

Stella™ - 4 Constellation™ Installation Loudspeaker

Stella™ - 4C Constellation™ Installation Ceiling Mount Loudspeaker



***Keep these important operating instructions.
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DECLARATION OF CONFORMITY ACCORDING TO ISO/IEC GUIDE 22 AND EN 45014

Manufacturer's Name:

Meyer Sound Laboratories Inc.

Manufacturer's Address:

2832 San Pablo Avenue
Berkeley, CA 94702-2204, USA

Declares that the products

Product Name: Stella-4
Stella-4C
Stella-188

Product Options: All

Conforms to the following Product Specifications

Safety: EN 60065: 2002
IEC 60065: 2002
UL 60950: 2002

EMC: EN 55103-1: 1997 emission (1)
EN 55103-2: 1997 immunity (2)

This device complies with EN 55103-1 & -2. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Supplementary Information

The product herewith complies with the requirements of the Low Voltage Directive 73/23/EEC and the EMC Directive 89/336/EEC.

Office of Quality Manager
Berkeley, California USA
May 1, 2007

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Environmental specifications for Meyer Sound Electronics products

Operating Temperature	0° C to +45° C
Non operating Temperature	<-40° C or >+75° C
Humidity	to 95% at 35° C
Operating Altitude	to 4600 m (15,000 ft)
Non operating Altitude	to 6300 m (25,000 ft)
Shock	30 g 11 msec half-sine on each of 6 sides
Vibration	10 Hz to 55 Hz (0.010 m peak-to-peak excursion)

Made by Meyer Sound Laboratories
Berkeley, California USA
European Office:
Meyer Sound Lab. GmbH
Carl Zeiss Strasse 13
56751 Polch, Germany



Pending



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Stella-4 Constellation Installation Loudspeaker Operating Instructions

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

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Printed in the U.S.A.

Part Number: 05.161.005.01 A2


SYMBOLS USED

These symbols indicate important safety or operating features in this booklet and on the chassis:

			
Dangerous voltages: risk of electric shock	Important operating instructions	Frame or chassis	Protective earth ground
Pour indiquer les risques résultant de tensions dangereuses	Pour indiquer important instructions	Masse, châssis	Terre de protection
Zu die gefahren von gefährliche spanning zeigen	Zu wichtige betriebs-anweisung und unter-haltsanweisung zeigen	Rahmen oder chassis	Die schutzerde
Para indicar voltajes peligrosos	Instrucciones importantes de funcionamiento y/o mantenimiento	Armadura o chassis	Tierra proteccionista

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this loudspeaker near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with Meyer Sound's installation instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9. Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the loudspeaker or power supply. The AC mains plug or appliance coupler shall remain readily accessible for operation.
11. Only use attachments/accessories specified by Meyer Sound.
12. Use only with the caster rails or rigging specified by Meyer Sound, or sold with the loudspeaker. Handles are for carrying only.
13. Unplug this loudspeaker during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the loudspeaker has been damaged in any way, such as when the power-supply cord or plug has been damaged; liquid has been spilled or objects have fallen into the loudspeaker; rain or moisture has entered the loudspeaker; the loudspeaker has been dropped; or when for undetermined reasons the loudspeaker does not operate normally.

 **CAUTION:** To reduce the risk of electric shock, do not expose this loudspeaker to rain or moisture. Do not install the loudspeaker in wet or humid locations without using weather protection equipment from Meyer Sound.

SAFETY SUMMARY

English

- To reduce the risk of electric shock, disconnect the loudspeaker from the AC mains before installing audio cable. Reconnect the power cord only after making all signal connections.
- Connect the loudspeaker to a two-pole, three-wire grounding mains receptacle. The receptacle must be connected to a fuse or circuit breaker. Connection to any other type of receptacle poses a shock hazard and may violate local electrical codes.
- Do not install the loudspeaker in wet or humid locations without using weather protection equipment from Meyer Sound.
- Do not allow water or any foreign object to get inside the loudspeaker. Do not put objects containing liquid on or near the unit.
- To reduce the risk of overheating the loudspeaker, avoid exposing it to direct sunlight. Do not install the unit near heat-emitting appliances, such as a room heater or stove.
- This loudspeaker contains potentially hazardous voltages. Do not attempt to disassemble the unit. The unit contains no user-serviceable parts. Repairs should be performed only by factory-trained service personnel.

Français

- Pour réduire le risque d'électrocution, débrancher la prise principale de l'haut-parleur, avant d'installer le câble d'interface allant à l'audio. Ne rebrancher le bloc d'alimentation qu'après avoir effectué toutes les connexions.
- Branchez l'haut-parleur dans une prise de courant à 3 dérivations (deux pôles et la terre). Cette prise doit être munie d'une protection adéquate (fusible ou coupe-circuit). Le branchement dans tout autre genre de prise pourrait entraîner un risque d'électrocution et peut constituer une infraction à la réglementation locale concernant les installations électriques.

- Ne pas installer l'haut-parleur dans un endroit où il y a de l'eau ou une humidité excessive.
- Ne pas laisser de l'eau ou tout objet pénétrer dans l'haut-parleur. Ne pas placer de récipients contenant un liquide sur cet appareil, ni à proximité de celui-ci.
- Pour éviter une surchauffe de l'haut-parleur, conserver-la à l'abri du soleil. Ne pas installer à proximité d'appareils dégageant de la chaleur tels que radiateurs ou appareils de chauffage.
- Ce haut-parleur contient des circuits haute tension présentant un danger. Ne jamais essayer de le démonter. Il n'y a aucun composant qui puisse être réparé par l'utilisateur. Toutes les réparations doivent être effectuées par du personnel qualifié et agréé par le constructeur.

Deutsch

- Um die Gefahr eines elektrischen Schlages auf ein Minimum zu reduzieren, den Lautsprecher vom Stromnetz trennen, bevor ggf. ein Audio-Schnittstellensignalkabel angeschlossen wird. Das Netzkabel erst nach Herstellung aller Signalverbindungen wieder einstecken.
- Der Lautsprecher an eine geerdete zweipolige Dreiphasen-Netzsteckdose anschließen. Die Steckdose muß mit einem geeigneten Abzweigschutz (Sicherung oder Leistungsschalter) verbunden sein. Der Anschluß der unterbrechungsfreien Stromversorgung an einen anderen Steckdosentyp kann zu Stromschlägen führen und gegen die örtlichen Vorschriften verstoßen.
- Der Lautsprecher nicht an einem Ort aufstellen, an dem sie mit Wasser oder übermäßig hoher Luftfeuchtigkeit in Berührung kommen könnte.
- Darauf achten, daß weder Wasser noch Fremdkörper in das Innere den Lautsprecher eindringen. Keine Objekte, die Flüssigkeit enthalten, auf oder neben die unterbrechungsfreie Stromversorgung stellen.

- Um ein Überhitzen dem Lautsprecher zu verhindern, das Gerät vor direkter Sonneneinstrahlung fernhalten und nicht in der Nähe von wärmeabstrahlenden
- Haushaltsgeräten (z.B. Heizgerät oder Herd) aufstellen.
- Im Inneren diesem Lautsprecher herrschen potentiell gefährliche Spannungen. Nicht versuchen, das Gerät zu öffnen. Es enthält keine vom Benutzer reparierbaren Teile. Reparaturen dürfen nur von ausgebildetem Kundendienstpersonal durchgeführt werden.

Español

- Para reducir el riesgo de descarga eléctrica, desconecte de la red de voltaje el altoparlante antes de instalar el cable de señal de audio. Vuelva a conectar la alimentación de voltaje una vez efectuadas todas las interconexiones de señalización de audio.
- Conecte el altoparlante a un tomacorriente bipolar y trifilar con neutro de puesta a tierra. El tomacorriente debe estar conectado a la protección de derivación apropiada (ya sea un fusible o un disyuntor). La conexión a cualquier otro tipo de tomacorriente puede constituir peligro de descarga eléctrica y violar los códigos eléctricos locales.
- No instale el altoparlante en lugares donde haya agua o humedad excesiva.
- No deje que en el altoparlante entre agua ni ningún objeto extraño. No ponga objetos con líquidos encima de la unidad ni cerca de ella.
- Para reducir el riesgo de sobrecalentamiento, no exponga la unidad a los rayos directos del sol ni la instale cerca de artefactos que emiten calor, como estufas o cocinas.
- Este altoparlante contiene niveles de voltaje peligrosos en potencia. No intente desarmar la unidad, pues no contiene piezas que puedan ser reparadas por el usuario. Las reparaciones deben efectuarse únicamente por parte del personal de mantenimiento capacitado en la fábrica.

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CHAPTER 1: INTRODUCTION


HOW TO USE THIS MANUAL

Make sure to read these operating instructions in their entirety before configuring a loudspeaker system with Stella-4s. In particular, pay close attention to material related to safety issues.

As you read these operating instructions, you will encounter the following icons for notes, tips, and cautions:

 **NOTE:** A note identifies an important or useful piece of information relating to the topic under discussion.

 **TIP:** A tip offers a helpful tip relevant to the topic at hand.

 **CAUTION:** A caution gives notice that an action may have serious consequences and could cause harm to equipment, personnel, delays, or other problems.

Information and specifications are subject to change. Updates and supplementary information are available on the Meyer Sound website:

- <http://www.meyersound.com>

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INTRODUCING THE STELLA-4

The Stella-4 is a self-powered loudspeaker designed primarily for installations with the LCS Constellation system. Its single 4-inch cone transducer, housed in a compact aluminum die cast enclosure, delivers an impressive frequency range of 100 Hz to 22 kHz and a maximum peak SPL of 108 dB (93 dB average) at one meter. Containing onboard amplification and processing, the Stella-4 exhibits the same high intelligibility and flat frequency and phase response characteristic of Meyer Sound loudspeakers.



Stella-4 Loudspeaker

The Stella-4 receives balanced audio and DC power from a five-pin Phoenix-style connector on its back panel. Meyer Sound's patented Iso-Input™ transformer-isolated differential inputs yield a high common-mode signal rejection ratio (CMRR). Because the Stella-4 has been optimized to tolerate voltage drops of up to 30% it can accommodate light-gauge cables and long cable runs.



Stella-188 Power Supply

The required method for delivering DC power and balanced audio to the Stella-4 is with the Stella-188 Power Supply. The single-space rack unit can accommodate up to 16 Stella-4s. The Stella-188 accepts balanced audio through its 25-pin D-sub Audio Input connector and outputs the audio, along with 18 V of DC power, to its five-pin Phoenix Channel Output connectors. The front panel of the Stella-188 has LEDs for monitoring voltage output and connectivity to the Stella-4s.

The Stella-4 can be easily mounted on ceilings or walls with mounting accessories available from Meyer Sound and third-party manufacturers.



Stella-4 Loudspeaker Mounted with MAMB Adjustable Bracket

The Stella-4C offers the same sonic capabilities as the Stella-4 in a package specifically designed for flushmount ceiling and wall applications, where it mounts in standard 8-inch backcans from third-party manufacturers. The Stella-4C is housed in an aluminum die cast enclosure with a heatsink on the back.



Stella-4C Ceiling Mount Loudspeaker

CHAPTER 2: CONNECTING THE STELLA-4

THE STELLA-4 CONNECTOR

The Stella-4 receives DC power and balanced audio from the five-pin Phoenix connector on its back panel. The connector's five pins include two for DC power (negative and positive) and three for balanced audio (shield, negative, and positive). These pins are clearly labeled on the Stella-4 back panel. The connector accepts conductors up to 12 AWG (American Wire Gauge) or 2.5 mm². To function properly, the Stella-4 requires DC power in the range of 12–18 V DC.



Stella-4 Connector

A single composite cable (such as the Belden 1502R) wired for both DC power and balanced audio can be used to connect the Stella-4 to one of the Stella-188's eight Channel Outputs.

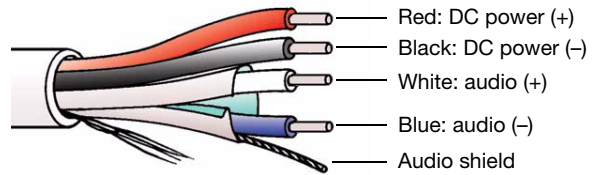
Each Stella-4 loudspeaker comes with one Phoenix cable connector for making Stella-4 loudspeaker cables. For information on Stella-4 cable requirements, see “Cable Lengths and Cable Gauges for Stella-4s” on page 13.

CAUTION: When wiring Stella-4 cable connections, make sure each pin in the connector is wired correctly to avoid damage to the loudspeaker and polarity reversal, which can affect system performance.

TIP: When connecting two Stella-4s to a single Stella-188 Channel Output, you can daisy-chain the cable of the first Stella-4 to the second Stella-4. To do so, wire the cable connector plugged into the first Stella-4 with both the cable connected to the Stella-188 and the cable connected to the second Stella-4.

Loudspeaker Wiring with Belden 1502R Cable

When wiring Stella-4 loudspeaker cables with Belden 1502R cable, make sure to use the conventions in Table 1. The red and black wires in the Belden 1502R cable have a thicker gauge than the other three wires and should be used for DC power. The blue, white, and shield wires are shielded together and should be used for audio.



Belden 1502R Composite Cable

Table 1: Wiring for Stella-4 Loudspeaker Cables with Belden 1502R

Wire	Gauge	Gauge
Red	DC power, positive (+)	18 AWG
Black	DC power, negative (-)	18 AWG
Blue	Balanced audio, positive (+)	22 AWG
White	Balanced audio, negative (-)	22 AWG
Shield	Balanced audio, shield	24 AWG

Both ends of the Stella-4 loudspeaker should be wired so that the pins in the Stella-4 connector align with those in the Stella-188 Channel Output connectors (see “Channel Outputs (1–8)” on page 12).

THE STELLA-188 POWER SUPPLY

The Stella-188 was designed to deliver eight channels of balanced audio and DC power to up to 16 Stella-4 loudspeakers. The Stella-188 is a switched-mode regulated power supply that occupies one space in a standard 19-inch rack.

The Stella-188 Front Panel

The Stella-188 front panel includes a power switch and LEDs for monitoring each of the eight loudspeaker channels, as well as a fuse for each channel.



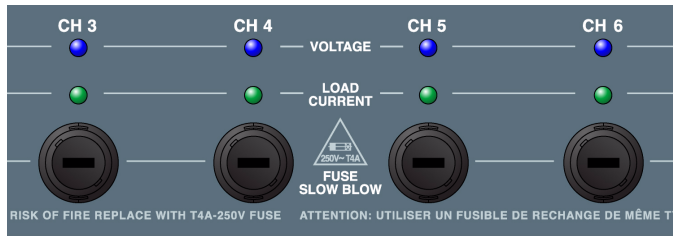
Stella-188 Power Supply Front Panel

AC Power

The Stella-188 is powered on and off with the AC Power switch.

Voltage and Load Current LEDs (1–8)

The Voltage and Load Current LEDs are useful for verifying whether each of the eight Channel Outputs have voltage and whether their connected Stella-4 loudspeakers are receiving DC power and audio.



Stella-188 Channel LEDs and Fuses

Voltage LEDs (1–8)

The blue Voltage LEDs indicate whether voltage is present for each of the eight loudspeaker channels. These LEDs should be lit when the Stella-188 is powered on. If a channel is not lit, its fuse may need to be replaced. If a group of four Voltage LEDs is not lit (either 1–4 or 5–9), one of the two Stella-188's internal power supplies may have failed.

Load Current LEDs (1–8)

The green Load Current LEDs indicate whether a loudspeaker is connected to the channel and receiving power. As a channel's audio signal increases, its LED becomes brighter. If an LED is not lit, check that the channel's Voltage LED is lit (the fuse is working) and verify the cable connection to the loudspeaker.

Fuse Slow Blow (1–8)

Each loudspeaker channel is protected with its own fuse. A maximum of two loudspeakers can be connected per channel; connecting more than that could cause the fuse to be tripped. If you have to replace a fuse, make sure to use a 4-amp, 250-volt slow-blow fuse (T4A-250V). These fuses are available from Meyer Sound (PN 420.022).

The Stella-188 Back Panel

The Stella-188 back panel includes an AC connector, an Audio Input connector for receiving up to eight channels of source audio, and eight Channel Output connectors that can deliver DC power and balanced audio to up to 16 Stella-4 loudspeakers.



Stella-188 Power Supply Back Panel

AC Input

The Stella-188 has an international standard IEC-320 AC inlet (line, neutral/line, earth). The inlet can accept different power chord types for outlets used throughout the world. Make sure to use the correct power chord for the AC power in your area. The Stella-188 operates at an AC voltage range of 100–240 V at 50–60 Hz.

Stella-188 Current Draw

The Stella-188 Power Supply presents a dynamic load to the AC mains, which causes its current draw to fluctuate as volume levels change. Since different cables and circuit breakers heat up at varying rates, it is important to understand the following types of current ratings and how they affect circuit breaker and cable specifications.

- **Idle Current** — The maximum rms current during idle periods.
- **Maximum Long-Term Continuous Current** — The maximum rms current during a period of at least 10 seconds. The Maximum Long-Term Continuous Current is used to calculate temperature increases for cables, to ensure that cable sizes and gauges conform to electrical code standards. It is also used as a rating for slow-reacting thermal breakers.
- **Burst Current** — The maximum rms current during a period of around one second. The Burst Current is used as a rating for magnetic breakers. It is also used for calculating the peak voltage drop in long AC cable runs, according to the following formula:

$$V_{pk}(\text{drop}) = I_{pk} \times R(\text{cable total})$$
- **Ultimate Short-Term Peak Current** — A rating for fast-reacting magnetic breakers.
- **Inrush Current** — The spike of initial current presented when powering on.

You can use the following tables as a guide for selecting cable gauges and circuit breaker ratings for the system's operating voltage.


Current Draw for Stella-188 with Eight Stella-4s

Current Draw (Eight Stella-4s)	115 V AC	230 V AC	100 V AC
Idle Current	0.583 A rms	0.550 A rms	0.659 A rms
Maximum Long-Term Continuous Current	2.2 A rms	1.2 A rms	2.5 A rms
Burst Current	2.4 A rms	1.4 A rms	2.8 A rms
Ultimate Short-Term Current	6.8 A peak	3.5 A peak	7.6 A peak
Inrush Current	17.2 A peak	17.0 A peak	18.4 A peak

Current Draw for Stella-188 with 16 Stella-4s

Current Draw (16 Stella-4s)	115 V AC	230 V AC	100 V AC
Idle Current	0.943 A rms	0.751 A rms	1.078 A rms
Maximum Long-Term Continuous Current	4.5 A rms	2.15 A rms	5.5 A rms
Burst Current	5.2 A rms	3.0 A rms	6.7 A rms
Ultimate Short-Term Current	13.0 A peak	9.0 A peak	15.0 A peak
Inrush Current	17.2 A peak	17.0 A peak	18.4 A peak

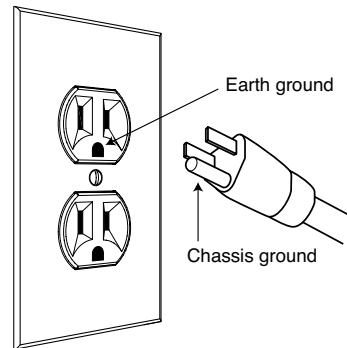
The minimum electrical service amperage required by a Stella-188 is the sum of the Maximum Long-Term Continuous Current for all Stella-4s connected to the Stella-188. An additional 30% above the minimum amperage is recommended to prevent peak voltage drops at the service entry.

 **NOTE:** For best performance, the AC cable voltage drop should not exceed 10 V, or 10% at 115 V and 5% at 230 V. Make sure that even with AC voltage drops that the AC voltage always remains within the operating window.

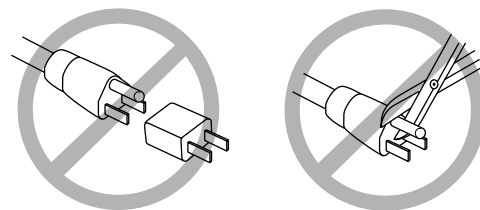
Safety Issues

Pay close attention to these important electrical and safety issues.

- The Stella-188 requires a grounded outlet.



- Do not use a ground-lifting adapter or cut the AC cable ground pin.



- Keep all liquids away from the Stella-188 to avoid hazards from electrical shock.
- Do not operate the unit if the power cables are frayed or broken.

Audio Input

Up to eight channels of balanced audio are received via the Stella-188's Audio Input connector. Each of the eight audio channels is hard-wired to the corresponding Stella-188 Channel Outputs, thereby allowing for easy distribution of discrete audio channels for Constellation installations.



Stella-188 Audio Input

The Audio Input connector requires either a 25-pin D-sub to 8-channel audio snake, or 25-pin D-sub to D-sub cable for connecting directly to audio processors.

Meyer Sound manufactures the following cables that can be used with the Stella-188 Audio Input connector (for more information, contact Meyer Sound).

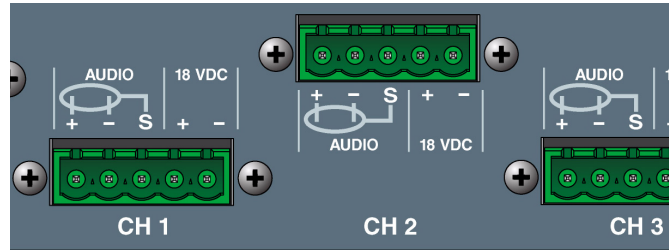
- D-sub male to D-sub male cable, 0.5 meters (PN 28.167.012.01)
- D-sub male to D-sub male cable, 1 meter (PN 28.167.012.02)
- D-sub male to D-sub male cable, 2 meters (PN 28.167.012.03)
- D-sub male to XLR female cable, 10 feet (PN 28.139.009.01)

You can also make your own audio cables for connecting to the Stella-188. The Audio Input connector uses the following Tascam DA-88 wiring scheme.

Table 2: Pin Outputs for Stella-188 Audio Input Connector

Channel Number	XLR Pin 1 (Chassis)	XLR Pin 2 (Hot)	XLR Pin 3 (Cold)
1	D-sub 25	D-sub 24	D-sub 12
2	D-sub 11	D-sub 10	D-sub 23
3	D-sub 22	D-sub 21	D-sub 9
4	D-sub 8	D-sub 7	D-sub 20
5	D-sub 19	D-sub 18	D-sub 6
6	D-sub 5	D-sub 4	D-sub 17
7	D-sub 16	D-sub 15	D-sub 3
8	D-sub 2	D-sub 1	D-sub 14

Channel Outputs (1–8)



Stella-188 Channel Outputs

The eight Channel Outputs deliver DC power (18 V DC) and balanced audio to up to eight loudspeaker channels. Each Channel Output can drive up to two Stella-4 loudspeakers. The Channel Outputs use five-pin Phoenix connectors with three pins for balanced audio (positive, negative, and shield) and two for DC Power (positive and negative). These pins are clearly labeled on the Stella-188 back panel. A single composite cable (such as the Belden 1502R) wired for both DC power and balanced audio can be used to connect to each Stella-4.

Each Stella-188 comes with Phoenix cable connectors for creating Stella-4 loudspeaker cables. For information on Stella-4 cable requirements, see “Cable Lengths and Cable Gauges for Stella-4s” on page 13.

CAUTION: When wiring cable connections for the Stella-188 Channel Outputs, make sure each pin in the connector is wired correctly to avoid damage to the loudspeaker and polarity reversal, which can affect system performance.

Stella-4 Current Draw

Each Stella-4 draws a maximum current of 1.5 A rms and 3.3 A peak from the 18 V DC output of the Stella-188. The Stella-4 presents a dynamic load to its DC power source, which causes its current draw to fluctuate as volume levels change. The cabling between the Stella-4 and the Stella-188 adds resistance and hence causes a voltage drop at the loudspeaker. Because lower voltages compromise peak SPL, and in some cases frequency response, cable resistance should be minimized.

NOTE: When connecting a single Stella-4 to a Stella-188 Channel Output, the total cable resistance should not exceed 4 ohms. When connecting two Stella-4s to a Stella-188 Channel Output, the total cable resistance should not exceed 2 ohms.

Cable Lengths and Cable Gauges for Stella-4s

When connecting a single Stella-4 to a Stella-188 Channel Output, you can use cable lengths of up to 300 feet with only 1 dB of peak SPL loss, using 18 AWG wire. When connecting two Stella-4s, equivalent lengths are possible with heavier wire gauges (see Table 3 and Table 4).

Table 3: Stella-4 Loudspeaker Cable Lengths (AWG)

Cable Gauge	Resistance (Ω/ft)	Approximate Max. Length (1 Stella-4 per Channel)	Approximate Max. Length (2 Stella-4s per Channel)
12 AWG	0.0016	1200 ft	600 ft
14 AWG	0.00253	750 ft	375 ft
16 AWG	0.00402	475 ft	237.5 ft
18 AWG	0.00636	300 ft	150 ft
20 AWG	0.01008	175 ft	87.5 ft

Table 4: Stella-4 Loudspeaker Cable Lengths (European)

Cable Gauge	Resistance (Ω/m)	Approximate Max. Length (1 Stella-4 per Channel)	Approximate Max. Length (2 Stella-4s per Channel)
2.50 mm ²	0.0052	365 m	157.5 m
1.50 mm ²	0.01076	175 m	87.5 m
1.00 mm ²	0.02087	90 m	45 m
0.75 mm ²	0.03307	55 m	27.5 m

The maximum cable length for a single Stella-4 can be calculated with the following formula:

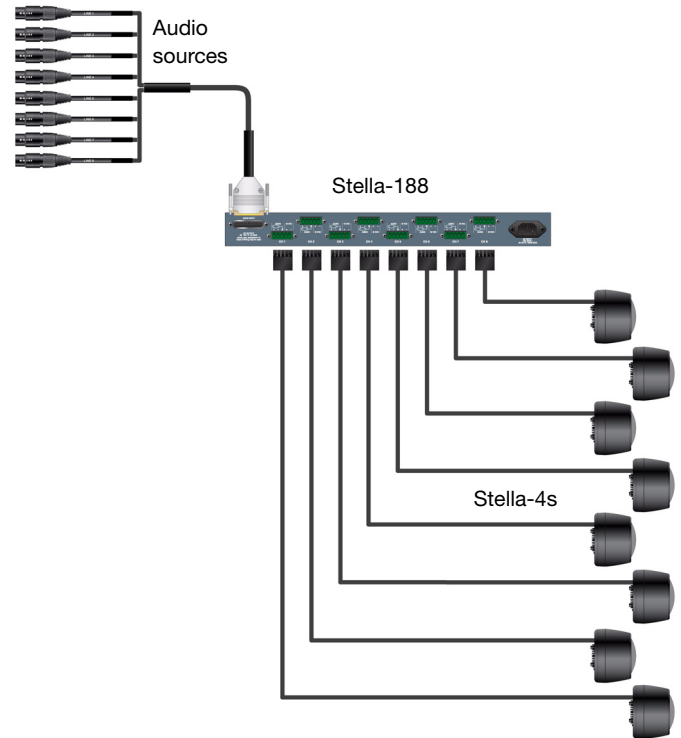
$$\text{maximum length} = 4 \text{ ohms} / 2 * \text{cable resistance}$$

For example, the maximum length of an 18 AWG cable with a resistance of 0.00636 is 314.4 feet (4 / 2 * 0.00636). If you are using two Stella-4s, the distance is reduced by half to 157.2 feet, since the maximum cable resistance for two Stella-4s is 2 ohms.



NOTE: For long cable runs, you can use large cable gauges for most of the run and then terminate with the appropriate gauge (see Table 3 and Table 4) at the connector.

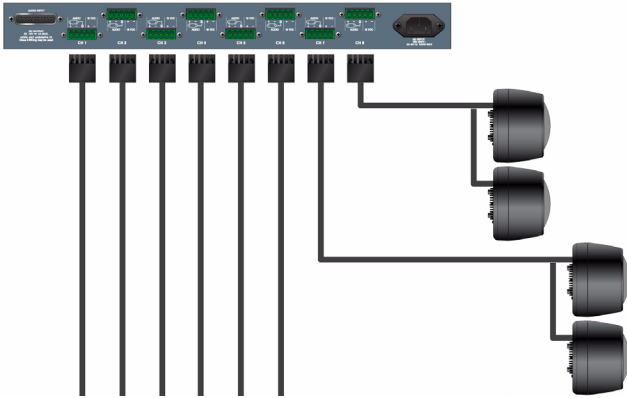
CONNECTING STELLA-4S TO THE STELLA-188



To connect Stella-4s to the Stella-188:

1. Power off the Stella-188.
2. Connect a 25-pin D-sub audio cable or snake into the Stella-188 Audio Input connector. This cable should use the Tascam DA-88 wiring scheme (see Table 2).
3. Connect audio sources (from a mixer or processor) to the other end of the audio cable or snake.
4. Connect the Stella-4 loudspeakers to the Stella-188 Channel Outputs. Use a composite cable (such as the Belden 1502R) wired for both DC power and balanced audio and outfitted with five-pin Phoenix connectors.

To connect two Stella-4s to a single Stella-188 Channel Output, daisy-chain the cable of the first Stella-4 to the second Stella-4. Wire the cable connector plugged into the first Stella-4 with both the cable connected to the Stella-188 and the cable connected to the second Stella-4.



NOTE: When connecting two Stella-4s to a single Stella-188 Channel Output, the maximum cable length is reduced by half. For maximum Stella-4 cable lengths, refer to Table 3 on page 13 and Table 4 on page 13.

5. Enable output from the audio sources (from a mixer or processor) connected to the Stella-188.
6. Power on the Stella-188 and monitor the LEDs on the front panel to verify connections.

CHAPTER 3: STELLA-4 MOUNTING OPTIONS

IMPORTANT SAFETY CONSIDERATIONS

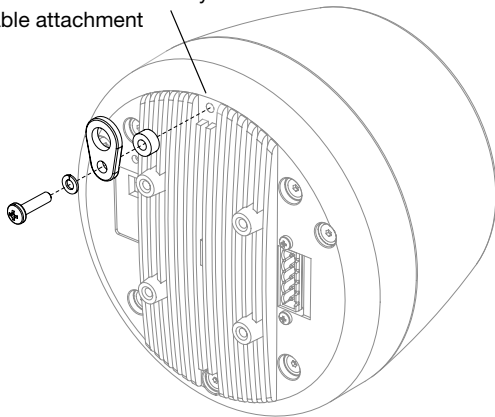
When installing Meyer Sound loudspeakers, the following precautions should always be observed:

- All Meyer Sound products must be used in accordance with local, state, federal, and industry regulations. It is the owner's and user's responsibility to evaluate the reliability of any rigging method for their application. Rigging should only be carried out by experienced professionals.
- Use mounting and rigging hardware that has been rated to meet or exceed the weight being hung.
- Use mounting hardware appropriate for the surface where the loudspeaker will be installed.
- Make sure bolts and eyebolts are tightened securely. Meyer Sound recommends using Loctite® on eyebolt threads and safety cables.
- Inspect rigging hardware regularly and immediately replace worn or damaged components.

Use a Safety Cable with the Stella-4

Meyer Sound recommends attaching a safety cable to the Stella-4 before installation. This ensures the loudspeaker will not accidentally fall during installation, and it provides additional safeguards for the loudspeaker if for some reason its mounting hardware fails.

Threaded hole for safety cable attachment



Stella-4 Safety Cable Attachment

A safety cable attachment is included with the Stella-4. The attachment includes a metal loop, screw, and two washers that screw into the back of the Stella-4. Once the safety cable attachment is securely installed, a safety cable (not included) can be attached to it.

MOUNTING THE STELLA-4

The Stella-4 can be mounted with the following bracketing options:

- The MMB bracket lets you mount the Stella-4 on a wall, ceiling, or single-gang electrical back box. You can also use the MMB to mount the Stella-4 with other third-party options like the OmniMount 20.5 ST.



Stella-4 MMB Bracket

- The MAMB adjustable bracket lets you mount the Stella-4 on a wall, ceiling, or single-gang electrical back box. In addition, the MAMB allows the Stella-4's position to be adjusted up to 45 degrees in any direction.



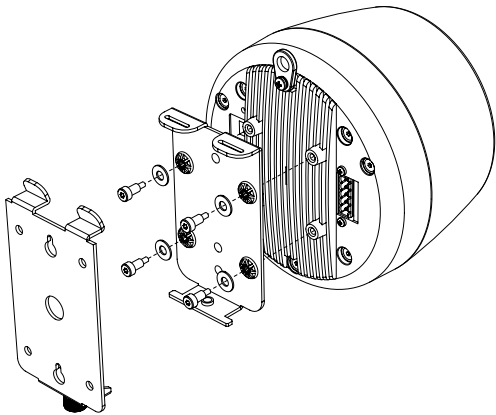
Stella-4 MAMB Adjustable Bracket

NOTE: Both the MMB and MAMB brackets ship with grommets installed in the four corner holes of the loudspeaker plates. These grommets absorb vibrations between the mounting surface and the Stella-4 loudspeaker and should not be removed.

Mounting the Stella-4 with an MMB Bracket

To mount the Stella-4 with an MMB bracket:

1. Separate the MMB wall plate from the MMB loudspeaker plate by unscrewing the thumbscrew.
2. Mount the MMB wall plate to the wall with one of the following options. Position the wall plate so its hinges are pointing up.
 - Mount directly to the wall surface using screws in the four corner holes. Use fastening hardware appropriate for the mounting surface.
 - Mount on a single-gang electrical back box using screws in the two center holes (top and bottom).
3. Attach the MMB loudspeaker plate to the back of the Stella-4 using screws in the four corner holes. The loudspeaker plate should be positioned parallel to the heat-sink grooves on the back of the Stella-4 (so the Stella-4's Phoenix connector is *not* covered).

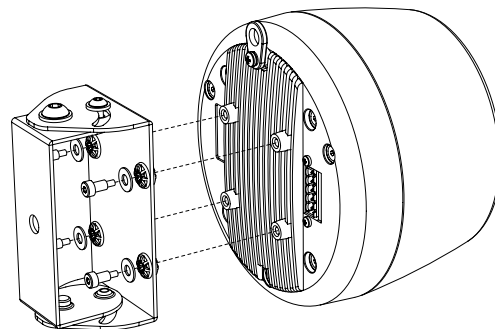


4. Attach the loudspeaker plate to the wall mount using the hinges and tighten the thumbscrew with a screwdriver (but don't over-tighten it).

Mounting the Stella-4 with an MMB Bracket and OmniMount 20.5 ST

To mount the Stella-4 with an MMB bracket and OmniMount 20.5 ST:

1. Separate the MMB wall plate from the MMB loudspeaker plate by unscrewing the thumbscrew.
2. Attach the MMB loudspeaker plate to the back of the Stella-4 using screws in the four corner holes. The loudspeaker plate should be positioned parallel to the heat-sink grooves on the back of the Stella-4 (so the Stella-4's Phoenix connector is *not* covered).

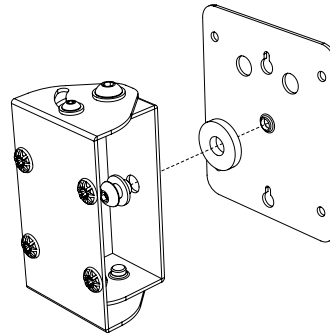


3. Attach the OmniMount mounting plate to the MMB loudspeaker plate using screws in the two center holes (top and bottom).
4. Attach the mounting plate to the OmniMount ball-clamp assembly according to the manufacturer's instructions.

Mounting the Stella-4 with an MAMB Adjustable Bracket

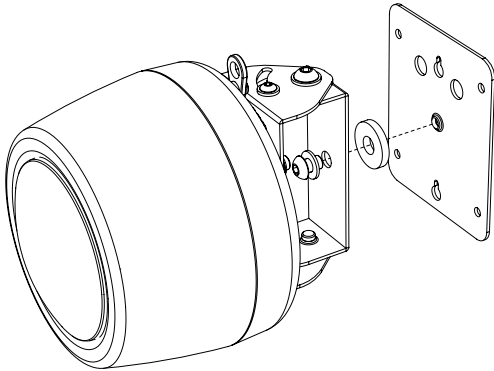
To mount the Stella-4 with an MAMB adjustable bracket:

1. Separate the MAMB wall plate from the pivot plate assembly by removing the center screw and washers.

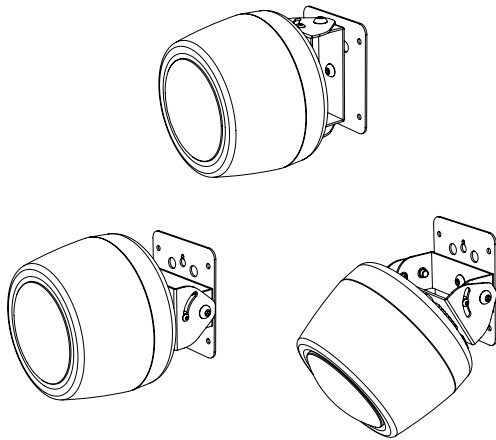


2. Mount the MAMB wall plate to the wall with one of the following options.
 - Mount directly to the wall surface using screws in the four corner holes. Use fastening hardware appropriate for the mounting surface.
 - Mount on a single-gang electrical back box using screws in the two center holes (top and bottom).
3. Attach the MAMB pivot plate assembly to the Stella-4 using screws in the four corner holes. The pivot plate assembly should be positioned parallel to the heatsink grooves on the back of the Stella-4 (so the Stella-4's Phoenix connector is *not* covered).

- Attach the pivot plate assembly to the wall plate using the screw and washers previously removed. Tighten the screw.



- To adjust the position of the Stella-4, loosen the four pivot plate screws and position the Stella-4 as necessary. Tighten the pivot plate screws to secure the Stella-4.



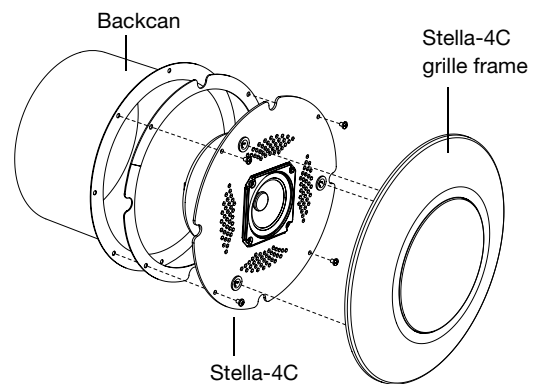
MOUNTING THE STELLA-4C

The Stella-4C can be mounted flush in ceilings and walls with any standard 8-inch backcan (such as the Atlas BMT95-8 and Lowell CP-84 and XCP-84) with a minimum depth of 4 inches.

Installing the Stella-4C in a Backcan


To install the Stella-4C into a standard 8-inch backcan:

- Mount the backcan in the ceiling or wall according to the manufacturer's instructions.
- Place the Stella-4C in the backcan and secure it with the 8-32 screws included with the Stella-4C.



- Attach the Stella-4C grille frame:

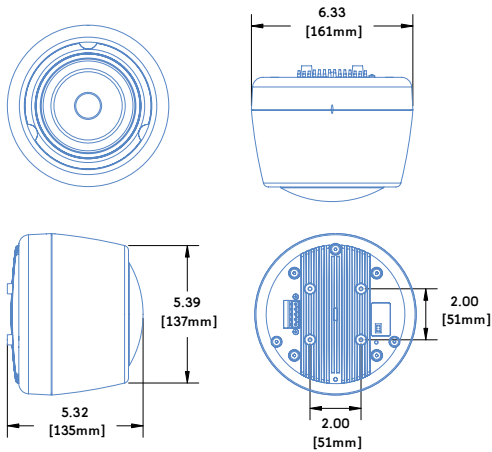
- Screw the three threaded studs (included with the Stella-4C) into the Stella-4C grille frame.
- Attach the grille frame to the Stella-4C by inserting the other ends of threaded studs into the three nylon latches in the Stella-4C.
- Gently push the grille frame in until it locks in place flush with the wall or ceiling.

 **NOTE:** The Stella-4's grille frame is held in place with the loudspeaker's three nylon latches. To remove the grille frame, gently pull it, evenly, until it releases from the latches.

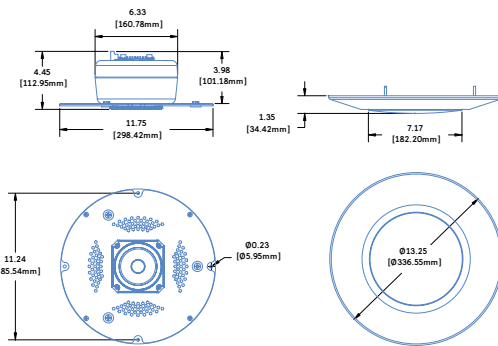
APPENDIX A: SPECIFICATIONS

STELLA-4 AND STELLA-4C SPECIFICATIONS

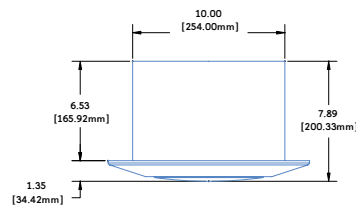
Operating Frequency Range	100 Hz – 22 kHz
Frequency Response	115 Hz – 20 kHz ± 4 dB
Maximum Peak SPL	108 dB (free field, measured with music referred to 1 meter)
Transducer	One 4" cone driver
Phase Response	250 Hz – 18 kHz ± 30°
Coverage	60° (3–13 kHz ±10°); 120° (below 2 kHz)
Transducer	One 4" cone driver
Voltage Requirement	12–18 V DC
Audio/Power Connector	Single 5-pin Phoenix (3 pins for balanced audio, 2 pins for DC power)
Audio Input	10k Ohm balanced internal isolation transformer
Current Draw	1.5 A average; 3.3 A peak
Noise Floor	< 20 dB A weighted
Stella-4 Dimensions	5.39" (front OD) x 6.33" (max OD) x 5.32" D 137 mm (front OD) x 161 mm (max OD) x 135 mm D
Stella-4C Dimensions	11.75" (front OD) x 6.33" (rear OD) x 4.45" D 298.42 mm (front OD) x 160.78 mm (rear OD) x 112.95 mm D
Stella-4 Weight	5.0 lbs (2.27 kg)
Stella-4C Weight	6.0 lbs (2.72 kg)



Stella-4 Dimensions



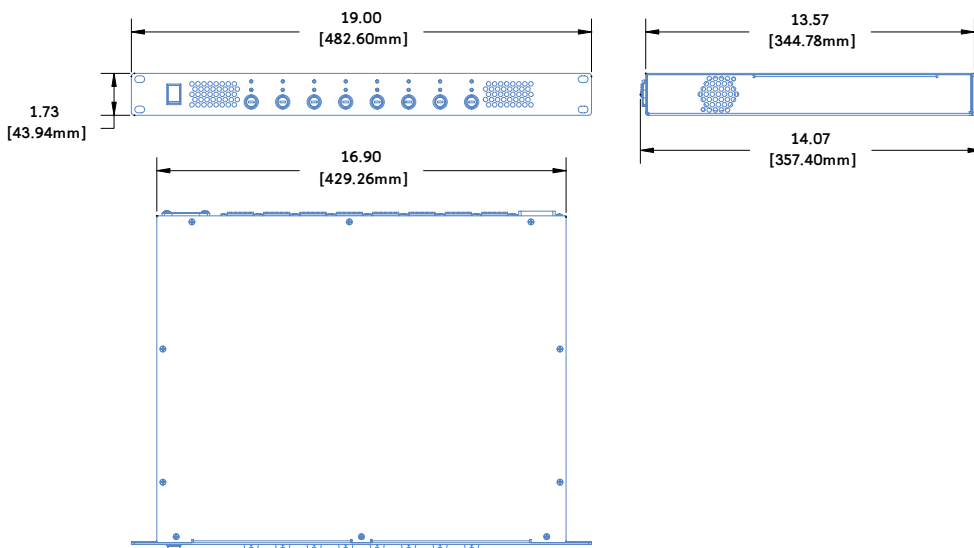
Stella-4C Dimensions



Stella-4C with Typical Third-Party Backcan Dimensions

STELLA-188 SPECIFICATIONS

Audio Input	8-channel 25-pin D-sub connector wired as SIM 3 Line Switcher (Tascam DA-88 format)	
Outputs	8 channels of 5-pin Phoenix connectors (3 pins for balanced audio hard-wired to the D-sub input connector, 2 pins for DC power)	
Output Voltage	8 outputs of 18 V DC 4 amps per channel fused protected (Stella-4/Stella-4C current draw is 1.5 A average and 3.3 A peak)	
Front Panel	On-off switch 8 LEDs to indicate voltage presence on output 8 LEDs to indicate load	
AC Connector	Detachable IEC 320 (line, neutral/line, earth)	
Current Draw		
Idle Current	8 Stella-4s (1 per channel)	0.583 A rms (115 V AC); 0.550 A rms (230 V AC); 0.659 A rms (100 V AC)
	16 Stella-4s (2 per channel)	0.943 A rms (115 V AC); 0.751 A rms (230 V AC); 1.078 A rms (100 V AC)
Maximum Long-Term Continuous Current	8 Stella-4s (1 per channel)	2.20 A rms (115 V AC); 1.20 A rms (230 V AC); 2.50 A rms (100 V AC)
	16 Stella-4s (2 per channel)	4.50 A rms (115 V AC); 2.15 A rms (230 V AC); 5.50 A rms (100 V AC)
Burst Current	8 Stella-4s (1 per channel)	2.40 A rms (115 V AC); 1.40 A rms (230 V AC); 2.80 A rms (100 V AC)
	16 Stella-4s (2 per channel)	5.20 A rms (115 V AC); 3.00 A rms (230 V AC); 6.70 A rms (100 V AC)
Ultimate Short-Term Current	8 Stella-4s (1 per channel)	6.80 A peak (115 V AC); 3.50 A peak (230 V AC); 7.60 A peak (100 V AC)
	16 Stella-4s (2 per channel)	13.0 A peak (115 V AC); 9.0 A peak (230 V AC); 15.0 A peak (100 V AC)
Inrush Current	17.2 A peak (115 V AC); 17.0 A peak (230 V AC); 18.4 A peak (100 V AC)	
Dimensions	1RU high 19.00" w x 1.73" h x 13.57" d (482.60 mm x 43.94 mm x 348.78 mm)	
Weight	13.0 lbs (5.9 kg)	



Stella-188 Dimensions



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05.161.005.01 A2