



# Monitor Series

## Product Manual

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## Introduction

Thank you for purchasing the new Monitor Series loudspeakers. In specifying the finest materials available, we have been able to employ all our decades of loudspeaker design expertise to literally bring the new Monitor Series to life.

This new series delivers clean and minimalistic styling, with accents of Monitor Audio's heritage from the "System R Series", all in a thoroughly modern package.

The range features both a new, compact bookshelf speaker, and a new floor-stand model. Larger alternatives of both are also available, to compliment larger room and higher power applications.

As employed on the new Silver Series, the outrigger feet provided with the Monitor 200 and 300 models, return a more sleek appearance while occupying less floor space and improving stability.

## Spikes and Feet

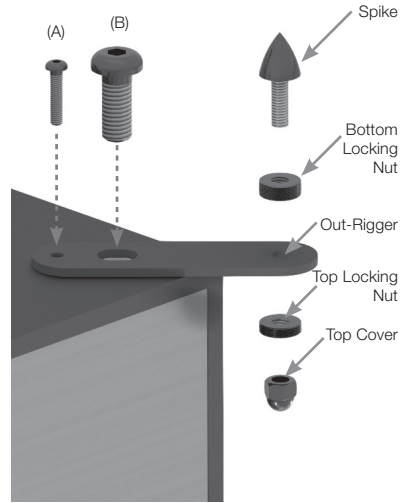
(Monitor 200 & 300 only)

If the speaker is being installed on a carpeted floor, screw the spike into the foot and 'out-rigger' assembly. Fix them to the speaker base using the supplied bolts (A & B).

You can check that the speaker is level on all sides by using the spirit level. If it's slightly off-level, unscrew the foot at the lowest point and check again. Continue this process until the cabinet is fully level. Use the locking nuts on each foot to fix the feet in place and to stop any unwanted vibrations.

**Please ensure there are no hidden wires under the carpet that could be damaged by the spikes.**

If spikes aren't to be used, please position the included self adhesive rubber feet on the bottom of the outrigger.



## Positioning

### 2 Channel Positioning

When arranging a 2 channel system, the listening position and the loudspeakers should form an equilateral triangle. The speakers should be positioned approximately 6 - 10 feet (1.8 - 3m) apart. The ideal distance from the rear wall varies depending on the speaker and tastes, however, they need to be a minimum of 3 feet (91cm) from the side walls.

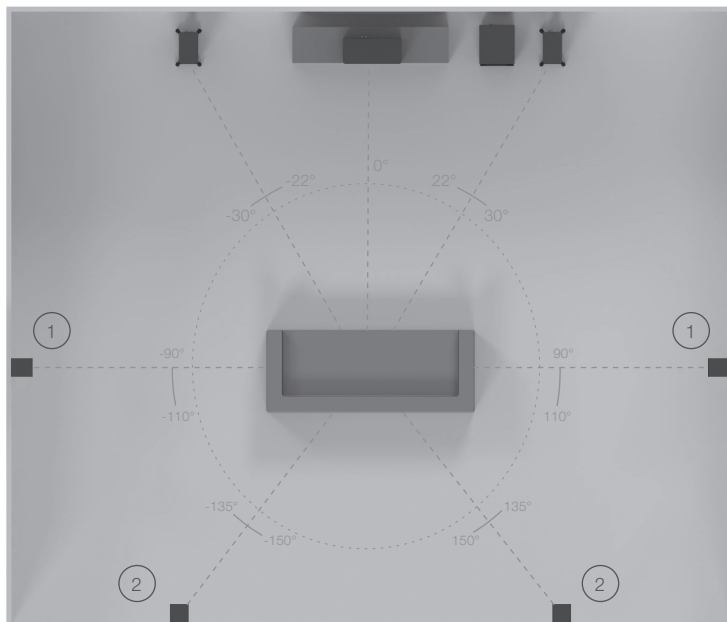
Experimentation is strongly advised when initially setting up the speakers, as environment and personal preference differ with every installation. If there is insufficient bass for example, try moving your speakers closer to a wall. The opposite approach is recommended if there is excess bass. Alternatively, if this isn't possible, the supplied port bungs can help reduce the excessive bass. If stereo imaging is being lost, try 'toeing' them in slightly. The sound should appear to originate from the centre point between the speakers, not the actual speakers themselves.

### AV Positioning

Please refer to the illustrations opposite for the ideal angles and positions of each speaker in your surround system. The speakers should be distanced from the wall according to the speaker and personal preference.

If the sound is too bass heavy or there is bass boom from the room when playing music (without a subwoofer), try moving the loudspeakers slightly further away from the wall(s). If this is not possible, try adjusting the crossover frequency settings for the speakers and/or sub or changing the subwoofer's position.

The Monitor C150 centre speaker should be positioned so that the tweeter is pointing at the viewing position at approximate ear height.



1. Side surround speakers

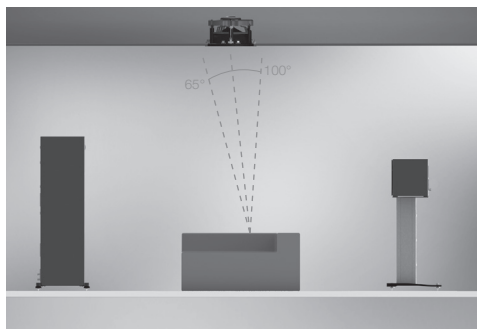
2. Rear surround speakers

A 7.1 surround system will make use of side (position 1) and rear speakers (position 2) to create a full 360° soundstage, if setting up a 5.1 system you can place your surrounds in position (1) or (2).

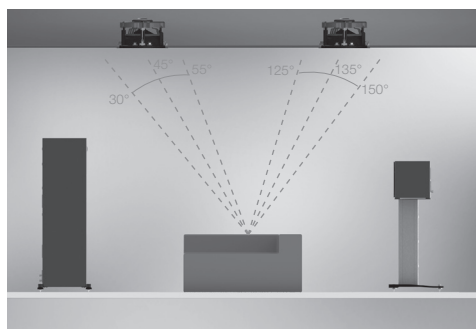
## Atmos

When arranging an Atmos system, for the Atmos channels we would recommend using our C265-IDC. These speakers employ a unique pivoting IDC (Inverted Dual Concentric) midrange/ tweeter module which offers a wider dispersion characteristic, and is ideal for Atmos duties. More information on the C265-IDC can be found on our website: [monitoraudio.com](http://monitoraudio.com)

Please see below for ideal positioning of 2 or 4 speaker setups.



2 Atmos speakers (in line with front left and right)

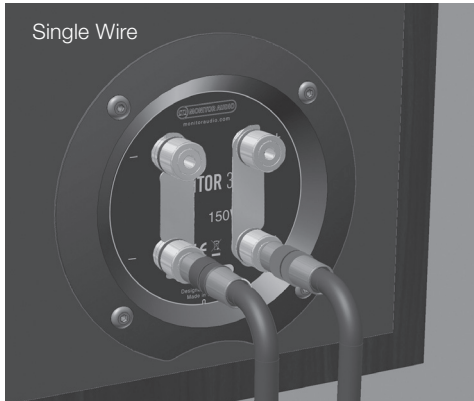


4 Atmos Speakers (in line with front left and right)

# Wiring configurations

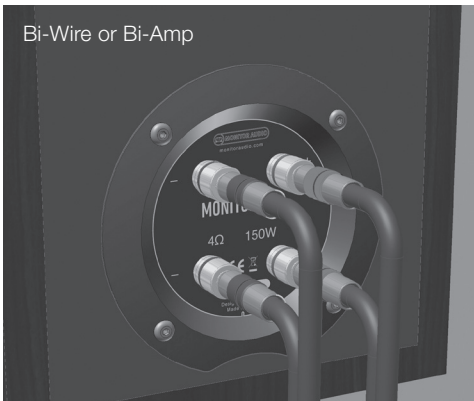


The Monitor 50 and C150 models feature a single pair of speaker terminals (see illustration opposite) allowing single wire connection.



The Monitor 100, 200 and 300 models feature two pairs of terminals, and can be single wired (using one positive and one negative cable) as featured in the illustration opposite.

**NOTE: In this configuration, the provided terminal links MUST be used.**



Bi-wiring can be achieved by running two pairs of cables (two positive and two negative) from a single pair of terminals on your amplifier.

Certain AV amplifiers support bi-amping connection. This is similar to the bi-wiring process, with the exception that two pairs of terminals on the AV amp are used. Bi-amping can also be achieved by using two stereo amplifiers.

The benefits of bi-wire or bi-amp connection include a cleaner, smoother sound with tighter mid and more controlled bass.

**NOTE: When bi-wiring these speakers, the provided terminal links MUST be removed. Failure to do so, may result in damage to your amplifier.**

## Port bungs



**WARNING: Care must be taken not to insert the port bungs too far into the port, as this may result in the foam bung being lost inside the cabinet.**

If the loudspeaker is to be installed in a small room, typically 9 sqM (80 sqFT), or a room known to reproduce accentuated bass response, it may be desirable to fit port bungs. However, experimentation is recommended with positioning of the loudspeaker in the room prior to fitting. To optimise performance from the loudspeaker it is important to ensure the loudspeaker is not positioned too close to a wall or near the corners of a room.

If the positioning of the loudspeaker is predetermined by room aesthetics or layout, you find you have accentuated bass or in the case speakers are to be sited in close proximity (less than the minimum suggested distances suggested on page 2) to a rear wall (such as on a bookshelf, positioned in a cabinet or on a stand close to a wall), we recommend fitting port bungs to the ports. This will reduce the bass 'boom' sometimes termed as overhang, and assist the loudspeakers to reproduce their best performance under these environmental conditions.

Boom is generally caused when bass energy from the loudspeaker 'excites' room modes and causes an accentuation at a particular frequency, or number of frequencies.

When fitting port bungs the overall bass extension will not be reduced, however bass energy/ output around the port tuning frequency will be reduced. This has the effect of reducing bass 'boom' while increasing bass clarity and apparent agility.

In all circumstances experimentation is highly recommended.

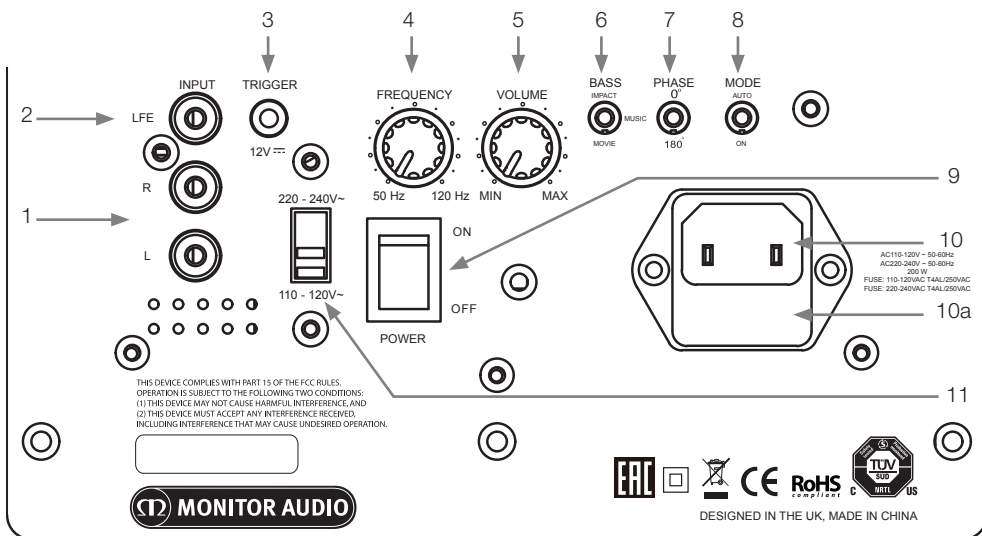
## Running-In Your Speakers

Run your speakers in by playing normal music at low-mid listening levels for approximately 50-70 hours play time. You may find the sound will continue to improve even after 70 hours.

This can be done naturally over time: like a fine wine the performance will improve with age.

Alternatively if you wish to run the speakers continuously on loop you can decrease the audible volume/ presence by placing the speakers face-to-face so that the drivers/tweeters are directly aligned and as close as possible. Then connect the amplifier to your speakers so that one is as normal (in phase): positive to positive and negative to negative (red to red and black to black), and the other speaker out of phase: positive to negative and negative to positive inputs on the speaker.

# MRW-10 Amp Panel & Controls



## 1. RCA Stereo Inputs (Left & Right)

This is the method of signal input when using a stereo amplifier system, connection can be provided by a pair of high-quality signal cables from the pre-out section of an amplifier. The crossover frequency will need to be set if using this method of connection. We recommend setting the crossover dial to approximately 80Hz as a starting point. This may vary depending on room and tastes.

**NOTE:-** cable lengths should not exceed 10 metres to avoid interference from other electrical appliances.

## 2. LFE Input (RCA Type)

This input is to be used when connecting the subwoofer to an AV amplifier/ receiver. When using the LFE input, the crossover frequency dial is not used. This is due to the crossover function being controlled by the AV amplifier/ processor to which it is connected.

## 3. 12 Volt Trigger Input ~ Centre Pin = +12Vdc

For external power control from AV amplifier/ receiver to the MRW-10. A 12 volt signal is supplied by the AV amp/receiver and tells the MRW-10 to turn on from standby mode. This allows a more accurately controlled auto on/off function, and is far more energy efficient. When using the 12v trigger, the Mode Switch (8) must be in the **Auto** position for it to function correctly. Once the AV receiver has been turned off the MRW-10 will remain on for around 15 minutes before going into standby. The cable is supplied separately.

## 4. Crossover Frequency Control

The crossover frequency control only operates when using the RCA stereo input (1) and is used to set the upper frequency limit (low pass) of the subwoofer. The crossover control should be set in accordance with the size or bass output of the main/satellite speakers. When using the Monitor Series speakers, set this to between 50 - 100Hz (depending on additional speakers). Experimentation is advisable.

Type of Main Speaker	Monitor Series Product	Crossover Control Setting
Small stand-mount/ bookshelf speaker	Monitor 50/ 100	60-100 Hz
Floor Standing Speaker	Monitor 200/ 300	50 - 80 Hz

## 5. Volume Control

This control allows the level or volume to be adjusted in order to achieve a balanced overall sound. To get the balanced sound a selection of familiar music or film excerpts will need to be played. Start with the volume at minimum and increase the level control until a balanced sound is established. If using an AV processor or AV receiver amplifier, the system can be adjusted by the test tone function within the set-up features. (Refer to the set up section in the AV processor or AV receiver amplifier user guide.) When the subwoofer is correctly set-up, you should not be able to identify its location easily in the room.

## 6. Bass Switch

This switch tailors the bass response of the subwoofer to your tastes. There are three settings: Music, Movies and Impact. Movie mode provides a relatively flat response down to 35Hz. Music mode is -2dB down on Movie mode but goes lower, all the way down to 30Hz. Impact mode is +3dB up on Movie mode and comfortably goes down to 40Hz.

## 7. Phase Control Switch

The Phase Control is used to synchronise any delay between the subwoofer and main/ satellite speakers. When the subwoofer is in phase with the main/satellite speakers the sound should be full bodied. Sit in a normal listening position whilst adjusting the phase switch. Help from another person may be required. When set correctly the location of the subwoofer should be almost undetectable. Experimentation is advised in order to achieve optimum results. However it should be noted that in most cases the phase control switch should be set to 0 degrees.

## 8. Power Mode Switch with On-Auto Facility

With the switch in the 'On' position, the subwoofer is permanently switched on under all conditions. In the 'Auto' position the subwoofer will automatically switch on when an input signal is received. It will remain on for a period of 15 minutes without receiving a signal before switching into standby mode until a signal is received once more.

### **Additional Notes on the Auto On Function**

When using the auto on feature, the subwoofer will "lock" onto the input it was activated by. In most cases, when using either stereo or LFE input connection this will not matter. However, if using both stereo and LFE connections, you will not be able to toggle between inputs until the subwoofer has entered standby. This can be done manually by turning it off and on again, or by letting it time out (15 minutes) before changing the inputs over.

## 9. Mains Power Switch

The Mains Power Switch should be switched to the 'Off' position when the subwoofer is unused for extended periods. The switch must be in the 'On' position for the subwoofer to function.



**WARNING: Due to the mains switch being located on the rear panel, the apparatus must be located in the open area with no obstructions to access the mains switch.**

## 10. IEC Mains Power Connector/ Fuse Location

The subwoofer is supplied with a two-pin mains input socket for connection to the mains supply. Use ONLY the appropriate IEC mains lead provided with the product. Also fitted is an external mains fuse. If this fuse blows during operation a spare fuse is provided within the fuse holder for replacement. If you wish to change the fuse, you can do this by removing the IEC mains lead and carefully levering out the original fuse from its holder below the IEC mains input socket (10a). If the fuse blows again it is advisable to seek help from an authorised service agent. DO NOT attempt to re-fit a further fuse as this could result in serious damage to the amplifier unit.

## 11. Mains Voltage Selector

This is factory set to your country's mains voltage specification. Do not attempt to adjust this as this may lead to permanent damage to the product and even the risk of fire. There is a clear plastic cover over the selector to prevent accidental adjustment.



## MRW-10 Positioning & Initial Set Up



**Leave the subwoofer unplugged from the mains until all signal cables are connected and feet attached.**

Fix the feet to the bottom of the MRW-10 using the provided screws into the pilot holes on the base of the cabinet.

The subwoofer should now be sited in the most suitable position, preferably not directly in the corner of a room as this may cause excessive bass boom. Once a desirable position is achieved it is important to check if the cables are long enough to reach comfortably without being under tension. Cables should be less than 10 metres to avoid interference.



**WARNING: Never connect or disconnect the RCA input/ output leads with the subwoofer switched on.**

For initial setting up, put the Power Mode Switch in the 'On' position and leave the 12v trigger cable (if being used) disconnected.

Once the input cables are connected and the power mode switch is in the On position, the subwoofer can be connected to the mains power supply and switched on at the mains power switch.

## MRW-10 Set Up

### Connected to an AV Receiver

The majority of AV amplifiers have automatic setup systems. If your amp has an auto set up procedure, run this now with the volume set to around 10 - 12 o'clock, and the power mode switch in the On position.

When the auto set up is complete check the settings on the AV amp for the sub woofer to ensure they are correct. The crossover frequency should be roughly the same as in the table on page 6 and the level should be no more/ less than +/- 3dB. If not we would suggest adjusting accordingly.

Now play a variety of music/ film excerpts that you are familiar with gradually increasing the volume to an average listening level once you are sure everything is working correctly.

### Connected to a Stereo Amplifier

Stereo L & R input may be required if using a 2-channel stereo amplifier, or an amplifier with no LFE output. Connect 2 x interconnect cables (left and right) from the amplifier to connections marked L & R.

With the pre/ integrated amplifier set to a low level, set the subwoofer up using the suggested guide below before playing any music/ test tones.

- Set the volume to around 10 o'clock (Page 6)
- Frequency should be set in accordance to your main speakers (refer to the table on Page 6)
- Phase to 0 (Page 6)

Now play some familiar music and gradually adjust the volume and/ or the frequency until happy with the integration and balance of the sub woofer with the rest of the system.

Model	Monitor 50	Monitor 100	Monitor 200	Monitor 300	Monitor C150
<b>System Format</b>	2 Way	2 Way	2 1/2 Way	2 1/2 Way	2 Way
<b>Frequency Response</b>	55 Hz - 30 kHz	44 Hz - 30 kHz	40 Hz - 30 kHz	35 Hz - 30 kHz	60 Hz - 30 kHz
<b>Sensitivity (1W@1M)</b>	87dB	88dB	88dB	90dB	88dB
<b>Nominal Impedance</b>	8 Ohms	8 Ohms	8 Ohms	8 Ohms	8 Ohms
<b>Maximum SPL (Pair)</b>	109 dBA	111 dBA	112 dBA	115 dBA	111 dBA
<b>Power Handling R.M.S</b>	70 W	100 W	120 W	150 W	100 W
<b>Recommended Amp Requirements R.M.S</b>	15-70 W	30-100 W	30-120 W	40-150 W	20-100 W
<b>Cabinet Design</b>	Rear ported Bass reflex with HiVe II Port technology	Rear ported Bass reflex with HiVe II Port technology	Dual chamber bass reflex – rear bass reflex with HiVe II Port technology	Bass reflex – rear bass reflex with HiVe II Port technology	Sealed Cabinet
<b>Drive Unit Complement</b>	1 x 5.5" MMPII Bass mid-range, 1 x 25mm Black C-CAM tweeter	1 x 6.5" MMPII Bass mid-range, 1 x 25mm Black C-CAM tweeter	1 x 5.5" MMPII Bass 1 x 5.5" MMPII Bass mid-range 1 x 25mm Black C-CAM tweeter	2 x 6.5" MMPII Bass 1 x 6.5" MMPII Bass mid-range 1 x 25mm Black C-CAM tweeter	2 x 5.5" MMPII Bass mid-range 1 x 25mm Black C-CAM tweeter
<b>Crossover Frequency</b>	2.8kHz	3.3kHz	LF: 650Hz MF/HF: 2.2kHz	LF: 700Hz MF/HF: 3.3kHz	3.9kHz
<b>External Dimensions H x W x D (inc grille)</b>	206 x 206 x 237.8mm 8 1/8 x 8 1/8 x 9 3/8"	310 x 201 x 298.3mm 12 3/16 x 7 15/16 x 11 3/4"	850 x 174 x 299.3mm 33 7/16 x 6 7/8 x 11 13/16"	970 x 201 x 299.3mm 38 3/16 x 7 15/16 x 11 13/16"	174 x 455 x 197.8mm 6 7/8 x 17 15/16 x 7 3/8"
<b>External Dimensions H x W x D (inc Grille and Feet)</b>	N/A	N/A	873 x 215.4 x 309.8mm 34 3/8 x 8 1/2 x 12 3/16"	993 x 252.9 x 315.3mm 39 1/8 x 9 15/16 x 12 7/16"	N/A
<b>Product Weight</b>	3.56Kg (7lb 14oz)	5.12Kg (11lb 4oz)	10.82Kg (23lb 12oz)	13.66Kg (30lb)	5.40Kg (11lb 14oz)
<b>Finishes</b>	Black, White, Walnut	Black, White, Walnut	Black, White, Walnut	Black, White, Walnut	Black, White, Walnut

MRW-10										
Low Frequency Limit	Upper Frequency Limit	Amplifier Output	Bass EQ Modes	Cabinet Alignment	Driver Complement	Input Impedance	Mains Input Voltage (Factory Preset)	Power Consumption	External Dimensions Inc Grille (H x W x D)	Weight
30Hz (-6dB)	Variable 50-120Hz @ 24dB/Octave	100W	Music/ Movie/ Impact	Bass Reflex, 18mm Construction	1 x 10" MMP II Long Through Driver	20K Ohms	110-120 VAC 220-240 VAC	<0.5 Watts Standby	320 x 320 x 340mm (12 5/8 x 12 5/8 x 13 3/8")	10.54Kg (23lb 4oz)

Monitor Audio reserves the right to alter specifications without notice.

# Trouble Shooting

Should you experience any technical, or set-up problems with your subwoofer please check the Trouble Shooting Guide below:

My subwoofer will not turn on/ no power.

- Check your mains lead is properly connected both at the subwoofer and at the mains outlet. Also check the fuse of the mains plug (where fitted) and also the fuse in the subwoofer. See page 6 for further information on changing the fuse and it's location.
- Is there a signal going to the subwoofer? If there is a signal present, is the Power Mode Switch in the Auto or On position, and the source is turned on? Try adjusting the volume level of the source and try the switch in the 'On' position.

If it still does not turn on/ power up, please contact your local dealer/ distributor or Monitor Audio immediately.

No sound from subwoofer.

- Are the signal leads connected correctly? Check these. If possible, check with a second, known to be working set.
- Is the volume level just very low?

If it still does not output a signal, please contact your local dealer/ distributor or Monitor Audio immediately.

# Owner Information

## **Product Details**

Model .....

Product Serial No .....

Date of Purchase .....

## **Dealer Details**

Dealer Name .....

Address .....

.....

E-mail address .....

Telephone Number .....

## Guarantee

Both the craftsmanship and the performance of this product is guaranteed against manufacturing defects for the period of **five** years from the date of purchase (see conditions in the Important Safety Instructions booklet), provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement.

To help us find your warranty details within our customer database, should the need arise, please take a few minutes to register your product(s) online at: [monitoraudio.com](http://monitoraudio.com).



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