Installation Manual for Experience Line

EL-X165A 2-Way Coaxial Set Part Nr. 280113

Please read installation manual carefully before beginning installation!

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Dear Music Lover,

We congratulate you on your purchase of our superior product and thank you for placing your trust in rainbow. With over 30 years of engineering expertise in car audio speakers and belief in Golden Spiral for product design, rainbow has created a wide range of products that reproduce life-like sound with all the details and emotions you can hope for. Rainbow guarantees outstanding quality and we wish you many pleasant hours enjoying your favorite music with our high-performance products. We have put together this installation manual with great consideration of different mechanical and acoustical features to help you better understand and operate rainbow products. And we'd love to hear your questions, feedback and improvement suggestions via email info@rainbow-audio.de.

Best wishes,
Your Rainbow Team

Safety Instruction

Attention

Please read all warnings found in this manual. This information is included and highlighted to inform you of the potential risks of personal injury or damage to property.

Our products are intended for those who want to upgrade their car audio systems and enjoy unbeatable sound performance in cars. The relevant safety regulations regarding related auto parts, the regulations of internal vehicle safety, as well as the regulations of the authorized vehicle manufacturers should be followed diligently.

Hearing Damage

Continuous exposure to sound pressure levels over 85 dB may cause permanent hearing loss. High-powered auto sound system could produce sound pressure levels over 130 dB, which may cause damage to hearing. Use common sense and avoid such risks.

Volume and Driver Awareness

Use of audio components can impair your ability to hear necessary traffic sounds and may constitute a safety hazard while driving your automobile.

Rainbow accepts no liability for hearing loss, bodily injury or property damage as a result of use or misuse of this product.

Installation Notice

Do not use your automobile until all components have been secured. Failure to do so may turn a component into a dangerous, flying projectile during a sudden stop or accident.

Do not drill or drive screw through any vehicle interior or carpeted floor before inspecting the underside for potential punctures to control lines or cables. Be sure to avoid all fuel lines, brake lines, electrical cables or oil lines when planning the installation.

We recommend disconnecting the battery before beginning installation of the loudspeaker system. Please ask your car dealer if disconnecting the battery is feasible without any problems.

Always be meticulous when removing interior trim panels. Car manufacturers use a variety of fastening devices that can be damaged in the disassembly process.

If sheet metal must be cut or removed, contact your authorized car dealer for professional advice. By damage to supporting body structures the safety certificate may be withdrawn.

Shock Hazard!

Do not touch the connectors while the system is running.

Mechanical Installation

Choosing a location

The first step of a favorable installation is to select the best mounting locations for the coaxial set. Under most circumstances, coaxial speakers are mounted in rear doors. For easy and quick installation, use the original factory speaker locations since these positions will save plenty of installation time and provide the best optical integration.

Warranty

All rainbow products come with a year's warranty on all parts, starting from the date of purchase from the authorized retailer. Only the first buyer is entitled to this warranty policy, which would be invalid in case of products being transferred.

The warranty covers all material and manufacturing defects, however it does not cover mechanical defects, defects caused by electrical overload and foreign interference by unauthorized people.

Mechanical Defects

Defects resulting from damage to components during installation, dirt or metal shavings in the open magnetic system, and inappropriate installation by using devices not conforming to the intended range of application.

Electrical Defects

Damage resulting from electrical and thermal overload and/or inadmissibly high power supply, and clipping distortion.

Electromechanical Defects

Damage resulting from running the loudspeaker system at an excessively high volume or in an improper enclosure like trunk and the results caused thereof, such as burned voice coils, broken lead wires and accidents, acts of God or other situations for which rainbow can not be held accountable. In particular, normal wear and tear is not covered by warranty.

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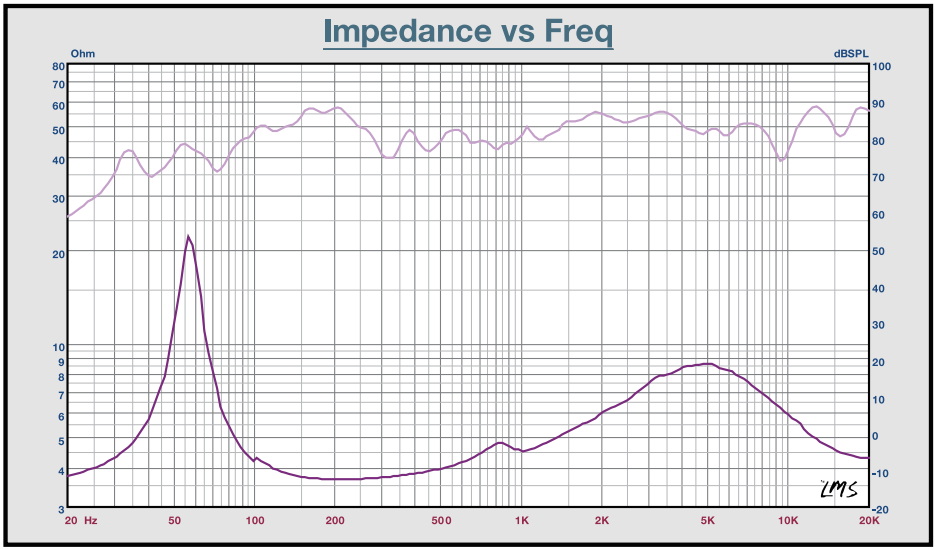
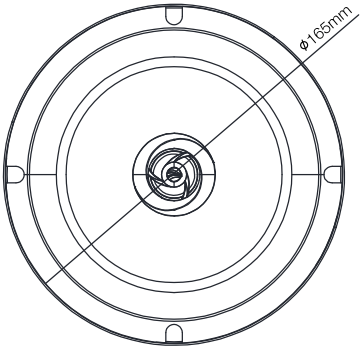
TECHNICAL DATA

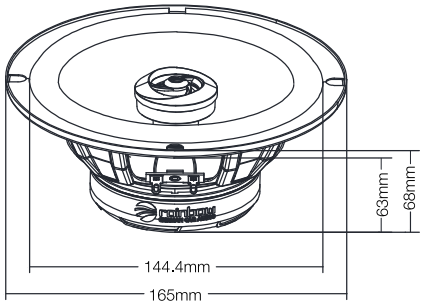
EL-X165A

Impedance vs Frequency Response



Dimension Illustration





T/S parameters	
Cone/Dome	PP
Sensitivity	87 dB/W/m
Nominal power	50 W
Peak power	100 W
Nominal impedance	4 Ohm
Re	3.4 Ohm
Fs	63 Hz
Fr	63Hz - 20kHz
Qms	5.4
Qes	1.2
Qts	0.9
Mms	12.2 g
Cms	608.2 u M/N
Sd	13 cm^2
Vas	15.2 L
BL	3.5 Tm
Magnet dimension	85 × 40 × 15mm
Voice coil diameter	25.5mm
Voice coil height	9mm
Mounting diameter	165mm
Mounting depth	62mm
Weight	829 g

亲爱的音乐爱好者：

祝贺您购买了我们的优质产品，感谢您对彩虹的信任。彩虹拥有超过30年的汽车音响产品开发技术和生产经验，并遵循拥有两千多年历史的黄金分割率，制造出富有音乐感、声音自然动听的音响器材。彩虹汽车音响音质卓越，性能优良，让您尽情享受音乐之美。我们结合了不同的机械和汽车声学特点编写了这本安装手册，帮助您更好地了解和使用彩虹产品。如您有任何疑问、反馈和改善建议，请发邮件至info@rainbow-audio.de，我们将不胜感激。

最美好的祝愿
彩虹团队

安全指南

注意

请仔细阅读用户手册中的警示，我们在此注明并强调这些信息是为提醒您免受潜在的人身伤害或设备损坏。

如您想要升级汽车音响系统、乐享旅程，彩虹产品一定是您的不二之选。汽车零部件相关安全守则，车内安全守则和授权汽车生产商相关守则都须严格遵守。

听力损害

长时间聆听高于85分贝音量的声音可能会造成永久性听觉损失。而大功率音响系统产生的声音高于130分贝，可能会损伤听力。请合理调节系统音量及聆听时间，避免以上风险。

音量和安全驾驶

驾驶时，使用音响系统可能会让你听不清周围的交通声，进而引发交通事故。
彩虹对因产品使用不当引起的听力损伤、身体伤害或产品性能损坏概不负责。

安装须知

扬声器系统的全部元件未在车内固定好之前，不要驾驶汽车。否则，在急刹车或汽车事故时，扬声器元件可能成为危险的抛射物。

在车内或者铺有地毯的底板上钻孔、打钉之前一定要检查底部，以免损坏控制线。布置安装时，确保一定要避开刹车线、电线、油管。

建议在开始安装扬声器系统之前取下汽车蓄电池。请咨询您的汽车经销商这样操作是否可行，不会引发任何问题。

拆卸内饰板时须格外小心。汽车生产商使用的多种紧固装置都可能在拆卸过程中被损坏。

如需切割或拆卸金属板，请联系授权汽车经销商，获取专业建议。支撑结构损坏，可能会导致安全证书被撤回。

触电危险！
音响系统运行时，不要触摸接线端口。

机械安装

选择安装位置
成功安装的第一步要为同轴喇叭选择一个最佳安装位置，一般情况下同轴都会安装在后门。为安装便捷，可使用原厂喇叭位安装，这样不仅可以节省大量安装时间，还能保留原车的完整性。

质保
彩虹承诺为所有产品提供 1 年的法定质保期，确保所有部件在保修期内良好运行。保修期从授权经销商处购买产品之日开始计算。只有一手客户享受质保政策，保修权不可转让。

保修对象涵盖材料及生产缺陷。而机械损坏、电压过载引起的损坏、非授权人员对产品维修或拆卸造成的故障损坏皆不属于保修范围。

机械损坏
安装过程中损坏零部件、灰尘或金属碎屑落入开放式磁缝中、以及安装时使用了与产品特性不匹配的设备造成的损坏。

电器损坏
因电压过载、热过载、过大的功率输出和放大器削波失真造成的损坏。

机电损坏
因音响系统音量过大或箱体体积不适宜（如尾箱用作箱体）引起的音圈烧毁、导线断裂，或车祸、不可抗力等事故引起的产品及零部件损坏。尤其注意，正常的磨损不属于保修范围。

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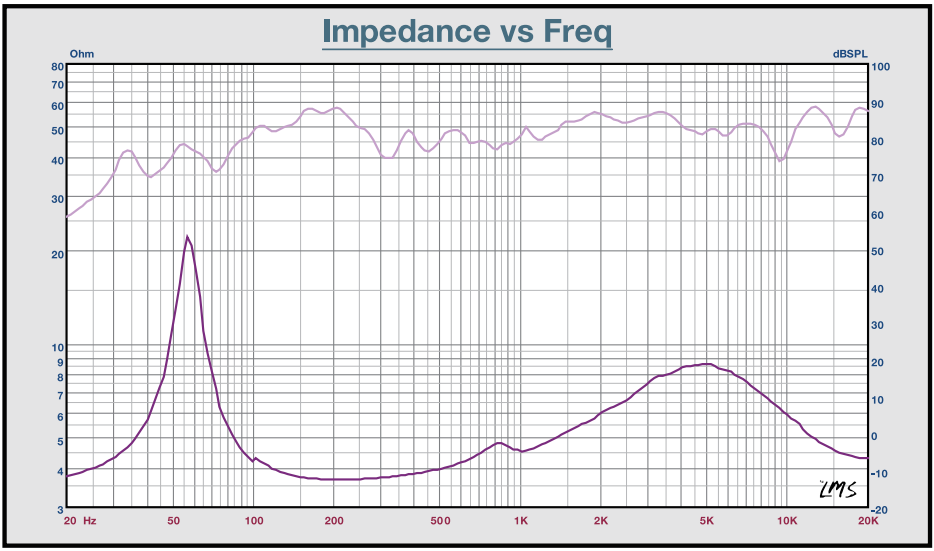
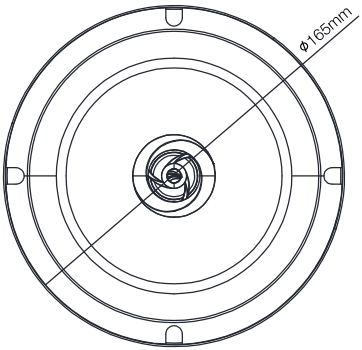
技术资料

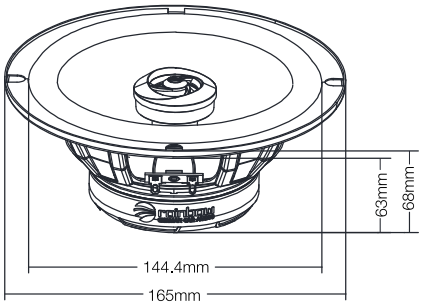
EL-X165A

阻抗 **vs** 频率响应



尺寸图示





T/S参数	
振膜/球顶	PP
灵敏度	87 dB/W/m
额定功率	50 W
峰值功率	100 W
额定阻抗	4 Ohm
直流阻抗	3.4 Ohm
谐振频率	63 Hz
频率响应	63Hz - 20kHz
机械品质因数值	5.4
电品质因数值	1.2
总品质因数值	0.9
振动质量	12.2 g
力顺	608.2 u M/N
振动面积	13 cm^2
等效容积	15.2 L
磁力	3.5 Tm
磁铁尺寸	85 × 40 × 15mm
音圈直径	25.5mm
音圈高度	9mm
安装直径	165mm
安装深度	62mm
重量	829 g