

MASS Surround Sound

Product Manual

Contents

Introduction	1
Loudspeaker Positioning	1
Connecting Speaker Cables	2
Adhesive Rubber Feet	2
Subwoofer Positioning and Set Up	2
Initial Set Up	2
Connecting to an AV Receiver	2
Amplifier Connections & Controls	3
Owner Information	5
Specifications	5
Warranty	6

Introduction

Thank you for your purchase.

The MASS Surround Sound system has been designed to deliver a great audible performance from gracefully refined, small cabinets that will complement any home. Loaded with Monitor Audio's renowned speaker technology, elegantly packaged to create and deliver a truly immersive sound.

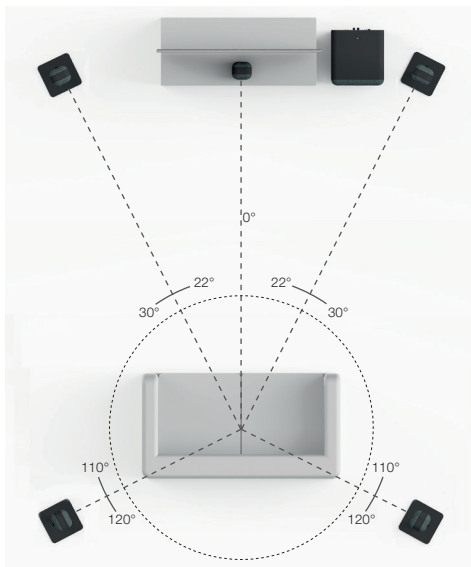
Please follow this guide to help achieve the best from your system. We hope the MASS Surround Sound system provides you with many years of enjoyment!

Loudspeaker Positioning

In an AV surround system, speaker positioning is based on angles from the main listening position. Please refer to the illustration for the ideal angles and positions of each speaker in your MASS surround system.

The centre channel can be placed either above or below the TV screen, and as close to it as possible. The centre speaker should be positioned so that the tweeter is pointing at the viewing position for optimum performance. If mounted using our Monitor Audio Wall Mount (MASM - sold separately) a tilt can be given to the speaker to direct the sound towards the listening position. If positioned in a cabinet or sitting on a shelf, ensure that the front edge of the loudspeaker is aligned with the front edge of the cabinet or shelf.

The front and surround speakers can be toed in towards the listening position (as illustrated) in order to direct the sound, particularly the higher frequencies, towards you. Alternatively, they can be adjusted to point straight into the room. This will give a slightly wider image to the sound. Experimentation is advisable to find the sound that best suits your room and tastes.



Connecting Speaker Cables

To access the speaker terminals of the MASS Satellites first detach the back cover. This is a push-fit assembly and has fixing points in each corner. Unscrew each terminal, pass the bare wire through the exposed hole and re-tighten. Ensure to match the positive cable from the amplifier to the red terminal and negative cable to the black terminal.



Adhesive Rubber Feet

If positioning the MASS satellites on a flat surface such as TV stand or table then we recommend placing the supplied adhesive rubber feet to the bottom of the cabinet, as illustrated opposite, to prevent movement.

Subwoofer Positioning and Set Up

Initial Set Up



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

The subwoofer should 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 12 V 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.

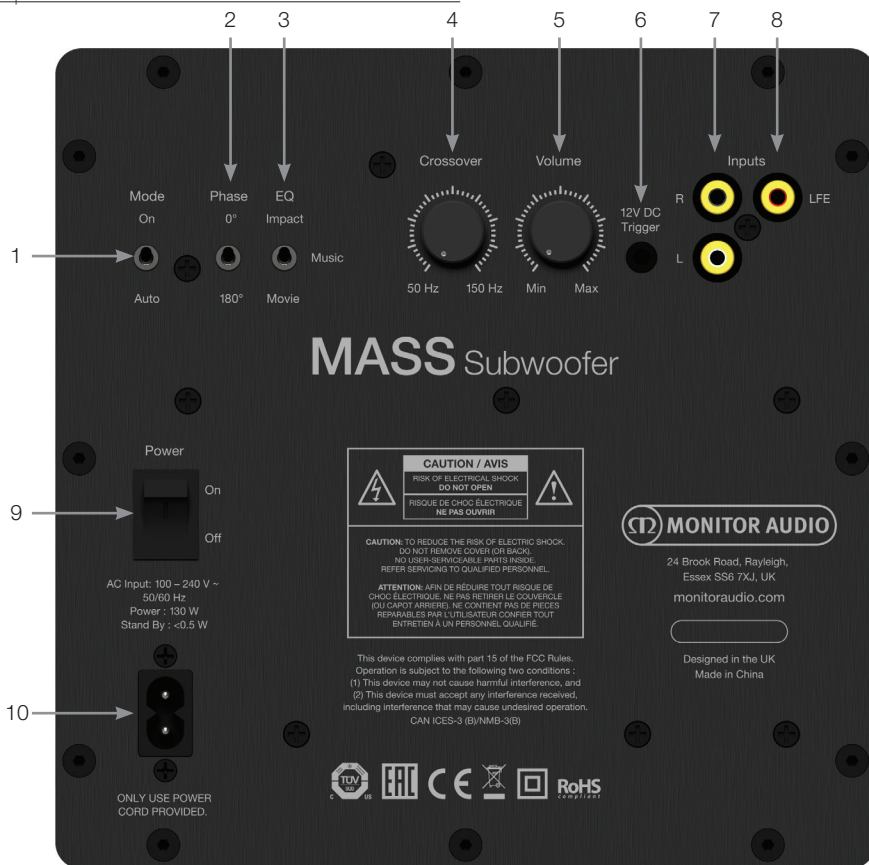
Connecting to an AV Receiver

The majority of AV amplifiers have automatic setup systems. If your amplifier 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 amplifier for the subwoofer to ensure they are correct. The crossover frequency should be set to 150 Hz and the level should be no more/ less than +/- 3 dB. 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. This is also a good time to experiment with the toe in angle of the speakers.

Amplifier Connections & Controls



1. Power Mode Switch with 'On'-'Auto' Facility

The Power Mode Switch has two positions: 'On'-'Auto'. With the switch in the 'On' position, the subwoofer is permanently switched on under all conditions and will need to be manually put into 'Standby' mode. In the 'Auto' position the subwoofer will automatically wake once an input signal is received and will remain on while still receiving a signal. The MASS Subwoofer will switch into 'Standby' mode following a period of 20 minutes without a signal.

2. Phase Control Switch

The Phase Control switch is used to synchronise any delay between the MASS Subwoofer and main/satellite speakers. When the MASS 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 recommended 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, especially when using a digital AV processor or AV receiver amplifier.

3. EQ 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 35 Hz. Music mode is -2 dB down on Movie mode but goes lower, all the way down to 30 Hz. Impact mode is +3 dB up on Movie mode and comfortably goes down to 40 Hz.

4. Crossover Frequency Control

The crossover frequency control only operates when connected to the stereo inputs. It does not have any effect when connected to the LFE input. This control feature is used to set the upper frequency limit (low pass) of the MASS Subwoofer. The crossover control should be set in accordance with the MASS Satellites. We would recommend setting the crossover to 150 Hz but experimentation is advisable.

5. Volume Control

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

6. 12 Volt Trigger Input ~ Centre Pin = +12 Vdc

For external power control from AV amplifier/ receiver to the subwoofer. Monitor Audio recommend using this function and a lead is supplied. This 12 V signal is generated by the AV amplifier/ receiver and tells the subwoofer 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 12 V trigger, the Power Mode Switch must be in the **AUTO** position, for it to function correctly.

7. RCA Line Level Inputs (Stereo Left & Right)

For connection to a stereo pre-amplifier output. Connection should be provided by a pair of high-quality signal cables from the pre-out section of an amplifier.

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

8. LFE Input (RCA Type)

This input is to be used when connecting the subwoofer to a AV receiver. When using the LFE input, the crossover control is not used. This is due to the crossover function being controlled and set by the AV amplifier/ processor when it's set up procedure is run.

9. Mains Power Switch

The Mains Power Switch should be switched to the 'Off' position when the MASS Subwoofer will not be used 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. Figure 8 Mains Power Connector

The MASS Subwoofer is supplied with a two-pin mains input socket for connection to the mains supply. Use ONLY the appropriate mains lead provided with the product.

Power LED

On the top of the MASS Subwoofer is an informative LED. When in 'Standby' mode this will be illuminate red and when powered 'On' it will illuminate Green.

Owner Information

Product Details

Model: _____

Product Serial Number: _____

Amplifier Panel Serial Number: _____

Date of Purchase: _____

Dealer Details

Dealer Name: _____

Address: _____

Postcode: _____

E-mail Address: _____

Specifications

	MASS Satellite
System Format	2-Way
Frequency Response (-6 dB)	105 Hz - 34 kHz
Sensitivity dB (1W@1M)	80
Nominal Impedance	8 Ohms
Minimum Impedance	4.4 ohms @ 300 Hz
Maximum SPL (dBA)	98 dB (Pair)
Power Handling (RMS)	30 W
Power Handling (RMS) With Amplifier Crossover (150 Hz)	70 W
Recommended Amplifier Requirements	25 – 100 W
Recommended Crossover Frequency	120 - 150 Hz
Bass Alignment	Sealed Enclosure
Crossover Frequency	3.0 kHz
Drive Unit Complement	1 x 3 ¹ / ₂ " MMP II Mid-Bass Driver 1 x 3/4" Soft Dome Tweeter
External Dimensions Including Grille and Terminals (H x W x D)	147 x 122 x 107 mm (5 ¹³ / ₁₆ x 4 ¹³ / ₁₆ x 4 ³ / ₁₆ ")
Weight (Each)	1.12 kg (2 lb 8 oz)
Finishes	Mist, Midnight

	MASS Subwoofer
System Format	Long-throw 8" driver featuring an MMP II cone. 15 mm M.D.F. construction with 18mm base and front baffle. Internally braced with sealed amplifier compartment
Lower Frequency Limit	-3 dB @ 35 Hz/ -10 dB @ 30 Hz (Free Field) Default preset: Music, -3 dB @ 34 Hz/ -10 dB @ 25 Hz (In Room)
Upper Frequency Limit	-6 dB @ 150 Hz
Drive Unit Complement	1 x 8" MMP II subwoofer driver featuring a 2" long throw voice coil
Linear Driver Excursion	15 mm Peak to Peak
Amplifier Output	120 W
Amplifier Classification	Class D with high current Switch mode power supply (SMPSU)
Phase Control	0 Degrees & 180 Degree pure invert
Low Pass Filter Alignment	2nd order (12 dB/ Octave), from 50 Hz to 150 Hz
Auto Sensing Input Requirements	Line Level > 3 mV. Auto Standby feature after 20 mins
Audio Input/ Outputs	LFE unbalanced input RCA Stereo unbalanced inputs RCA
Connection	12 V Trigger in (3.5 mm mono mini-jack, 4 V threshold)
Electrical Certifications	CE/ CB/ ETL/ Fcc/ CCC/ ErP (Energy saving compliant)
Mains Input Voltage	100 - 240 VAC ~ 50/ 60 Hz
Power Consumption	Maximum 130 W, Standby <0.5 W (ErP compliance)
Weight (Unpacked)	10.2 kg (22 lb 4.3 oz)
External Dimensions (Including Amp, Drivers, Terminals & Feet (H x W x D))	359 x 320 x 350 mm (14 ^{1/8} x 12 ^{5/8} x 13 ^{3/4} ")
Finishes	Mist, Midnight

Monitor Audio reserves the right to alter specifications without notice.

Warranty

Both the craftsmanship and the performance of this product is covered by the manufacturer's warranty against manufacturing defects provided that the product was supplied by an authorised Monitor Audio retailer under the consumer sale agreement. For the period of cover please refer to the product page on our website: monitoraudio.com for the product you have purchased.

When purchasing Monitor Audio products, please keep your receipt of purchase safe, as this validates your warranty.



Monitor Audio Ltd.
24 Brook Road
Rayleigh, Essex
SS6 7XJ
England
Tel: +44 (0)1268 740580
Email: info@monitoraudio.com

monitoraudio.com