MR5mk3, MR6mk3, MR8mk3

Powered Studio Monitors

OWNER'S MANUAL



MACKIE.

Important Safety Instructions

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 a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are 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.
11. Only use attachments/accessories specified by the manufacturer.
12. 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.



13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This apparatus shall not be exposed to dripping or splashing, and no object filled with liquids, such as vases or beer glasses, shall be placed on the apparatus.
16. Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
17. This apparatus has been designed with Class-I construction and must be connected to a mains socket outlet with a protective earthing connection (the third grounding prong).

CAUTION ***AVIS***

RISK OF ELECTRIC SHOCK. DO NOT OPEN
RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIR

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL

ATTENTION: POUR EVITER LES RISQUES DE CHOC ELECTRIQUE, NE PAS ENLEVER LE COUVERCLE.
AUCUN ENTRETIEN DE PIECES INTERIEURES PAR L'USAGER.
CONFIER L'ENTRETIEN AU PERSONNEL QUALIFIE.
AVIS: POUR EVITER LES RISQUES D'INCENDIE OU D'ELECTROCUTION, N'EXPOSEZ PAS CET ARTICLE A LA PLUIE OU A L'HUMIDITE

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.
Le symbole éclair avec point de flèche à l'intérieur d'un triangle équilatéral est utilisé pour alerter l'utilisateur de la présence à l'intérieur du coffret de "voltage dangereux" non isolé d'ampleur suffisante pour constituer un risque d'éléctrocution.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.
Le point d'exclamation à l'intérieur d'un triangle équilatéral est employé pour alerter les utilisateurs de la présence d'instructions importantes pour le fonctionnement et l'entretien (service) dans le livret d'instruction accompagnant l'appareil.

18. This apparatus has been equipped with a rocker-style AC mains power switch. This switch is located on the rear panel and should remain readily accessible to the user.
19. The MAINS plug or an appliance coupler is used as the disconnect device, so the disconnect device shall remain readily operable.
20. 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 generates, uses, and can radiate radio frequency energy and, if 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 the 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.

    CAUTION: Changes or modifications to this device not expressly approved by LOUD Technologies Inc. could void the user's authority to operate the equipment under FCC rules.
21. This apparatus does not exceed the Class A/Class B (whichever is applicable) limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

ATTENTION — *Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant las limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le réglement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.*

22. Exposure to extremely high noise levels may cause permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a period of time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible noise level exposures shown in the following chart.

    According to OSHA, any exposure in excess of these permissible limits could result in some hearing loss. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels use hearing protectors while the equipment is in operation. Ear plugs or protectors in the ear canals or over the ears must be worn when operating the equipment in order to prevent permanent hearing loss if exposure is in excess of the limits set forth here:

Duration, per day in hours	Sound Level dBA, Slow Response	Typical Example
8	90	Duo in small club
6	92	
4	95	Subway Train
3	97	
2	100	Very loud classical music
1.5	102	
1	105	The Ballard Mallard screaming at desTROYer about deadlines
0.5	110	
0.25 or less	115	Loudest parts at a rock concert

WARNING — To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

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Please write your serial number here for future reference (i.e., insurance claims, tech support, return authorization, make dad proud, etc.)

Purchased at:

Date of purchase:

MRmk3 Features

- Music-centric voicing perfect for modern mixing, monitoring and multimedia applications
- Enhanced waveguide system delivers unmatched clarity and openness
  - Minimized reflections and diffractions for wider sweet spot
  - Seamless transition from high to low frequencies for a crystal clear mix image
- Perfectly matched amps and drivers for optimized performance
  - 50 watts of Class A/B amplification [MR5mk3]
  - 65 watts of Class A/B amplification [MR6mk3]
  - 85 watts of Class A/B amplification [MR8mk3]
  - 5.25" polypropylene woofer [MR5mk3]
  - 6.5" polypropylene woofer [MR6mk3]
  - 8" polypropylene woofer [MR8mk3]
    - High output with controlled low-frequency performance
  - 1" silk-dome tweeter
    - Superior transient response great for snares and other fast-transient sources
- Flexible inputs for simple connection to almost any audio source
- Customizable frequency control for your studio space
  - Two levels of bass boost
  - Boost/cut control over highs
- Custom-tuned rear ports for smooth, even bass extension
- Rugged all-wood cabinet design built to last
- Acoustically optimized with sound-tightening acoustic absorption material
- Add the companion MR10Smk3 studio subwoofer for powerful, deep extended bass

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Introduction

MRmk3 Series Powered Studio Monitors love music as much as you do. Subject to an intensive music-centric voicing process designed to connect you to the music, the compact and affordable MRmk3 monitors are specifically designed to enhance the mixing and monitoring experience in any home or project studio.

Optimizing features include an enhanced waveguide system for a wider sweet spot and custom-tuned rear porting for smooth, extended bass response.

Plus, MRmk3 monitors have customizable frequency controls so you can dial in the perfect sound for your space.

Designed from start to finish for music, MRmk3 monitors reveal the full range and natural character that your music deserves.

A Brief History Of Time...

We have been designing and re-designing studio monitors for over 15 years. Our talented engineering team has now designed monitors that love music as much as you do. Targeted at music lovers and post-production studios alike, the new MRmk3 Series Powered Studio Monitors have been re-voiced and re-kitted, offering unparalleled clarity and unbelievable depth for today's demanding home project or post-production studio requirements.

Music Is All That Matters

When designing the MRmk3 Powered Studio Monitors, we didn't start on paper. Instead, we poured through countless hours of music from every possible genre and source. Next, we focused on acoustic optimization with things like our minimum-diffraction waveguide that delivers unmatched clarity and an open feel that instantly connects you to the music. From perfectly optimized electronics to amps and drivers custom-matched for performance, MRmk3 monitors are designed for your music.

Designed To Enhance Your Sonic Experience

The ability to reveal the character of your music is the number one reason to get professional studio monitors. MRmk3 monitors are packed with design features to enhance this experience. From the added punch and bass extension provided by the custom-tuned ports to the rugged all-wood cabinet packed with sound-tightening acoustic absorption material, you can be confident that MRmk3 monitors are revealing the full-range, natural character that your music deserves.

As Versatile As Your Application

All studio spaces are different. As such, having the right connection types and customizable control over your acoustics is necessary.

That's why MRmk3 monitors include acoustic controls for dialing in the specific sound needed for your space. Want more bass? Pump up the low end by up to 4 dB to feel the difference. Or, boost / cut the highs to get exactly the amount of sizzle and shimmer you desire.

What's more, three types of input connectors are provided [XLR, 1/4" and RCA] to interface with virtually any application you may have.

Your studio deserves a professional monitoring system with the flexibility and performance to up the level of your music production.

A Variety Of Applications...

MRmk3 Series Powered Studio Monitors may be used in a variety of applications. Some examples include:

- Home and project studios – Music production for solo artists, small bands and DJs. Post-production edit/mix suites, recording, editing, mixdown, mastering of everything from spoken word performances to full music productions.
- A/V broadcast studios – Live broadcast/streaming of audio-only or AV content such as radio and TV. Production/Post-production focused on podcasts or other streaming audio. Voiceovers, too.
- Video post-production – Edit suites for small productions such as commercials, budget films or multimedia for internet broadcast, etc.
- Home theater and other multimedia – Music and movie playback, video game sound system, social function/party system, etc.

Quick Start

We realize that you can't wait to hook up your MRmk3 Studio Monitors and try them out. Nevertheless, please take the time to read this page NOW, and the rest can wait until you're good and ready.

1. Turn the input level [6] control on the back of the cabinet down (fully counterclockwise) before turning on the monitor for the first time.

2. Set the power switch [2] on the back panel off. This will prevent you from accidentally connecting a hot signal source to the monitor and getting a rude surprise.

3. Leave the low freq [4] and high freq [5] filter switches at their normal positions.

4. Connect the line-level monitor signal from your mixer, preamp, or other signal source to the input [3] jack on the MRmk3 Studio Monitor (1/4", XLR, or RCA).

5. Connect the supplied AC power cord to the IEC socket [1] on the back of the monitor. Plug the other end into an AC outlet properly configured with the voltage corresponding to the markings next to the IEC socket.

6. Start your signal source (8-track player, turntable, CD player, DAW, or whatever), but leave the master volume control on the mixer or preamp down.

7. Turn on the power switch [2] on the MRmk3. The Running Man logo [8] on the front panel will illuminate.

8. Slowly turn up the input level [6] control on the back of the monitor to its fully clockwise position (MAX).

9. Adjust the master volume on the mixer or preamp to a comfortably loud listening level. If the MRmk3 gets loud really fast, turn down the input level control to its center position (12 o'clock) to provide more volume control on the mixer or preamp.

Enjoy the silky smooth highs and authoritative, commanding lows of the MRmk3. Then read the rest of this manual.

An Extremely Important Note on MRmk3 Bass Response and Your Control Room



MRmk3s achieve the best bass response in a room that's optimized for bass reproduction. A lot of factors can conspire to thwart the MRmk3s' extended low frequency – including room shape, room volume and acoustical treatment.

This is not a cop-out or an apology. It's plain old physics in action. Luckily we've armed you with some compensating controls that you can use to optimize the frequency response of the speakers in your particular room. Consider the following:

Low-Frequency Response

When you put your MRmk3s in a corner or up against walls, their bass characteristics change. The apparent loudness of the low frequencies increases when the monitors are placed close to a wall, and even more so when they are placed in a corner.

If you have placed the monitors away from the walls and corners and you would like to hear a little more bass, try setting the low freq filter [4] switch to the +2 dB position to provide a gentle boost to the woofer. If it's still not enough bass, try the +4 dB position to provide a little more bass boost.

High-Frequency Response

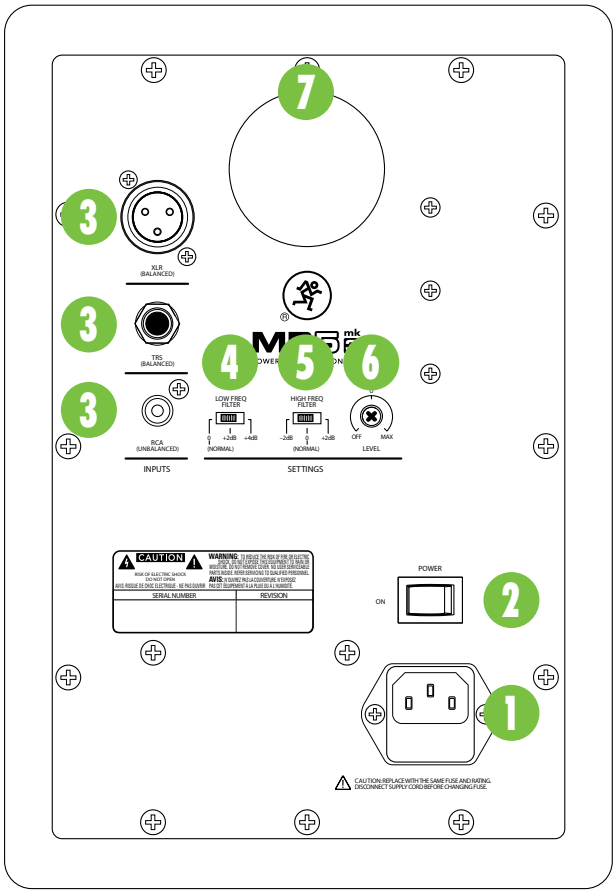
The MRmk3s are designed to provide a smooth frequency response throughout the mid and high range. Nevertheless, you may decide that you need a little more or a little less high frequencies in your monitors while you are mixing. The high freq filter [5] switch provides a gentle boost or cut to the tweeter. Remember that boosting the high frequencies in the monitors can result in a duller mix, while reducing the high frequencies can result in a brighter overall mix.

Additional Tidbits of Wisdom

- Never listen to loud music for prolonged periods. Please see the Safety Instructions on page 2 for information on hearing protection.
- When you shut down your equipment, turn off the MRmk3 studio monitors first to prevent thumps and other noises generated by any upstream equipment from coming out the speakers. When powering up, turn on the monitors last.
- Save the shipping box! You may need it someday.
- Save your sales receipt in a safe place. It's your warranty!

Rear Panel Description

This is where the signal is connected to the monitor and adjustments are made to the frequency response of the speakers to match the monitor's location and the room's environment.



1. Power Connection and Fuse

Connect the power cord to this IEC socket securely, and plug the other end into a live AC outlet. Make sure the AC outlet has the correct voltage indicated next to the IEC socket.



Disconnecting the plug's ground pin is dangerous. Don't do it!

The fuse is located behind the fuse cover, at the bottom of the IEC socket. See the "Troubleshooting" section on page 9 for information about replacing the fuse.

2. Power Switch

Press this switch left to turn the MRmk3 studio monitor on. Make sure the level control [6] is down before you turn it on. When the power switch is turned on and the MRmk3 studio monitor is plugged into an AC outlet, the Running Man logo on the front of the monitor illuminates to let you know that it's ready to go.

Press the right side of this switch down to put the speaker into standby mode. It will not function, but the circuits are still live. To remove AC power, either turn off the AC supply, or unplug the power cord from the speaker and the AC supply.

3. Signal Inputs

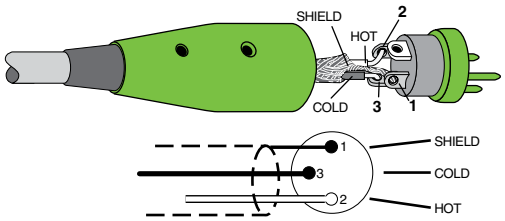
Connect the line-level signal from the mixer (or other signal source) to one of these input jacks. There are three types of input connectors to choose from: balanced XLR, balanced 1/4-inch, and unbalanced RCA. Since all three of them are connected together electrically, do not connect more than one signal at a time to the input jacks.

A balanced signal provides better noise rejection and is the preferred method, especially if using a cable longer than 20 feet (6 meters).

They are wired as follows, according to standards specified by the AES (Audio Engineering Society):

Balanced XLR

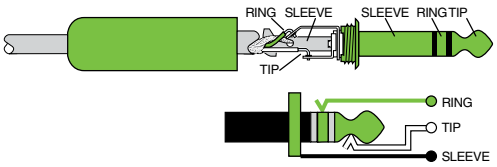
Hot (+)	Pin 2
Cold (–)	Pin 3
Shield (Ground)	Pin 1



Balanced XLR Connectors

Balanced 1/4" TRS

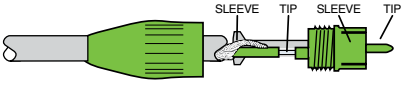
Hot (+)	Tip
Cold (–)	Ring
Shield (Ground)	Sleeve



Balanced 1/4" Connectors

Unbalanced RCA

Hot (+)	Tip
Shield (Ground)	Sleeve



RCA Unbalanced Connectors

For more information on these connectors, see Appendix B on page 11.

6. Input Level

The MRmk3 studio monitors expect a line-level signal at its input. Use this control to adjust the sensitivity of the input section according to the signal strength at its input.

- The MRmk3 studio monitors are designed to operate with a +4 dBu signal when the input level control is in the max position. In other words, wide open.
- Refer to the Quick Start section on page 5 for the level-setting procedure.

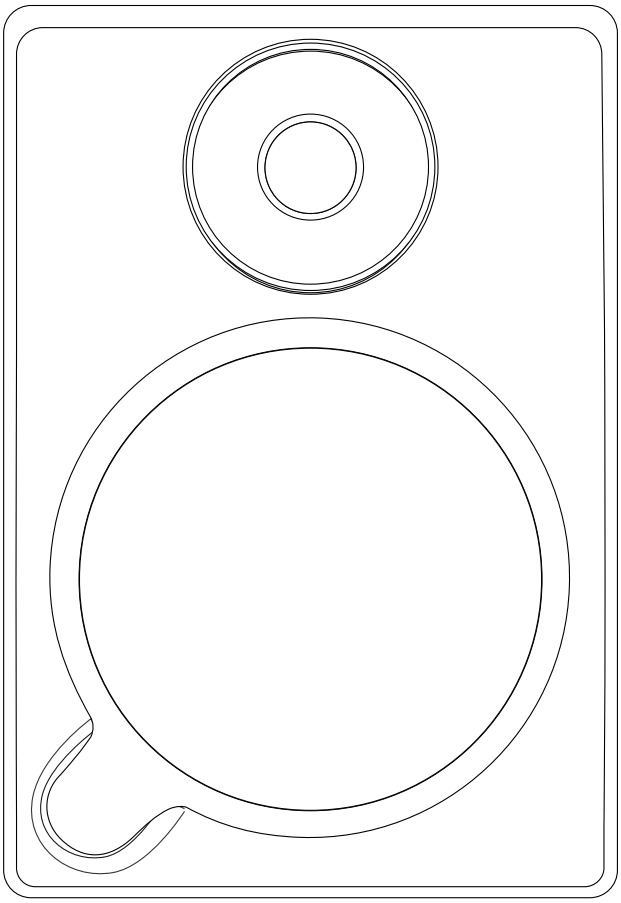
7. Custom-Tuned Rear Port

The custom-tuned rear port uses the radiation from the rear of the woofer cone to extend the low-frequency response of the speaker. The size of the port is carefully designed with respect to the volume of the cabinet and the characteristics of the woofer to produce low-frequency extension.

Front Panel Description

8. Running Man Logo LED

The Running Man logo illuminates when the power switch [2] on the back of the MRmk3 studio monitor is turned on and AC power is available at the mains input [1].



Protection Circuits

There are several protection mechanisms designed into the MRmk3 studio monitors to safeguard the speakers and amplifiers from inadvertent damage.



CAUTION: The protection circuits are designed to prevent damage to the speakers under reasonable and sensible conditions. Should you choose to ignore the warning signs (i.e., excessive distortion), you can still damage the speakers in the MRmk3 studio monitors by overdriving them. Such damage is beyond the scope of the warranty.

Overexcursion Protection

A 12 dB/octave high-pass filter below port tuning just prior to the low-frequency amplifier prevents very low frequencies from being amplified. Excessive low-frequency energy below the usable frequency range can damage the woofer by causing it to "bottom out," also known as overexcursion, which is equivalent to a mechanical form of clipping.

Thermal Protection

All amplifiers produce heat. The MRmk3 studio monitors are designed to be efficient both electrically and thermally.

- If for some reason the heatsink gets too hot, a thermal switch activates and turns off the amplifier. This protection operates independently for the low-frequency and high-frequency amplifiers. Therefore, it is possible for only the low frequency or high frequency amplifier to shut down while the other remains on.
- When the heatsink cools down to a safe temperature, the thermal switch resets and normal operation resumes.
- If the heatsink temperature again gets too hot, the shutdown process repeats. Should this happen, make sure that airflow to the rear of the cabinet is not restricted.

Integrated Magnetic Shielding

The MRmk3 studio monitors contain drivers with large magnetic structures. The drivers' magnets are not shielded. Unshielded speakers can cause distortion in both the shape and color of the picture if placed too close to a CRT (cathode ray tube). If you have a particularly sensitive computer monitor or TV screen, it may be necessary to move the speakers a few inches away.

Input Signal Wiring

We recommend using high-quality, shielded cables to connect the signal source to the signal input jack [3] on MRmk3 studio monitors.

Three types of input connectors are provided to interface with virtually any application you may have:

- Balanced microphone cables work well with the XLR input.
- Balanced TRS cables work well with the 1/4" input.
- Unbalanced phono cables work well with the RCA input.

NOTE: Route the cable away from AC power cords and outlets. These are common sources for hum in an audio signal. Wall warts and line lumps are especially insidious hum inducers!

NOTE: In certain home theater applications, it may be necessary to connect the speaker outputs from a stereo receiver to the inputs of the MRmk3 studio monitors if the receiver doesn't have preamp outputs or other line-level output connections.



CAUTION: Do not attempt to connect a speaker output directly to the input of the MRmk3 studio monitor! Speaker levels are much higher than line levels and can damage the input circuitry in the MRmk3 studio monitors.

However, it is possible to insert a speaker-level to line-level signal attenuator between the receiver's speaker output and the MRmk3 studio monitor's input. Any local authorized dealer should be able to assist, or you can build your own.

More information (with illustrations!) may be found in Appendix B on page 11.

Care and Cleaning

MRmk3 Reference Studio Monitors will provide many years of reliable service if you follow these guidelines.

- Avoid exposing the monitors to moisture.
- Avoid exposure to extreme cold (below freezing temperatures).
- Use a dry cloth to clean the cabinets. Only do this when the power is turned off.

Appendix A: Service Information

If you think your MRmk3 Studio Monitor has a problem, please check out the following troubleshooting tips and do your best to confirm the problem. Visit the Support section of our website (www.720trees.com) where you will find lots of useful information such as FAQs and other documentation. You may find the answer to the problem without having to send your MRmk3 away.

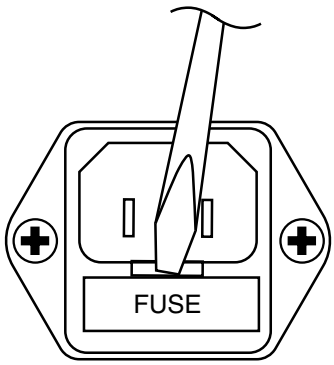
Troubleshooting

No Power

- Our favorite question: Is it plugged in?
- Make sure the power cord is securely seated in the IEC socket [1] and plugged all the way into the AC outlet.
- Make sure the AC outlet is live (check with a tester or lamp).
- Is the power [2] switch on the rear panel in the ON position?
- Is the Running Man logo [8] on the front panel illuminated? If not, make sure the AC outlet is live. If so, refer to "No Sound" below.
- If the power indicator is not illuminated, and you are certain that the AC outlet is live, it is possible the fuse has blown.

To remove and replace the fuse:

1. Disconnect the power cord from the IEC socket.
2. Remove the fuse drawer by prying it open with a small screwdriver. It will slide all the way out.



3. Remove the fuse and replace it with an equivalent-type fuse.

   115 VAC: T 1 AL / 250 V
   230 VAC: T 500 mAL / 250 V [MR5mk3]

   115 VAC: T 1.25 AL / 250 V
   230 VAC: T 625 mAL / 250 V [MR6mk3]

   115 VAC: T 2 AL / 250 V
   230 VAC: T 1 AL / 250 V [MR8mk3]

4. Replace the fuse drawer by pushing it all the way back into the IEC socket.

If two fuses blow in a row, then something is very wrong. See the "Repair" section on the next page to find out how to proceed.

No Sound

- Is the Running Man logo [8] on the front panel illuminated? If not, refer to "No Power" to the left.
- Is the input level [6] control turned up?
- Is the signal source turned up? Make sure the signal level from the mixing console (or whatever device immediately precedes the studio monitor) is high enough to produce sound.
- If it's a stereo pair, try switching them around. For example, if a left output is presumed dead, switch the left and right cords at the monitor end. If the problem switches sides, it's not the monitor. It could be a bad cable, or no signal from the mixer.

Bad Sound

- Is the input connector plugged completely into the jack? If using a ¼" plug, make sure it is plugged all the way in.
- Is it loud and distorted? Reduce the signal level at the mixer.
- If possible, listen to the signal source with headphones plugged into the preamp stage. If it sounds bad there, it's not the monitor.
- Too much bass or not enough bass? Move around the room and see if the bass response changes. It's possible your listening position coincides with a room mode where the low frequencies either become exaggerated or nulled. If so, try moving the monitors to a different position, or moving your listening position.

Noise/Hum/Buzz

- Check the signal cable between the mixer and the monitor. Make sure all connections are secure. These problems usually produce crackling noises, hum, or buzz.
- If connecting an unbalanced output to the MRmk3 studio monitor's balanced input, make sure the shield is connected to the unbalanced ground of the source *and* to pins 1 and 3 of the XLR.
- If a CATV cable is connected to the system, try disconnecting it. If the hum goes away, call your cable carrier to check for proper grounding of the cable.
- Make sure the signal cable is not routed near AC cables, power transformers, or other EMI sources (including wall warts and line lumps!). These sources usually produce hum.
- Is there a light dimmer or other triac-based device on the same AC circuit as the monitor? Dimmers cause buzzing noises. Use an AC line filter or plug the monitor into a different AC circuit.
- Excessive hiss is an indication of an incorrect gain setting somewhere before the speaker.
- If possible, listen to the signal source with headphones plugged in. If it sounds noisy there, it's not the monitor.

Repair

For warranty service, please refer to the warranty information on page 15.

Non-warranty service is available at a factory-authorized service center. To locate the nearest service center, visit www.720trees.com, click “Contact Tech Support” and select “Locate a Service Center or Distributor” [3]. Service for MRmk3s living outside the United States may be obtained through local dealers or distributors.

If you do not have access to our website, please call our Tech Support department at 1-800-898-3211 (normal business hours, Pacific Time), to explain the problem. They will tell you where the nearest factory-authorized service center is located in your area.

Need help with the MRmk3 Studio Monitor?

- **Visit www.720trees.com and click Support to find: FAQs, manuals, and addendums.**
- **Email us at: techmail@loudtechinc.com.**
- **Telephone 1-800-898-3211 to speak with one of our splendid technical support chaps (Monday through Friday, normal business hours, Pacific Time).**

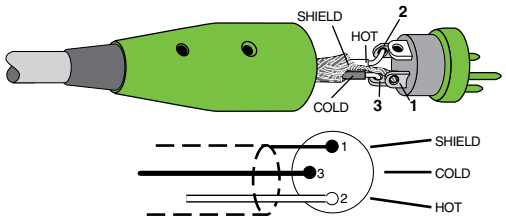
Appendix B: Connectors

Balanced XLR Input Connector

XLR connectors are used to make balanced connections to the MRmk3 studio monitors. They are wired as follows, according to standards specified by the AES (Audio Engineering Society).

Balanced XLR Input Connector

Pin 1 – Shield (Ground)
Pin 2 – Positive (+ or hot)
Pin 3 – Negative (– or cold)



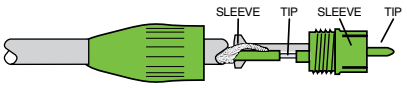
Balanced XLR Connectors

Unbalanced RCA Input Connector

RCA-type plugs (also known as phono plugs) and jacks are often used in home stereo and video equipment and in many other applications. They are unbalanced and electrically equivalent to a 1/4" TS phone plug.

Unbalanced RCA Input Connector

Tip – Positive (+ or hot)
Sleeve – Shield (Ground)



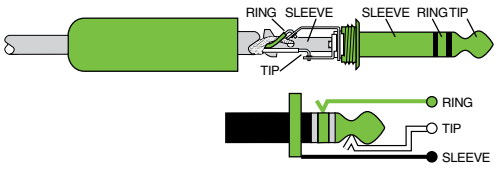
Unbalanced RCA Connectors

Balanced 1/4" TRS Input Connector

"TRS" stands for Tip-Ring-Sleeve, the three connections available on a stereo 1/4" or balanced phone jack or plug. TRS jacks and plugs are used to make balanced connections to the MRmk3 studio monitors.

Balanced 1/4" TRS Input Connector

Tip – Positive (+ or hot)
Ring – Negative (– or cold)
Sleeve – Shield (Ground)



Balanced 1/4" Connectors

Appendix C: Technical Information

MRmk3 Specifications

Acoustic Performance

Frequency Response (-3 dB):
57 Hz – 20 kHz [MR5mk3]
46 Hz – 20 kHz [MR6mk3]
38 Hz – 20 kHz [MR8mk3]

Frequency Response (-10 dB):
45 Hz – 20 kHz [MR5mk3]
38 Hz – 20 kHz [MR6mk3]
35 Hz – 20 kHz [MR8mk3]

Sound Pressure Level @ 1 meter, +4 dBu into Balanced Input:
102 dB SPL @ 1m [MR5mk3]
105 dB SPL @ 1m [MR6mk3]
107 dB SPL @ 1m [MR8mk3]

Maximum SPL Per Pair:
108 dB SPL @ 1m [MR5mk3]
111 dB SPL @ 1m [MR6mk3]
113 dB SPL @ 1m [MR8mk3]

Transducers

Low Frequency:
5.25 in / 133 mm hyperbolic curved cone woofer [MR5mk3]
6.5 in / 165 mm hyperbolic curved cone woofer [MR6mk3]
8.0 in / 203 mm hyperbolic curved cone woofer [MR8mk3]

High Frequency:
Neodymium magnet driven 1 in / 25 mm silk dome tweeter

Amplifiers

Low Frequency Power:
30 watts, 4 Ω load, 60 watts peak [MR5mk3]
40 watts, 4 Ω load, 80 watts peak [MR6mk3]
55 watts, 4 Ω load, 110 watts peak [MR8mk3]

High Frequency Power:
20 watts, 8 Ω load, 40 watts peak [MR5mk3]
25 watts, 8 Ω load, 50 watts peak [MR6mk3]
30 watts, 8 Ω load, 60 watts peak [MR8mk3]

Type:
Monolithic IC, Class AB with DMOS power stage

Electronic Crossover

Crossover Type:
24 dB/octave

Crossover Frequency:
3 kHz [MR5mk3]
3.25 kHz [MR6mk3]
3 kHz [MR8mk3]

Sensitivity:
+4 dBu at 300 Hz for full output

Input Impedance:
20 kΩ, balanced bridging; 10 kΩ unbalanced

Equalization

Low Frequency EQ:
+2 dB/+4 dB @ 100 Hz, shelving

High Frequency EQ:
±2 dB @ 3 kHz, shelving [MR5mk3]
±2 dB @ 3.25 kHz, shelving [MR6mk3]
±2 dB @ 3 kHz, shelving [MR8mk3]

AC Power Requirements

US:	120 VAC, 60 Hz
Europe:	240 VAC, 50 Hz
Korea:	220 VAC, 60 Hz
Japan:	100 VAC, 50/60 Hz

Note: MRmk3 monitors do not support multiple voltage configurations. Make sure the voltage rating for your particular model (as indicated on the rear panel near the IEC socket) corresponds with your local AC mains voltage.

AC Connector:
3-pin IEC 250 VAC, 16 A male

Fuse:
115 VAC: T 1 AL / 250 V
230 VAC: T 500 mAL / 250 V [MR5mk3]
115 VAC: T 1.25 AL / 250 V
230 VAC: T 625 mAL / 250 V [MR6mk3]
115 VAC: T 2 AL / 250 V
230 VAC: T 1 AL / 250 V [MR8mk3]

Power Consumption:
90 watts with music, loud mix
7 watts quiescent (idle) [MR5mk3]
120 watts with music, loud mix
7 watts quiescent (idle) [MR6mk3]
150 watts with music, loud mix
10 watts quiescent (idle) [MR8mk3]

Physical Dimensions and Weight

MR5mk3:

Enclosure:	0.47 in / 12 mm thick MDF with 0.98 in / 25 mm MDF front panel
Dimensions:	
Height:	11.3 in / 286 mm
Width:	7.8 in / 197 mm
Depth:	10.9 in / 276 mm
Weight:	12.1 lb / 5.5 kg

MR6mk3:

Enclosure:	0.47 in / 12 mm thick MDF with 0.98 in / 25 mm MDF front panel
Dimensions:	
Height:	12.7 in / 323 mm
Width:	8.7 in / 222 mm
Depth:	12 in / 305 mm
Weight:	15.9 lb / 7.2 kg

MR8mk3:

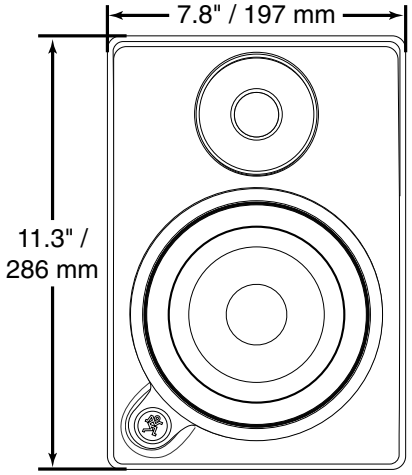
Enclosure:	0.59 in / 15 mm thick MDF with 0.98 in / 25 mm MDF front panel
Dimensions:	
Height:	15.8 in / 400 mm
Width:	10.9 in / 277 mm
Depth:	13.2 in / 336 mm
Weight:	23.8 lb / 10.8 kg

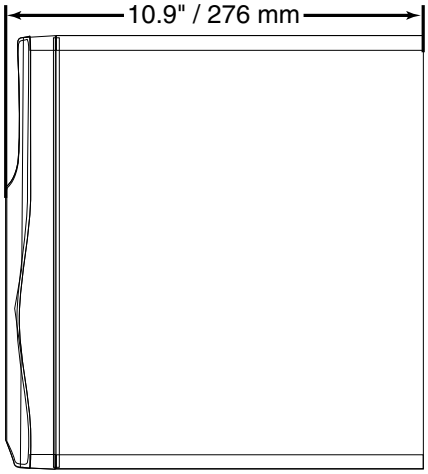
Damping:
Adiabatic batting [MR5/6/8mk3]

Disclaimer

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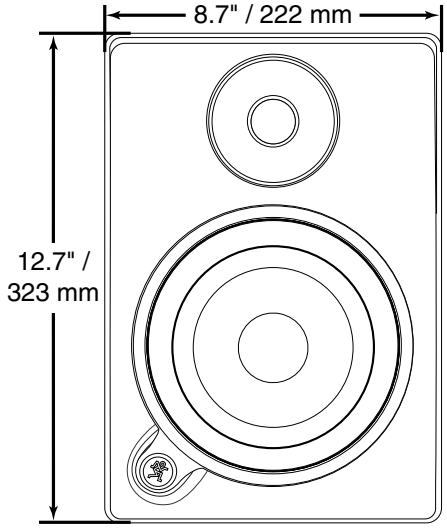
MR5mk3 Dimensions

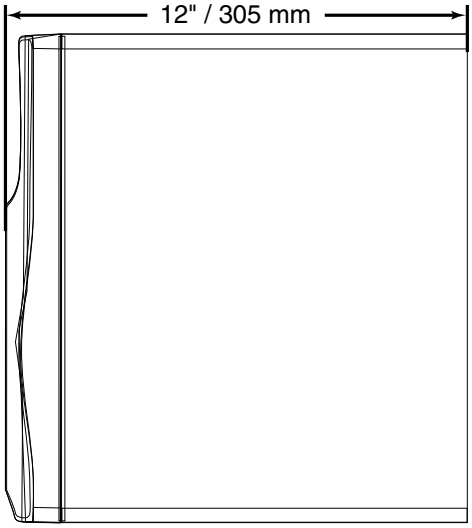


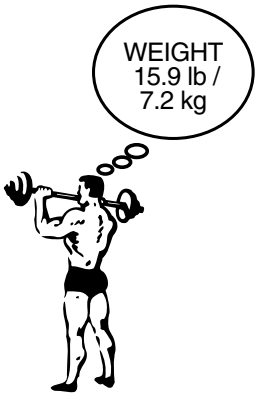




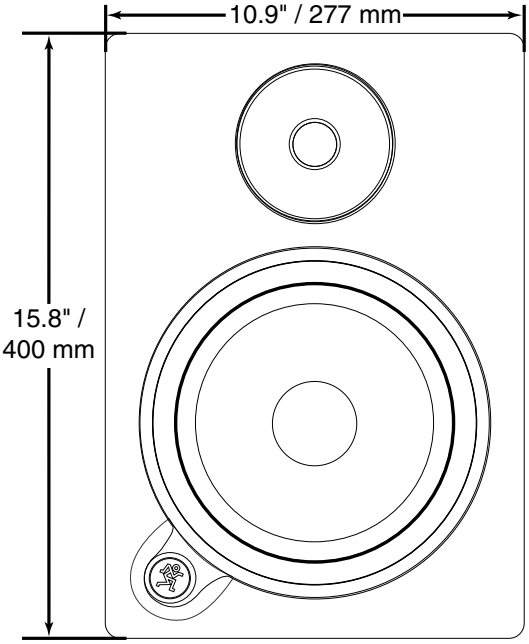
MR6mk3 Dimensions



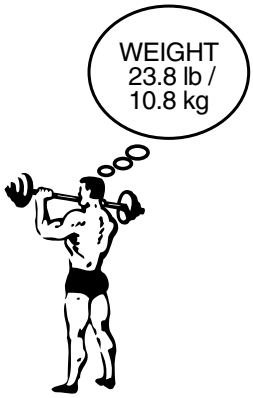




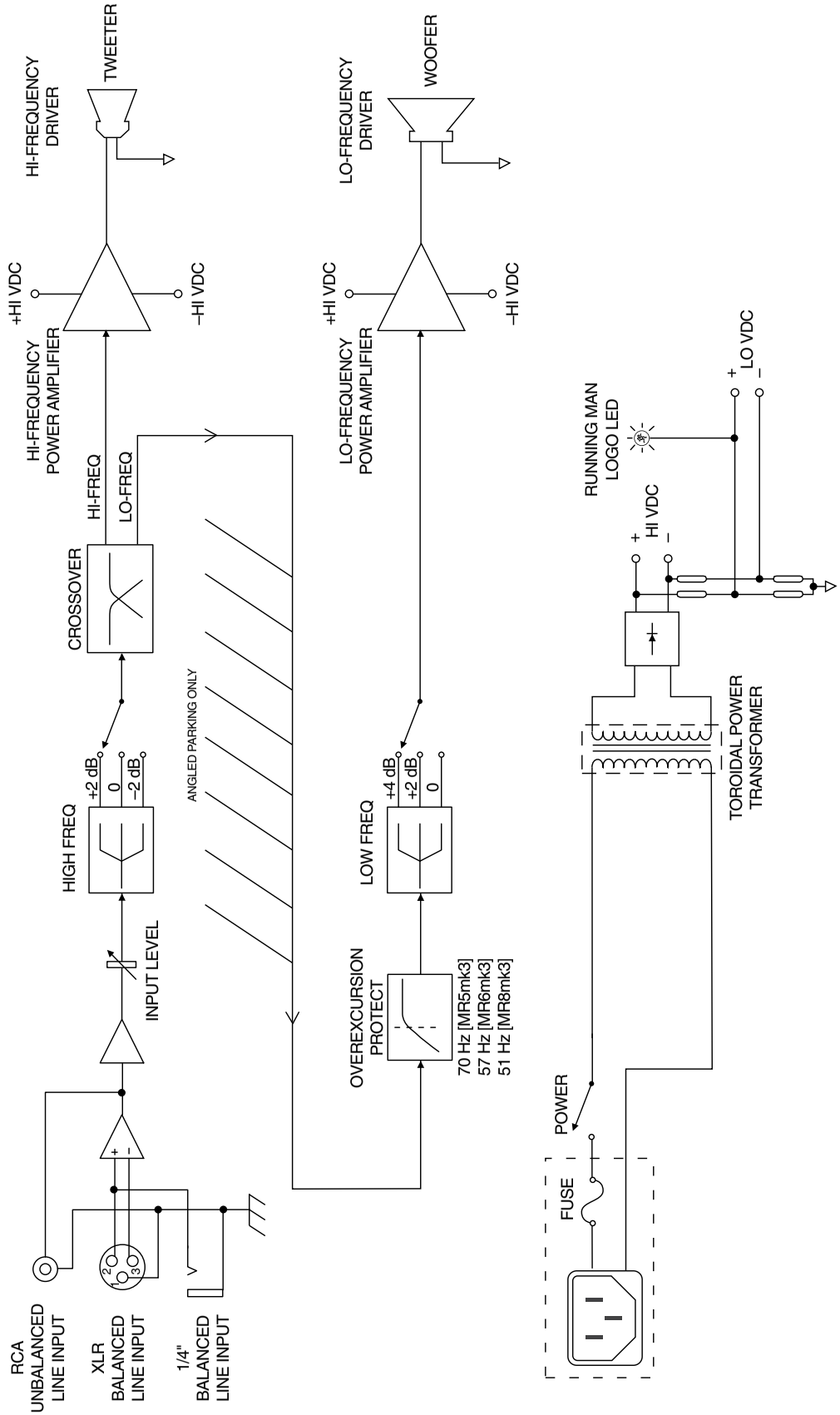
MR8mk3 Dimensions







MRmk3 Block Diagram



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