

MPS-482HP Power Supply



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MPS-482HP Power Supply Operating Instructions, PN 05.285.005.01 A3

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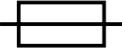
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IMPORTANT SAFETY INSTRUCTIONS

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

SYMBOLS USED

| | | | | |
|---|---|---|---|---|
|  |  |  |  |  |
| Dangerous voltages: risk of electric shock | Important operating instructions | Replaceable Fuse | Protective earth ground | Hot surface: do not touch |
| Gefährliche Spannungen: Stromschlaggefahr | Hinweis auf wichtige Punkte der Betriebsanleitung | Austauschbare Sicherung | Schutzerde | Heiße Oberfläche: nicht berühren |
| Pour indiquer les risques résultant de tensions dangereuses | Instructions d'utilisation importantes | Fusible remplaçable | Terre de protection | Surface chaude: ne pas toucher |
| Para indicar voltajes peligrosos | Instrucciones importantes de funcionamiento y/o Mantenimiento | Fusible reemplazable | Toma de tierra de protección | Superficie caliente: no tocar |

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. 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 apparatus. 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 apparatus. Handles are for carrying only.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. If equipped with an external fuse holder, the replaceable fuse is the only user-serviceable item. When replacing the fuse, only use the same type and the same value.
15. Refer all other servicing to qualified service personnel. Servicing is required when the apparatus 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 apparatus; rain or moisture has entered the apparatus; the apparatus has been dropped; or when for undetermined reasons the apparatus does not operate normally.



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



WARNING: Class I apparatus shall be connected to a mains socket outlet with a protective earthing connection.



CAUTION: Disconnect the mains plug before disconnecting the power cord from the loud-speaker.

English

- To reduce the risk of electric shock, disconnect the apparatus from the AC mains before installing audio cable. Reconnect the power cord only after making all signal connections.
- Connect the apparatus 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 apparatus 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 apparatus. Do not put objects containing liquid on or near the unit.
- To reduce the risk of overheating the apparatus, avoid exposing it to direct sunlight. Do not install the unit near heat-emitting appliances, such as a room heater or stove.
- If equipped with an external fuse holder, the replaceable fuse is the only item that can be serviced by the user. When replacing the fuse, only use the same type and value.
- This apparatus contains potentially hazardous voltages. Do not attempt to disassemble the unit. The only user-serviceable part is the fuse. All other repairs should be performed only by factory-trained service personnel.

Deutsch

- Zur Minimierung der Gefahr eines elektrischen Schlages trennen Sie das Produkt vor dem Anschluss von Audio- und/oder Steuerleitungen vom Stromnetz. Das Netzkabel darf erst nach Herstellung aller Signalverbindungen wieder eingesteckt werden.
- Das Produkt an eine vorschriftsgemäss installierte dreipolige Netzsteckdose (Phase, Neutraleiter, Schutzleiter) anschließen. Die Steckdose muss vorschriftsgemäß mit einer Sicherung oder einem Leitungsschutzschalter abgesichert sein. Das Anschließen des Produkts an eine anders ausgeführte Stromversorgung kann gegen Vorschriften verstossen und zu Stromunfällen führen.
- Das Produkt nicht an einem Ort aufstellen, an dem es direkter Wassereinwirkung oder übermäßig hoher Luftfeuchtigkeit ausgesetzt werden könnte, solange es sich nicht um ein Produkt handelt, dass mit der Meyer Sound Weather Protection Option ausgestattet ist.
- Vermeiden Sie das Eindringen von Wasser oder Fremdkörpern in das Innere des Produkts. Stellen Sie keine Objekte, die Flüssigkeit enthalten, auf oder neben dem Produkt ab.
- Um ein Überhitzen des Produkts zu verhindern, halten Sie das Gerät von direkter Sonneneinstrahlung fern und stellen Sie es nicht in der Nähe von wärmeabstrahlenden Geräten (z.B. Heizgerät oder Herd) auf.

- Bei Ausstattung mit einem externen Sicherungshalter ist die austauschbare Sicherung das einzige Gerät, das vom Benutzer gewartet werden kann. Verwenden Sie beim Austausch der Sicherung nur den gleichen Typ und Wert.
- Dieses Gerät enthält möglicherweise gefährliche Spannungen. Versuchen Sie nicht, das Gerät zu zerlegen. Der einzige vom Benutzer zu wartende Teil ist die Sicherung. Alle anderen Reparaturen dürfen nur von im Werk geschultem Servicepersonal ausgeführt werden.

Français

- Pour éviter tout risque d'électrocution, débranchez l'enceinte de la prise secteur avant de mettre en place le câble audio. Ne rebranchez le cordon secteur qu'après avoir procédé à toutes les connexions de signal audio
- Brancher l'appareil sur une prise secteur à trois fils et deux pôles avec mise à la terre. La prise doit être reliée à un fusible ou à un disjoncteur. Le branchement à tout autre type de prise présente un risque de choc électrique et peut enfreindre les codes locaux de l'électricité.
- N'installez pas l'enceinte dans des endroits humides ou en présence d'eau sans utiliser d'équipements de protection adéquats fournis par Meyer Sound.
- Ne laissez pas d'eau ou d'objet étranger, quel qu'il soit, pénétrer à l'intérieur de l'enceinte. Ne posez pas d'objet contenant du liquide sur ou à proximité de l'enceinte.
- Pour réduire les risques de surchauffe, évitez d'exposer directement l'enceinte aux rayons du soleil. Ne l'installez pas à proximité de sources de chaleur, radiateur ou four par exemple.
- S'il est équipé d'un porte-fusible externe, le fusible remplaçable est le seul élément qui peut être réparé par l'utilisateur. Lors du remplacement du fusible, n'utilisez que le même type et la même valeur.
- Cet appareil contient des tensions potentiellement dangereuses. N'essayez pas de démonter l'appareil. Le fusible est la seule pièce réparable par l'utilisateur. Toutes les autres réparations doivent être effectuées uniquement par du personnel de maintenance formé en usine.

Español

- Para reducir el riesgo de descarga eléctrica, desconecte el aparato de la red eléctrica antes de instalar el cable de audio. Vuelva a conectar el cable de alimentación sólo después de realizar todas las conexiones de señal.
- Conecte el aparato a una toma de corriente de tres hilos y dos polos con conexión a tierra. El receptáculo debe estar conectado a un fusible o disyuntor. La conexión a cualquier otro tipo de receptáculo representa un riesgo de descarga eléctrica y puede violar los códigos eléctricos locales.

- No instale el aparato en lugares húmedos o mojados sin usar el equipo de protección contra intemperie de Meyer Sound.
- No permita que penetre agua u otros objetos extraños en el interior del aparato. No coloque objetos que contengan líquido sobre o cerca de la unidad.
- Para reducir el riesgo de sobrecalentamiento del aparato, evite exponerlo a la luz solar directa. No instale la unidad cerca de aparatos que emitan calor, como un calefactor o una estufa.
- Si está equipado con un portafusibles externo, el fusible reemplazable es el único elemento que puede ser reparado por el usuario. Cuando reemplace el fusible, use solamente el mismo tipo y valor.
- Este aparato contiene voltajes potencialmente peligrosos. No intente desmontar la unidad. La única pieza que el usuario puede reparar es el fusible. Todas las demás reparaciones deben ser realizadas únicamente por personal de servicio capacitado de fábrica.

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CHAPTER 1: INTRODUCTION

HOW TO USE THIS MANUAL

Please read these instructions in their entirety before configuring a Meyer Sound loudspeaker system. In particular, pay close attention to material related to safety issues.

As you read these 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 or personnel, or could cause delays or other problems.

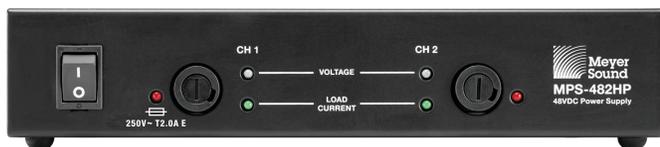
Information and specifications are subject to change. Updates and supplementary information are available at meyersound.com.

Meyer Sound Technical Support is available at:

- **Tel:** +1 510 486.1166 (Monday through Friday 9:00 am to 5:00 pm PST)
- **Tel:** +1 510 486.0657 (after hours support)
- **Web:** meyersound.com/support

MPS-482HP POWER SUPPLY

The two-channel IntelligentDC MPS-482HP Power Supply delivers 48 V DC and balanced audio to Meyer Sound IntelligentDC loudspeakers that require an external DC power supply.



MPS-482HP Power Supply Front Panel

Designed to use with any Meyer Sound loudspeaker that features IntelligentDC technology, the half-space rack-mount MPS-482HP Power Supply is particularly advantageous when creating two-channel systems with compact loudspeakers, such as the MM-4XP, MM-10XP, UP-4XP, UP-4slim, ULTRA-X20XP, and USW-112XP. Additionally, it can power up to six Ashby-5C or four Ashby-8C ceiling loudspeakers and is also ideal for powering surrounds in immersive configurations.

 **CAUTION:** Only connect to 48 V DC Meyer Sound Powered Speakers. See the labeling on the bottom of the unit for a list of compatible speakers or contact Meyer Sound.

Meyer Sound's externally powered loudspeakers include on-board amplification and signal-processing circuits that store DC power and tolerate voltage drops (up to 30 percent) to accommodating light-gauge cables and lengthy cable runs. Powering loudspeakers from an external source eliminates the need for wiring conduits while still preserving the advantages of self-powered systems.

The MPS-482HP Power Supply receives two channels of balanced audio from its two XLR 3-pin female input connectors or one 6-pin Phoenix™ male input connector and routes the audio, along with DC power, to its two Phoenix 5-pin male output connectors. Front panel user-replaceable fuses protect the MPS-482HP Power Supply's two channel outputs from short circuits and wiring errors. The rear panel features a toggle switch that routes the signal from channel 1 to both outputs (to send the same signal to both outputs without additional cabling).

Outputs can deliver DC power to loudspeakers at cable lengths up to 150 feet or 300 feet (depending on the loudspeaker model) with just 1 dB of loss in peak SPL using 18 AWG wire. The use of composite multiconductor cables (such as Belden® 1502) allows a single cable to carry both audio and DC power from the MPS-482HP Power Supply to the loudspeakers. Longer cable lengths are possible for moderate applications that do not drive the loudspeakers to maximum output, as well as for installations with heavier gauge wires.

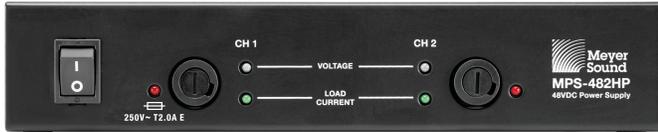


MPS-482HP Power Supply Rear Panel

CHAPTER 2: MPS-482HP POWER SUPPLY FRONT AND REAR PANELS

MPS-482HP POWER SUPPLY FRONT PANEL

The MPS-482HP Power Supply front panel includes a power switch and LEDs for monitoring each loudspeaker channel.



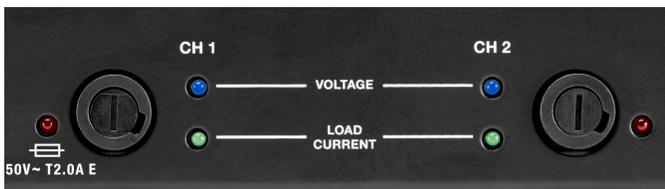
MPS-482HP Power Supply Front Panel

AC Power

The MPS-482HP Power Supply is powered on and off with the AC Power switch.

Fuse, Voltage, and Load Current LEDs (1-2)

The Fuse, Voltage and Load Current LEDs are useful for verifying if a channel fuse is open/blown, whether each channel output has voltage, and whether the connected loudspeakers are receiving DC power and audio.



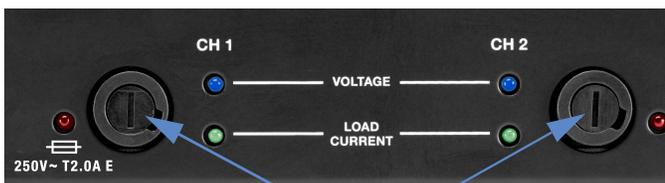
MPS-482HP Power Supply Channel LEDs

Red Fuse LEDs (1-2)

A lit red LED indicates a blown or open fuse on that channel. If the Red LED is lit, power down the MPS-482HP Power Supply and check for shorts on the loudspeaker cabling before replacing the fuse.



TIP: To replace a fuse, use a screwdriver to gently turn the appropriate fuse cover (open: counterclockwise; close: clockwise).



Fuse Access

Blue Voltage LEDs (1-2)

The blue Voltage LEDs indicate whether voltage is present for the channel outputs. These LEDs should be lit when the MPS-482HP Power Supply is powered on. The MPS-482HP Power Supply's intelligent circuit protection shields connected loudspeakers from surges and shorts. When a blue Voltage LED is unlit and its corresponding green Load Current LED is off, a surge or short has been detected for the channel. If a surge or short is encountered, or the Red LED is lit, power down the MPS-482HP Power Supply, inspect the loudspeaker cabling, and replace the fuse for that channel.

Table 1 lists the possible states for the Blue Voltage LEDs.

Table 1: Blue Voltage LEDs

| State | Cause | Recommended Action |
|--------------------|---|---|
| Unlit (all LEDs) | MPS-482HP Power Supply not powered on or is unplugged | Verify the MPS-482HP Power Supply is powered on and verify its power source. |
| Unlit (single LED) | Surge or short encountered for channel | Power down the MPS-482HP Power Supply; inspect the loudspeaker cabling for the channel. |



CAUTION: When a blue Voltage LED is unlit, power down the MPS-482HP Power Supply, and inspect the loudspeaker cabling for that channel.

Green Load Current LEDs (1-2)

The green Load Current LEDs indicate whether loudspeakers are connected to the channel outputs and receiving power. If a green LED is not lit, check that the channel's blue Voltage LED is lit and verify the cable connection to the loudspeaker.

Table 2 lists the possible states for the Load Current LEDs.

Table 2: Green Load Current LEDs

| State | Cause | Recommended Action |
|----------------------------|--|---|
| Unlit (all LEDs) | MPS-482HP Power Supply not powered on or no loudspeakers connected | Verify the MPS-482HP Power Supply is powered on and verify its power source; inspect the loudspeaker cabling. |
| Unlit (single LED) | No loudspeaker connected | Power down the MPS-482HP Power Supply; inspect the loudspeaker cabling for the channel. |
| Glow brighter (single LED) | LED glows brighter as channel's audio signal level increases | None required. |

CAUTION: When a blue Voltage LED is unlit and its corresponding green Load Current LED is unlit, indicating a surge or short for the channel, power down the MPS-482HP Power Supply and inspect the loudspeaker cabling for that channel.

MPS-482HP POWER SUPPLY REAR PANEL

The MPS-482HP Power Supply rear panel includes an AC input connector, two XLR inputs and one 6-pin Phoenix input for receiving two channels of source audio, a Link switch to route audio from input 1 to both outputs, and two Phoenix 5-pin outputs for delivering two channels of balanced audio along with DC power.



MPS-482HP Power Supply Rear Panel

AC Input

The MPS-482HP Power Supply has a powerCON 20 twist-lock AC input connector (line, neutral/line, earth). The connector can accept different power cable types for outlets used throughout the world. Make sure to use the correct power cable for the AC power in the area where it will operate. The MPS-482HP Power Supply operates at an AC voltage range of 100–240 V at 50–60 Hz.

Channel Inputs

The MPS-482HP Power Supply receives two channels of balanced audio via the two channel inputs. The inputs are equipped with two 3-pin XLR female connectors and a 6-pin Phoenix male connector, but only one set may be used at a time. The XLR input connector pinout is: pin 1, ground; pin 2, signal positive; pin 3, signal negative. Make sure to use standard balanced XLR cables with all three pins connected on both ends. The Phoenix input connector supports two channels with the following pinout (from left to right): pin 1, channel 1 ground; pin 2, channel 1 signal positive; pin 3, channel 1 signal negative; pin 4, channel 2 ground; pin 5, channel 2 signal positive; pin 6, channel 2 signal negative.



MPS-482HP Power Supply Channel Inputs

Channel inputs default to being routed to their corresponding channel outputs but channel 1 can also be routed to both outputs with the Link switch. This selection affects the input impedance (see “Input Impedance for Linked Channel Inputs” on page 5).

Link Switch

The Link switch determines how the two inputs are routed to the two outputs. When the Link switch is OFF (set to the down position), each input is only routed to its corresponding output (input 1 routed to output 1 and input 2 is routed to output 2).

When the Link switch is ON (set to the up position), input 1 is routed to both output 1 and output 2.

NOTE: Input 2 is inactive when the Link switch is enabled. Connections should not be made to the inactive input.

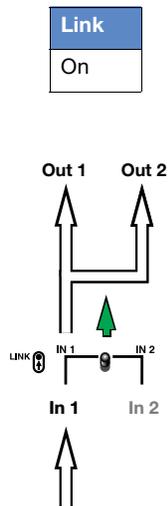
Link Switch Routing Examples

The following examples illustrate the routing applications for the Link switch.

Routing One Input to Two Outputs

To route input 1 to both channel outputs:

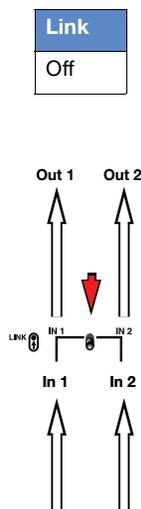
- Set Link switch to ON.



Routing Each Input to its Corresponding Output

To route each input to its corresponding channel output:

- Set Link switch to OFF.



Input Impedance for Linked Channel Inputs

When the Link switch is enabled, channel 1 input's unbuffered source signal is transmitted in parallel to both channel 1 and 2 outputs. This selection causes the channel input's impedance (normally 10 kOhms for one loudspeaker) to be reduced for each linked output. For example:

- one channel output, 10 kOhm input impedance
- two channel outputs, 5 kOhm input impedance

 To avoid distortion when linking channel inputs, make sure the source device can drive the total load impedance of the linked loudspeakers. Most source devices are capable of driving loads no smaller than 10 times their output impedance. To drive two loudspeakers linked from a single channel input, the source device should have an output impedance of less than 500 ohms.

Channel Outputs

The MPS-482HP Power Supply's two channel outputs deliver DC power (48 V DC) and balanced audio to two loudspeakers. The channel outputs are Phoenix 5-pin male connectors.

 **NOTE:** For information about cable requirements for a particular loudspeaker, refer to its operating instructions. For information about cables and cable accessories available from Meyer Sound, see Appendix A, "MPS-482HP Power Supply Cable Accessories."

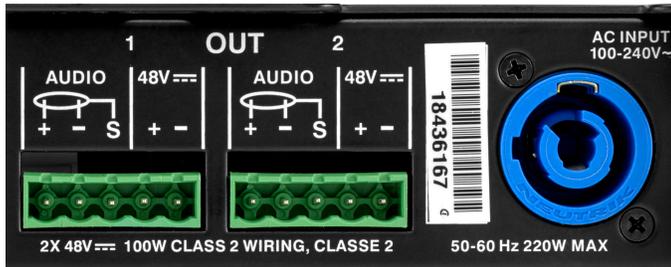
 **TIP:** A single composite cable (such as Belden 1502 or equivalent) wired for both DC power and balanced audio can be used to connect loudspeakers to channel outputs.

 **CAUTION:** Make sure loudspeaker cables are wired correctly. For details about assembling loudspeaker cables, refer to Appendix B, "Assembling Loudspeaker Cables."

 **NOTE:** HMS-15 loudspeakers require power from both channels of the MPS-482HP Power Supply. If audio signal is present on both channels connected to an HMS-15, the signal is summed internally.

MPS-482HP Power Supply Channel Outputs

The MPS-482HP Power Supply channel outputs are Phoenix 5-pin male connectors with three pins for balanced audio (positive, negative, and shield) and two pins for DC Power (positive and negative). The pins are clearly labeled on the MPS-482HP Power Supply rear panel.



MPS-482HP Power Supply Channel Outputs

MPS-482HP POWER SUPPLY CURRENT DRAW

The current draw for the MPS-482HP Power Supply and its connected loudspeakers is dynamic and fluctuates as operating levels change. Because 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 gauge and size conform to electrical code standards. This current rating is also used as a rating for slow-reacting thermal breakers, which are recommended for loudspeaker power distribution.
- **Burst Current:** the maximum rms current during a period of around 1 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:

$$V_{pk}(\text{drop}) = I_{pk} \times R(\text{cable total})$$

- **Maximum Instantaneous Peak Current:** a rating for fast-reacting magnetic breakers.
- **Inrush Current:** the spike of initial current encountered when powering on.

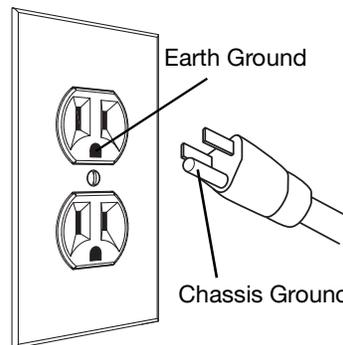
The minimum electrical service amperage required by an MPS-482HP Power Supply is the sum of the maximum long-term continuous current for all loudspeakers connected to the MPS-482HP Power Supply. An additional 30 percent above the minimum amperage is recommended to prevent peak voltage drops at the service entry.

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

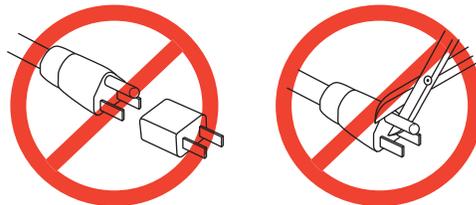
ELECTRICAL SAFETY GUIDELINES

Pay close attention to these important electrical and safety guidelines.

- This Meyer Sound product requires a grounded outlet. Always use a grounded outlet and plug.



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



- The AC power connector must not be engaged or disengaged when under load or live.
- Disconnect the mains plug before disconnecting the powerCON plug from the unit.
- Keep all liquids away from the unit to avoid hazards from electrical shock.
- Do not operate the unit if the power cable is frayed or broken.

CHAPTER 3: POWERING LOUDSPEAKERS

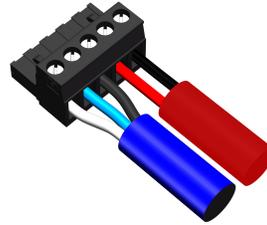
 **NOTE:** For information about cable requirements for loudspeakers, refer to their operating instructions. For information about cables and cable accessories available from Meyer Sound, see Appendix A, “MPS-482HP Power Supply Cable Accessories.”

 **CAUTION:** Make sure loudspeaker cables are wired correctly. For details about assembling loudspeaker cables, refer to Appendix B, “Assembling Loudspeaker Cables.”

To power loudspeakers with the MPS-482HP Power Supply:

1. Power off the MPS-482HP Power Supply.
2. Connect audio sources (from a mixer or processor) to the MPS-482HP Power Supply channel inputs. Use balanced XLR cables or a 3-conductor cable for balanced audio fitted into a 6-pin Phoenix connector.
3. Use the MPS-482HP Power Supply Link switch to route input 1 to one or both channel outputs (see “Link Switch” on page 4).
4. Connect the loudspeakers to the MPS-482HP Power Supply channel outputs. Use composite cables (such as Belden 1502 or equivalent) wired for both DC power and balanced audio and outfitted with the appropriate connectors.
 - When connecting loudspeakers equipped with Phoenix connectors to the MPS-482HP Power Supply, use Phoenix 5-pin female to Phoenix 5-pin female cables.

 **TIP:** With the MPS-482HP Power Supply, using two separate cables for loudspeaker connections is also possible: a two-conductor cable for DC power and a three-conductor cable for balanced audio, both attached to a single Phoenix connector on each cable end. This approach enables use of larger gauge wires for the DC cable to achieve longer cable runs.



Phoenix Connector with Separate Cables

 **NOTE:** HMS-15 loudspeakers require power from both channels of the MPS-482HP Power Supply. If audio signal is present on both channels connected to an HMS-15, the signal is summed internally.

- When connecting loudspeakers equipped with ECO-M connectors to the MPS-482HP Power Supply, use Phoenix 5-pin female to ECO-M 7-pin female cables.
5. Power on the MPS-482HP Power Supply and monitor the LEDs on its front panel to verify the connections (see “Fuse, Voltage, and Load Current LEDs (1–2)” on page 3).
 6. Check loudspeaker LEDs to determine whether the loudspeakers are ready to reproduce audio.
 7. Enable output from the audio source (from a mixer or processor) connected to the MPS-482HP Power Supply.

CHAPTER 4: MPS-482HP POWER SUPPLY MOUNTING ACCESSORIES

OPTIONAL ACCESSORIES

Meyer Sound offers two optional accessories to increase mounting flexibility:

- MPS-482HP Wall Bracket Kit (PN 40.285.015.01): enables mounting of one MPS-482HP Power Supply remotely on a ceiling, wall, or pole (using a third-party pole mount). Hang the power supply below the bracket, or mount the power supply on top. The bracket above power supply orientation provides space for cable routing. The enclosure design includes cable routing strain relief tabs. The bracket accommodates M6 fasteners.

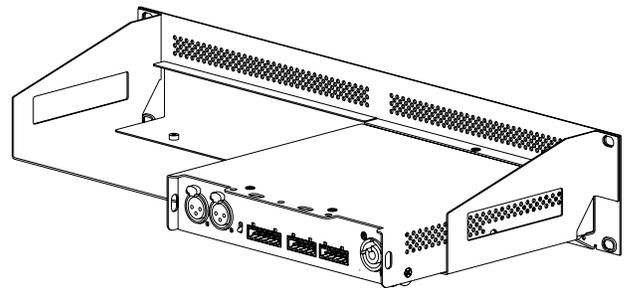


MPS-482HP Power Supply in an MPS-482HP Wall Bracket

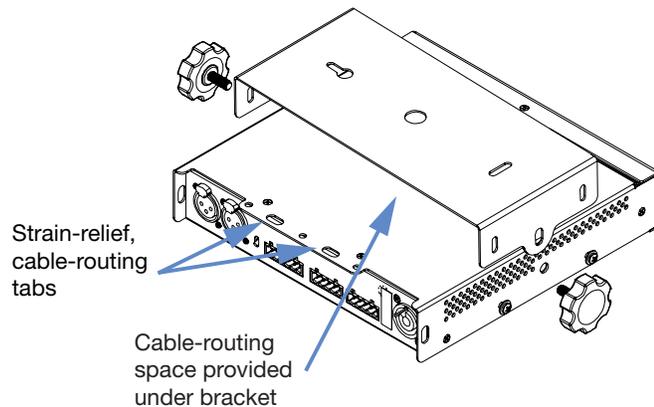
- MPS-482HP 2RU Tray Kit (PN 40.285.013.01): enables mounting of one or two power supplies on a standard EIA 19-inch wide rack. The 2RU tray height facilitates cooling of the MPS-482HP Power Supply, as the area above the unit is empty. The rack mount tray comes with one face tray cover to use if one side is empty.



Two MPS-482HP Power Supplies in an MPS-482HP 2RU Tray



Rear view of MPS-482HP 2RU Tray with face cover in place on one side



MPS-482HP Power Supply Wall Bracket Cable Routing

APPENDIX A: MPS-482HP POWER SUPPLY CABLE ACCESSORIES

PHOENIX LOUDSPEAKER CABLES

The following Phoenix and EN3 cables are available from Meyer Sound and can be used to connect loudspeakers to an MPS-482HP Power Supply.



NOTE: Phoenix loudspeaker cables and bulk cable use Belden 1502R (regular) or Belden 1502P (plenum) cable. Belden 1502 is a composite cable comprising two 18 AWG wires for DC power, two 22 AWG wires for balanced audio, and one 24 AWG wire for audio shield.

Phoenix and EN3 Loudspeaker Cables

| Part Number | Cable | Color | Coating | Length |
|---------------|--|-------|---------|--|
| 524.014 | Bulk (no connectors) | Black | Regular | 500 ft (152 m) spool |
| 524.015 | Bulk (no connectors) | White | Plenum | 500 ft (152 m) spool |
| 28.163.009.41 | EN3 5-pin female to Phoenix 5-pin female | Black | Regular | 10 ft (3 m) |
| 28.163.009.42 | | | | 20 ft (6.1 m) |
| 28.163.009.43 | | | | 30 ft (9.1 m) |
| 28.163.009.44 | | | | 50 ft (15.2 m) |
| 28.163.009.45 | | | | 100 ft (30.5 m) |
| 28.163.009.46 | | | | 150 ft (45.7 m) |
| 28.163.009.51 | | | | EN3 5-pin female to Phoenix 5-pin female |
| 28.163.009.52 | 20 ft (6.1 m) | | | |
| 28.163.009.53 | 30 ft (9.1 m) | | | |
| 28.163.009.54 | 50 ft (15.2 m) | | | |
| 28.163.009.55 | 100 ft (30.5 m) | | | |
| 28.163.009.56 | 150 ft (45.7 m) | | | |
| 28.163.009.60 | Phoenix 5-pin female to Phoenix 5-pin female | Black | Regular | |
| 28.163.009.61 | | | | 10 ft (3 m) |
| 28.163.009.62 | | | | 20 ft (6.1 m) |
| 28.163.009.63 | | | | 30 ft (9.1 m) |
| 28.163.009.64 | | | | 50 ft (15.2 m) |
| 28.163.009.65 | | | | 100 ft (30.5 m) |
| 28.163.009.66 | | | | 150 ft (45.7 m) |

PHOENIX AND EN3 CABLE CONNECTORS AND ADAPTERS

The following cable connectors and adapters are available from Meyer Sound.

Phoenix and EN3 Cable Connectors and Adapters

| Part Number | Connector/Adapter | Use |
|---------------|---|--|
| 484.053 | Phoenix 5-pin female cable mount connector | Connects to MPS-482HP Power Supply channel outputs and loudspeakers equipped with Phoenix connectors |
| 468.069 | EN3 5-pin female cable mount connector | Connects to loudspeakers equipped with EN3 connectors |
| 468.072 | EN3 5-pin female inline cable adapter | Connects to EN3 5-pin male cable mount connector |
| 468.073 | EN3 5-pin male inline cable adapter | Connects to EN3 5-pin female cable mount connectors |
| 468.081 | ECO-M 7-pin female cable mount connector | Connects to loudspeakers equipped with ECO-M 7-pin male panel mount connectors |
| 28.163.033.01 | Cable coupler EN3 5-pin female-to-male (5-inch, 0.12 m) | Joins two cables: one with an EN3 5-pin male cable mount connector to one with an EN3 5-pin female cable mount connector |

APPENDIX B: ASSEMBLING LOUDSPEAKER CABLES

CAUTION: When wiring loudspeaker cables, it is extremely important that each pin be wired correctly. Make sure that the 48 V DC from the external power supply is wired directly (and only) to the 48 V DC pins on the loudspeaker connector, and that the polarity is observed (negative to negative, positive to positive) to avoid damage to the loudspeaker. In addition, make sure that audio pins are wired correctly; polarity reversals for audio signals affect system performance.

ASSEMBLING PHOENIX-TO-PHOENIX LOUDSPEAKER CABLES

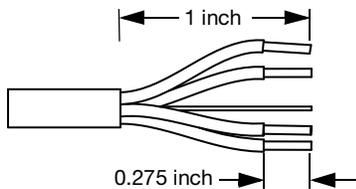
When connecting loudspeakers and power supplies equipped with Phoenix connectors, a Phoenix 5-pin female to Phoenix 5-pin female cable is required. The following procedure documents how to assemble this cable.



Assembled Phoenix-to-Phoenix Cable

To assemble a Phoenix-to-Phoenix cable:

1. If the cable has not yet been stripped, strip one end of the cable. Strip the outer shielding by 1 inch and then strip the black, red, blue, and white wires by 0.275 inch.



2. Insert the five exposed conductors into the five cable holes in a Phoenix 5-pin female cable mount connector. Use the following wiring scheme.



Pin Destinations for Phoenix 5-Pin Female Cable Mount Connector

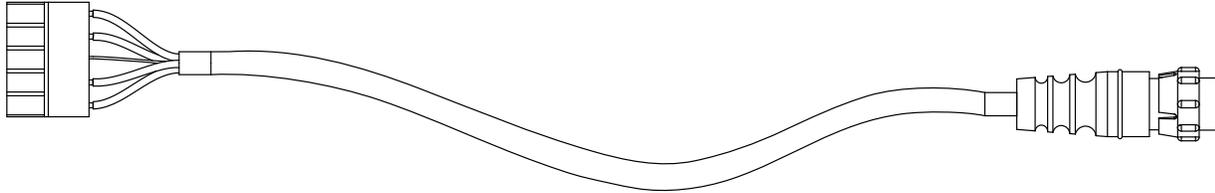
3. Secure the conductors by tightening the five screws in the Phoenix cable mount connector. Screws should be torqued to 0.5–0.6 Nm (4.4–5.3 In-Lbs).

CAUTION: Screws should not be tightened while the connector rests in a mating plug. Doing so will damage the contacts. During assembly, the Phoenix connector should only be held in place externally.

4. Repeat the previous steps and attach the other end of the cable to another Phoenix 5-pin female cable mount connector.
5. Verify the wiring polarity is correct for both cable ends.

ASSEMBLING PHOENIX-TO-EN3 LOUDSPEAKER CABLES

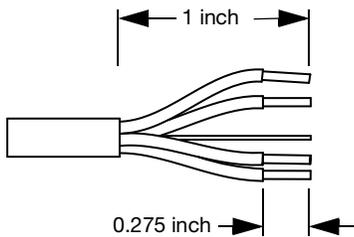
When connecting loudspeakers equipped with EN3 connectors to the MPS-482HP Power Supply, a Phoenix 5-pin female to EN3 5-pin female cable is required. The following procedure documents how to assemble this cable. If starting with an EN3-to-pigtail cable, skip steps 4–7 in this procedure.



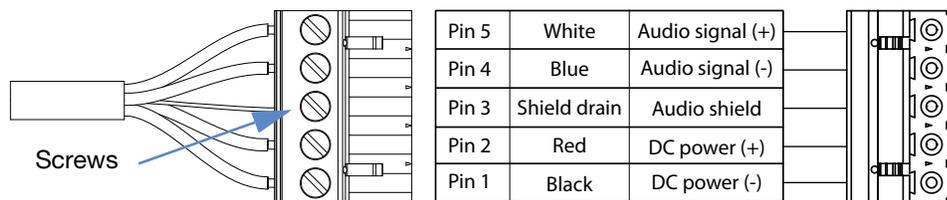
Assembled Phoenix-to-EN3 Cable

To assemble a Phoenix-to-EN3 cable:

1. If the cable has not yet been stripped, strip one end of the cable. Strip the outer shielding by 1 inch and then strip the black, red, blue, and white wires by 0.275 inch.



2. Insert the five exposed conductors into the five cable holes in a Phoenix 5-pin female cable mount connector. Use the following wiring scheme.

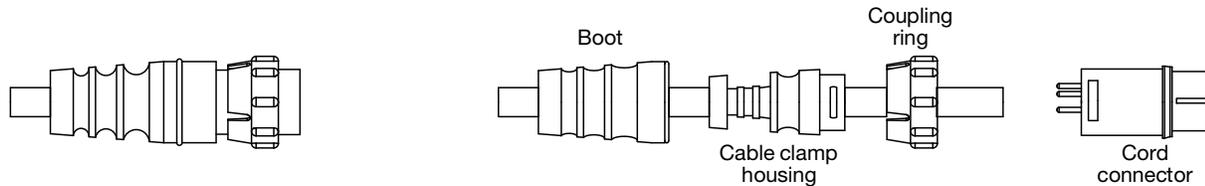


Pin Destinations for Phoenix 5-Pin Female Cable Mount Connector

3. Secure the conductors by tightening the five screws in the Phoenix cable mount connector. Screws should be torqued to 0.5–0.6 Nm (4.4–5.3 In-Lbs).

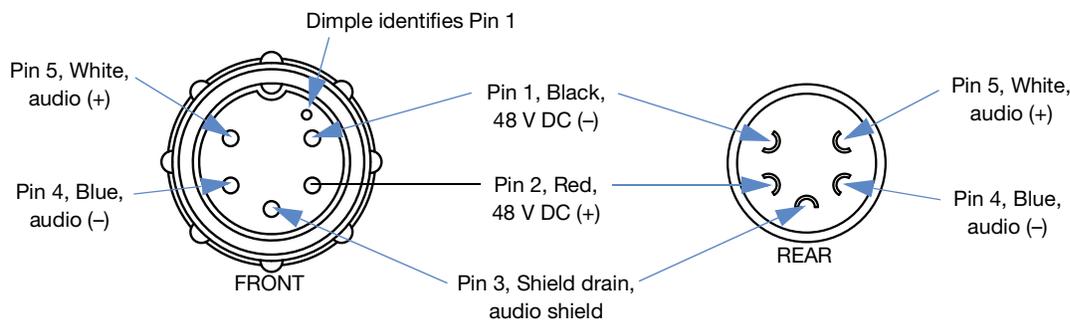
CAUTION: Screws should not be tightened while the connector rests in a mating plug. Doing so will damage the contacts. During assembly, the Phoenix connector should only be held in place externally.

4. If the other (EN3) end of the cable has not been stripped, strip the outer shielding 1 inch and then strip the black, red, blue, and white wires 0.275 inch.
5. Disassemble the EN3 5-pin female connector and feed the stripped cable through the boot, cable clamp housing, and coupling ring.



EN3 5-Pin Female Cable Mount Connector, Assembled (Left), Disassembled (Right)

6. Solder the five exposed conductors to the five pins on the EN3 cord connector using the following wiring scheme.

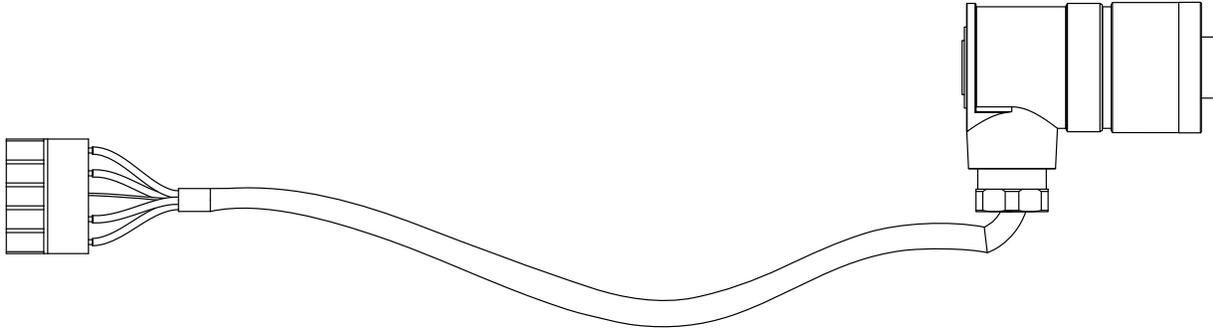


Pin Destinations for EN3 5-Pin Female Cable Mount Connector

7. Reassemble the EN3 5-pin female connector:
 - Align the coupling ring's side notches with the cord connector's side notches and slide the couple ring onto the cord connector.
 - Carefully insert the end of the cable clamp housing into the cord connector until it locks into place. Snap the cable clamps in the cable clamp housing into their compartments.
 - Slide the boot forward so it covers the cable clamp housing completely.
8. Verify the wiring polarity is correct for both cable ends.

ASSEMBLING PHOENIX-TO-ECO-M LOUDSPEAKER CABLES

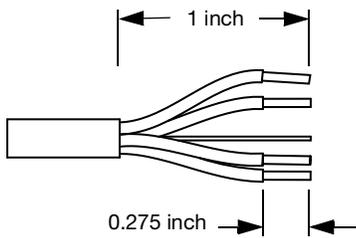
When connecting loudspeakers and power supplies equipped with combination of Phoenix and ECO-M connectors, a Phoenix 5-pin female to ECO-M 7-pin female cable is required. The following procedure documents how to assemble this cable.



Assembled Phoenix-to-ECO-M Cable

To assemble a Phoenix-to-ECO-M cable:

1. If the cable has not yet been stripped, strip one end of the cable. Strip the outer shielding by 1 inch and then strip the black, red, blue, and white wires by 0.275 inch.



2. Insert the five exposed conductors into the five cable holes in a Phoenix 5-pin female cable mount connector. Use the following wiring scheme.



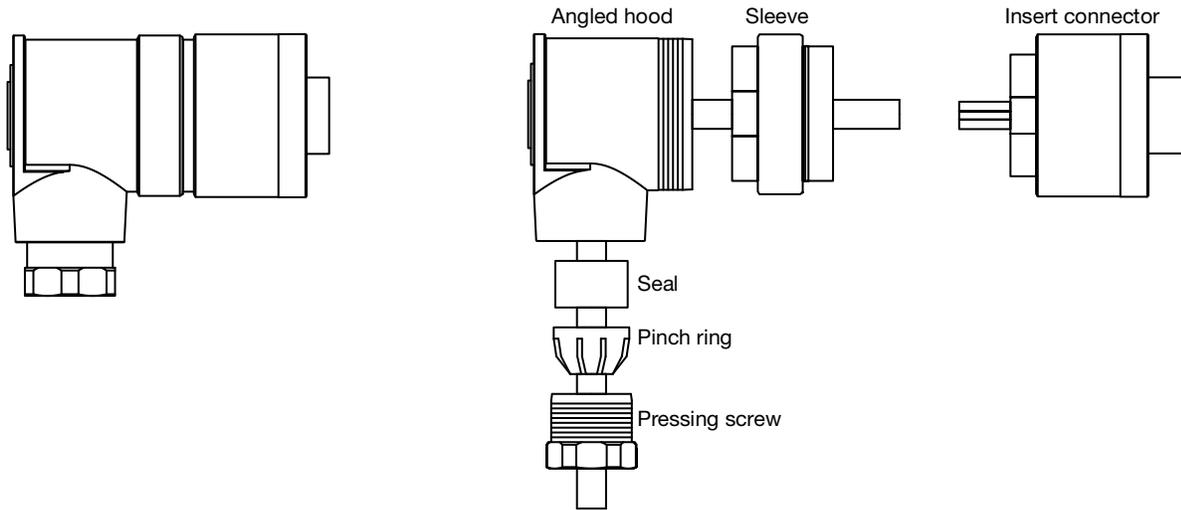
Pin Destinations for Phoenix 5-Pin Female Cable Mount Connector

3. Secure the conductors by tightening the five screws in the Phoenix cable mount connector. Screws should be torqued to 0.5–0.6 Nm (4.4–5.3 In-Lbs).

CAUTION: Screws should not be tightened while the connector rests in a mating plug. Doing so will damage the contacts. During assembly, the Phoenix connector should only be held in place externally.

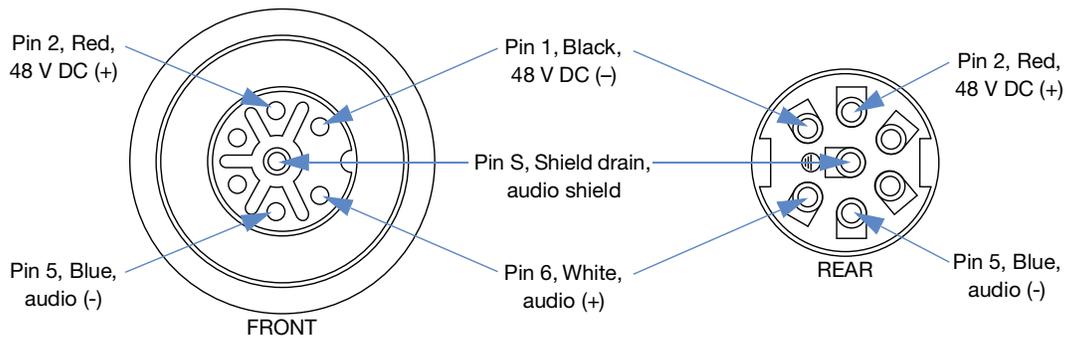
4. If the other (ECO-M) end of the cable has not been stripped, strip the outer shielding 1 inch and then strip the black, red, blue, and white wires 0.1 inch.

5. Disassemble the ECO-M 7-pin female connector and feed the stripped cable through the pressing screw, pinch ring, seal, angled hood, and sleeve.



ECO-M 7-Pin Female Cable Mount Connector, Assembled (Left) and Disassembled (Right)

6. Fasten the five exposed conductors to the (1, 2, S, 5, and 6) pins on the ECO-M insert connector using the following wiring scheme. Screws should be torqued to 0.5–0.6 Nm (4.4–5.3 In-Lbs).



Pin Destinations for ECO-M 7-Pin Female Cable Mount Connector

7. Reassemble the ECO-M 7-pin female connector:
- Attach the insert connector to the sleeve.
 - Choose the angle while attaching the above assembly to the angled hood.
 - Return the seal and pinch ring to the angled hood and secure it with the pressing screw. Verify the wiring polarity is correct for both cable ends

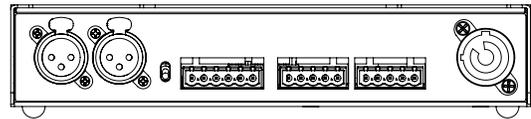
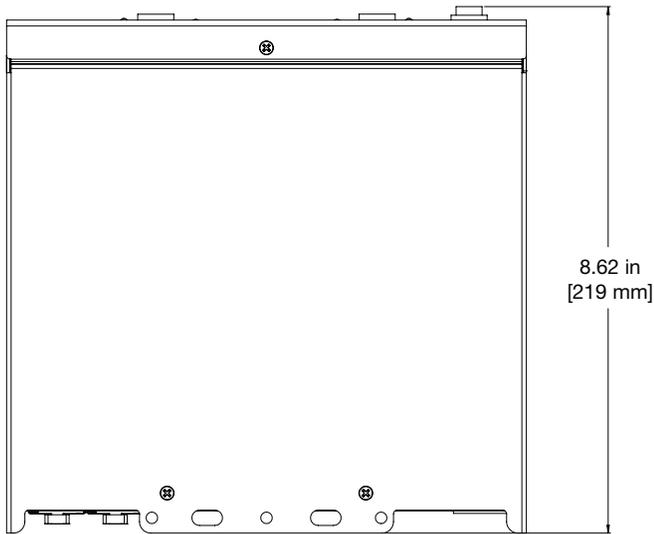
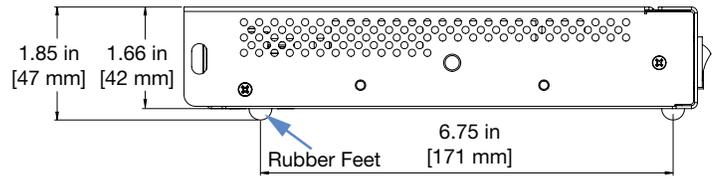
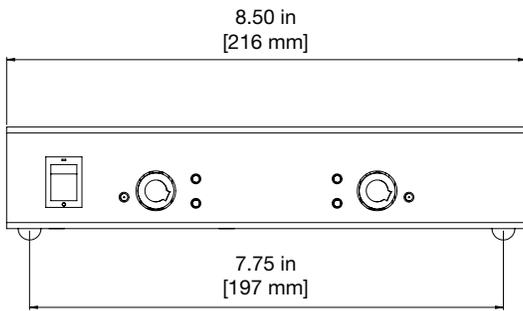
APPENDIX C: MPS-482HP POWER SUPPLY SPECIFICATIONS

MPS-482HP POWER SUPPLY SPECIFICATIONS

| FRONT PANEL | |
|----------------------------|--|
| LEDs | Two blue LEDs to indicate presence of output voltage Two green LEDs to indicate load current status Two red LEDs to indicate blown or open fuse |
| Fuse | Use only Meyer Sound PN 420.041 when replacing |
| REAR PANEL | |
| Audio Inputs | Two XLR 3-pin female connectors or one 6-pin Phoenix male connector (not summing to the XLR inputs) One Link Switch. Sends signal from channel 1 input to both outputs |
| Channel Outputs | Two Phoenix 5-pin male connectors |
| Output Wiring | Two pins for DC power, three pins for balanced audio Pin 1: 48 V DC - (chassis/earth ground) Pin 2: 48 V DC + Pin 3: Audio shield/chassis/earth ground Pin 4: Audio - Pin 5: Audio + |
| Output Voltage | 48 V DC per channel (supports NEC class 2 wiring) |
| AC POWER | |
| AC Connector | powerCON 20 |
| Voltage Selection | Automatic |
| Safety Rated Voltage Range | 100–240 V AC; 50–60 Hz |
| CURRENT DRAW | |
| Idle Current | 0.14 A (115 V AC, 60 Hz); 0.07 A (230 V AC, 50 Hz); 0.15 A rms (100 V AC, 60 Hz) |
| PHYSICAL | |
| Dimensions | 1RU in height x 1/2 width rack mount W: 8.50 in (216 mm) x H: 1.85 in (47 mm) x D: 8.62 in (219 mm) Note: Height includes rubber feet. Height without feet is 1.66 in (42 mm). |
| Weight | 4.4 lbs (2 kg) |
| Rigging | M6 threads on sides and bottom to support mounting; optional MPS-482HP Wall Bracket for flat surface mounting; optional MPS-482HP 2RU Tray for mounting two MPS-482HP Power Supplies in a standard 19-inch, 2 RU rack slot |
| ENVIRONMENTAL | |
| Operating Temperature | 0° C to +45° C |
| Non-operating Temperature | -40° C to +75° C |
| Humidity | To 95% at 35° C |
| Operating Altitude | To 5,000 m (16404 ft) |
| Non Operating Altitude | To 6,300 m (25,000 ft) |
| Shock | 30 g 11 msec half-sine on each of 6 sides |
| Vibration | 10–55 Hz (0.010 m peak-to-peak excursion) |



MPS-482HP POWER SUPPLY DIMENSIONS



FEDERAL COMMUNICATIONS COMMISSION (FCC) STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.

This device complies with Part 15 of the FCC rules. 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.

INDUSTRY CANADA COMPLIANCE STATEMENT

This Class A digital apparatus complies with Canadian ICES-003.

AVIS DE CONFORMITÉ À LA RÉGLEMENTATION D'INDUSTRIE CANADA

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

EN 55032 (CISPR 32) STATEMENT

Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.





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MPS-482HP Power Supply Operating Instructions
PN 05.285.005.01 A3