



# **SLS™ MA390C**

## **3-Axis Speaker System**

### **Installation Guide**

Issue 4

Part Number 9112385

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# SLS Audio

## A Division of Dolby Laboratories

### Headquarters

**SLS Audio**  
1650 West Jackson Street  
Ozark, Missouri 65721 USA  
**Telephone** 417-883-4589  
**Fax** 417-485-5606  
[www.slsaudio.com](http://www.slsaudio.com)

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THIS DOCUMENTATION APPLIES TO MODEL CID1004.

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Part Number 9112385  
Issue 4



## Caution

1. Prior to installing this product, you must read and completely understand the installation instructions. These instructions must be read to prevent personal injury and property damage. Keep the installation instructions in an easily accessible location for future reference.
2. The rigging hardware is intended only for use with SLS Express series speakers. The customer assumes all risk of loss and or injury arising out of the use of the rigging hardware with any other speakers.
3. For ceiling installations, the system safety cable must be mounted to the structural steel above the suspended tile ceiling in an auditorium. Do not attach the system safety cable to any wood structure, wood roof joists, or wood frame. For wall installations, the system safety cable must be anchored to the building structure independent of the primary rigging device. In all instances, the safety cable must be mounted in a way that supports a minimum of 7 to 10 times the static weight of the speaker, or as otherwise required by applicable laws and regulations.
4. Do not install on a structure that is prone to abnormal vibration, movement, or chance of impact. Failure to do so could result in damage to the equipment and/or damage to the mounting surface.
5. Make sure that no water pipes, natural gas lines, electrical wire, or conduit are present where the speaker is to be installed.
6. Cutting or drilling into water pipes, natural gas lines, electrical wire, or conduit could cause serious personal injury or property damage.
7. All information in this guide is meant only for the purpose of instructing the user in the intended use of SLS supplied rigging. All other rigging is considered part of the venue and/or end-user supplied equipment and is not addressed in this guide. SLS assumes that a working knowledge of accepted rigging practices and safety will be applied to all rigging materials and practices employed. This guide is not a comprehensive source for rigging in general. The user must assume all responsibility for the appropriate use of SLS supplied rigging hardware and follow at a minimum all applicable laws and regulations in force for each venue.
8. Prior to installation, always inspect all hardware components for wear, deformations, corrosion, and missing or damaged parts.
9. Installation should be performed only by qualified, licensed, and insured installers and installed in accordance with all laws, rules, and regulations applicable to the installation site. Failure to do so could result in serious personal injury or even death.
10. This product is intended for indoor installation/use only. Premature product failure or serious personal injury could occur if this product is used outdoors.
11. If you do not understand these installation instructions, please consult an installation professional.
12. Compliance with local building codes (and, where applicable, national codes) is the buyer and/or installer responsibility.
13. No information contained in this guide is intended as a warranty on the part of SLS. Anyone using this information assumes all liability arising from its use. Product abuse, use of the product not in accordance with SLS instructions, or use in an application which the product has not been designed for is not covered under any SLS warranty, nor is SLS liable for any loss or damage.
14. Users in other countries should consult with local regulatory authorities for specific codes and/or guidelines in the use of this product.

15. Read and follow all warnings, operating instructions, and safety instructions in this manual and on the unit.
16. The speakers should be positioned firmly on rigging hardware attached to structure. Make sure that the supporting object can handle the load weight of the MA390C.

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# Introduction

This document provides step-by-step instructions for installing the SLS™ MA390C 3-Axis Speaker System. The MA390C was developed to reduce the time and expense required when installing speakers in Dolby Atmos® cinema environments.

THIS EQUIPMENT MUST BE INSTALLED BY LICENSED AND PROFESSIONAL INSTALLERS.

## 1.1 Tools Required.

To install the MA390C, you need the following tools:

- M8 Allen wrench for main yoke attachment point (M10 bolt)
- Phillips screwdriver for barrier strip speaker wire inputs

## 1.2 Spare Parts

You should replace any defective components with SLS approved parts. Contact the factory directly at 417-883-4549 to obtain approved replacement parts. SLS is not responsible for problems caused by using parts not provided by SLS for the SLS supplied portion of the rigging.

## 1.3 MA390C Specifications

Following are the MA390C general specifications:\*

- Frequency response: 60 Hz to 20 kHz
- Sensitivity: 1 watt @ 1 M: 96 dB
- Continuous power rating: 300 watts
- Maximum continuous rated SPL at 1 meter: 121 dB
- Program rated SPL at 1 meter: 124 dB
- Recommended amplifier power rating: 600 watts at 8 ohms
- Coverage angle: 90 degrees conical
- Driver: 12-inch low-frequency with coaxially mounted 1.75-inch high frequency
- Size (including yoke positioned over input plate and yoke fasteners):
  - Width: 21.7 inches (551 millimeters)
  - Height: 20 inches (508 millimeters)
  - Depth: 16.1 inches (410 millimeters)
- Net weight: 28 pounds (12.7 kilograms)

\*Due to product improvement research, SLS Audio reserves the right to make changes to existing products without notice.

## 1.4 Customer Support

If you need assistance installing the MA390C or have other questions, you can contact us at:

Portal: [www.dolbycustomer.com](http://www.dolbycustomer.com)

Email: [cinemasupport@dolby.com](mailto:cinemasupport@dolby.com)

Region	Support Phone Numbers
Americas	+ 1-415-645-4900
EMEA	+ 44-179-384-2130
APAC	+ 86-105-910-3066
Japan	+ 81-3-4540-6782



# Installing the MA390C

This chapter is provided for licensed professional installers. The following sections include step-by-step instructions for installing the SLS MA390C 3-Axis Speaker System.

## 2.1 Installing the System

Following are the MA390C installation instructions.

### 2.1.1 Identifying the MA390C Rigging Parts

The following parts are included in the MA390C packing kit. Use these parts along with your desired mounting method (typically, all-thread mounted to structure). The MA390C ships with the yoke installed, but the speaker body is not shown for clarity:

1. Two 20 mm steel washers
2. Two 20 mm neoprene washers
3. One yoke with slot for side-to-side angle adjustments (while user-supplied captive bolts are still loose)

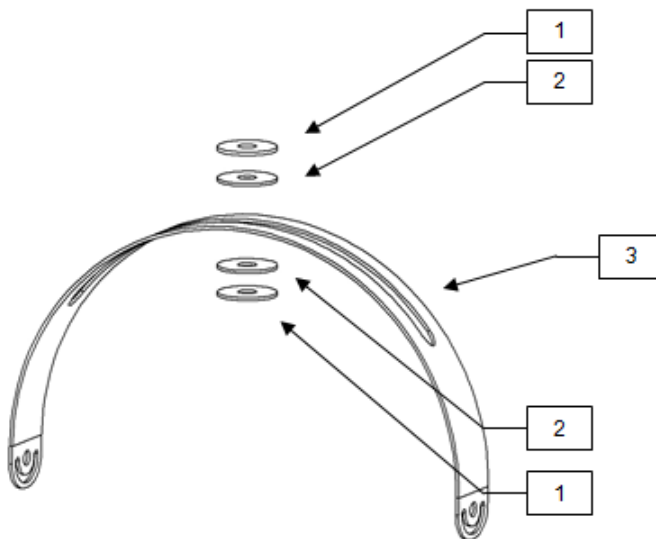
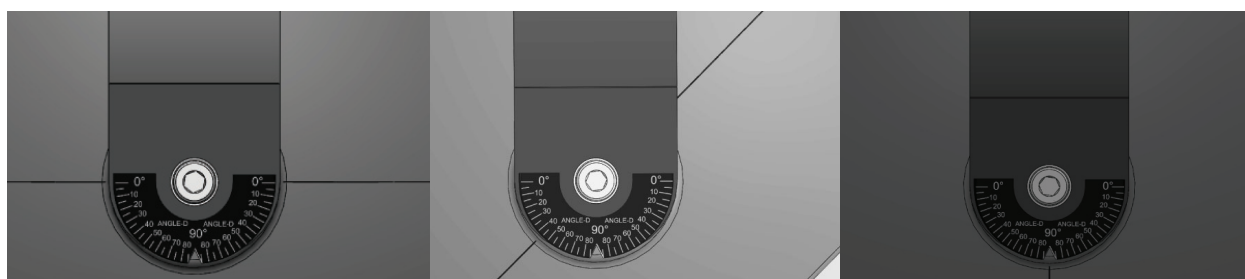


Figure 2-1 Rigging Assembly

## 2.1.2 Positioning

The MA390C provide 3-axis aiming adjustments when using a single mount point to the structure. To properly aim the speaker, you need to adjust two of the three axes. The two axes to adjust varies for wall mounted or ceiling mounted speakers. For wall mounting, angles C and D need adjusting. For overhead mounting, angles C and G need adjusting. The Dolby® Room Design Tool spreadsheet provides the required adjustment angles for both overhead and sidewall positions. The Dolby Atmos Room Design Tool is an Excel-based tool that is used to help design a room and plan equipment to ensure that the design meets Dolby requirements. You can download this tool at [www.dolbycustomer.com](http://www.dolbycustomer.com). If you do not have access, please contact our team at [CinemaSupport@dolby.com](mailto:CinemaSupport@dolby.com) to request the tool.

The provided yoke attachment to the speaker pivot point is labeled **Angle D**. The parting line in the speaker enclosure is the angle indicator.



**Figure 2-2** Angle D at 0, 45, and 90 Degrees Using Speaker Body Parting Line as Indicator

The slot in the yoke sliding adjustment is labeled **Angle C**. The following figure is an example of a single point to structure rigging setup used with the **Angle C** yoke sticker to indicate the desired degree. The center of the user-provided suspension point is used as a reference to set the angle.



**Figure 2-3** Angle C at 0 and 45 degrees (Up to 70 Degrees is Obtainable)

The single point attachment to the structure pivot point is labeled **Angle G** (contained in the packing kit). The following figure is an example of using a single rigging point for suspension. This provided angle sticker needs to be adhered to a ceiling tile in the correct orientation as marked on the sticker (the arrow pointing to screen direction). The side of the yoke is used as the angle indicator.



**Figure 2-4** Angle G at 0 and 45 Degrees

### 2.1.3 Connecting Audio

To connect audio, connect your speaker wire to the yoke without making contact with the speaker enclosure (to minimize any buzzing). The barrier strips accept 16 to 12 gauge wire, either with spade lugs or bare wire.

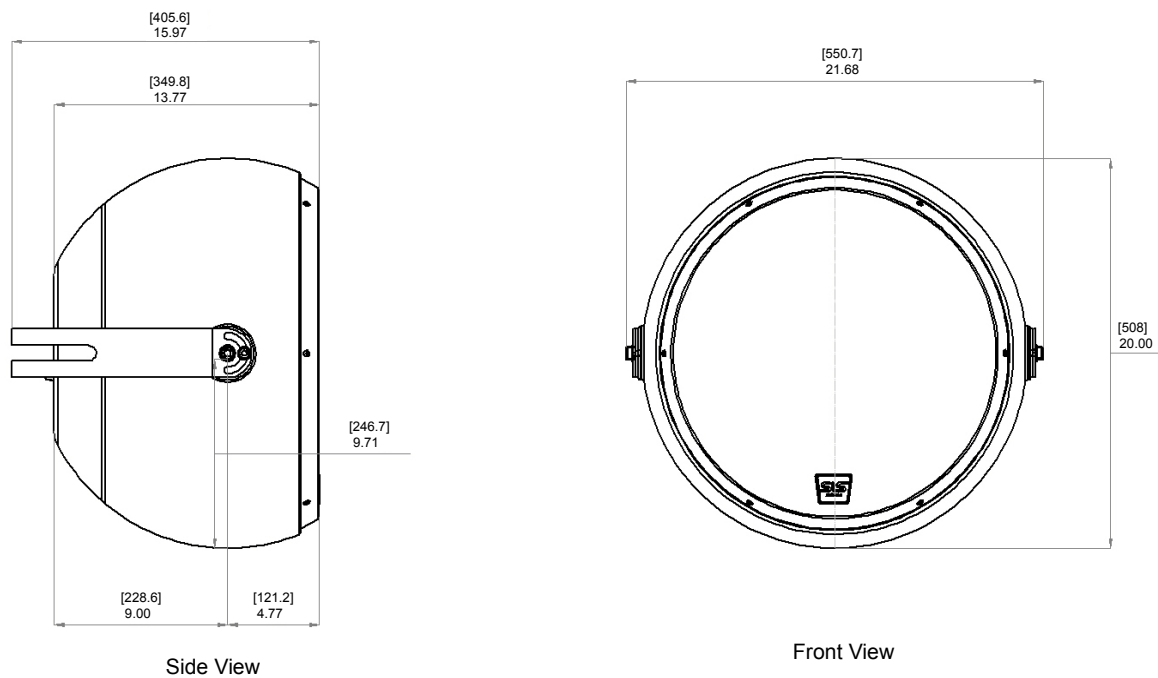
### 2.1.4 Connecting the Safety Cable

You must connect a safety cable (not included) as follows:

1. Use the safety cable to independently connect the speaker to the building structure. An M6 eyebolt (not shown) that is attached to the speaker input plate is provided for this purpose.
2. Pull the safety cable snugly against the M6 eyebolt, and secure the safety cable to the yoke using zip ties (not provided) to minimize the possibility of buzzing against the cabinet or the eyebolt.

## 2.2 Dimensions

Following are the MA390C side and front views.



(Dimensions in inches and millimeters [in brackets])

**Figure 2-5** MA390C Side View and Front View

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## Environmental Compliance and Regulations

### Toxic or Hazardous Substances and Elements Compliance

Following is the MA390C environmental compliance information for toxic or hazardous substances and elements.

Product Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb) 铅	Mercury (Hg) 水银	Cadmium (Cd) 镉	Hexavalent chromium (Cr (VI)) 六价铬	Polybrominated biphenyls (PBB) 多溴联苯类	Polybrominated diphenyl ethers (PBDE) 多溴联苯醚
MA390C *	X	O	O	O	O	O

This table is prepared in accordance with those specified in SJ/T 11364.

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in GB/T 26572.

O: 表示有毒或有害物质存在于用于生产这类产品某些部件的原料中，但是含量在 GB/T 26572. (电子信息产品有毒有害物质的限值要求) 的允许范围以内。

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in GB/T 26572.

X: 表示有毒或有害物质存在于用于生产此类部件原料中，且至少有一个原料是超出了 GB/T 26572. (电子信息产品有毒有害物质的限值要求) 的范围。

\* Note: These products all conform to EU RoHS Directive (2011/65/EU) with permitted exemptions.

\* 注释: 所有这些产品均遵守欧洲 RoHS 指示 (2011/65/EU) 的限制要求。



**Note:** For additional environmental information, including the Dolby Declarations of Conformity, go to <http://www.dolby.com/us/en/about/environmental-commitment.html>.

## EU Environmental Regulations and Compliance

Following are the MA390C EU environmental regulations and compliance information.

### Waste Electrical and Electronic Equipment (WEEE)



All Dolby products, which must be recycled or handled separately, are marked with this WEEE label in accordance with the EU WEEE Directive.

### Restriction of Hazardous Substances Directive (RoHS)

All Dolby products comply with the requirements of the EU RoHS Directive. For the Dolby Declarations of Conformity, go to

<http://www.dolby.com/us/en/about/environmental-commitment.html>.

### Product End-of-Life Information

This product has been designed and built by Dolby Laboratories to provide many years of service, and is backed by our commitment to provide high-quality support. When the product eventually reaches the end of its serviceable life, it should be disposed of in accordance with local or national legislation. For information regarding disposal, go to

<http://www.dolby.com/us/en/about/environmental-commitment.html>.