

# DRM212-P • DRM215-P • DRM315-P • DRM12A-P • DRM18S-P

## Professional Passive Loudspeaker Series

### 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. 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. Only use attachments/accessories specified by the manufacturer.
10. 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.
11. 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.
12. 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	Matt 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.

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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## Features

- High-output professional loudspeakers with up to 2000W of power handling (peak)
- Custom high-excursion woofers offer minimal distortion with increased bass response and reliability to withstand the most demanding live applications
- Titanium diaphragm compression drivers offers maximum transparency and clarity
- Precision internal crossover features premium grade components and precise tuning for maximum clarity and performance
- Parallel SpeakON inputs
- Available line array model for high-performance installations with flexible configuration options
- Road-worthy plywood construction and internal bracing offers optimal acoustic performance
- Touring-grade textured cabinet coating and powder-coated heavy gauge steel grille
- Dual angle pole-mount on DRM212-P and DRM215-P provides optimal coverage and minimal reflections in most venues
- Optional SP260 Loudspeaker Processor provides custom EQ curves and crossovers for your DRM Passive System
- Versatile rigging options
  - o M10 flypoints\*
  - o DRM12A-P and DRM18S-P are flyable with up to 4 DRM12A-P cabinets and 2 DRM18S-P subwoofers\*\*

\*DRM212-P and DRM215-P can be flown in vertical orientation only

\*DRM315-P can be flown in both vertical and horizontal orientations

\*\*Requires optional FB100 fly bar and FKDRM18S Flyware kit



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## Introduction

DRM Series Professional Passive Loudspeakers deliver high-performance, crystal-clear sound with the rugged construction and reliability that professional production and install customers demand.

Custom transducers housed in coated touring-grade plywood cabinets are designed for consistent performance in the most demanding applications.

Equipped with MIO flypoints, dual angle pole mounts, and available line array configurations; the DRM Series is perfect for clubs, houses of worship, rental systems and more.

Combine with MX Series Amplifiers\* and the SP260 Loudspeaker Processor for a complete Mackie professional system.

\*MX Series Amplifiers not available in the US, Canada, China, Japan and other 100 – 120V countries.

### How to Use This Manual:

After this introduction, a getting started guide will help you get things set up fast. The hookup diagrams show some typical DRM-P loudspeaker setups, including some that involve the DRM18S-P subwoofer.



This icon marks information that is critically important or unique! For your own good, read and remember them...it is a good idea to pay special attention to these areas in the Owner's Manual marked with the "VERY IMPORTANT" hand icon.



There's an illustration of a microscope, so, of course, you're going to get more detailed information when you see this little guy. There are explanations of features and practical tips listed here.



It's a good idea to pay attention to text displayed next to a note icon, as this icon draws attention to certain features and functions relating to the usage of the DRM-P Series.

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

**Purchased at:**

**Date of purchase:**

## Getting Started

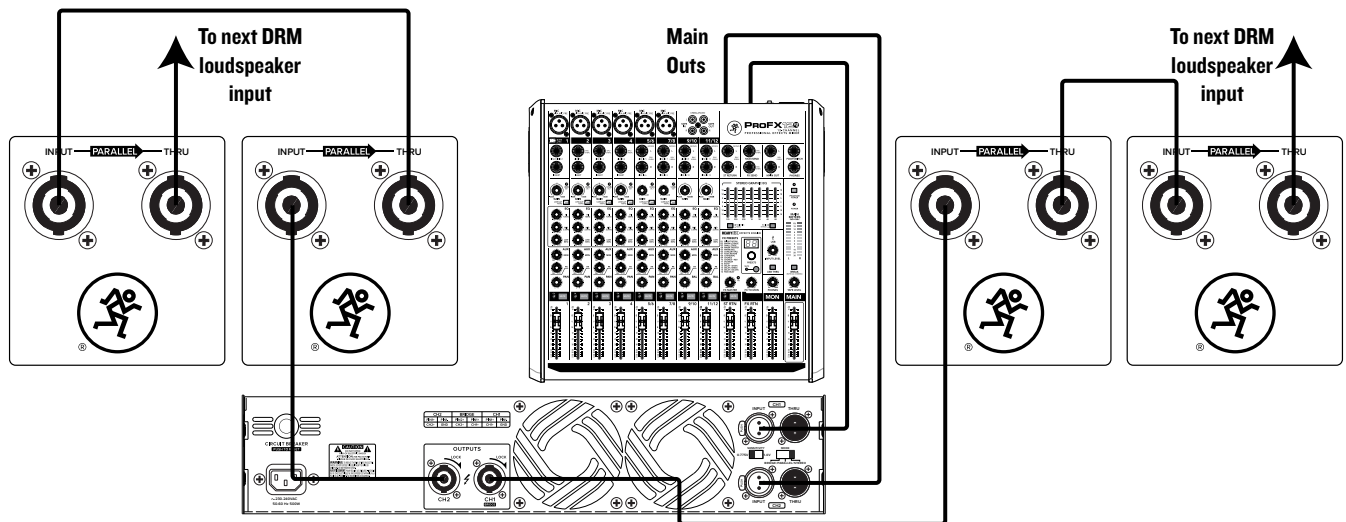
The following steps will help you set up the loudspeakers quickly.

1. Make all initial connections with the power switches OFF on all equipment. Make sure the master volume, level and gain controls are all the way down.
2. Connect the outputs from the mixing console (or other signal source) to the inputs on the rear panel of the power amplifier.
3. If not using a subwoofer, connect the speaker output(s) from the power amplifier to the input on the rear panel of the loudspeaker(s).
4. If using a subwoofer, connect the speaker output(s) from the power amplifier to the input on the rear panel of the subwoofer(s), then connect the thru outputs from the subwoofer to the inputs of the loudspeakers.
5. Turn the mixer (or other signal source) on.
6. Turn the power amplifier on. Turn up its volume or gain control(s) as recommended by the manufacturer.
7. Start the signal source and raise the mixer's main L/R fader up to a comfortably loud listening level.

### Things to Remember:

- Never listen to loud music for prolonged periods. Please see the Safety Instructions on page 2 for information on hearing protection.
- As a general guide, the mixer (or other signal source) should be turned on first, followed by the amplifier. As such, the amplifier should also be turned off first, followed by the mixer. This will reduce the possibility of any turn-on or turn-off thumps and other noises generated by any upstream equipment from coming out of the speakers.
- Save the shipping boxes and packing materials! You may need them someday. Besides, the cats will love playing in them and jumping out at you unexpectedly. Remember to pretend like you are surprised!
- Save your sales receipt in a safe place.

## Hookup Diagrams

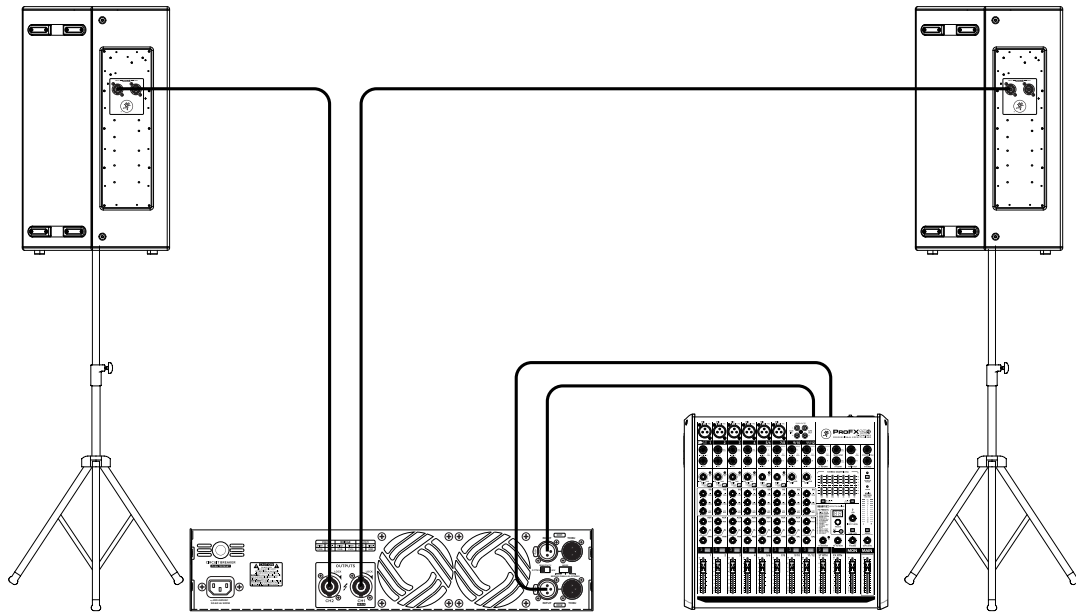


One convenient feature of the Mackie DRM passive speakers is the ability to connect multiple speakers together easily, as shown in the illustration above.

DRM passive speakers may be daisy-chained via the speakON connector labeled "THRU". Simply plug the signal source (i.e., mixer output) into the amplifier's input jack(s), patch the amplifier's speakON output jack(s) to the DRM passive speaker's input jack, the thru jack to the next speaker's input jack, and so on, daisy-chaining multiple DRM passive speakers.

### Daisy-Chaining Multiple DRM Passive Speakers

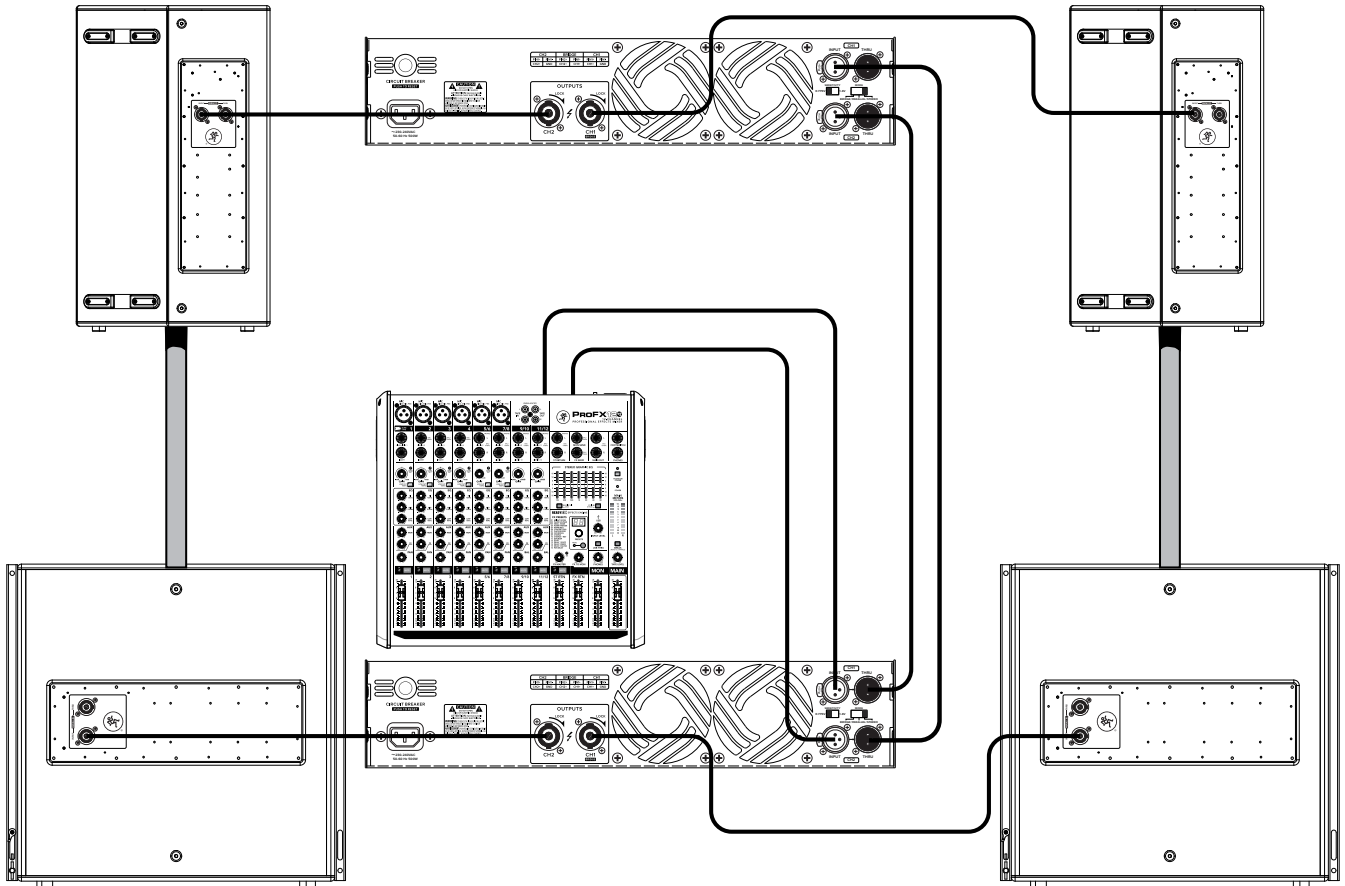
## Hookup Diagrams continued...



Here is an example of an easy setup that may be utilized in a number of configurations. For example, a singer-songwriter could utilize this setup at a cafe (with one DRM212-P or DRM215-P on a tripod for the audience and another on the stage floor as a wedge) or as a small club system with both loudspeakers on tripods.

A ProFX12v2 mixer is connected directly to the XLR input jacks of an MX3500 amplifier. The speakON output jacks of the amplifier are then connected to the speakON inputs of each DRM passive loudspeaker.

### Various Systems



If you desire a little more boom, add a DRM18S-P (or two) subwoofers to the mix!

A ProFX12v2 mixer is connected directly to the XLR input jacks of an MX3500 amplifier. The speakON output jacks of this amplifier are then connected to the speakON inputs of each DRM18S-P passive subwoofer. The thru jacks of this amplifier are connected to the input jacks of an additional MX3500 amplifier. The speakON outputs from this amplifier are connected to the inputs of each DRM passive loudspeaker, be it the DRM212-P, DRM215-P, DRM315-P or DRM12A-P.

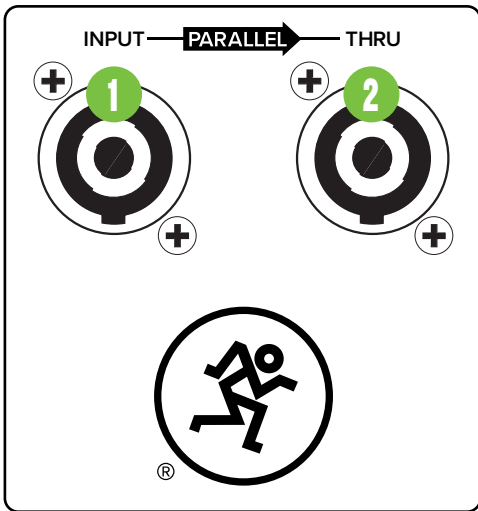
## DRM Loudspeakers: Rear Panel Features

The DRM Series passive loudspeakers have speakON input and thru connectors, although each of the jacks may be used as an input or a thru connection (because the connectors are wired in parallel).



Use only one jack as an input connector.

speakON connectors are designed to handle the higher currents produced by amplifiers and have a locking feature to prevent accidental disconnections. Simply line up the tabs on the plug with the jack on the DRM Series passive loudspeaker, push it in and rotate it clockwise 1/4 turn to lock it in place.



### 1. Input

This is a female NL4-type connector that produces exactly the same signal that is connected to the thru jack located next to it. Connect the speaker-level output of an amplifier to the loudspeaker's input jack.

### 2. Thru

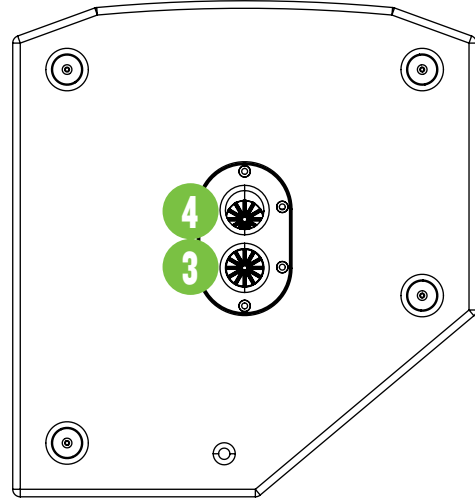
This is a female NL4-type connector that produces exactly the same signal that is connected to the input jack located next to it. Use it to daisy-chain several DRM loudspeakers together off the same signal source(s).

See page 5 to learn more about daisy-chaining DRM loudspeakers.

## 3 and 4. DRM212-P and DRM215-P Dual-Angle Pole Cup

The rear pole cup [3] is for vertical mounting the loudspeaker.

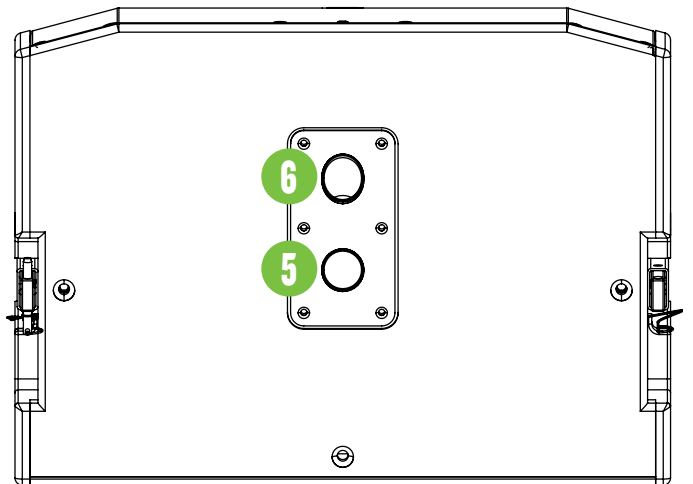
The front pole cup [4], on the other hand, angles the loudspeaker downward 7° to aim at the audience below the loudspeaker.



## 5 and 6. DRM12A-P Dual-Angle Pole Cup

The rear pole cup [5] is for use with a single unit on a pole. It orients the DRM12A-P downward 10° for output parallel to the floor.

The front pole cup [6] serves two purposes. It angles the DRM12A-P downward 30° to aim at the audience below the loudspeaker. It may also be utilized for use with two DRM12A-Ps arrayed on one pole.





## Placement



**WARNING:** Installation should only be done by an experienced technician. Improper installation may result in damage to the equipment, injury or death. Make sure that the loudspeaker is installed in a stable and secure way in order to avoid any conditions that may be dangerous for persons or structures.

DRM loudspeakers are designed to sit on the floor or stage as the main PA or as monitors. They may also be pole-mounted via the built-in socket on the bottom of the cabinet. Be sure the pole is capable of supporting the weight of the loudspeaker. The SPM400 is a great option when using a subwoofer.

These loudspeakers may also be flown via their integrated fly points as detailed on the following pages. Be sure to read the PA-A2 Eyebolt Installation Instructions, as well.

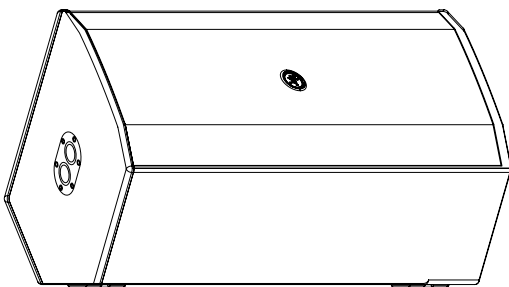


**NEVER** attempt to suspend a DRM loudspeaker by its handles.

Check to make sure that the support surface (e.g. floor, etc.) has the necessary mechanical characteristics to support the weight of the loudspeaker(s).

When pole-mounting loudspeakers, be sure that they are stabilized and secured from falling over or being accidentally pushed over. Failure to follow these precautions may result in damage to the equipment, personal injury, or death.

In addition to the two pole-mounts – see previous page – the DRM212-P and DRM215-P may be laid out horizontally as monitors for the band at a 50° angle (as seen below).



The Running Man logo is rotatable for when the DRM212-P or DRM215-P is used as a monitor; you can also rotate it when the DRM315-P is flown horizontally!

## Room Acoustics

DRM loudspeakers are designed to sound fantastic in nearly every application.

But, room acoustics play a crucial role in the overall performance of a sound system. However, the wide high-frequency dispersion of the DRM loudspeakers helps to minimize the problems that typically arise.

Here are some additional placement tips to help overcome some typical room problems that might arise:

- Placing loudspeakers in the corners of a room increases the low frequency output and can cause the sound to be muddy and indistinct.
- Placing loudspeakers against a wall increases the low frequency output, though not as much as corner placement. However, this is a good way to reinforce the low frequencies, if so desired.
- Avoid placing the speakers directly on a hollow stage floor. A hollow stage can resonate at certain frequencies, causing peaks and dips in the frequency response of the room. It is better to place them on a sturdy stand designed to handle the weight of the loudspeaker.
- Position the loudspeakers so the high-frequency drivers are two to four feet above ear level for the audience (making allowances for an audience that may be standing/dancing in the aisles). High frequencies are highly directional and tend to be absorbed much easier than lower frequencies. By providing direct line-of-sight from the loudspeakers to the audience, you increase the overall brightness and intelligibility of the sound system.
- Highly reverberant rooms, like many gymnasiums and auditoriums, are a nightmare for sound system intelligibility. Multiple reflections off the hard walls, ceiling, and floor play havoc with the sound. Depending on the situation, you may be able to take some steps to minimize the reflections, such as putting carpeting on the floors, closing draperies to cover large glass windows, or hanging tapestries or other materials on the walls to absorb some of the sound.

However, in most cases, these remedies are not possible or practical. So what do you do? Making the sound system louder generally doesn't work because the reflections become louder, too. The best approach is to provide as much direct sound coverage to the audience as possible. The farther away you are from the speaker, the more prominent will be the reflected sound.

Use more speakers strategically placed so they are closer to the back of the audience. If the distance between the front and back speakers is more than about 100 feet, you should use an external delay processor to time-align the sound. (Since sound travels about 1 foot per millisecond, it takes about 1/10 of a second to travel 100 feet.)

## Rigging



**WARNING:** Installation should only be done by an experienced technician. Improper installation may result in damage to the equipment, injury or death. Make sure that the loudspeaker is installed in a stable and secure way in order to avoid any conditions that may be dangerous for persons or structures.



**WARNING:** The cabinet is suitable for rigging via its fly points. **NEVER** attempt to suspend a DRM loudspeaker by its handle.

The fly points are shown on the following page while examples of a flown DRM315-P are displayed below.



The DRM315-P may be flown horizontally or vertically, but the other DRM passive loudspeakers may only be flown vertically.

### Rigging Design Practices

Rigging a loudspeaker requires determining:

1. The rigging methods and hardware that meet static, shock, dynamic, and any other load requirements for supporting the loudspeaker from structure.

2. The design factor and required WLL (Working Load Limit) for this support.

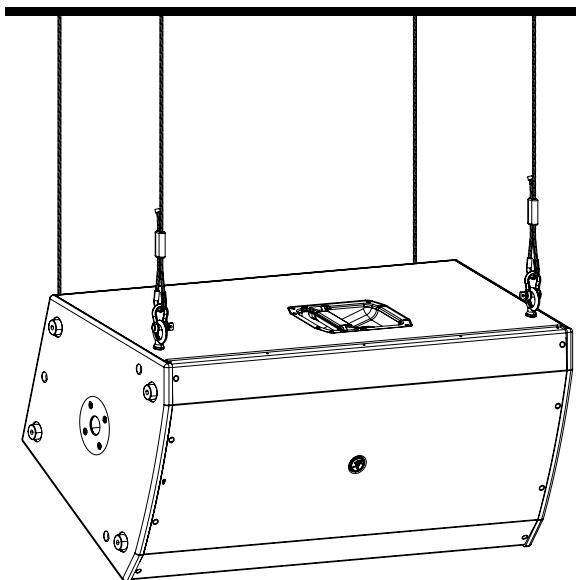
We strongly recommend the following rigging practices:

1. **Documentation:** Thoroughly document the design with detailed drawings and parts lists.

2. **Analysis:** Have a qualified professional, such as a licensed Professional Engineer, review and approve the design before its implementation.

3. **Installation:** Have a qualified professional rigger do the installation and inspection.

4. **Safety:** Use adequate safety precautions and back-up systems.



### Rigging Hardware and Accessories

Rigging our loudspeakers will invariably require hardware not supplied by us. Various types of load-rated hardware are available from a variety of third-party sources. There are a number of such companies specializing in manufacturing hardware for designing and installing rigging systems. Each one of these tasks is a discipline in its own right. Because of the hazardous nature of rigging work and the potential liability, engage companies that specialize in these disciplines to do the work required.

We do offer certain accessory rigging items and some of them may be used with a variety of products. While these accessories are intended to facilitate installation, the wide variety of possible installation conditions and array configurations do not permit us to determine their suitability or load rating for any particular application.

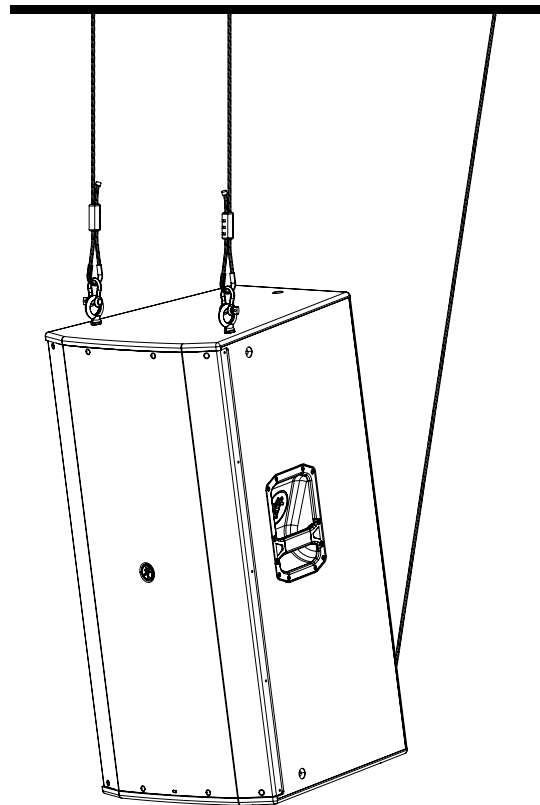
We are not in the business of providing complete rigging systems, either as designers, manufacturers, or installers. It is the responsibility of the installer to provide a properly engineered, load-certified rigging system for supporting the loudspeaker from structure.



DRM loudspeakers may be individually flown using a PA-A2 Eyebolt Kit, part number 0028272.

### Rigging Notes

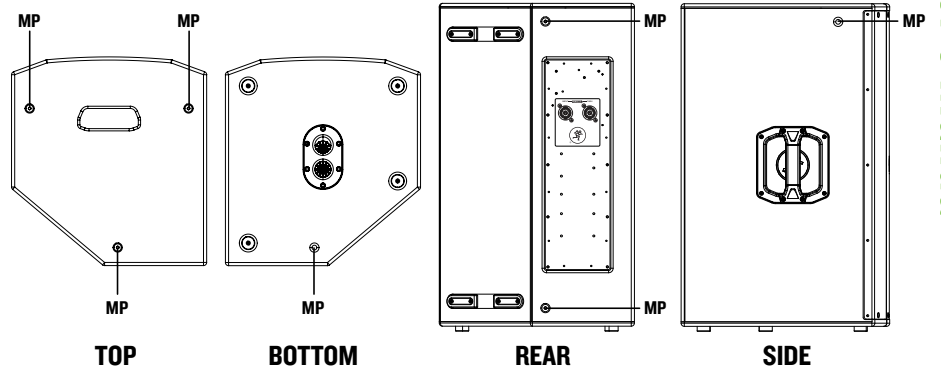
The DRM loudspeaker's integral mounting points are designed to support only the weight of their own loudspeaker with suitable, external hardware. This means that each DRM loudspeaker must be supported independently of any other DRM loudspeaker and any other loads. At least three rigging points must be used to hang each DRM loudspeaker.



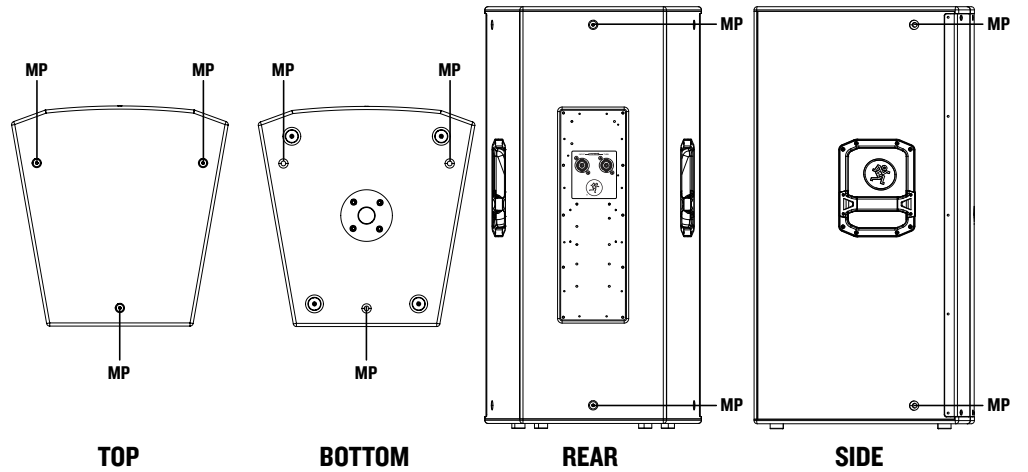
# Mounting Points

MP = Mounting Point

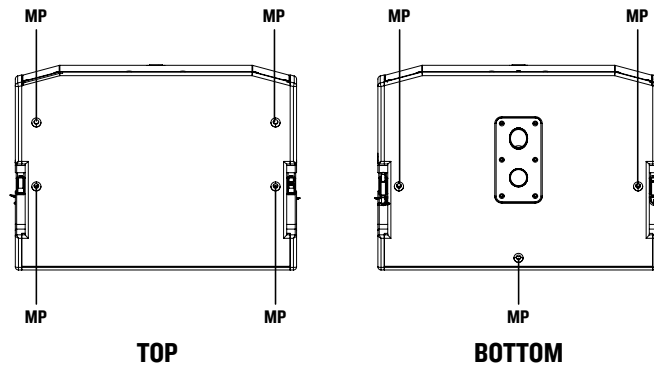
## DRM212-P / DRM215-P Fly Points



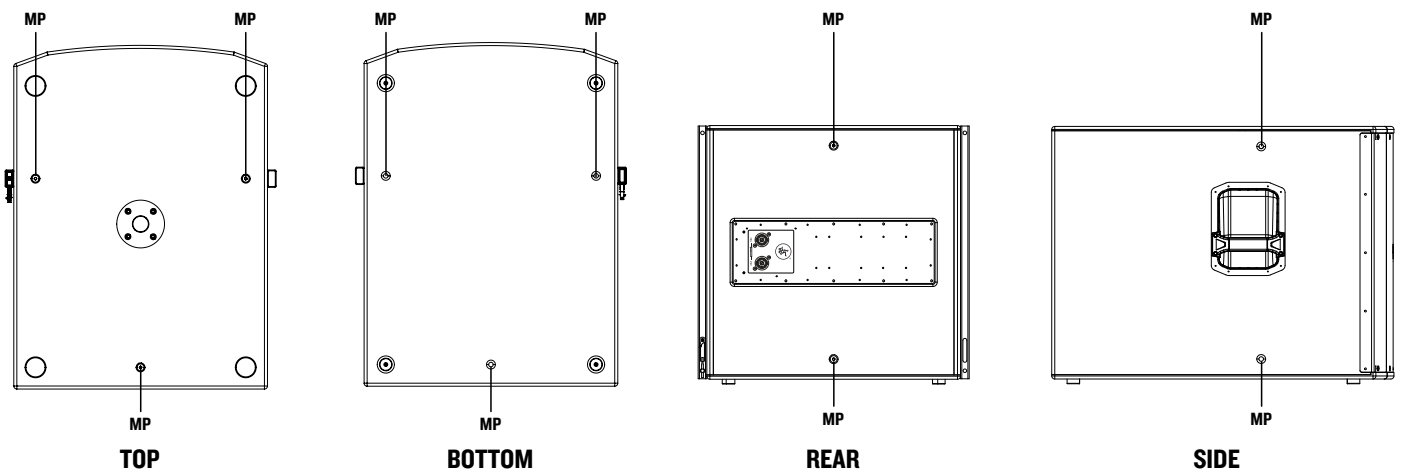
## DRM315-P Fly Points



## DRM12A-P Fly Points



## DRM18S-P Fly Points



**A note on eyebolts**

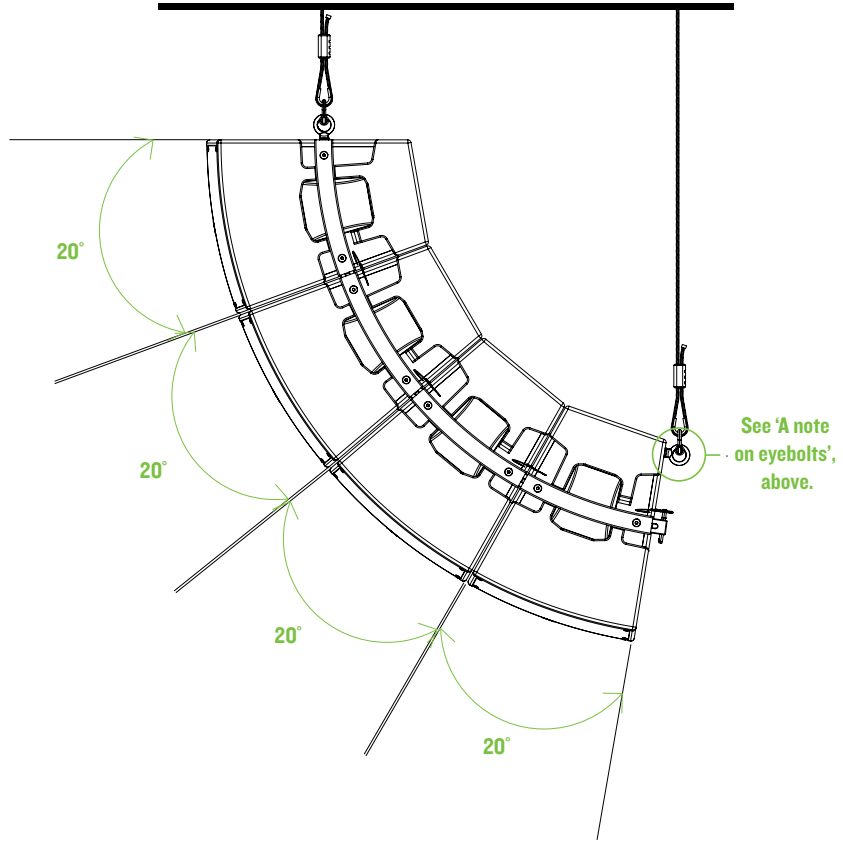
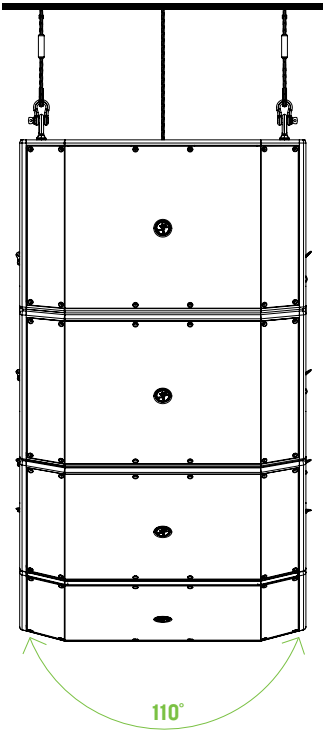


Eyebolt working load limits are significantly de-rated when angular lifts are applied. If an application requires an angular lift greater than 45°, a swivel hoist ring or similar fitting must be used. These fittings have full swivel and pivot action which helps avoid side loads.



**WARNING:** When the FB100 Flybar is used to suspend a system, it cannot retain a 10:1 design factor at certain pick points.

In some situations, suspended and installed arrays may be configured with other design factors (e.g. 8:1 or 5:1), LOUD Audio, LLC. only recommends using the desired 10:1 design factor.



## Protection

A protection circuit is built into the DRM passive loudspeakers to protect their high-frequency drivers from excessive power. When tripped, the protection circuit substantially reduces the power to the HF driver. After the driver cools to a safe operating temperature, the protection circuit resets and normal operation resumes. However, if the protection circuit senses excessive power, it will trip again. In this case, it is necessary to reduce the power to the loudspeaker by either turning down the gain controls on the power amplifier or turning down the master volume control on the mixer or other sound source.



**CAUTION:** The protection circuit is designed to protect the HF driver under reasonable and sensible conditions. Should you choose to ignore the warning signs (i.e., frequent clip LED indications on the mixer or power amplifier, excessive distortion), you can still damage the drivers in the DRM passive loudspeakers by overdriving them past their recommended amplifier power-handling ratings, or past the point of amplifier clipping. Such damage is beyond the scope of the warranty.

## Amplifier Power

The DRM passive loudspeakers have three power-handling numbers: continuous, program and peak. So how much power do you really need to drive these loudspeakers? The answer to that question depends on what type of program material you are running through the system and how loud it needs to be.

Some audio signals have lots of momentary peaks whose amplitudes extend far above the average overall level of the program. Percussion instruments are a good example of this. Other types of signals, like highly compressed rock music, have a higher average signal level with fewer peaks. Speech reinforcement requires less power overall, but involves large moment-to-moment variations in level.

Assuming you want to use the full capability of the loudspeaker, and the program contains at least some momentary peaks, we recommend that you use an amplifier that is rated at twice the continuous power rating of the loudspeaker (into 8 Ω). For the DRM212-P loudspeaker, this would be 800 watts × 2 = 1600 watts per channel into 8 Ω. This ensures that the amplifier can reproduce peaks that are 6 dB higher than the continuous (rms) power-handling rating before clipping occurs.

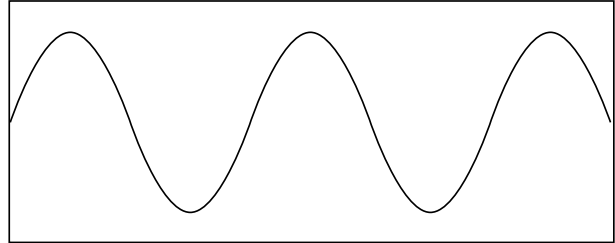
## Recommended Power Ratings

- DRM212-P: 1600W into 8 Ω (800W rms × 2)
- DRM215-P: 2000W into 8 Ω (1000W rms × 2)
- DRM315-P: 2300W into 8 Ω 1150W rms × 2)
- DRM12A-P: 2000W into 8 Ω (1000W rms × 2)
- DRM18S-P: 2000W into 8 Ω (1000W rms × 2)

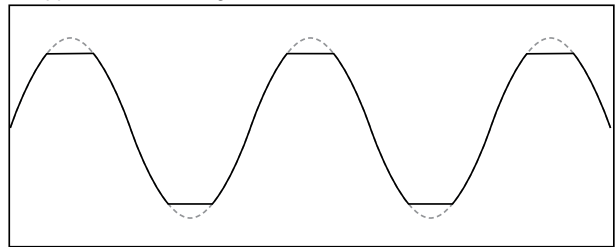
## Preventing Loudspeaker Damage

Speaking of clipping, this is likely the number one cause of damage to loudspeakers. Clipping occurs when the signal at the output of any device in the system (not just the amplifier) reaches its maximum level. The input signal to the device may continue to increase, but the output simply stops, and is characterized by a “flat-top” appearance to the waveform.

Normal Sine Wave Signal ☺



Clipped Sine Wave Signal ☹



Clipping interrupts the motion of the transducer, creating distortion and excessive heat in the driver, which can damage it over time.

Some folks think that if they use a power amplifier whose power rating is below the maximum power-handling rating of the loudspeaker, then they can't possibly damage the loudspeaker. But if the amplifier is driven into clipping, even a lower power amplifier can damage the loudspeaker.

The bottom line is that to prevent damage to the loudspeakers, you must have a properly operating sound system. Proper operation of a sound system includes being aware of types of audio signals being reproduced, controlling the output levels accordingly, and operating all the devices in the system so that no clipping occurs within the signal chain.

## Care and Maintenance

Your DRM loudspeakers will provide many years of reliable service if you follow these guidelines:

- Avoid exposing the loudspeakers to moisture. If they are set up outdoors, be sure they are under cover if rain is expected.
- Avoid exposure to extreme cold (below freezing temperatures). If you must operate the loudspeakers in a cold environment, warm up the voice coils slowly by sending a low-level signal through them for about 15 minutes prior to high-power operation.
- Use a dry cloth to clean the cabinets. Only do this when the power is turned off. Avoid getting moisture into any of the openings of the cabinet, particularly where the drivers are located.

## Appendix A: Service Information

If you think your DRM loudspeaker 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.mackie.com/support](http://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 part with your loudspeaker.

### Troubleshooting

#### No sound

- Are the level controls on the mixer or amplifier turned all the way down? Follow the procedures in “Getting Started” section on page 4 to verify that all of the volume controls in the system are properly adjusted.
- Is the signal source working? Make sure the connecting cables are in good repair and securely connected at both ends. Make sure the output level control on the mixing console is turned up sufficiently to drive the inputs of the speaker.
- Make sure the mixer does not have a mute on or a processor loop engaged. If you find something like this, make sure the level is turned down before disengaging the offending switch.
- Are all the connections good and sound? Make sure all of the connecting cables are in good repair and securely connected at both ends.

#### One side is way louder than the other!

- Are the level controls set the same for both channels on the mixer and amplifier?
- Check the pan control on the signal source. It may be turned too far to one side. If you’re using a stereo signal source, it may be delivering an out-of-balance stereo signal.
- Try switching sides: Turn off the amp, swap the speaker cables at the amp and turn the amp back on. If the same side is still louder, the problem is with your speaker cabling or the loudspeakers. If the other side is louder now, the problem is with the mixer, the loudspeaker processor, the amp, or the line-level cabling.

#### Poor bass performance

- Check the polarity of the connections between the amplifier and the loudspeakers. You may have your positive and negative connections reversed at one end of one cable.

#### Bad sound

- Is it loud and distorted? Make sure that you’re not overdriving a stage in the signal chain. Verify that all level controls are set properly.
- Is the input connector plugged completely into the jack? Be sure all connections are secure.
- If possible, listen to the signal source with headphones plugged into the preamp stage. If it sounds bad there, it’s not the loudspeaker.
- 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 loudspeakers to a different position, or moving your listening position.

#### Other Issues

- Please email or call Technical Support if you are having any other issue not listed here:
  - o [mackie.com/support-contact](http://mackie.com/support-contact)
  - o 1-800-898-3211

### Repair

For warranty service, refer to the warranty information on page 20.

Non-warranty service is available at a factory-authorized service center. To locate the nearest service center, visit [www.mackie.com/support/service-locator](http://www.mackie.com/support/service-locator). Service for DRM passive loudspeakers 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.

# Appendix B: Technical Information

## DRM212-P Loudspeaker Specifications

### Acoustic Performance

Type:	12" Professional Passive Loudspeaker
Frequency Range (-10 dB):	50 Hz – 20 kHz
Frequency Range (-3 dB):	60 Hz – 20 kHz
Horizontal Coverage Angle:	90°
Vertical Coverage Angle:	60°
Power Handling:	800 watts program 1600 watts peak 128 dB max SPL peak
Crossover Frequency:	1.5 kHz
Monitor Angle	50°

### Transducers

Low Frequency:	12 in / 305 mm with ferrite
High Frequency:	1.4 in / 36 mm titanium dome compression driver

### Physical Features

Input Type:	1x Female speakON
Thru Type:	1x Female speakON
Nominal Impedance:	8 Ω
Basic Design:	Asymmetrical
Enclosure Material:	15 mm Plywood
Enclosure Finish:	Black Polyurea
Grille Material:	16-18 gauge perforated steel
Grille Finish:	Powder-coated black
Handles:	One on each side, one on top
Operating Temperature:	0 – 40 °C 32 – 104 °F

### Dimensions

Height:	25.0 in / 635 mm
Width:	14.7 in / 373 mm
Depth:	16.2 in / 411 mm
Weight:	42.0 lb / 19.1 kg

### Mounting Methods:

Floor mount, pole mount via the built-in socket on the bottom of the cabinet [Be sure the pole is capable of supporting the weight of the DRM212-P] or fly via the integrated M10 mounting points (using M10 x 1.5 x 20 mm forged shoulder eyebolts).

See pages 9-12 for more information.

### Options

DRM212-P Cover	P/N 2036809-48
SPM400 Loudspeaker Pole Mount	P/N 2051055
PA-A2 Forged Shoulder Eyebolt Kit (3 x M10 x 1.5 x 20 mm)	P/N 0028272

## DRM215-P Loudspeaker Specifications

### Acoustic Performance

Type:	15" Professional Passive Loudspeaker
Frequency Range (-10 dB):	45 Hz – 20 kHz
Frequency Range (-3 dB):	70 Hz – 18 kHz
Horizontal Coverage Angle:	90°
Vertical Coverage Angle:	60°
Power Handling:	800 watts program 1600 watts peak 129 dB max SPL peak
Crossover Frequency:	1.5 kHz
Monitor Angle	50°

### Transducers

Low Frequency:	15 in / 381 mm with ferrite
High Frequency:	1.4 in / 36 mm titanium dome compression driver

### Physical Features

Input Type:	1x Female speakON
Thru Type:	1x Female speakON
Nominal Impedance:	8 Ω
Basic Design:	Asymmetrical
Enclosure Material:	15 mm Plywood
Enclosure Finish:	Black Polyurea
Grille Material:	16-18 gauge perforated steel
Grille Finish:	Powder-coated black
Handles:	One on each side, one on top
Operating Temperature:	0 – 40 °C 32 – 104 °F

### Dimensions

Height:	28.3 in / 719 mm
Width:	18.1 in / 460 mm
Depth:	17.0 in / 432 mm
Weight:	57.0 lb / 25.9 kg

### Mounting Methods:

Floor mount, pole mount via the built-in socket on the bottom of the cabinet [Be sure the pole is capable of supporting the weight of the DRM215-P] or fly via the integrated M10 mounting points (using M10 x 1.5 x 20 mm forged shoulder eyebolts).

See pages 9-12 for more information.

### Options

DRM215-P Cover	P/N 2036809-49
SPM400 Loudspeaker Pole Mount	P/N 2051055
PA-A2 Forged Shoulder Eyebolt Kit (3 x M10 x 1.5 x 20 mm)	P/N 0028272

## DRM315-P Loudspeaker Specifications

### Acoustic Performance

Type:	15" 3-way Professional Passive Loudspeaker
Frequency Range (-10 dB):	45 Hz – 20 kHz
Frequency Range (-3 dB):	65 Hz – 18 kHz
Horizontal Coverage Angle:	90° [rotatable]
Vertical Coverage Angle:	60° [rotatable]
Power Handling:	1000 watts program 2000 watts peak 136 dB max SPL peak
Crossover Frequency:	900 Hz [LF / MF] 2.5 kHz [MF / THF]

### Transducers

Low Frequency:	15 in / 381 mm with ferrite
Mid Frequency:	6.5 in / 165 mm
High Frequency:	1.4 in / 36 mm titanium dome compression driver

### Physical Features

Input Type:	1x Female speakON
Thru Type:	1x Female speakON
Nominal Impedance:	4 Ω
Basic Design:	Vertical Trapezoidal
Enclosure Material:	15 mm Plywood
Enclosure Finish:	Black Polyurea
Grille Material:	16-18 gauge perforated steel
Grille Finish:	Powder-coated black
Handles:	One on each side
Operating Temperature:	0 – 40 °C 32 – 104 °F

### Dimensions

Height:	36.5 in / 927 mm
Width:	19.0 in / 483 mm
Depth:	18.8 in / 478 mm
Weight:	68.0 lb / 30.8 kg

### Mounting Methods:

Floor mount, pole mount via the built-in socket on the bottom of the cabinet [Be sure the pole is capable of supporting the weight of the DRM315-P] or fly via the integrated M10 mounting points (using M10 x 1.5 x 20 mm forged shoulder eyebolts).

See pages 9-12 for more information.

### Options

DRM315-P Cover	P/N 2036809-50
SPM400 Loudspeaker Pole Mount	P/N 2051055
PA-A2 Forged Shoulder Eyebolt Kit (3 x M10 x 1.5 x 20 mm)	P/N 0028272

## DRM12A-P Loudspeaker Specifications

### Acoustic Performance

Type:	12" Arrayable Passive Loudspeaker
Frequency Range (-10 dB):	47 Hz – 20 kHz
Frequency Range (-3 dB):	60 Hz – 18 kHz
Horizontal Coverage Angle:	110°
Vertical Coverage Angle:	20°
Power Handling:	1000 watts program 2000 watts peak 132 dB max SPL peak
Crossover Frequency:	1.0 kHz
Monitor Angle	50°

### Transducers

Low Frequency:	12 in / 305 mm with ferrite
High Frequency:	3x 1.0 in / 25 mm titanium dome compression driver

### Array Coverage

Horizontal Coverage (-6 dB):	110° averaged 2 kHz to 10 kHz
Vertical Coverage (-6 dB):	
1x DRM12A-P	20° averaged 2 kHz to 10 kHz
2x DRM12A-P	40° averaged 2 kHz to 10 kHz
3x DRM12A-P	60° averaged 2 kHz to 10 kHz
4x DRM12A-P	80° averaged 2 kHz to 10 kHz

### Physical Features

Input Type:	1x Female speakON
Thru Type:	1x Female speakON
Nominal Impedance:	8 Ω
Basic Design:	Horizontal Trapezoidal
Enclosure Material:	15 mm Plywood
Enclosure Finish:	Black Polyurea
Grille Material:	16-18 gauge perforated steel
Grille Finish:	Powder-coated black
Handles:	One on each side
Operating Temperature:	0 – 40 °C 32 – 104 °F

### Dimensions

Height:	15.2 in / 386 mm
Width:	24.7 in / 627 mm
Depth:	18.0 in / 457 mm
Weight:	55.0 lb / 24.9 kg

### Mounting Methods:

Floor mount, pole mount via the built-in socket on the bottom of the cabinet [Be sure the pole is capable of supporting the weight of the DRM12A-P] or fly via the integrated M10 mounting points (using M10 x 1.5 x 20 mm forged shoulder eyebolts).

See pages 9-12 for more information.

### Options

DRM12A Cover	P/N 2036809-52
FB100 Flybar Kit	P/N 2050041
SPM400 Loudspeaker Pole Mount	P/N 2051055
PA-A2 Forged Shoulder Eyebolt Kit (3 x M10 x 1.5 x 20 mm)	P/N 0028272



## DRM18S-P Subwoofer Specifications

### Acoustic Performance

Type:	18" Professional Passive Subwoofer
Frequency Range (-10 dB):	33 Hz – 250 Hz
Frequency Range (-3 dB):	40 Hz – 250 Hz
Power Handling:	1000 watts program 2000 watts peak 129 dB max SPL peak
Crossover Frequency:	1.5 kHz

### Transducers

Low Frequency:	18 in / 457 mm with ferrite
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### Physical Features

Input Type:	1x Female speakON
Thru Type:	1x Female speakON
Nominal Impedance:	8 Ω
Basic Design:	Rectangular
Enclosure Material:	18 mm Plywood
Enclosure Finish:	Black Polyurea
Grille Material:	16-18 gauge perforated steel
Grille Finish:	Powder-coated black
Handles:	One on each side
Operating Temperature:	0 – 40 °C 32 – 104 °F

### Dimensions

Height:	31.1 in / 790 mm
Width:	23.0 in / 584 mm
Depth:	23.3 in / 592 mm
Weight:	90.0 lb / 40.8 kg

### Mounting Methods:

Floor mount or fly via the integrated M10 mounting points (using M10 x 1.5 x 20 mm forged shoulder eyebolts).

See pages 9-12 for more information.

### Options

DRM18S Cover	P/N 2036809-51
FKDRM18S Flyware Kit	P/N 2051056
FB100 Flybar Kit	P/N 2050041
CK100 Caster Kit	P/N 2035618-01
SPM400 Loudspeaker Pole Mount	P/N 2051055
PA-A2 Forged Shoulder Eyebolt Kit (3 x M10 x 1.5 x 20 mm)	P/N 0028272

### Disclaimer

Since we are always striving to make our products better by incorporating new and improved materials, components, and manufacturing methods, we reserve the right to change these specifications at any time without notice.

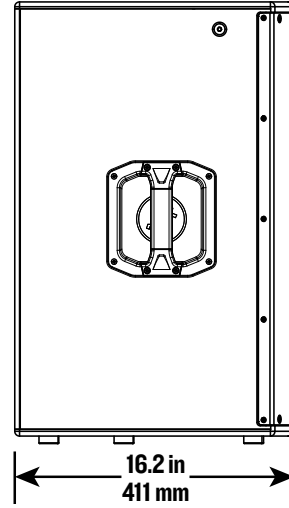
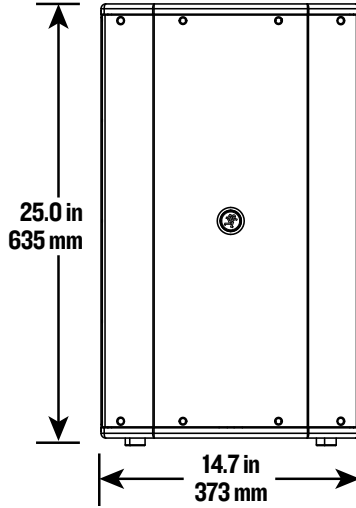
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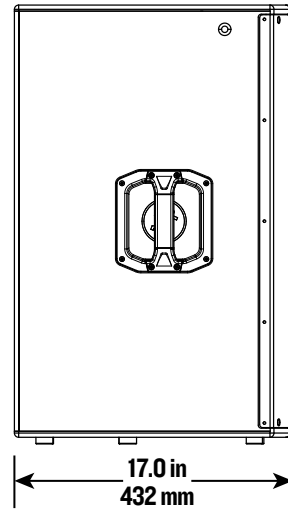
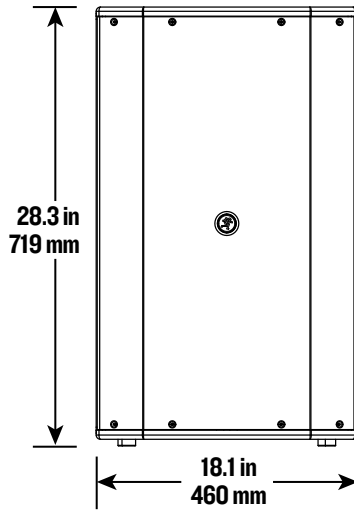
## DRM212-P Loudspeaker Dimensions

WEIGHT  
42.0 lb  
19.1 kg



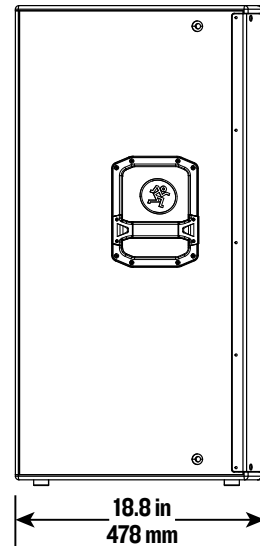
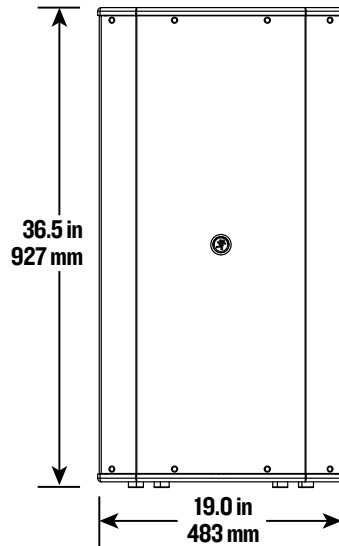
## DRM215-P Loudspeaker Dimensions

WEIGHT  
57.0 lb  
25.9 kg

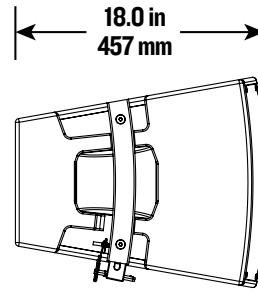
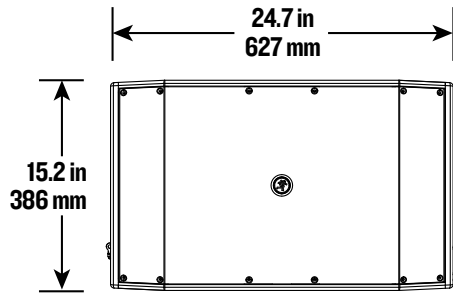


## DRM315-P Loudspeaker Dimensions

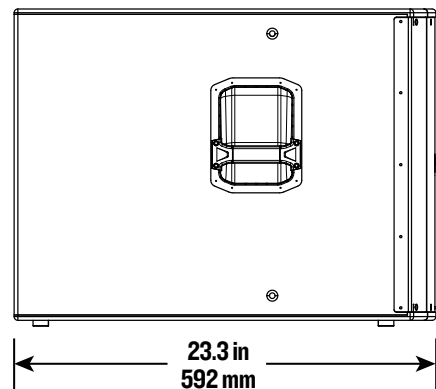
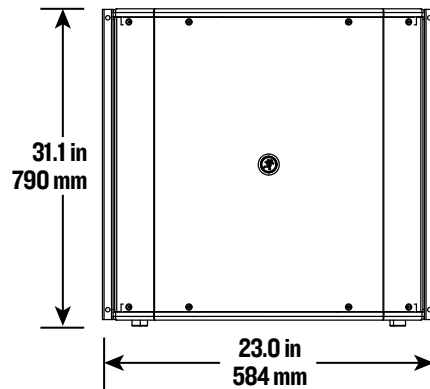
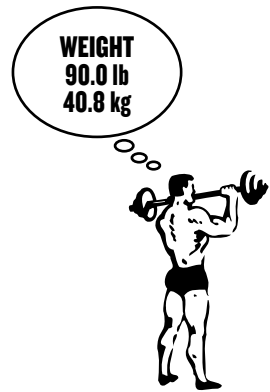
WEIGHT  
68.0 lb  
30.8 kg



## DRM12A-P Loudspeaker Dimensions



## DRM18S-P Subwoofer Dimensions



## Limited Warranty

### Please keep your sales receipt in a safe place.

This Limited Product Warranty (“Product Warranty”) is provided by LOUD Audio, LLC (“LOUD”) and is applicable to products purchased in the United States or Canada through a LOUD-authorized reseller or dealer. The Product Warranty will not extend to anyone other than the original purchaser of the product (hereinafter, “Customer,” “you” or “your”).

For products purchased outside the U.S. or Canada, please visit [www.mackie.com](http://www.mackie.com) to find contact information for your local distributor, and information on any warranty coverage provided by the distributor in your local market.

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](http://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.

For full terms and conditions, as well as the specific duration of the Warranty for this product, please visit [www.mackie.com](http://www.mackie.com).

The Product Warranty, together with your invoice or receipt, and the terms and conditions located at [www.mackie.com](http://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.

### Need help with the DRM loudspeakers?

- Visit [www.mackie.com/support](http://www.mackie.com/support) to find: FAQs, manuals, addendums, and other documents.
- Email us at: [www.mackie.com/support-contact](http://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).



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