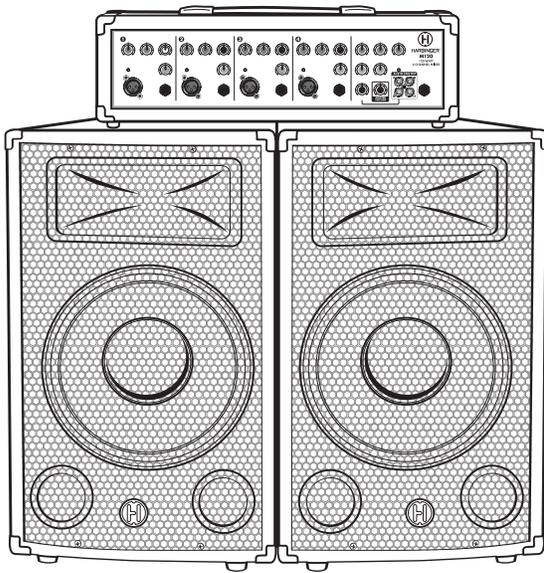




# HARBINGER<sup>®</sup>



## M120

120WATT PORTABLE PA



## M60

60WATT PORTABLE PA

**MüV**  
S E R I E S<sup>™</sup>

PORTABLE PA  
SYSTEMS

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## WELCOME

CONGRATULATIONS on your purchase of a Harbinger 4-Channel PA System. Built with rugged, carpet-covered wood enclosures, they are the ideal choice for musicians looking for a PA that delivers great sound night after night. This manual will help you setup your new system. By following our guidelines and suggestions, your new Harbinger will provide many years of great sound and reliable service.

**Your new MüV Series portable PA includes:**

- One Powered Mixer
- Two Speaker Cabinets
- Two Speaker Cables

## BRIEF GLOSSARY OF TERMS

### BALANCED

A 2-conductor (plus shield), low-impedance connection. Balanced cables are the preferred method for hum-free interconnection of a given sound system for their noise-rejection characteristics. (Also see Unbalanced.)

### CHANNEL

One of any number of signal paths in an audio circuit, such as input channel, output channel, recording channel, left channel, right channel, etc.

### DECIBEL (dB)

A term representing the ratio between different audio levels. For example, a ratio of 1000:1 = 60dB.

### DELAY

Like an echo, this effect duplicates the original signal, then plays it back at a rate you control. The rate at which these repeats occur is the "delay time."

### EQUALIZATION

Electronic filters that adjust the level of certain frequencies. Used for tone enhancement or to reduce extraneous sounds. Two types of EQ shapes are Peak and Shelving, described below.

### IMPEDANCE

Resistance in an electrical circuit measured in Ohms ( $\Omega$ ). Maintaining proper impedance (between amplifier and speakers for example) is important to prevent damage to the amp.

### PEAK EQUALIZER CONTROL

Increase or decrease of a frequency range centered at a specific point, resulting in an EQ curve that looks like a hill (increase) or a valley (decrease). (Also see Shelving Equalizer Control.)

### SHELVING EQUALIZER CONTROL

Increase or decrease of all frequencies above or below a specific point. (Compare to Peak Equalizer Control.)

### TRS (BALANCED)

Acronym for Tip-Ring-Sleeve – the three parts of a two-conductor (plus shield) audio plug. TRS phone plugs are often used for "balanced" connections.

### TRS (UNBALANCED RES INSERT)

Another common TRS application is for "dual unbalanced" connections, such as insert send/return jacks or stereo Y-Cord. These are used for inserting an external processor into a signal path. (See page 6 of this manual.)

### TS

Acronym for Tip-Sleeve, the two parts of an unbalanced, single-conductor (plus shield) phone plug. TS connectors are sometimes called mono or unbalanced plugs or jacks.

### UNBALANCED

A single-conductor (plus shield), high-impedance connection. Most commonly used for instrument connections and cable runs of less than 20 feet.

### XLR

The three-pin connector universally used for balanced audio connections. A balanced connection reduces outside noise and interference. (See Balanced above.)

# IMPORTANT SAFETY INSTRUCTIONS

Please keep this instruction manual for future reference and for the duration of owning the MüV powered loudspeaker. Please carefully read and understand the instructions inside this owner's manual before attempting to operate your new powered loudspeaker.

This instruction manual includes essential safety information regarding the use and maintenance of the amplifier. Take special care to heed all warning symbols and signs inside this manual and those printed on the amplifier on the back of the loudspeaker.

## WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE AMPLIFIER TO WATER/MOISTURE, NOR SHOULD YOU OPERATE THE AMPLIFIER NEAR ANY WATER SOURCE.

The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the user manual accompanying the Amplifier.

The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure, and may be of sufficient magnitude to constitute a risk of electric shock.

## WARNING

Handle the power supply cord with care.

Do not damage or deform it as it may cause electric shock or malfunction when used. Hold the plug attachment when removing from wall outlet. Do not pull on the power cord.

## IMPORTANT SAFETY PRECAUTIONS

1. READ INSTRUCTIONS - All the safety and operating instructions should be read before this product is operated.
2. RETAIN INSTRUCTIONS - The safety and operating instructions should be retained for future reference.
3. HEED WARNINGS - All warnings on the amplifier and in the operating instructions should be adhered to.
4. FOLLOW INSTRUCTIONS - All operating and use instructions should be followed.
5. DO NOT turn on the MüV amplifier module before connecting all other external devices.
6. WATER AND MOISTURE - Moisture can damage the MüV amplifier module and can cause corrosion of electrical contacts. The speaker system should not be used near water - for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or near a swimming pool, and the like.
7. CARTS AND STANDS - The speaker system should be used only with a cart or stand that is recommended by the manufacturer. A speaker and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the speaker and cart combination to overturn.
8. WALL OR CEILING MOUNTING - The product should never be mounted to a wall or ceiling.
9. HEAT - The loudspeaker on the back of the MüV loudspeaker should be situated away from heat sources such as radiators, heat registers, stoves, or other sources (including amplifiers) that produce heat.
10. POWER SOURCES - This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
11. GROUNDING OR POLARIZATION - Do not defeat the safety purpose of the polarization or grounding-type plug. The wide blade or the third prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet. Do not defeat the safety purpose of the 3rd pin grounding prong.
12. POWER-CORD PROTECTION - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the amplifier.
13. CLEANING - The speaker and amplifier should be cleaned only as recommended by the manufacturer. Clean by wiping with a dry cloth. Avoid getting water inside the speaker or amplifier.
14. NON-USE PERIODS - The power cord of the amplifier should be unplugged from the outlet when left unused for a long period of time.
15. OBJECT AND LIQUID ENTRY - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. DAMAGE REQUIRING SERVICE - The amplifier should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has been spilled into the amplifier; or
  - C. The amplifier has been exposed to rain; or
  - D. The amplifier does not appear to operate normally or exhibits a marked change in performance; or
  - E. The amplifier has been dropped, or the enclosure damaged.
17. Keep the speaker system out of extended or intense direct sun light.
18. No containers filled with any type of liquid should be placed on or near the speaker system.
19. SERVICING - The user should not attempt any service to the speaker and/or amplifier beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
20. VENTILATION - Slots and openings in the amplifier are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack.
21. ATTACHMENTS - do not use attachments not recommended by the product manufacturer, as they may cause hazards.
22. ACCESSORIES - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

23. **LIGHTNING** – For added protection during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
24. **REPLACEMENT PARTS** – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
25. **SAFETY CHECK** – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
26. **FUSES** – Always use the correct rating and type of fuse as indicated on the rear panel of the amplifier. Note the proper rating fuse is determined by the AC line voltage in the country this speaker system is being operated. **COMPLETELY DISCONNECT POWER CORD FROM AMPLIFIER BEFORE ATTEMPTING TO REPLACE FUSE!**
27. **AC SELECT SWITCH:** This switch must be set to match the AC line voltage in the country this speaker system is being operated. To change the setting, loosen (do not remove) the two screws left and right the slide switch. Temporarily move the protective cover strip and slide the actuator to match the voltage in your country. Place the protective cover strip back over the switch and tighten the two screws. **COMPLETELY DISCONNECT POWER CORD FROM AMPLIFIER BEFORE ATTEMPTING TO CHANGE AC VOLTAGE SETTINGS!**
28. **HARBINGER MÜV SERIES POWERED LOUDSPEAKERS ARE NOT DESIGNED FOR TEMPORARY OR PERMANENT SUSPENSION. ANY ATTEMPT TO SUSPEND A MÜV SERIES CABINET COULD RESULT IN INJURY OR DEATH.**

To prevent electric shock, do not use a polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	<b>AVIS</b> RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR	
<p><b>CAUTION:</b> To reduce the risk of electric shock, do not remove chassis. No user-serviceable parts inside. Refer servicing to qualified service personnel.</p> <p><b>AVERTISSEMENT:</b> Pour réduire les risques d'incendie et d'électrocution, ne pas exposer ce matériel à la pluie ou à l'humidité.</p>			



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.



APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

### HEARING DAMAGE AND PROLONGED EXPOSURE TO EXCESSIVE SPLs

Harbinger MüV Series powered loudspeakers are capable of producing extremely loud volume levels that can cause permanent hearing damage to performers, production crews or the audience. Hearing protection is recommended during long-term exposure to high SPLs (sound pressure levels).

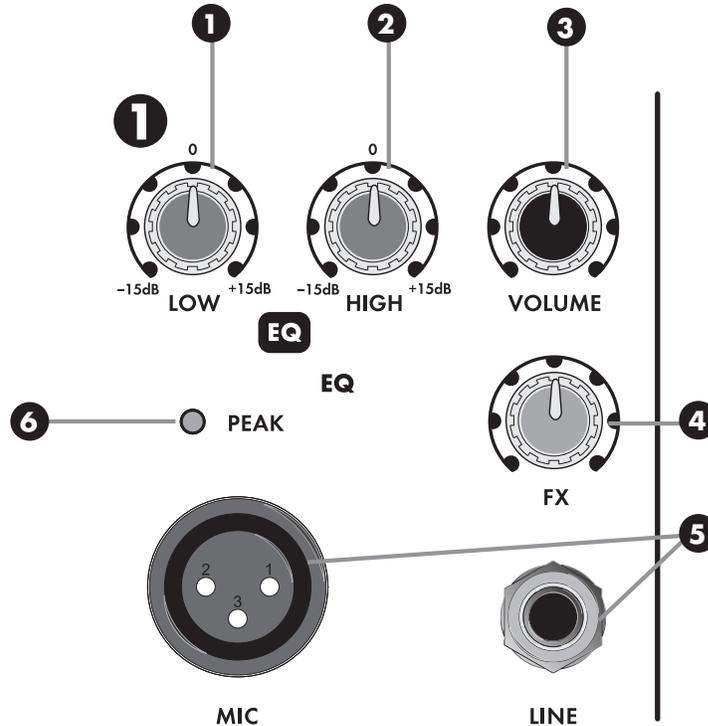
Remember, if it hurts, it is definitely too loud! Long term exposure to high SPLs first causes temporary threshold shifts; limiting your ability to hear the actual loudness and exercise good judgment. Repeated long term exposure to high SPLs will cause permanent hearing loss.

Please note the recommended exposure limits in the accompanying table. More information about these limits is available on the US government Occupational Safety and Health (OSHA) website at: [www.osha.gov](http://www.osha.gov)

#### Permissible Noise Exposures (1)

Duration per day, hours	Sound level dBA slow response
8	90
6	90
4	90
3	90
2	100
1.5	102
1	105
0.5	110
0.25 or less	115

# INPUT CHANNELS



## 1 LOW EQ

This shelving control gives 15dB of boost or cut at 80Hz and below. Add warmth to vocals or extra punch to guitars, drums and synths by turning to the right. Turn to the left to reduce stage rumble, hum or a muddy sound.

## 2 HIGH EQ

This shelving control gives 15dB of boost or cut at 12KHz and above. Turn to the right to boost high frequencies, adding crispness to percussion from drum machines, cymbals and synths. Turn to the left to cut these frequencies, reducing sibilance or hiss.

## 3 VOLUME

This level control determines the proportion of the channel signal in the mix.

## 4 FX SEND

This level control sets the amount of signal that will be sent to the built-in digital delay effect.

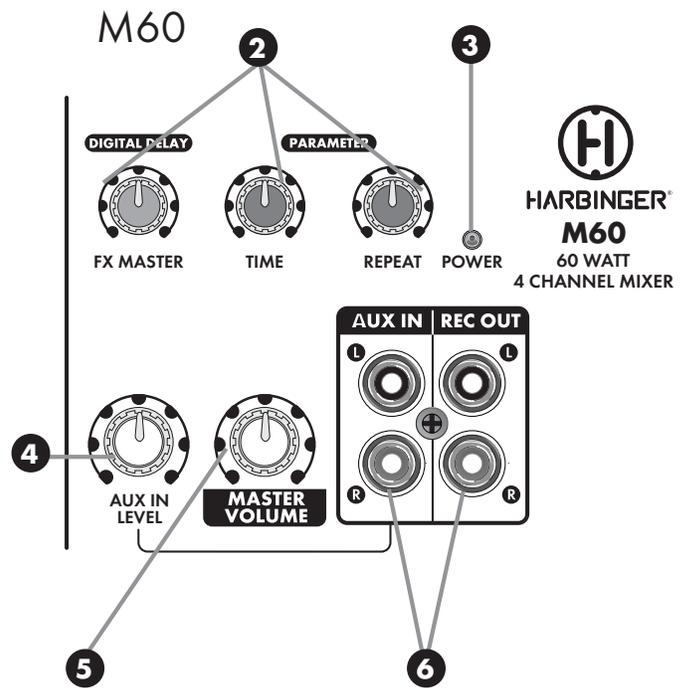
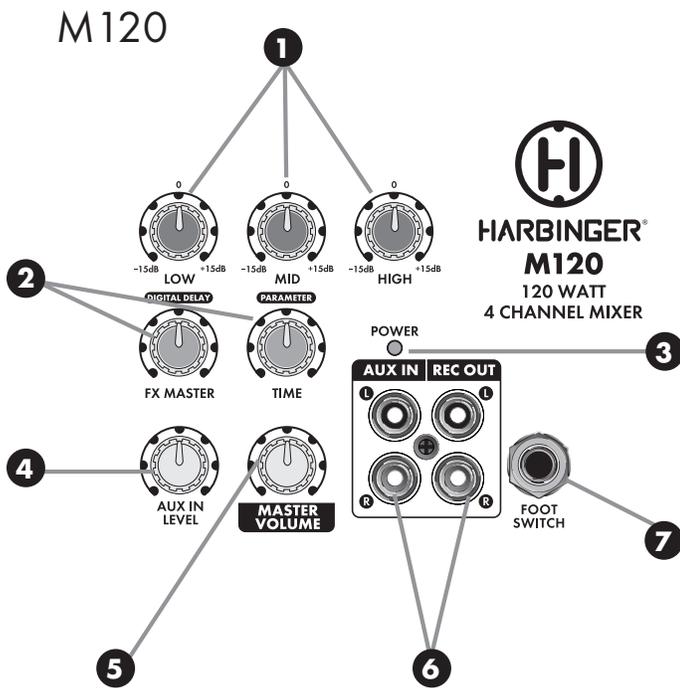
## 5 MIC & LINE INPUT

This MIC input accepts male XLR while the LINE input accepts a 1/4" type phone plug. You can use only one of the two connectors at a time.

## 6 PEAK LED (M120 only)

This LED indicates that the input signal is too loud, and may distort the sound or damage the circuitry. If the PEAK LED consistently remains lit, reduce the output volume of the source, or lower the channel volume.

# MASTER SECTION



## 1 MASTER EQ (M120)

**LOW:** This shelving control gives 15dB of boost or cut at 80Hz and below.

**MID:** This is a band peak equalizer with a control range of +/-15dB at 1KHz.

**HIGH:** This shelving control gives 15dB of boost or cut at 12KHz and above.

## 2 FX

This controls the signal from the input channels, processed by the built-in digital delay.

**FX MASTER:** This knob adjusts the mix level of the effect sound.

**TIME:** Turn this knob to the right to increase the interval time between delays, to the left to decrease.

## 3 POWER INDICATOR

When the power switch at the rear panel is turned on, this indicator will illuminate.

## 4 AUX IN CONTROL

This knob adjusts the level from the AUX Inputs to the Master Volume.

## 5 MASTER VOLUME

This knob adjusts the total output Volume. Turn Master Volume down before turning unit on or off.

## 6 AUX IN & REC OUT

The AUX IN Phono Jacks allow MP3/CD players to be connected to the amplifier. The RECORD OUTPUT RCA Phono Jacks provide signal output to audio equipment.

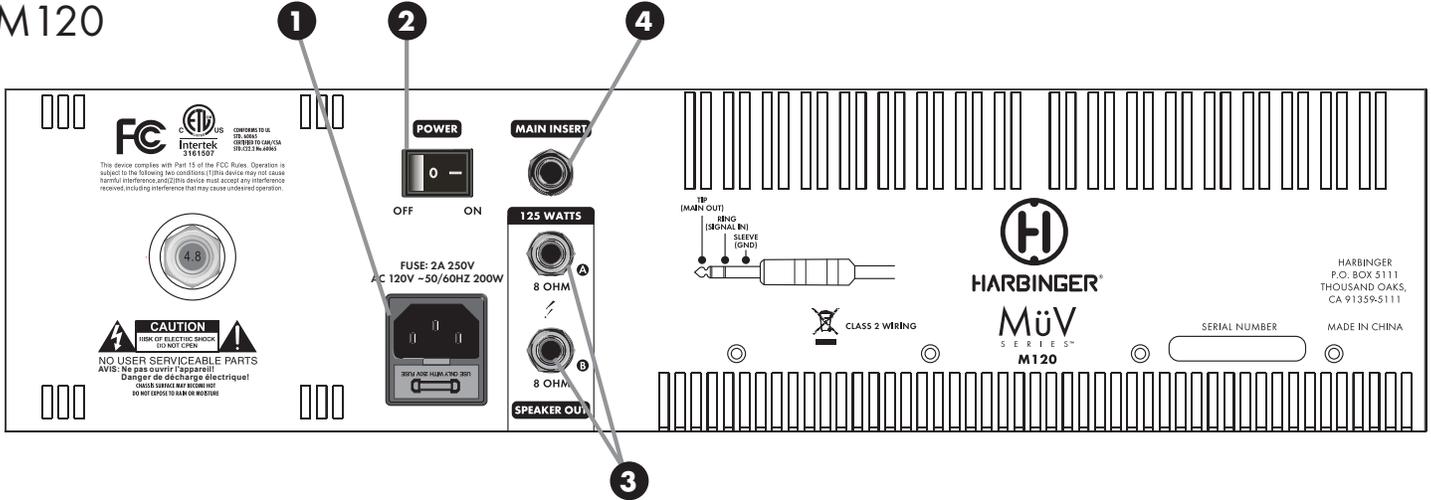
The nominal output level and impedance are -10dBV/600ohms.

## 7 FOOTSWITCH (M120)

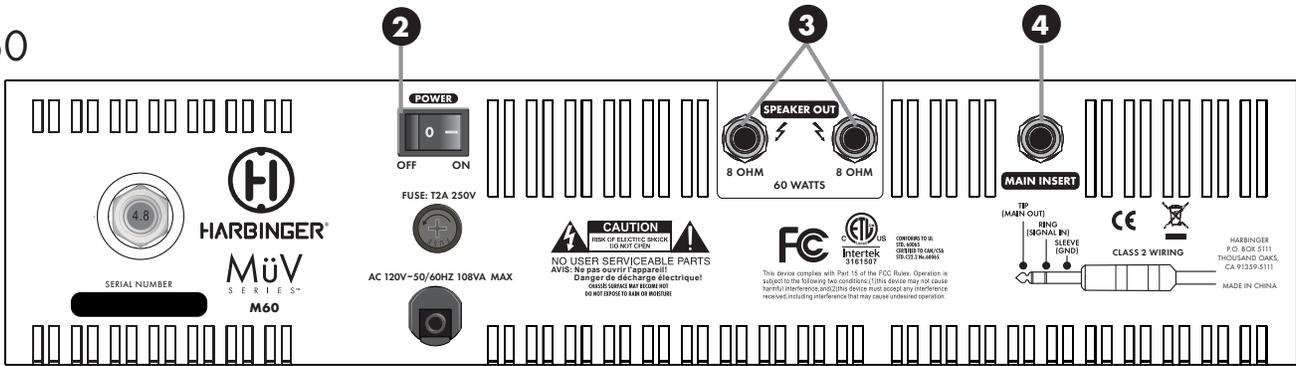
This jack accepts a footswitch (not included) to turn the digital effects on or off. Compatible with momentary footswitch (normal open circuit).

# REAR PANEL

M120



M60



**1 AC POWER SOCKET**

Accepts the removable power cable.

**2 POWER SWITCH**

This switches the powered mixer on and off. While on, the blue LED indicator on the front panel is lit.

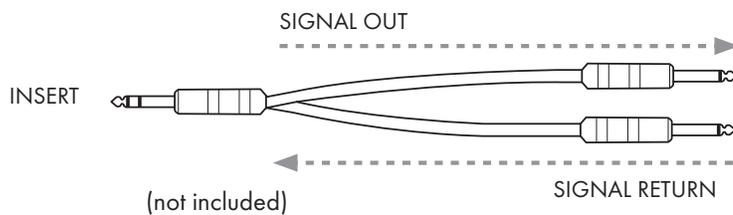
**3 SPEAKER OUTPUT JACKS**

Connect both speakers to these jacks. The minimum impedance load is 4Ω. Do not connect more than two 8Ω speakers or damage may occur.

**4 MAIN INSERT**

This unbalanced insert point is a break between the main out and the built-in amplifier to allow the main output to be sent to an external signal processor. The insert is a 1/4" TRS phone jack which is normally bypassed. When a jack, such as the one below, is inserted, the signal path is broken.

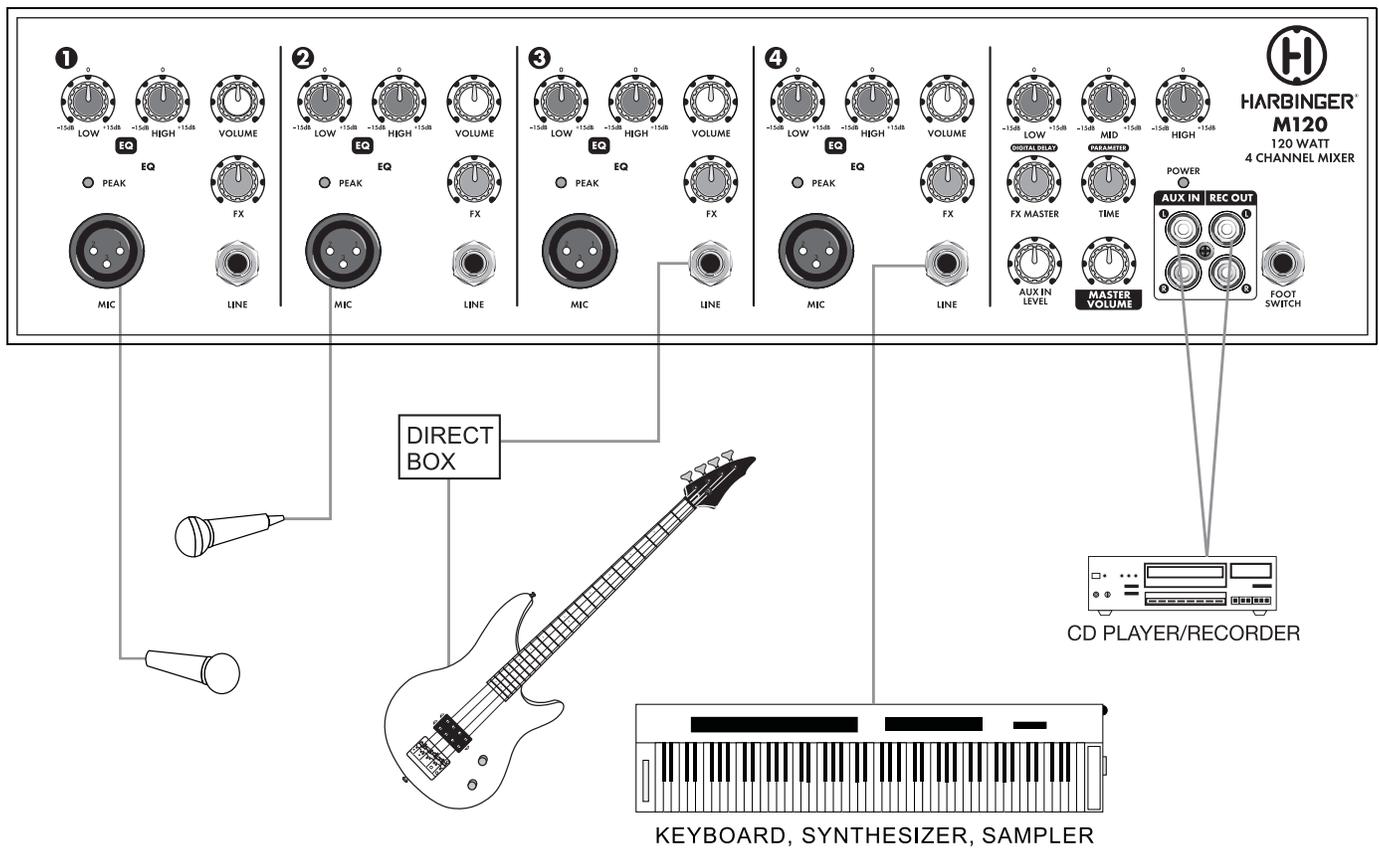
The main output signal appears on the TIP of the plug and the external signal is returned on the RING. An unbalanced 1/4" insert cable is required to connect to equipment with separate send and return jacks as shown below:



# POWER AMP SPECIFICATIONS

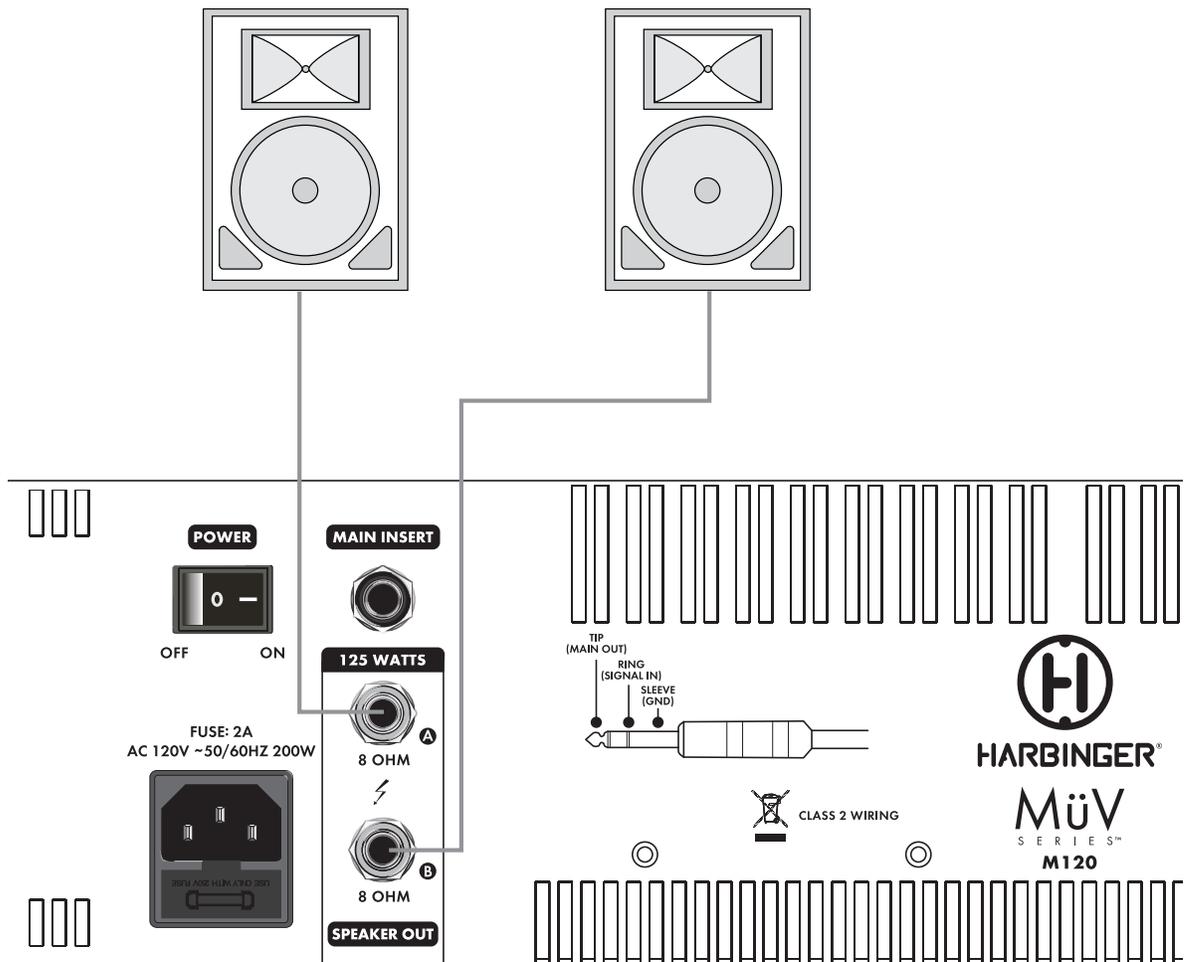
MüV Series Specs	M120	M60
Power Amp	Max Output Power 120 Watts (@ 4Ω) 88 Watts (@ 8Ω)	Max Output Power (watts): 8Ω-45 Minimum 4Ω load: 4Ω-60
Inputs	Balanced mono: 4 Mic/line channels 2 Aux Inputs	Balanced mono: 4 Mic/line channels 2 Aux Inputs
Line Output	Record Out: RCA Pair	Record Out: RCA Pair
Channel Strips (4)	Volume Controls: Rotary	Volume Controls: Rotary
Master Section	Rotary Fader: Master	Rotary Fader: Master
Built-in Digital Effect	Digital Delay: (2 - 150ms)	Digital Delay: (2 - 150ms)
Noise	Master output (all faders down): -86dBu Power amp output (all faders down): -55dBu	Master output (all faders down): -86dBu Power amp output, all faders down: -55dBu
THD	@120 watts: 4Ω <1%	@60 watts: 4Ω <1%
Crosstalk (1KHz@ 0dBu)	Channel fader down < -63dB	Channel fader down < -63dB
Frequency Response (Mic input to output)	20Hz to 20kHz line level output @+4dBu into 600Ω +1/-3dB	20Hz to 20kHz line level o/p @+4dBu into 600Ω +1/-3dB
Sensitivity @ mixer output +4dBu	1 Mic/Line: -50dBu/-35dBu Tape in: -6dBu	Mic/Line: -50dBu Tape in: -6dBu
Channel Equalization	2 band +/- 15dB Low EQ: 80Hz Shelving Hi EQ: 12kHz Shelving	2 band +/- 15dB Low EQ: 80Hz Hi EQ: 12kHz
Master Equalization	3 band +/- 15dB Low EQ: 80Hz Shelving Mid EQ: 1kHz Peak Hi EQ: 12kHz Shelving	NA
Microphone Preamp E.I.N.	(150Ω terminated, max gain) - 122dBm	(150Ω terminated, max gain) - 122dBm
Power Requirements	AC120V ~ 50-60Hz	AC120V ~ 50-60Hz
Dimensions	H 8.85" x W 18.9" x D 5.9"	18.31" x 6.10" x 8.27"
Weight	19 lbs.	16.31 lbs.

# GENERAL APPLICATION (INPUT)



# GENERAL APPLICATION (OUTPUT)

## PA SPEAKERS



CAUTION: Minimum 4Ω load. Use a maximum of two 8Ω speakers.

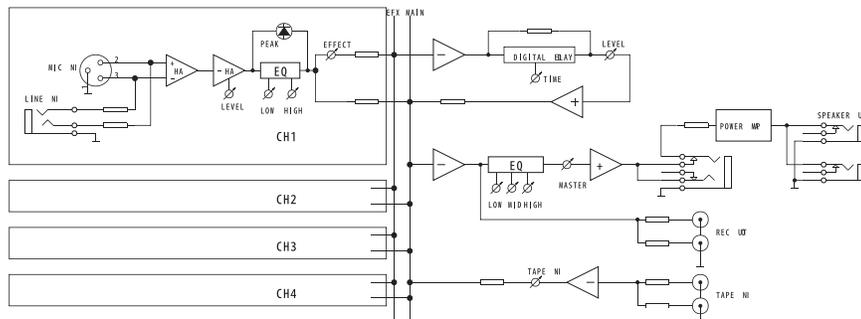
# SPEAKER SPECIFICATIONS

MüV Series Specs	M120	M60
RMS power handling	80W / 8Ω	50W / 8Ω
Peak power handling	110W / 8Ω	80W / 8Ω
Impedance load	8Ω	8Ω
Horn construction	Compression Driver	Piezo (piezoelectric)
Woofer construction:	12" cone diaphragm	10" cone diaphragm
Magnet weight	30 oz	20 oz
CROSSOVER	3.8K / -12dB per octave	NA
Frequency response	40Hz-20kHz	40HZ-20kHz
Max SPL	116dB	114dB
Dimensions of speaker box	H 23.2" x W 14.4" x D 12.8"	H18.7" x W 12.7"/9" x D 11.2"
Net weight	25.5 lbs (per speaker box)	16.6 lb (per speaker box)

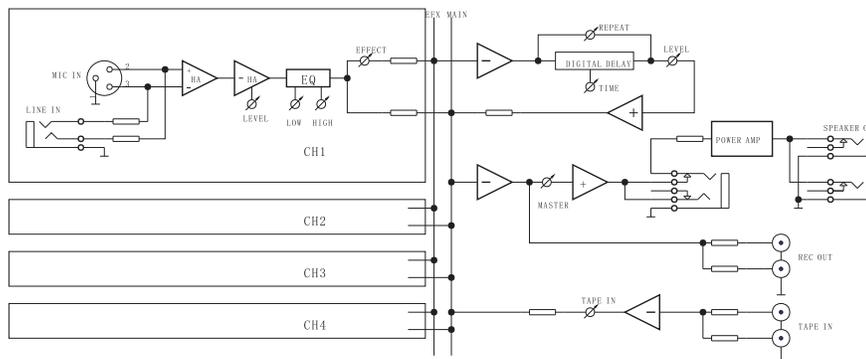
NOTE: The max power (peak) of each speaker box is 80W in order to satisfy the powered mixer's output (max in 80W/8Ω) and to avoid speaker burnout during peak output.

## BLOCK DIAGRAMS

M120



HA60



# WARRANTY

Have a question about service, warranty or parts?

Call **888-286-1809** (Toll Free)

*So we may serve you better, please register on-line at [www.HarbingerProAudio.com](http://www.HarbingerProAudio.com)*

## 2 YEAR HARBINGER LIMITED WARRANTY

Harbinger provides, to the original purchaser, a two (2) year limited warranty on materials and workmanship on all Harbinger cabinets, loudspeaker and amplifier components from the date of purchase.

For warranty support, please visit our website at [www.HarbingerProAudio.com](http://www.HarbingerProAudio.com), or contact our Support Team at **888-286-1809** for assistance. Harbinger will repair or replace the unit at Harbinger's discretion.

This warranty does not cover service or parts to repair damage caused by neglect, abuse, normal wear and tear and cosmetic appearance to the cabinetry not directly attributed to defects in materials or workmanship. Also excluded from coverage are damages caused directly or indirectly due to any service, repair(s), or modifications of the cabinet, which has not been authorized or approved by Harbinger. This two (2) year warranty does not cover service or parts to repair damage caused by accident, disaster, misuse, abuse, burnt voice-coils, over-powering, negligence, inadequate packing or inadequate shipping procedures.

The sole and exclusive remedy of the foregoing limited warranty shall be limited to the repair or replacement of any defective or non-conforming component. All warranties including, but not limited to, the express

warranty and the implied warranties of merchantability and fitness for a particular purpose are limited to the two (2) year warranty period. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you. There are no express warranties beyond those stated here. In the event that applicable law does not allow the limitation of the duration of the implied warranties to the warranty period, then the duration of the implied warranties shall be limited to as long as is provided by applicable law. No warranties apply after that period.

Retailer and manufacturer shall not be liable for damages based upon inconvenience, loss of use of product, loss of time, interrupted operation or commercial loss or any other incidental or consequential damages including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, reprogramming, or reproducing any program or data stored in equipment that is used with Harbinger products. This guarantee gives you specific legal rights; you may have other legal rights, which vary from state to state.

Harbinger P.O. Box 5111, Thousand Oaks, CA 91359-5111

All trademarks and registered trademarks mentioned herein are recognized as the property of their respective holders.

## FCC STATEMENTS

1. Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses, and can radiate radio frequency energy and, in not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this

equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

