

MR SERIES

Powered Studio Monitors

OWNER'S MANUAL



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. Minimum distance (5 cm) around the apparatus for sufficient ventilation. The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc. 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. No naked flame sources, such as lighted candles, should be placed on the apparatus.
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. Warning: 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).
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. The use of apparatus is in moderate climates.
21. 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.

22. 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 les limites applicables aux appareils numériques de class A/de class B (selon le cas) prescrites dans le règlement sur le brouillage radioélectrique édicté par les ministere des communications du Canada.*

23. 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 | Jon screaming at Troy 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.

CAUTION

RISK OF ELECTRIC SHOCK! DO NOT OPEN!

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

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 significant magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintaining (servicing) instructions in the literature accompanying the appliance.

Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

Apparatet må tilkoples jordet stikkontakt.

Apparaten skall anslutas till jordat uttag.



Correct disposal of this product: This symbol indicates that this product should not be disposed of with your household waste, according to the WEEE directive (2012/19/EU) and your national law. This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority, or your household waste disposal service.

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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:

MR Features

- Designed for superior mix translation and accuracy for professional results in any studio
- Equipped with Mackie’s proven logarithmic waveguide design
 - o Ultra-wide dispersion for enhanced stereo imaging and listening sweet spot
 - o Precise acoustic alignment offers incredibly balanced sound across the entire frequency spectrum
- 1" silk dome tweeter provides fast transient response for detailed high end and vocal clarity
- Polypropylene woofer delivers responsive, dynamic low frequency response
 - o MR524 – 5.25"
 - o MR624 – 6.5"
 - o MR824 – 8"
- Bi-amplified Class A/B amplification
 - o MR524 – 50 watts
 - o MR624 – 65 watts
 - o MR824 – 85 watts
- Frequency response:
 - o MR524 – 45 Hz – 20 kHz
 - o MR624 – 38 Hz – 20 kHz
 - o MR824 – 35 Hz – 20 kHz
- Optimize MR monitors for your mixing environment
 - o Adjustable acoustic space filters maintain flat response in typical placement configurations
 - o HF filter applies boost or cut to compensate for particularly dull or bright sounding rooms
- Professional MDF cabinet design built to last and look great in any studio
 - o Custom designed internal bracing adds stiffness for reduced distortion and enhanced low frequency response
- Flexible inputs for simple connection to almost any audio source
- Acoustically optimized with sound-tightening acoustic absorption material
- Add the companion MRS10 studio subwoofer for powerful, deep low frequency extension perfect for electronic music, hip-hop and more



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Introduction

MR Series Powered Studio Monitors offer professional performance, clarity and superior mix translation so you can listen with confidence knowing your mix will sound great anywhere.

Drawing from Mackie's extensive studio monitor design experience, MR Series monitors are precision tuned to stay true to your mix whether it's dialogue, hip hop, rock and beyond.

Our proven logarithmic waveguide provides an ultra-wide listening sweet spot and enhanced stereo imaging while the Acoustic Space controls allow you to adjust the frequency response of the monitor to match your studio. Add the MRS10 Powered Studio Subwoofer for powerful, deep low-end.

A Brief History Of Time...

We have been designing and re-designing studio monitors for nearly 20 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 MR 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 MR 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, MR 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. MR 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 cabinet packed with sound-tightening acoustic absorption material, you can be confident that MR 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 MR monitors include acoustic controls for dialing in the specific sound needed for your space. And you can 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...

MR 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 MR 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 control on the back of the cabinet down (fully counterclockwise) before turning on the monitor for the first time.
2. Set the power switch 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 acoustic space and high freq filter switches at their normal positions.
4. Connect the line-level monitor signal from your mixer, preamp, or other signal source to the input jack on the MR Studio Monitor (1/4", XLR, or RCA).
5. Connect the supplied AC power cord to the IEC socket 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 on the MR. The LED on the front panel will illuminate.
8. Slowly turn up the input level control on the back of the monitor to its fully clockwise position.
9. Adjust the master volume on the mixer or preamp to a comfortably loud listening level. If the MR 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 MR. Then read the rest of this manual.

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



MRs achieve the best bass response in a room that's optimized for bass reproduction. A lot of factors can conspire to thwart the MR's 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 MRs 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 against the walls and would like to lower the bass, try setting the acoustic space switch to the -2 dB [Half Space] position. If the monitors are in the corners, try the -4 dB [Quarter Space] position.

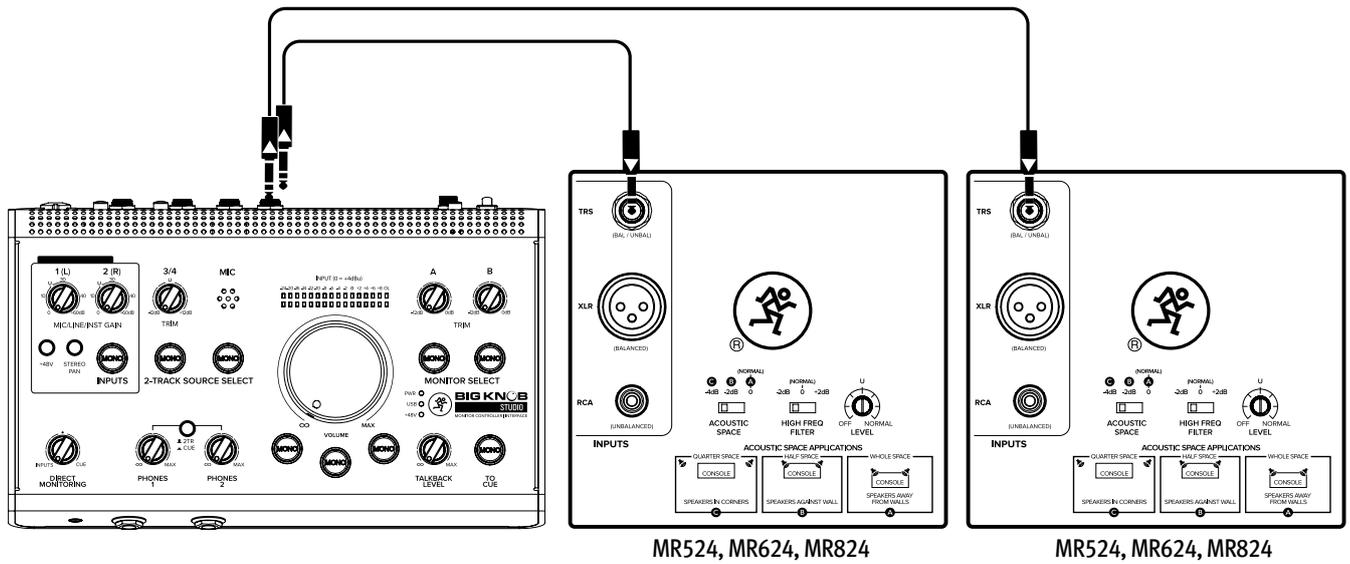
High-Frequency Response

The MRs 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 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 MR 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!

Hookup Diagram



MR524, MR624, MR824

MR524, MR624, MR824

Connecting MR studio monitors is quite easy, so let's take a quick look at a fairly typical setup. In this example, whatever sources you desire are plugged into the Big Knob Studio's inputs.

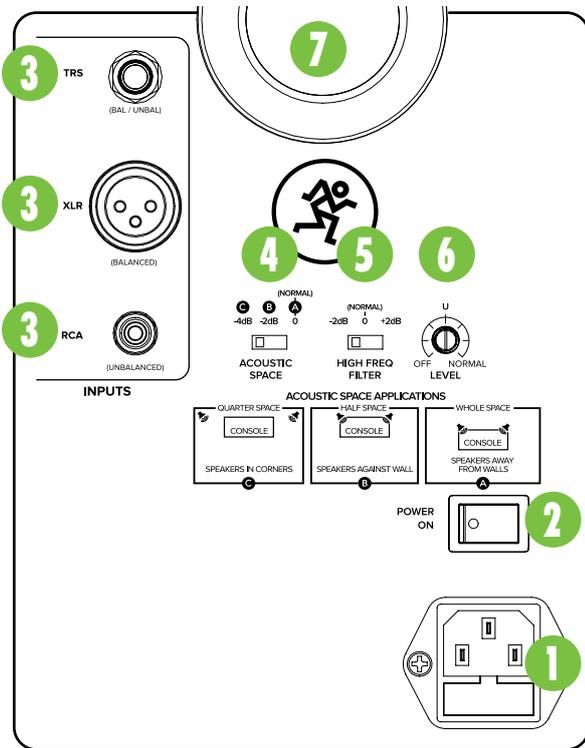
Next, the main L/R outputs from a Big Knob Studio are connected to the inputs of a pair of MR studio monitors using 1/4" connectors.

Yeah, that's all there is to it! Now that connections have been made, it's time for playback...let's hear how those tunes turned out!

Typical MR Series Setup

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 10 for information about replacing the fuse.

2. Power Switch

Press this switch left to turn the MR studio monitor on. Make sure the level control is down before you turn it on. When the power switch is turned on and the MR studio monitor is plugged into an AC outlet, the LED on the front panel illuminates green 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

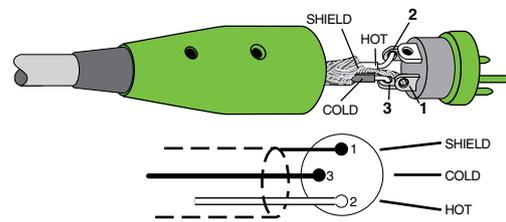
Connect the line-level signal from the mixer (or other signal source) to one of these input jacks. There are three types of input connectors to choose from: balanced XLR, balanced/unbalanced 1/4" and unbalanced RCA. Since all three of them are connected together electrically, do not connect more than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

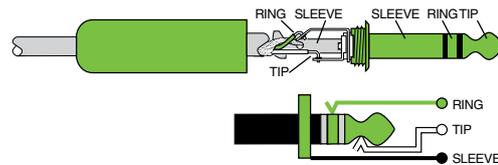
- Hot (+) Pin 2
- Cold (-) Pin 3
- Shield (Ground) Pin 1



Balanced XLR Connectors

Balanced 1/4" TRS

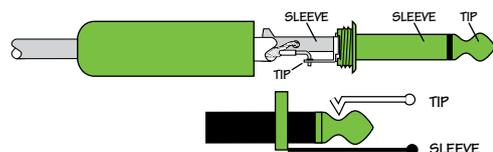
- Hot (+) Tip
- Cold (-) Ring
- Shield (Ground) Sleeve



Balanced 1/4" Connectors

Unbalanced 1/4" TS

- Hot (+) Tip
- Shield Sleeve

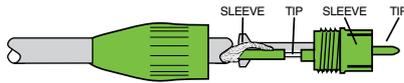


Unbalanced 1/4" Connectors

Unbalanced RCA

Hot (+)
Shield (Ground)

Tip
Sleeve

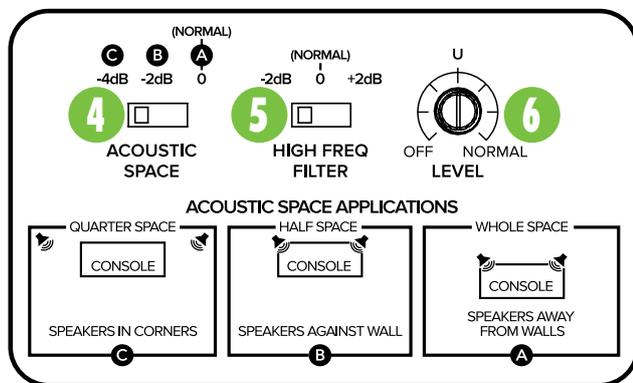


RCA Unbalanced Connectors

4. Acoustic Space

This is a three-way switch that adjusts the low-frequency response of the monitors to compensate for their placement in the room.

- If you use the MRs free-standing, away from walls and corners (whole space [4A]), set the acoustic space switch to the “A” position (NORMAL).
- If you place the MR monitors against a wall (half space [4B]), set the acoustic space switch to the “B” position. This activates a shelving filter to reduce the low-frequency output by 2 dB to compensate for the half-space placement.
- If you place the monitors into the corners of your room (quarter space [4C]), the low-frequency output approximately doubles from what it is in half space. Set the acoustic space switch to the “C” position to reduce the low-frequency output by 4 dB to compensate for the quarter-space placement.



5. High Frequency Filter

This switch tailors the high-frequency response by ± 2 dB at 3 kHz and above on all three MR models.

Leave this switch in the “0 (NORMAL)” position unless:

- You want to subtly brighten or darken the sound of the speakers.
- Perhaps you have hearing loss caused by too many nights in front of a Marshall full stack.
- You just like to mix on the bright side or dull side.

If the mixes consistently sound dull or dark when you listen elsewhere, this usually indicates that the monitors are too bright, relative to your normal hearing.

A bit less high-frequency energy usually fixes this, and the mix may be forced in this direction by reducing the high-frequency output of the monitors by using the -2 dB position of the switch.

Conversely, if the mixes are consistently too bright, then adding some additional high-frequency energy in the monitors satisfies your ears, and the resultant mix has less HF content.

It’s a real rush to mix really loud. But remember that the resulting mix only sounds good when you play it at least that loud. However strange it may sound, mixes made at lower levels sound even better when played loud, perhaps even a bit bigger than life.

Get that sound level meter out. Decide what level to mix at and use the meter to help keep mixing at that level. Your ears will thank you, and your mixes will be better for it.

6. Input Level

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

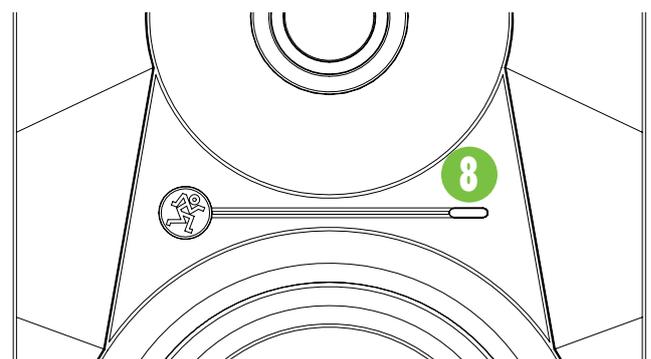
7. Custom-Tuned Rear Port

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. Front Panel LED

This LED will illuminate solid green to indicate that signal is present in the MR studio monitor.



Protection Circuits

There are several protection mechanisms designed into the MR 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 MR 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 MR 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 MR 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 on MR 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) / unbalanced (TS) 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 MR 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 MR studio monitor! Speaker levels are much higher than line levels and can damage the input circuitry in the MR studio monitors.

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

Care and Cleaning

MR 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

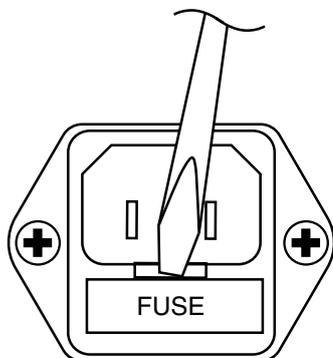
If you think your MR Studio Monitor has a problem, please check out the following troubleshooting tips and do your best to confirm the problem. Visit the Contact Tech Support section of our website (www.mackie.com/support) where you will find lots of useful information such as FAQs and other documentation.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

Troubleshooting No Power

- Our favorite question: Is it plugged in?
- Make sure the power cord is securely seated in the IEC socket 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 switch on the rear panel in the ON position?
- Is the power LED on the front panel illuminated? If not, make sure the AC outlet is live. If so, refer to “No Sound” to the right.
- 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 mA / 250 V [MR524]

115 VAC: T 1.6 AL / 250 V

230 VAC: T 800 mA / 250 V [MR624]

115 VAC: T 2 AL / 250 V

230 VAC: T 1 AL / 250 V [MR824]

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 power LED on the front panel illuminated? If not, refer to “No Power” to the left.
- Is the input level 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 MR 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.mackie.com/support/service-locator. Service for MRs 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 your MR Studio Monitor?

- **Visit www.mackie.com/support to find: FAQs, manuals, and addendums.**
- **Email us at: www.mackie.com/support-contact**
- **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: Technical Information

MR Specifications

Acoustic Performance

| | |
|---|---|
| Frequency Response (-3 dB): | 57 Hz – 20 kHz [MR524] 45 Hz – 20 kHz [MR624] 38 Hz – 20 kHz [MR824] |
| Frequency Response (-10 dB): | 45 Hz – 20 kHz [MR524] 38 Hz – 20 kHz [MR624] 35 Hz – 20 kHz [MR824] |
| Sound Pressure Level @ 1 meter, +4 dBu into Balanced Input: | 102 dB SPL @ 1m [MR524] 105 dB SPL @ 1m [MR624] 107 dB SPL @ 1m [MR824] |
| Maximum SPL Per Pair: | 108 dB SPL @ 1m [MR524] 111 dB SPL @ 1m [MR624] 113 dB SPL @ 1m [MR824] |

Transducers

| | |
|-----------------|--|
| Low Frequency: | 5.25 in / 133 mm polypropylene woofer [MR524] 6.5 in / 165 mm polypropylene woofer [MR624] 8.0 in / 203 mm polypropylene woofer [MR824] |
| High Frequency: | Neodymium magnet driven 1 in / 25 mm silk dome tweeter |

Amplifiers

| | |
|-----------------------|--|
| Low Frequency Power: | 30 watts, 4 Ω load, 60 watts peak [MR524] 40 watts, 4 Ω load, 80 watts peak [MR624] 55 watts, 4 Ω load, 110 watts peak [MR824] |
| High Frequency Power: | 20 watts, 6 Ω load, 40 watts peak [MR524] 25 watts, 6 Ω load, 50 watts peak [MR624] 30 watts, 6 Ω load, 60 watts peak [MR824] |
| Type: | Monolithic IC, Class AB with DMOS power stage |

Electronic Crossover

| | |
|----------------------|--|
| Crossover Type: | 24 dB/octave |
| Crossover Frequency: | 2 kHz [MR524] 3 kHz [MR624] 1.9 kHz [MR824] |
| Sensitivity: | +4 dBu at 300 Hz for full output |
| Input Impedance: | 20 k Ω , balanced bridging; 10 k Ω unbalanced |

Equalization

| | |
|--------------------|---|
| High Frequency EQ: | ± 2 dB @ 3 kHz and above [MR524 / 624 / 824] |
|--------------------|---|

AC Power Requirements

| | |
|---------------------|---|
| Power Requirements: | ~120 V, 60 Hz ~220 V – 240 V, 50/60 Hz ~100 V, 50/60 Hz |
|---------------------|---|

Note: MR 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, 15 A male |
| Fuse: | 115 VAC: T 1 AL / 250 V 230 VAC: T 500 mA / 250 V [MR524] 115 VAC: T 1.6 AL / 250 V 230 VAC: T 800 mA / 250 V [MR624] 115 VAC: T 2 AL / 250 V 230 VAC: T 1 AL / 250 V [MR824] |

| | |
|--------------------|--|
| Power Consumption: | 90 watts with music, loud mix 10 watts quiescent (idle) [MR524] 120 watts with music, loud mix 11 watts quiescent (idle) [MR624] 150 watts with music, loud mix 12 watts quiescent (idle) [MR824] |
|--------------------|--|

Physical Dimensions and Weight

MR524:

| | |
|-------------|---|
| Enclosure: | 0.47 in / 12 mm thick MDF with 0.83 in / 21 mm MDF front panel |
| Dimensions: | |
| Height: | 11.1 in / 281 mm |
| Width: | 7.1 in / 180 mm |
| Depth: | 8.7 in / 221 mm |
| Weight: | 10.2 lb / 4.6 kg |

MR624:

| | |
|-------------|---|
| Enclosure: | 0.47 in / 12 mm thick MDF with 0.94 in / 24 mm MDF front panel |
| Dimensions: | |
| Height: | 12.9 in / 328 mm |
| Width: | 8.3 in / 210 mm |
| Depth: | 11.2 in / 284 mm |
| Weight: | 16.5 lb / 7.5 kg |

MR824:

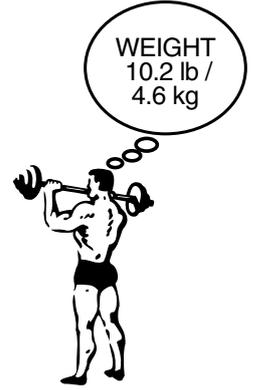
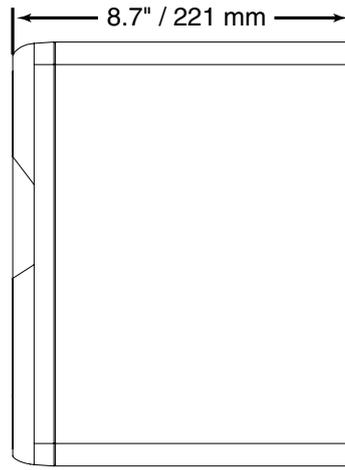
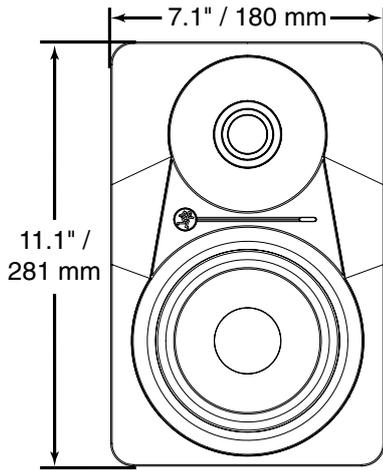
| | |
|-------------|---|
| Enclosure: | 0.59 in / 15 mm thick MDF with 1.30 in / 33 mm MDF front panel |
| Dimensions: | |
| Height: | 15.7 in / 400 mm |
| Width: | 10.1 in / 256 mm |
| Depth: | 12.6 in / 320 mm |
| Weight: | 23.0 lb / 10.4 kg |

| | |
|----------|-----------------------------------|
| Damping: | Adiabatic batting [MR524/624/824] |
|----------|-----------------------------------|

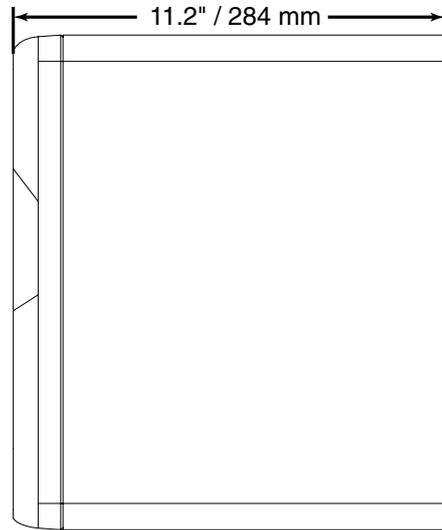
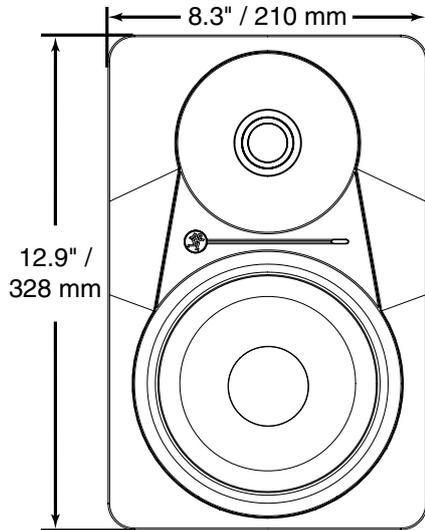
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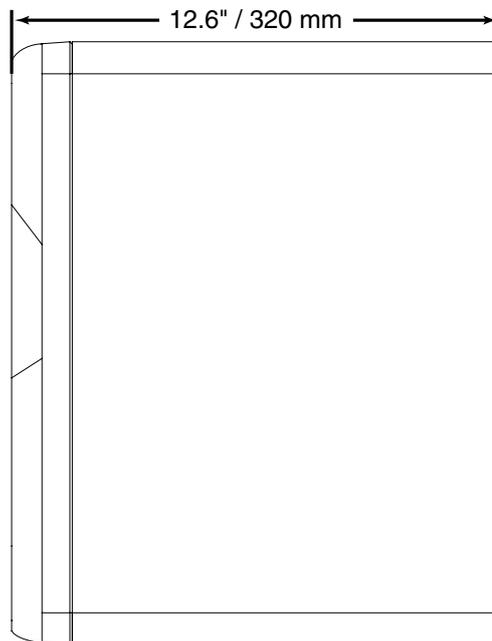
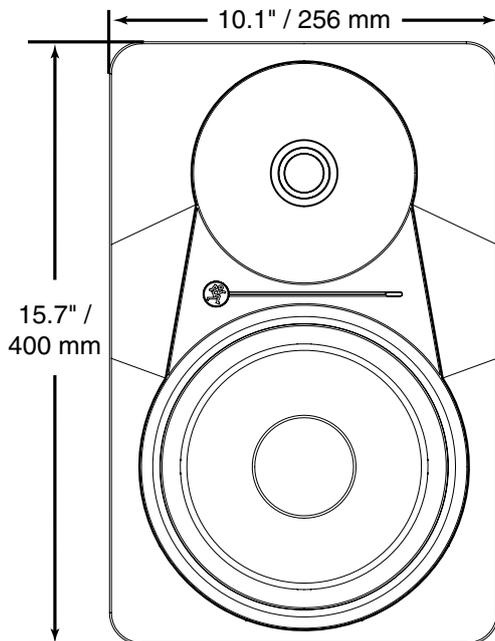
MR524 Dimensions



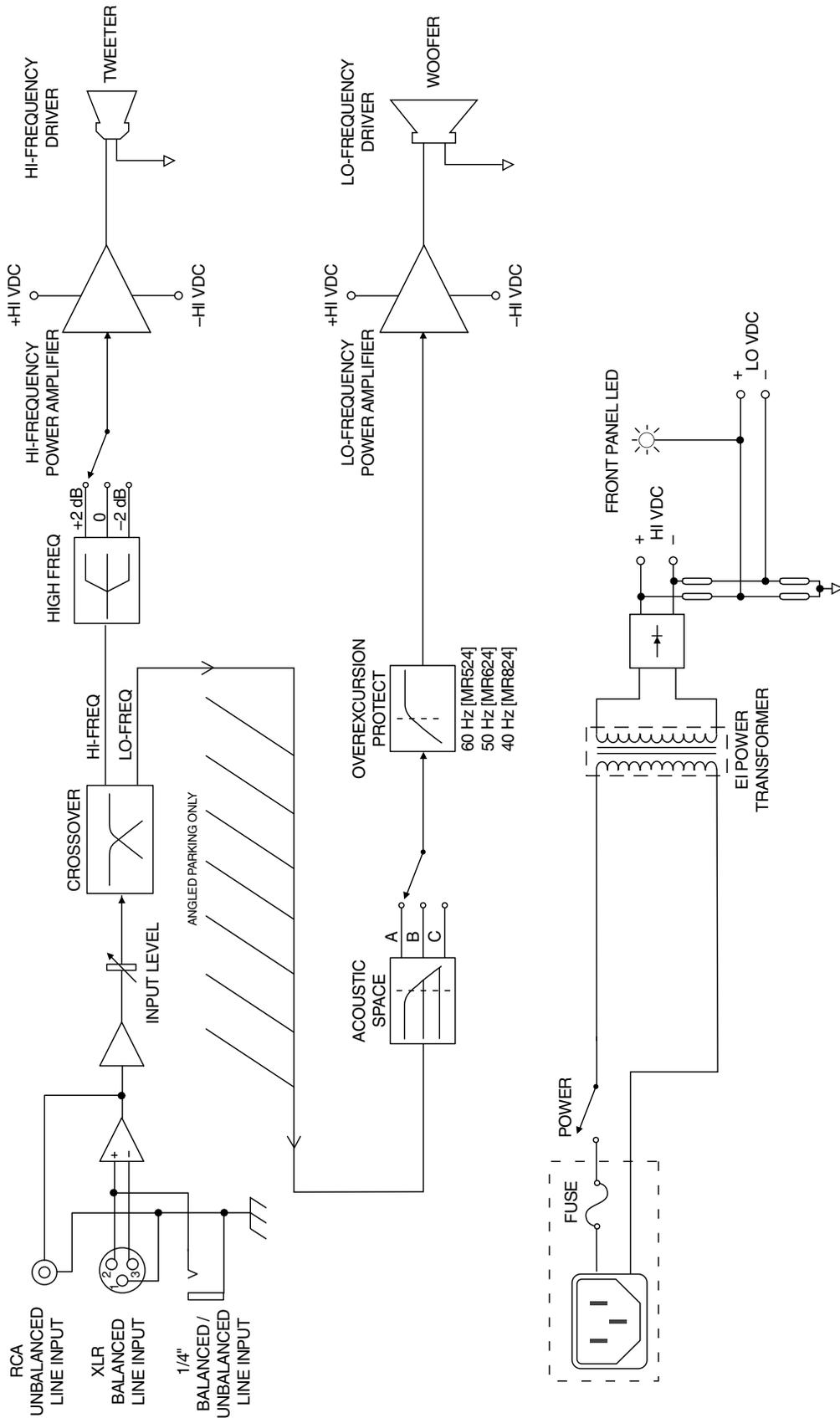
MR624 Dimensions



MR824 Dimensions



MR Block Diagram



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LOUD warrants to Customer that the product will be free from defects in materials and workmanship under normal use during the Warranty Period. If the product fails to conform to the warranty then LOUD or its authorized service representative will at its option, either repair or replace any such nonconforming product, provided that Customer gives notice of the noncompliance within the Warranty Period to the Company at: www.mackie.com or by calling LOUD technical support at 1.800.898.3211 (toll-free in the U.S. and Canada) during normal business hours Pacific Time, excluding weekends or LOUD holidays. Please retain the original dated sales receipt as evidence of the date of purchase. You will need it to obtain any warranty service.

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The Product Warranty, together with your invoice or receipt, and the terms and conditions located at www.mackie.com constitutes the entire agreement, and supersedes any and all prior agreements between LOUD and Customer related to the subject matter hereof. No amendment, modification or waiver of any of the provisions of this Product Warranty will be valid unless set forth in a written instrument signed by the party to be bound thereby.



16220 Wood-Red Road NE
Woodinville, WA 98072 • USA
Phone: 425.487.4333
Toll-free: 800.898.3211
Fax: 425.487.4337
www.mackie.com
