MXP-5

Microflex® Ceiling Passive Loudspeaker

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MXP-5 General Description

The MXP-5 is a ceiling-mounted passive loudspeaker for speech and program audio reproduction in meeting rooms. Its shallow depth makes the MXP-5 ideal for retrofit applications with limited mounting space. Available tile bridge and new construction mounting brackets simplify installation.

The dual-driver architecture delivers full-fidelity premium audio reproduction. The MXN-AMP provides optimized presets for all MXP loudspeaker models as well as user-configurable EQ for each speaker output. A convenient switch on the MXP-5 front faceplate allows for quick adjustment between 70/100V or 4-ohm operation. A cable pass-through allows for easy installation.

Shure audio encryption keeps audio content protected between the MXN-AMP and other Shure Microflex Ecosystem devices in the room.

Important Safety Instructions

CAUTION: WHEN INSTALLING THIS PRODUCT INTO A CEILING OR BUILDING STRUCTURE, ALWAYS USE PROPER SUSPENSION AND RIGGING PRACTICES IN ACCORDANCE WITH YOUR AREA'S BUILDING CODES AND REGULATIONS.

FAILURE TO DO SO COULD RESULT IN PERSONAL INJURY, PROPERTY DAMAGE, OR BOTH.

1. READ these instructions.
2. KEEP these instructions.
3. HEED all warnings.
4. FOLLOW all instructions.
5. DO NOT use this apparatus near water.
6. CLEAN ONLY with dry cloth.
7. DO NOT block any ventilation openings. Allow sufficient distances for adequate ventilation and install in accordance with the manufacturer's instructions.
8. DO NOT install near any heat sources such as open flames, radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. Do not place any open flame sources on the product.
9. USE only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.


10. DO NOT expose the apparatus to dripping and splashing. DO NOT put objects filled with liquids, such as vases, on the apparatus.
11. To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
12. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.

13. Operate this product within its specified operating temperature range.
14. Follow local regulations and consult qualified personnel if the product installation or relocation requires construction work. Choose mounting hardware and an installation location that can support the weight of the product. Avoid locations subject to constant vibration. Use the required tools to install the product properly. Inspect the product periodically.

WARNING:

• Voltages in this equipment are hazardous to life. No user-serviceable parts inside. Refer all servicing to qualified service personnel. The safety certifications do not apply when the operating voltage is changed from the factory setting.
• If water or other foreign objects enter the inside of the device, fire or electric shock may result.

MXP-5 Parts
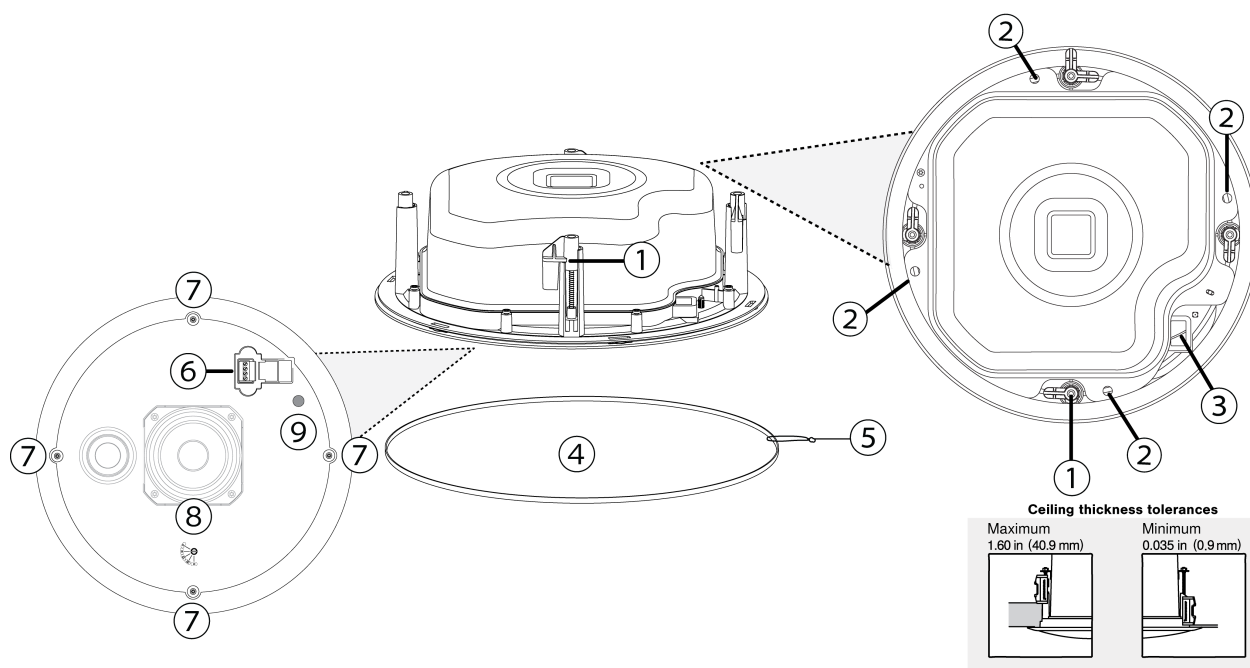
1. Mounting arms
2. Secondary attachment points
3. Routing hole for loudspeaker cable
4. Grille
5. Grille safety restraint
6. Block connector
7. Screws for mounting arms
8. Tap settings
9. Post for grille safety restraint

What's in the Box

• Loudspeaker with Shure logo pin
• Loudspeaker grille
• 1 4-pin block connector

Optional Accessories

Item	Part Number
Tile bridge	A-MXP5-TB
Construction bracket and anchor point	A-MXP5-NCB

Specifications

Suitable for use in air plenums per NEC section 300.22(c) and/or IMC section 602.

Weight
7.23 lbs (3.28 kg)

Dimensions
13.39 x 13.39 x 4.41 in. (340 x 340 x 111.9 mm)

Connector Type
4-pin connector, 0.2 in. (5.08 mm) pitch

Coverage Angle
Average of 1 octave band centered on 4 kHz, IEC standard 60268-5 23.4

95°

Frequency Response
~90Hz – 20kHz

Nominal Impedance
4Ω

Maximum Input Power
IEC standard 60268-5

28 W

Maximum SPL
at an RMS input level of 23 dBV

AES75 max linear sound levels: 101 dBZ, 115 dBZpk, 100 dBA

Sensitivity
at 2.83 V

92 db SPL 1W/m

Operating Temperature Range
-7 to 40°C (19.4 to 104°F)

Storage Temperature Range
-29 to 74°C (-20 to 165°F)

Transformer Taps

70V	4Ω, 1.875 W, 3.75 W, 7.5 W, 15 W
100V	4Ω, 3.75 W, 7.5 W, 15 W

Install the Ceiling Loudspeaker

Before installing, confirm that the ceiling safely supports the weight of the loudspeaker. Refer to local regulations for any plenum or seismic tie-off requirements.

- **Ceiling tile installations:** Use A-MXP5-TB (See below on tile bridge assembly, then go to step 1A)
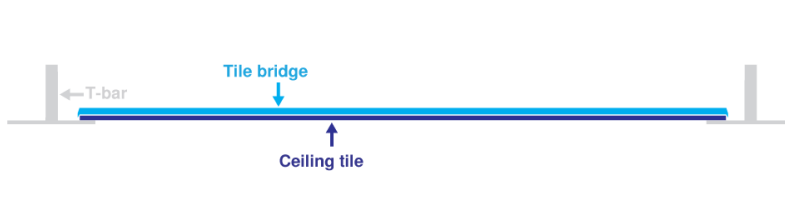- **Unfinished ceilings:** Use A-MXP5-NCB (step 1B)

To install, you will need:

- MXP-5 loudspeaker
- Utility knife or other tool to cut hole in ceiling*
- Loudspeaker wire*
- Screwdriver or drill*
- High-strength suspension cable*
- **Tile ceiling:** A-MXP5-TB tile bridge*
- **Unfinished ceiling:** A-MXP5-NCB new construction bracket*

* **Not included**

Step 1A: Install A-MXP5-TB for Tile Ceilings

1. Use the loudspeaker packaging or the tile bridge to mark a cutout in the tile.
2. Cut a 12.2 in. (310 mm) hole in the tile with the cutting tool.
3. Reinstall the ceiling tile with the tile bridge on top of the tile.

4. Follow the steps to connect the loudspeaker.

Step 1B: Install A-MXP5-NCB for Unfinished Ceilings

1. Nail or screw the new construction bracket to the ceiling joists. Complete any finish work required on the ceiling.
2. Use the loudspeaker packaging to mark a cutout in the ceiling material.
3. Cut a 12.2 in. (310 mm) hole in the ceiling material.
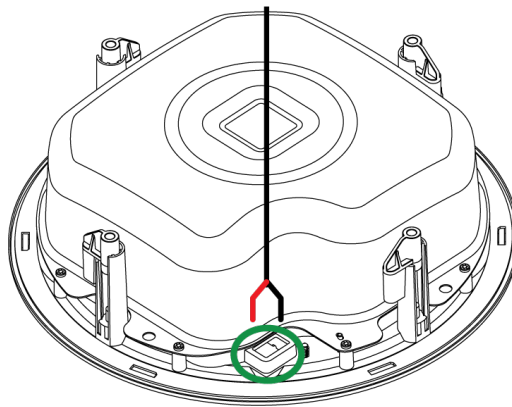4. Follow the steps to connect the loudspeaker.

Step 2: Install and Connect the Loudspeaker

1. Adjust tap settings.

Important: Set the tap selector to the proper setting before connecting to an amplifier.
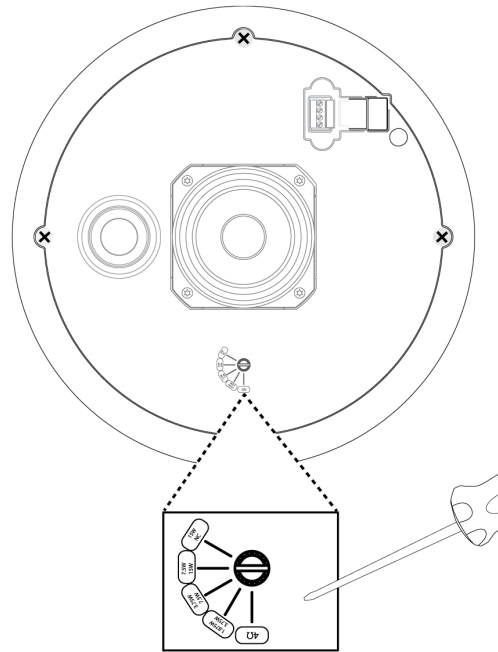
2. Attach suspension cable (not included) to a solid structural hanging point in the ceiling using appropriate hardware. Route loudspeaker wire next to the suspension cable. Pull the loudspeaker wire through the routing hole on the loudspeaker.

3. Attach suspension cable to 1 of the loudspeaker's secondary attachment points. This provides additional mounting security. Follow any local regulations.
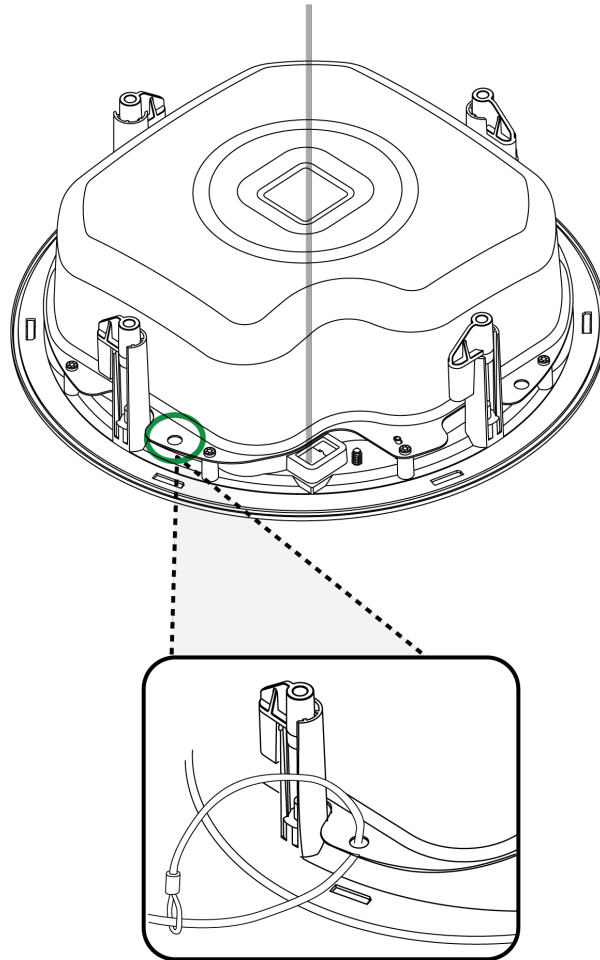
4. Connect the loudspeaker wire to the bottom of the loudspeaker using the block connector.
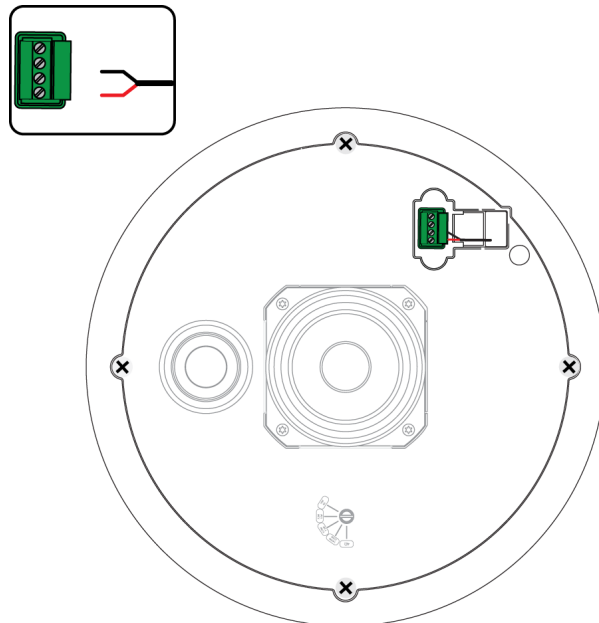
5. Place the loudspeaker in the mounting hole and hold it in place. Tighten the 4 screws on each side of the loudspeaker until each mounting arm fully extends to the secure the loudspeaker. Do not over-tighten the screws (not to exceed torque of 10 lb/in).
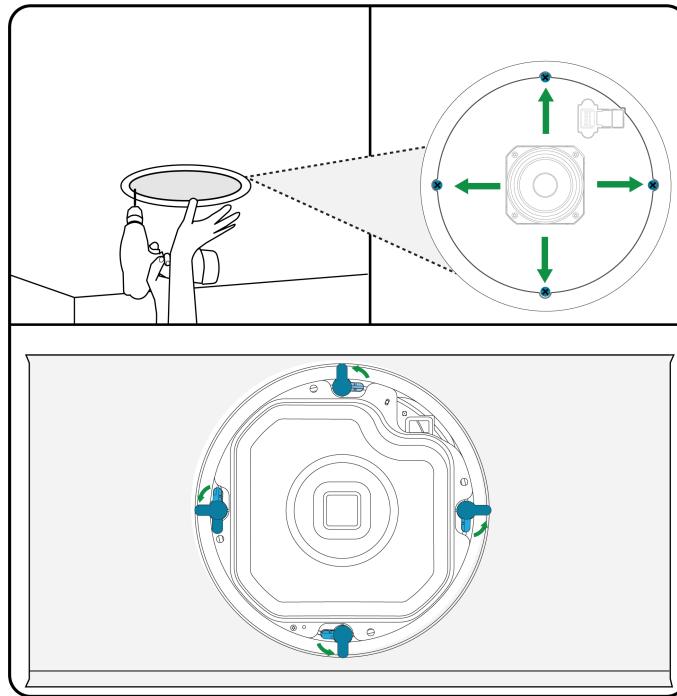
6. Attach the grille safety restraint to the post on the loudspeaker.
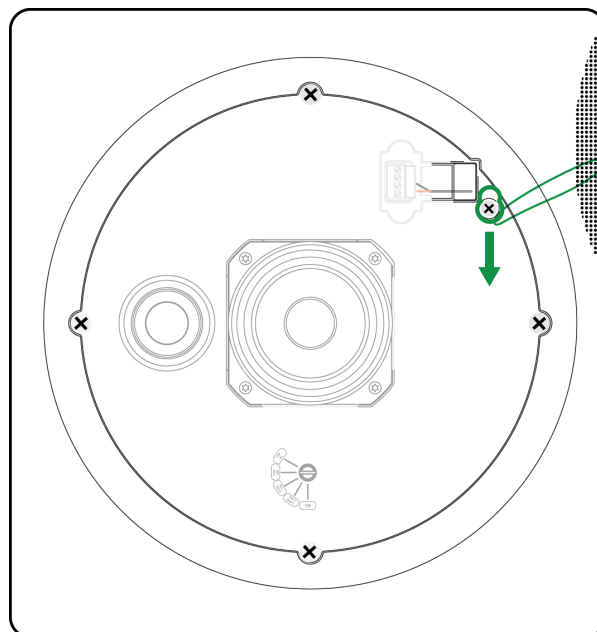
7. Attach the grille.

    Note: If you're painting the loudspeaker, paint the grille before attaching.

Assemble the A-MXP5-TB Tile Bridge

What's in the Box
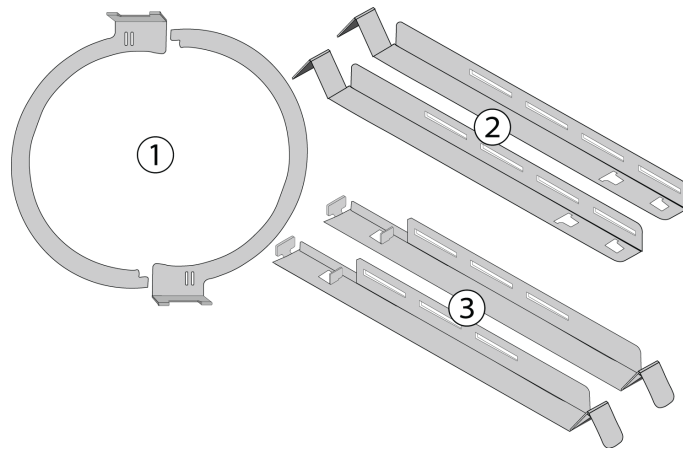
1. Loudspeaker frame
2. Double-slotted rails
3. Single-slotted rails with tabs

1. Assemble the Loudspeaker Frame

Insert the tabs on each half circle through the cutouts on each side.

2. Assemble Tile Bridge Rails

Insert each single-slotted rail with tabs into a double-slotted rail. Slide tabs to lock rails into place.
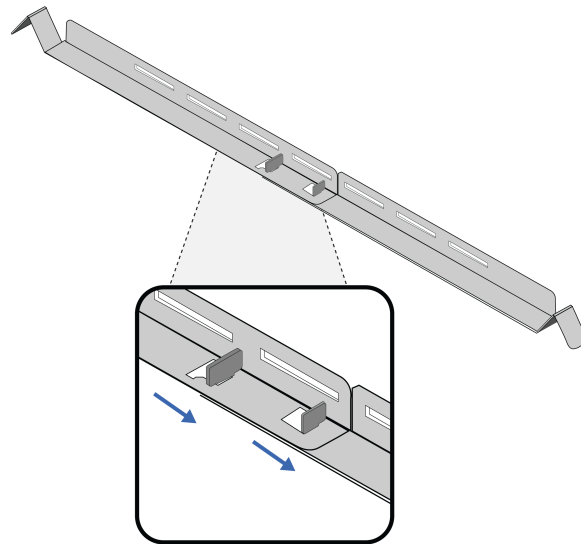
3. Insert Rails into Loudspeaker Frame

Clip the 2 rails into the sides of the loudspeaker frame.
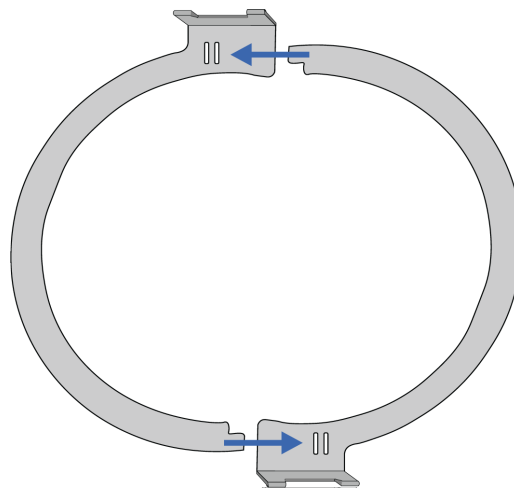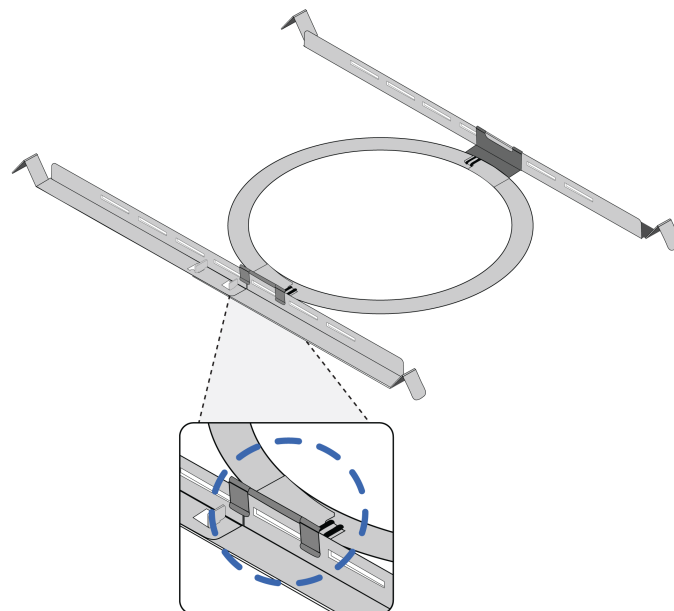
Connect the Loudspeaker to an Amplifier

To power loudspeakers, connect them to an amplifier. If you are connecting loudspeakers to the Shure MXN-AMP, choose the corresponding loudspeaker preset in the control software.

Connect Loudspeakers to MXN-AMP

Note: LoZ and 70V outputs can't be used at the same time. To switch output settings, adjust the settings in the control software or factory reset the amplifier.

Low Impedance Loudspeakers

To connect low impedance loudspeakers, use the LoZ outputs. You can add up to 4 loudspeakers, 1 for each output. Wire positive to positive and negative to negative.

70-Volt Loudspeakers

To connect 70V loudspeakers, use the 70V output.

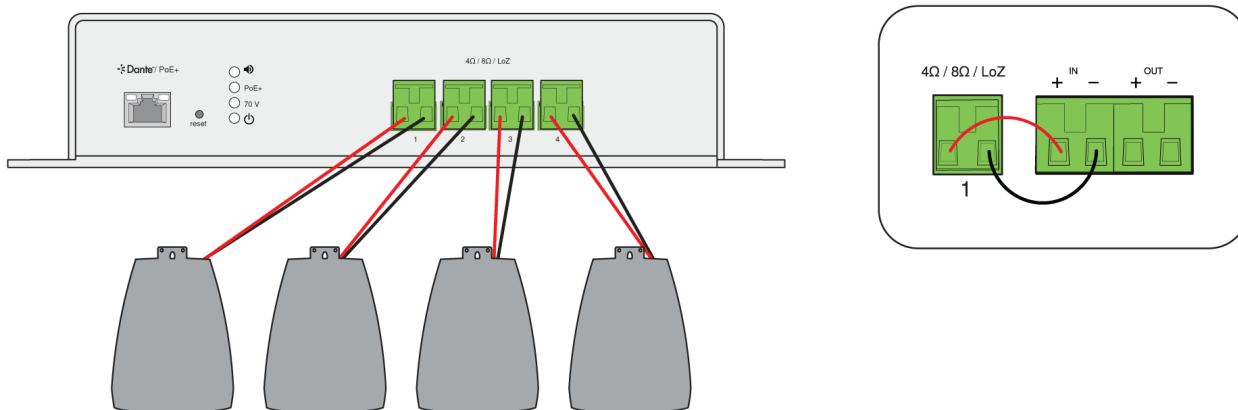1. Adjust the tap settings on your loudspeakers. (See more on choosing tap settings.)
2. Wire the amplifier to the first loudspeaker, positive to positive and negative to negative.
3. Wire remaining loudspeakers in parallel, positive to positive and negative to negative.
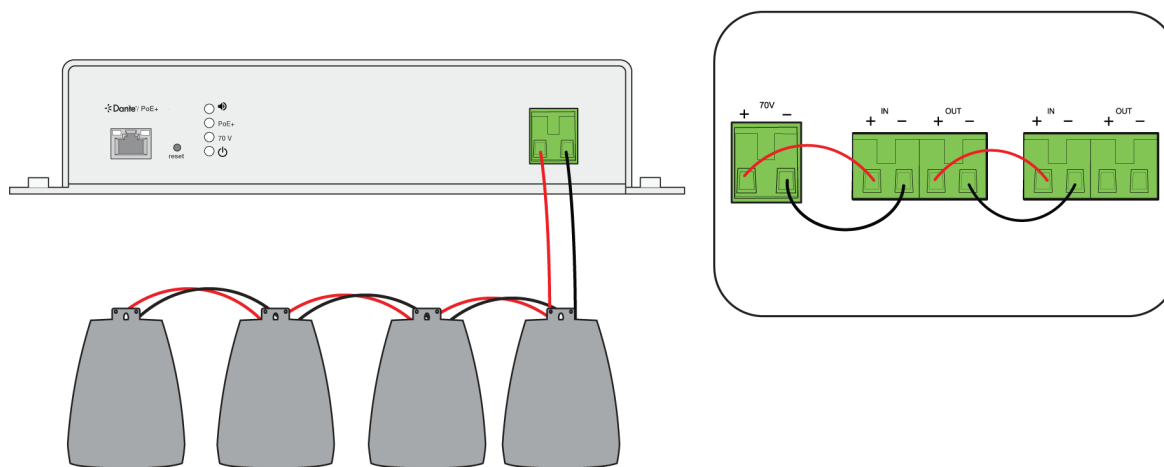
Choose between LoZ and 70V Loudspeaker Applications

Your loudspeaker can be used in either low impedance or 70V applications. To choose what's best for you, consider the following:

LoZ:

- Good for shorter cable runs and high-performance, individual/zoned sound reinforcement, and voice lift applications such as small to medium conferencing spaces.

- Often connected individually to an amplifier channel, offering customization and control for each loudspeaker.

70V:

- Good for longer cable runs and applications such as large-scaled systems with distributed audio and restaurants.
- Usually, multiple 70V loudspeakers are wired in parallel. This allows for many loudspeakers on the line, ease of setup, and future development or replacement.
- Multiple tap settings let you set how much power your loudspeakers receive.

70-Volt Applications

Choose an Amplifier for 70V Loudspeakers

To choose an amplifier for your loudspeakers, determine how much output power you need:

1. Add up the wattage for all your loudspeakers at their desired tap setting.
2. A best practice is to add about 20% to this number for headroom.

For example, if you have 2 MXP-5 and 2 MXP-6 loudspeakers:

- If you tap all 4 loudspeakers at 15W, the total power needed is (15*4 + 20% headroom): 72W
- If you tap all 4 loudspeakers at 1.875W, the total power needed is (1.875*4 + 20% headroom): 9W

To ensure optimal operation and minimum audio distortion, ensure your amplifier can supply at least this amount of power.

Select Tap Settings

In 70V applications, you may want to adjust tap settings on your loudspeakers. Tap settings determine how much power is supplied to each loudspeaker. A higher tap setting draws more power and increases your loudspeaker's output. A lower tap setting draws less power and decreases your loudspeaker's output.

For example, an amplifier with 50W of output can power:

- 1 loudspeaker tapped at 50W
- Up to 50 loudspeakers tapped at 1W

Important: Make sure the power required by your loudspeakers doesn't exceed the amount your amplifier can supply.

Troubleshoot Shure MXP Loudspeakers

Troubleshooting

Problem	Solution
No sound	Check cables and connections. Make sure your loudspeaker is connected to your amp and that your amp is plugged in, powered on, and routed correctly. Make sure the amp is not muted in the control software.

Problem	Solution
Audio clipped, distorted, humming, buzzing, uneven, or too soft.	Check cables and connections. Make sure your loudspeaker is connected to your amp and that your amp is plugged in, powered on, and routed correctly. Reduce amp gain. Check the quality of your audio source. Make sure other electrical devices aren't interfering with your audio setup. On MXP-5 or MXP-6, check the tap settings on your loudspeaker.
Not enough bass/treble	Adjust EQ of the MXN-AMP in the control software. Make sure the preset for your loudspeaker is selected on the Outputs page.

Additional Resources

- Shure Knowledge Base FAQs
- MXN-AMP PoE-Powered Amplifier User Guide
- MXN-AMP Command Strings
- Shure Enterprise Networking Troubleshooting Checklist
- Training from the Shure Audio Institute
- Shure Systems YouTube channel

Important Product Regulatory Information

CE Notice

Hereby, Shure Incorporated declares that this product with CE Marking has been determined to be in compliance with European Union requirements.

The full text of the EU declaration of conformity is available at the following site: https://www.shure.com/en-EU/support/declarations-of-conformity.

UKCA Notice

Hereby, Shure Incorporated declares that this product with UKCA Marking has been determined to be in compliance with UKCA requirements.

The full text of the UK declaration of conformity is available at the following site: https://www.shure.com/en-GB/support/declarations-of-conformity.

Environmental Regulatory Information

Waste Electrical and Electronic Equipment (WEEE) Directive

In the European Union and the United Kingdom, this label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.

Registration, Evaluation, Authorization of Chemicals (REACH) Directive

REACH (Registration, Evaluation, Authorization of Chemicals) is the European Union (EU) and the United Kingdom (UK) chemical substances regulatory framework. Information on substances of very high concern contained in Shure products in a concentration above 0.1% weight over weight (w/w) is available upon request.

Recycling Information

Please consider the environment, electric products and packaging are part of regional recycling schemes and do not belong to regular household waste.

部件名称	有害物质									
	Pb	Cd	Hg	Cr(VI)	PBB	PBDE	DBP	BBP	DIBP	DEHP
电路模块	X	O	O	O	O	O	O	O	O	O
金属模块	X	O	O	O	O	O	O	O	O	O
线缆及其组件	X	O	O	O	O	O	O	O	O	O
电源适配器*	X	O	O	O	O	O	O	O	O	O
锂电池组*	X	O	O	O	O	O	O	O	O	O
本表格依据 SJ/T11364 的规定编制。										
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X: 表示该有害物质至少在该部件某一均质材料中的含量超出 GB/T26572 规定的限量要求。										
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