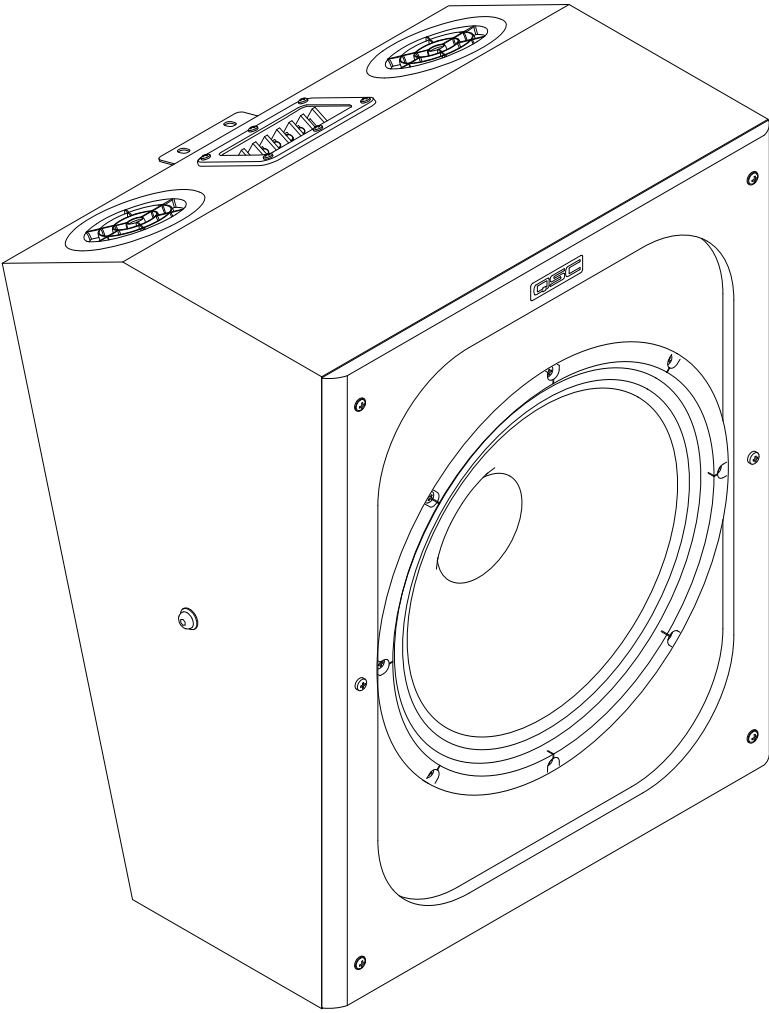# SR-1590

User Manual

SR-1590 Surround Loudspeaker

TD-000536-00-A

EXPLANATION OF SYMBOLS

The term "**WARNING!**" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "**CAUTION!**" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, it may result in damage to the equipment that may not be covered under the warranty.

The term "**IMPORTANT!**" indicates instructions or information that are vital to the successful completion of the procedure.

The term "**NOTE**" is used to indicate additional useful information.

The exclamation point within an equilateral triangle is to alert the user to the presence of important safety, operating, and maintenance instructions in this manual.

IMPORTANT SAFETY INSTRUCTIONS

1. Keep these instructions.

2. Heed all warnings.

3. Follow all instructions.

4. Do not use this apparatus near water.

5. Clean only with a dry cloth.

6. Do not block any ventilation opening. Install in accordance with the manufacturer's instructions.

7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

8. Only use attachments/accessories specified by the manufacturer.

9. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

10. Adhere to all applicable, local codes.

11. Always keep sound pressure levels in the listening area below levels that can damage human hearing.

Warranty

For a copy of the QSC Limited Warranty, visit the QSC website at www.qsc.com

Introduction

The SR-1590 is a high-power, compact cinema surround loudspeaker that addresses the requirements of the new immersive sound formats.

The SR-1590 is designed for safe and secure overhead mounting:

- Pre-installed hardware allows fast single-installer wall mounting with optional wall brackets supporting down-angles of 0° or 8°.

- A traditional U-bracket or yoke (YM-500) is also available.

- The rear panel of the cabinet has ten M6 threaded insert mounting points that accommodate the standard bolt pattern for most third-party bracket manufacturers.

- Four of the mounting points are centered on the cabinet's rear panel allowing the use of a multiple angle aiming bracket.

SR-1590 Package Contents

1 SR-1590 Loudspeaker	1 M6 Eyebolt
1 User Guide	Warranty TD-000453

Installing the SR-1590

⚠️ **WARNING!:** Read and follow these instructions carefully. If the loudspeakers are not suspended properly, they could fall, causing personal injury and damage to the equipment.

Rules for Suspension

1. Consult a professional mechanical or structural engineer, licensed in the jurisdiction of the sound system installation, to review, verify, and approve all attachments to the building or structure.

2. Employ the services of a professional rigger for hoisting, positioning, and attaching the equipment to the supporting structure.

3. Correct use of all suspension hardware and components is imperative in sound system suspension and deployment.

4. Always calculate suspended loads before lifting to make sure suspension components and hardware are used within their respective load limits.

5. Consult local codes and regulations to fully understand the requirements for suspended loads in the venue in which you will suspend the equipment.

6. Use only the recommended brackets with the M8 and M6 installation points.

7. Be absolutely certain of the integrity of any structural member intended to support suspended loads. Hidden structural members can have hidden structural weakness.

8. Never assume anything! Owner or third-party supplied suspension attachment points may not be adequate for suspending the loads.
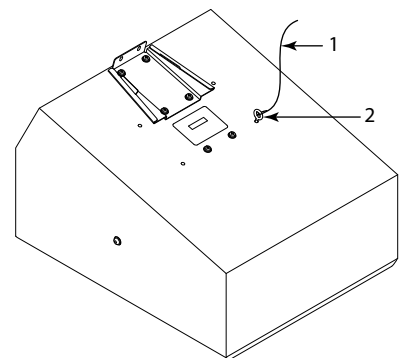
Safety Cable

⚠️ **WARNING!:** For any overhead installation, you must use safety cables (not included) attached to the supporting structure and the loudspeaker enclosure.

Refer to Figure 1

1. Install the included M6 threaded shoulder eyebolt (2) into one of the unused M6 threaded inserts on the back of the enclosure.

2. Attach one end of the safety cable (1) to the support structure, and the other end to the eyebolt on the loudspeaker enclosure.

— Figure 1 —

⚠️ **IMPORTANT:** All 12 threaded inserts must have fastening hardware (screws or eyebolt) securely installed. The insert holes are open into the enclosure. If a hole is left open it creates an air leak and the performance of the loudspeaker will be compromised. If the hardware is not securely installed it may rattle and/or fall out.
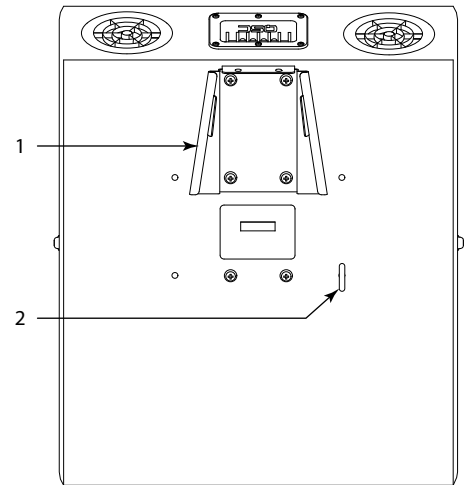
WARNING!: Be sure to read the Rules for Suspension on page 3 before installing the loudspeaker.

Wall Mounting

Refer to Figure 2.

Refer to **TD-000381** *Surround Mounting Brackets* user manual (delivered with the mounting brackets), for mounting instructions.

The SR-1590 comes with a pre-attached bracket (1) for use with QSC's QM-SW or QM-BW wall bracket (order separately).
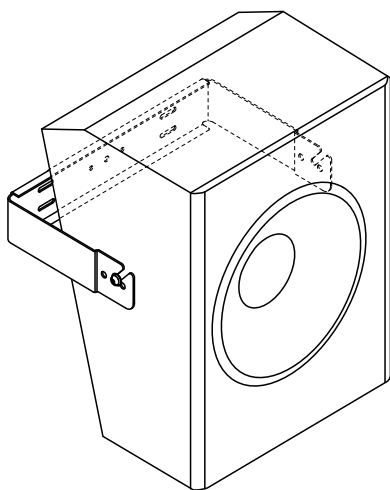
Yoke Mounting

Refer to Figure 3 and Figure 4.

Refer to **TD-000376** *Yoke Mount Bracket User Manual* (included with the mounting yoke), for mounting instructions.
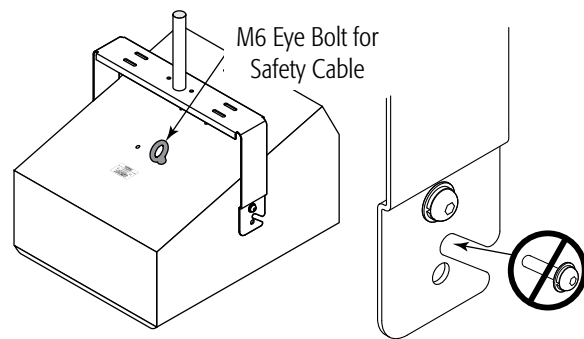
WARNING!: Do not use the slot in the yoke when mounting from the ceiling; use one of the two holes on either side of the slot.

You can use the YM-500 Yoke Bracket for mounting the loudspeaker on the wall, or on the ceiling.
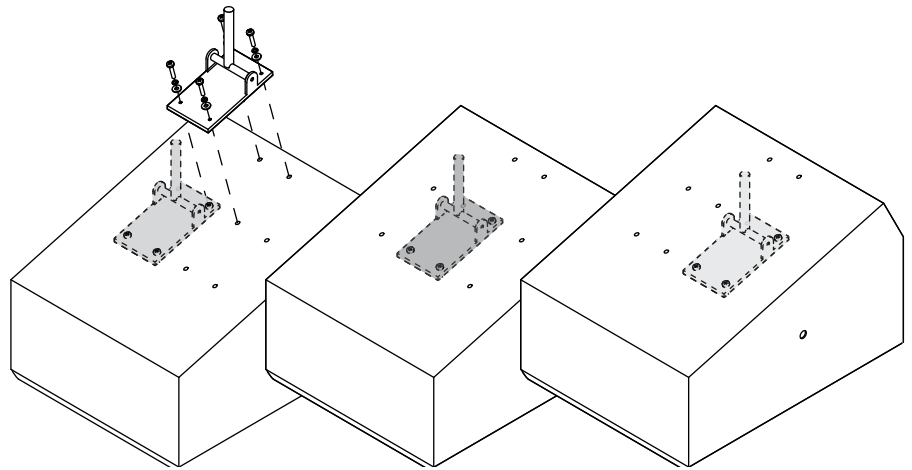

— Figure 2 —

— Figure 3 —

M6 Eye Bolt for Safety Cable

— Figure 4 —

Third-party Brackets

Refer to Figure 5.

⚠ **WARNING!:** Be sure to use a safety cable as described in "Safety Cable" on page 3.

The back panel of the enclosure has ten mounting points, that conform to the standard 2.75 × 5.0 inch hole mount pattern. These ten mounting points allow you to use a standard 4-hole bracket in one of four locations. If you use a multi-mount wall bracket you can get more horizontal pan by using the outer set of threaded inserts toward the direction of the panning.

— Figure 5 —

1. Use a Phillips screwdriver to remove the pre-installed bracket, part (1), on Figure 2.

2. Install your selected mounting bracket according to the manufacturer's instructions. Be sure to replace screws into any unused holes. (Figure 5)
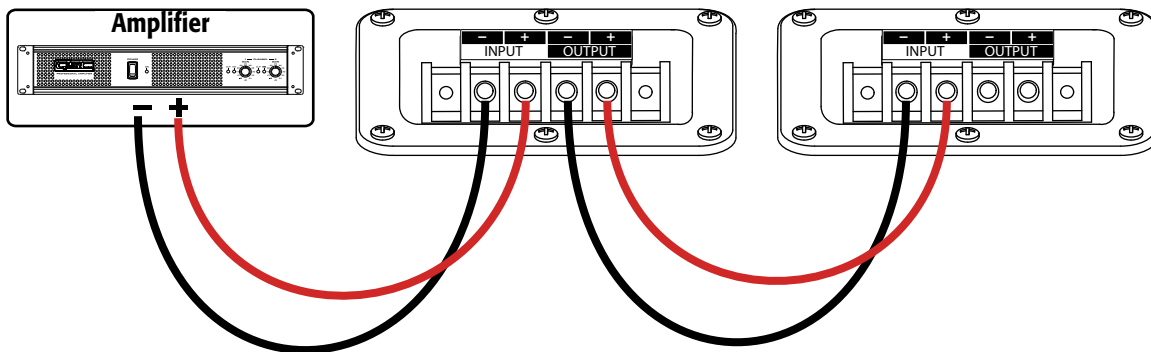
Loudspeaker Connections

The SR-1590 has a 4-position screw-type barrier strip, which accepts up to 10-gauge (10 AWG) bare wire or spade lugs. Be sure to maintain consistent polarity from the amplifier to the loudspeaker's input terminals.

You can wire each loudspeaker individually ("home-run") a single amplifier channel or, you can wire the loudspeakers in parallel (daisy-chained). However, since the SR-1590 is a 4 Ω loudspeaker, we recommend wiring each loudspeaker individually to a single amplifier channel.
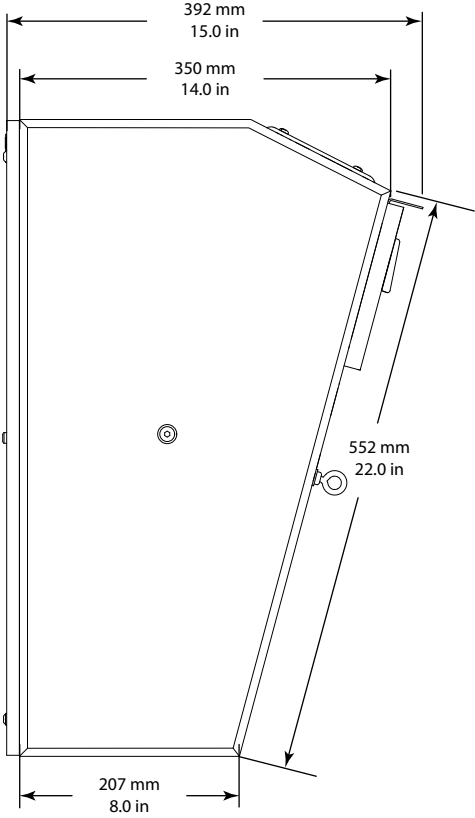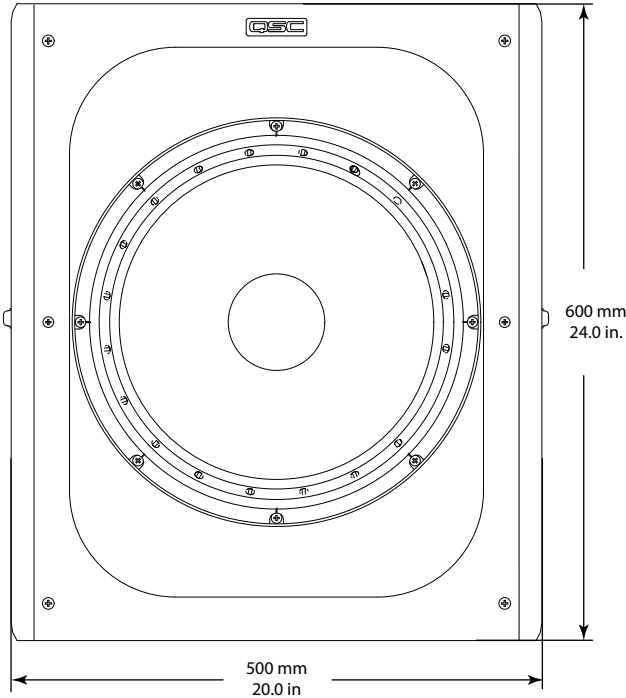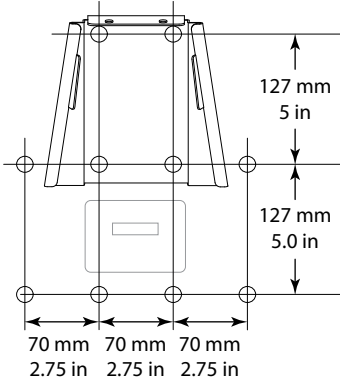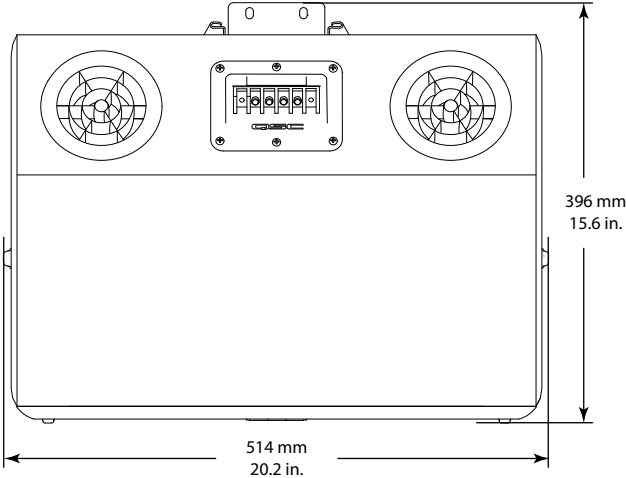
⚠ **IMPORTANT:** Be sure to check the amplifier's specifications for load requirements when you wire loudspeakers in parallel. Make sure you maintain the proper polarity from the amplifier to each of the loudspeakers you connect.

— Figure 6 —

1. Connect the wires from the amplifier **–** and **+** to the **–** and **+** INPUTS of the loudspeaker's barrier-strip connector.

2. Make sure the wires are secured to the connector.

3. Secure the wires with the proper strain relief as needed.

4. If you are connecting loudspeakers in parallel (daisy-chain), connect the wires to the **–** and **+** to the **–** and **+** OUTPUTS of the loudspeaker's barrier strip connector, and the other ends to the **–** and **+** to the **–** and **+** INPUTS of the next loudspeaker's barrier strip connector.

SR-1590 Dimensions

396 mm
15.6 in.

514 mm
20.2 in.

127 mm
5 in

127 mm
5.0 in

70 mm
2.75 in

70 mm
2.75 in

70 mm
2.75 in

600 mm
24.0 in.

500 mm
20.0 in

392 mm
15.0 in

350 mm
14.0 in

552 mm
22.0 in

207 mm
8.0 in

Specifications

System Details	SR-1590
Description	15-in (381 mm) 4-ohm 2-way coaxial loudspeaker
Frequency range (-10 dB) [1]	50 Hz – 20 kHz
Rated impedance	4 Ω nominal
Rated noise power [2]	500 W
Sensitivity [3]	98 dB
Maximum continuous SPL [4]	125 dB
Maximum peak SPL [4]	131 dB
Maximum recommended amplifier power	1000 W
Rated coverage angle (-6 dB)	90° conical (averaged from 1 kHz to 8 kHz)
Directivity factor	7.6
Directivity index (dB) [5]	8.8
LF transducer	15-in (381 mm) weather resistant paper cone woofer, 3-in (76 mm) voice-coil
HF transducer	1.4-in (36 mm) exit, 3-in (76 mm) voice coil compression driver
Input connector type	4-position barrier strip, accepts up to #10 AWG stranded wire
Enclosure Details	
Material	15 mm Baltic birch plywood
Finish	Non-reflective black vinyl
Grille	Black cloth
Wall Mounting	Baffle is 15° downward for wall-mounting install using QSC QM-SW or 23° using QSC QM-BW
Ceiling Mounting	Attachment points for ceiling install using third-party mounting brackets.
Safety	Tethering point for safety cable
Net weight	48 lb (21.7 kg)
Shipping weight	56.8 lb (25.82 kg)
Product dimensions (H × W × D)	24" × 20" × 15.4" (600 mm × 500 mm × 392 mm)
Shipping dimensions (H × W × D)	27.8" × 22" × 18.38" (705 mm × 589 mm × 467 mm)
Optional Accessories	QM-SW (side wall mount), QM-BW (back wall mount), YM-500 (yoke mount)

1   *Processed, free-field, -10 dB from on-axis sensitivity*
2   *AES2-1984 noise signal for 2 hours*
3   *On-axis, free-field sensitivity, 2.0 V, 1 m*
4   *Calculated from rated noise voltage and sensitivity*
5   *Average (500 Hz - 8 kHz)*

As part of QSC's ongoing commitment to product development, specifications are subject to change without notice.

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