	O
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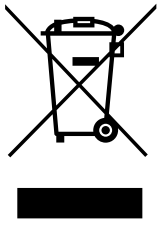	此类产品及或电池应与生活垃圾分开处理。请按照当地法律法规处理此类设备，以便重新使用及或回收。这将有助于节约资源并保护人类健康和环境。

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塑料材料	O	O	O	O	O	O
金属材料	X	O	O	O	O	O
木质和纸质材料	O	O	O	O	O	O
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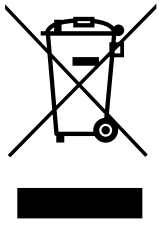

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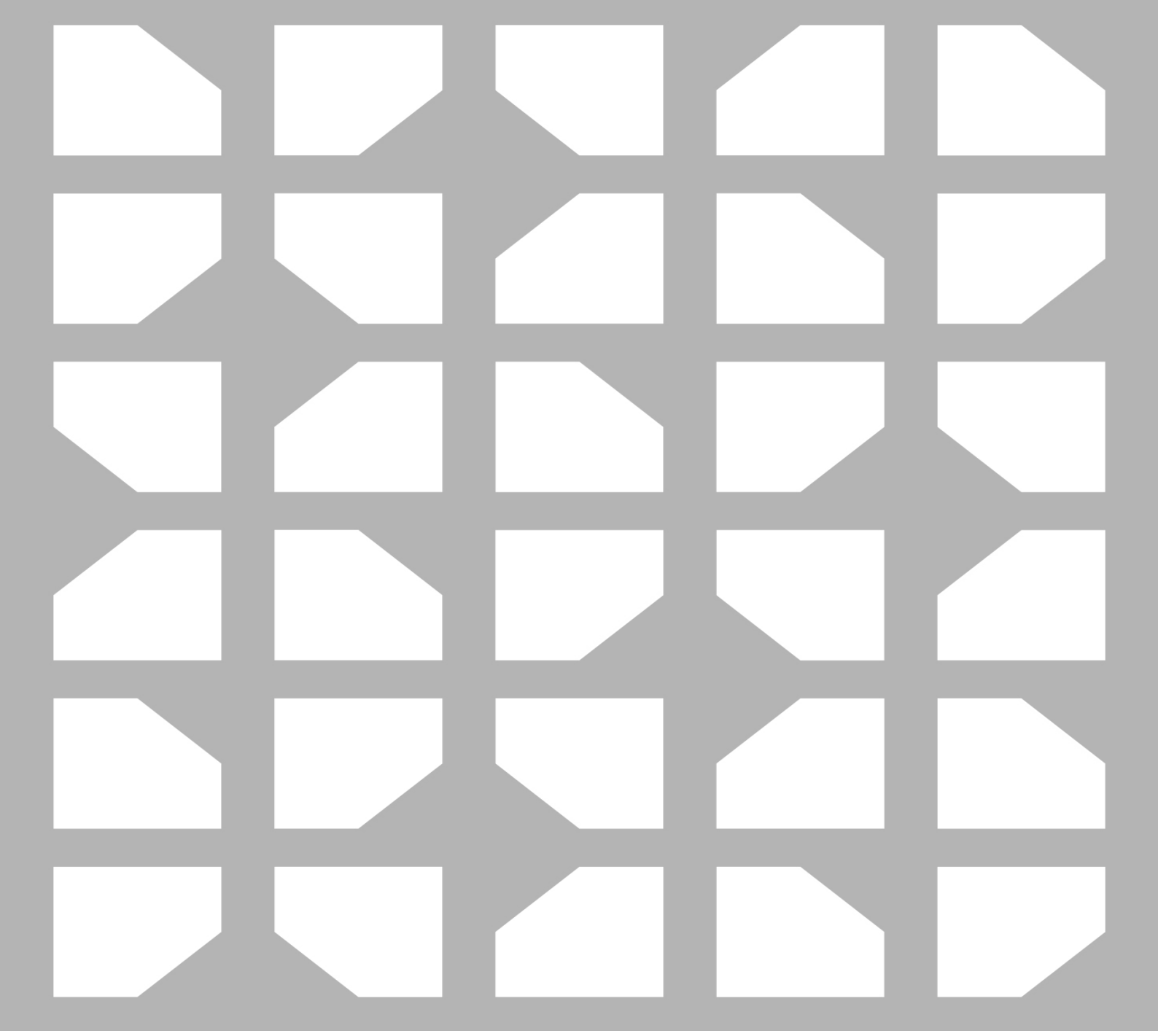

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