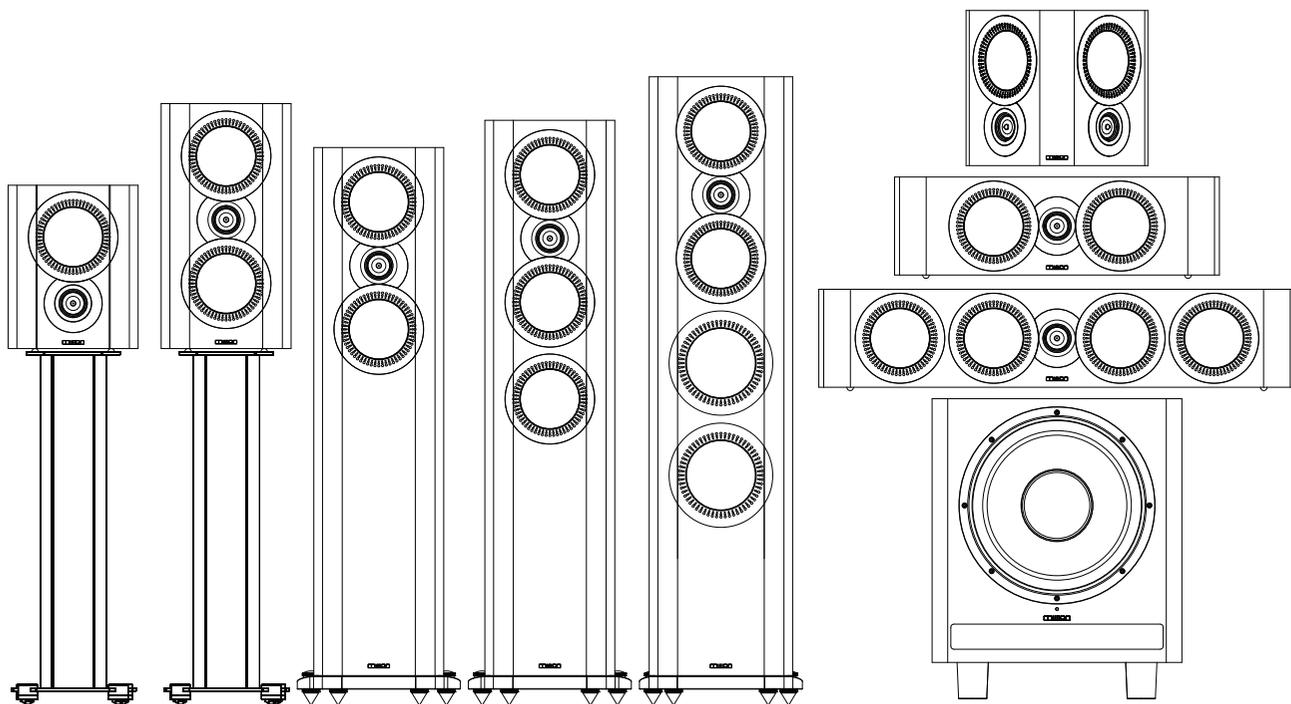




ZX-1
ZX-2
ZX-3
ZX-4
ZX-5
ZX-C1
ZX-C2
ZX-S
ZX-12SUB



User's Manual

MISSION



IMPORTANT SAFETY INSTRUCTIONS



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that dangerous that dangerous voltage constituting a risk of electric shock is present within this unit.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

DO NOT use this apparatus near water.

Clean only with a dry cloth.

DO NOT install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the 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.

Install in accordance with the manufacturer's instructions.

WARNING: If using spikes make sure that they do not pierce mains cables etc under / above the carpet.

When making any connections, switch the amplifier off.

When you switch on your system or change sources, set the volume control at minimum and turn the level up gradually.

DO NOT use your amplifier at full volume.

Avoid extreme settings of tone controls or graphic equalisers.

DO NOT place heavy objects on top of loudspeaker cabinets.

Ensure that all loudspeakers in the system are correctly wired and are in phase.

Do not connect your loudspeakers to the mains supply, except for subwoofers.

DO NOT attempt to dismantle the loudspeaker. There are no user serviceable parts inside and you will render the warranty void.

Site hi-fi electronics away from the loudspeakers on a rigid stand or cabinet.

Loudspeakers should not be placed directly facing other hi-fi units, or share the same shelf or cabinet.

Site unscreened speakers and subwoofers at least 0.5m away from TV sets, computers etc. Some manufacturers forbid the placing of objects ontop of their TV sets. Check your TV handbook before installing the centre speaker directly on your TV sets. Consult your TV dealer if you are in any doubt.

Use only attachments / accessories specified by the manufacturer.

DO NOT subject loudspeakers to excessive cold, heat, humidity or sunlight.

DO NOT block any ventilation openings.

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.

The apparatus must not be exposed to dripping or splashing objects filled with liquids, such as vases, should be placed on the apparatus.



Use only with a card, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a card is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over.

CAUTION: The mains power switch for electronic equipment should be located in an open area without any obstructions. The mains power plug must remain freely operable at all times.

CAUTION: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

	CAUTION! RISK OF ELECTRIC SHOCK DO NOT OPEN	
TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-REMOVEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL		
AVERTISSEMENT: RISQUE DE CHOC ELECTRIQUE- NE PAS OUVRIR		



WARNING: When an amplifier is driven beyond its power output capabilities it will produce output capabilities it will produce distorted results which will quickly damage your speakers by overheating. Make sure that your amplifier is not left unattended when playing, for example at parties, and turn the volume control down at the first sign of audible distortion,

Warranty Conditions

The warranty card enclosed should be completed and returned to Mission or its Distributor within 8 days of purchase.

No dealer or distributor may vary the terms of this warranty which is personal to the original purchaser and is not transferable.

Please retain the sales receipt as proof of purchase.

Warranty claims must wherever possible be made through the Dealer from whom the equipment was purchased.

This warranty excludes:

Damage caused through neglect, accident, misuse, wear and tear, or through incorrect installation, adjustment or repair by unauthorised personnel. Any unauthorised servicing will result in loss of warranty.

Liability for damage or loss occurring in the transit to or from the purchaser.

Consequent damage, loss or injury, arising from or in conjunction with this equipment.

Equipment for attention under warranty should be considered return carriage paid. If equipment is found to comply with the published specification, Mission reserves the right to raise a charge.

The above conditions do not affect your statutory rights as a consumer.





Welcome to Mission!

The ZX Series is the latest in a long line of distinguished Mission loudspeakers. These technologically advanced loudspeakers will complement the finest electronics and décor. This series incorporates purpose - designed bass driver cones, precision engineered motor systems and advanced tweeters. All our loudspeaker drive units are manufactured in our factory using the latest precision tooling. High quality binding posts feature on all models. Your Mission ZX speakers will bring you great pleasure for many years.

General Information

Please read these instructions carefully before installing your loudspeakers. A few minutes studying this manual will ensure a superb performance from your loudspeaker for many years. Please attention to all cautions printed on the pages marked with this symbol



Preparing Your Loudspeakers

The Mission ZX-3, ZX-4 and ZX-5 floorstanding models require fitting with the included plinth and spikes before use. Use the screw provided to secure the plinths to the base of the speakers. Make sure that the screws are fully tightened.

After unpacking, the other loudspeakers need no further preparation.

Preparing the Floorstanding Loudspeakers (ZX-3, ZX-4, ZX-5)

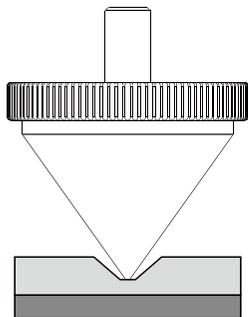
Attention:

Because the product is heavy, please arrange 1 or 2 persons to remove package.

1. Prepare a piece of towel or carpet as protection cushion.
2. Open the carton from the top, Put the carton upside down on the towel or carpet.
3. Remove the outside carton and the inside pack.
4. Put the product straight up and place it in the right place.

Spike Seats

A set of spike seats is provided to protect sensitive floors from possible damage. The loudspeaker should be mounted on the wide spikes and the spike seats should be placed under each spike as shown. Level the loudspeakers with the spike seats in place.





Connecting your loudspeakers

Conventional Loudspeaker Connections

Loudspeaker cable is polarity coded along one edge. Split the cable to a depth of about 25mm and strip 8mm of insulation from each wire. If the cable is stranded, twist the strand together.

Terminal Panels

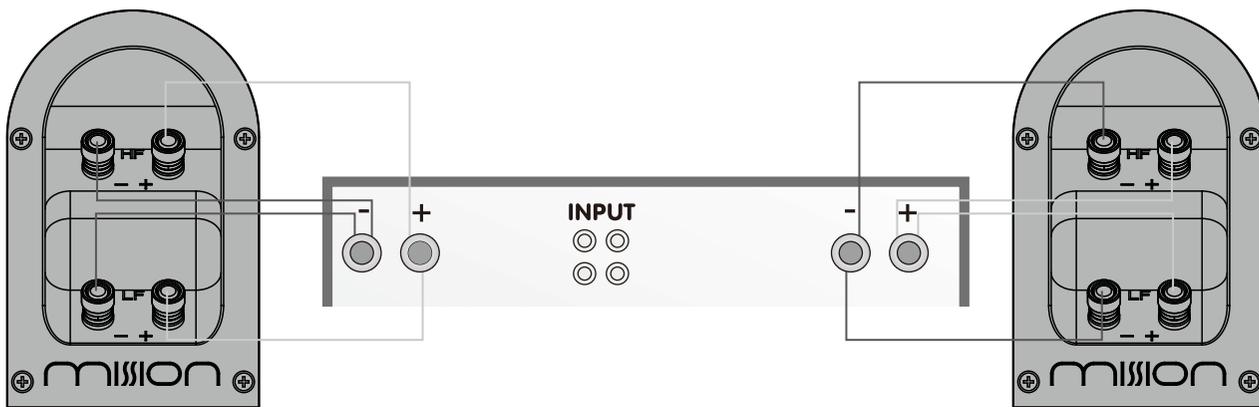
Your loudspeakers use two or four terminals. When single wiring speakers use the connecting links as shown opposite. Unscrew the terminal. Thread the bare end of the cable through the cross-hole ensuring there are no loose strands. Tighten securely. Connect the red, positive (+) terminal of the left loudspeaker to the corresponding red, positive (+) amplifier terminal. Connect the black, negative (-) terminals similarly. Repeat for the right channel.

Bi-Wiring

All models in the Mission ZX Series can be bi-wired for improved performance.

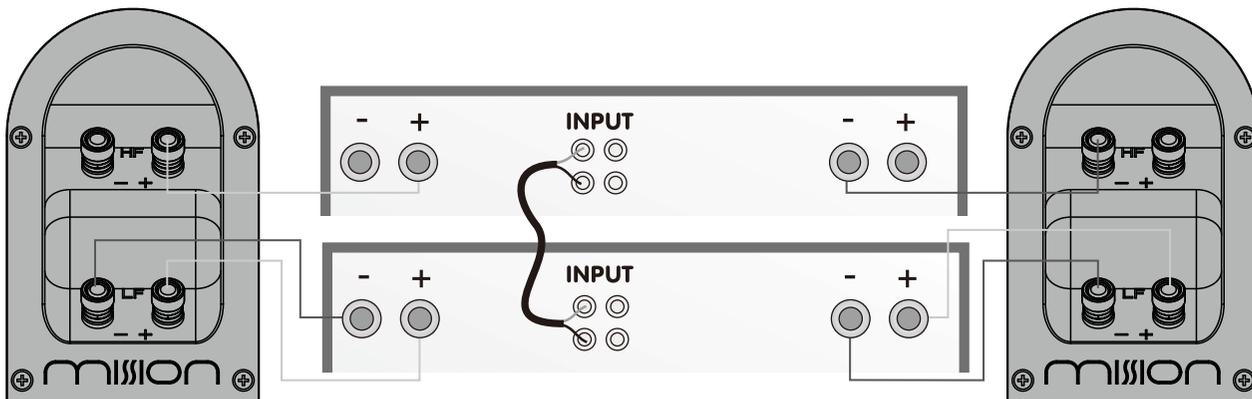
Remove both pairs of shorting links and connect a cable to each pair of terminals, running them to a common connection at the amplifier output terminals.

In the figure to the right, the terminal panel on the left is bi-wired; the panel on the right is conventionally wired. Note the shorting links.

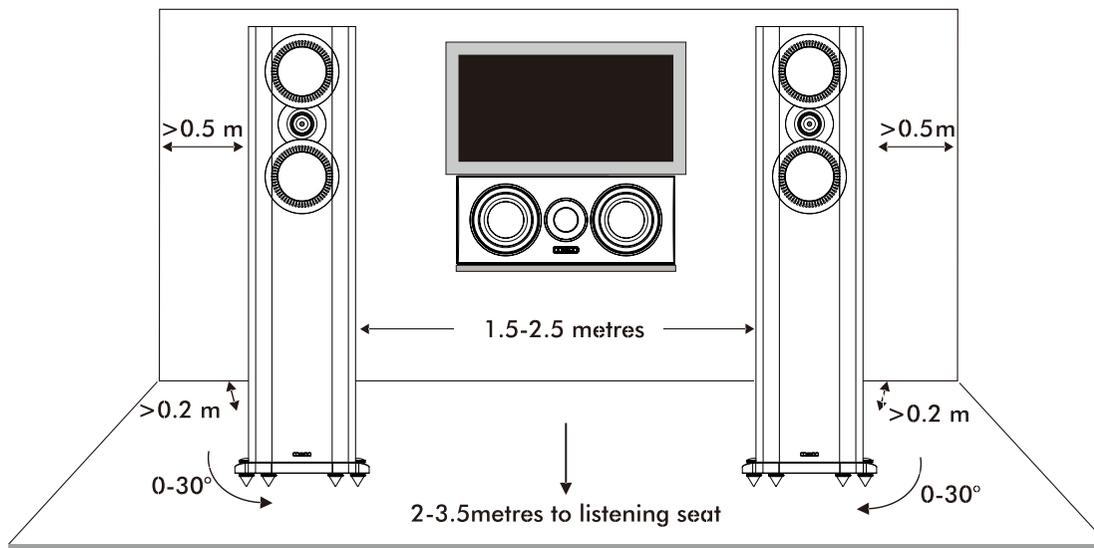


Bi-Amping

By using separate amplifiers for LF and HF drive units you can further improve performance. This is known as bi-amping. Note that the amplifier inputs are linked.



Positioning Your Loudspeakers



Floor Standing and Bookshelf Loudspeakers

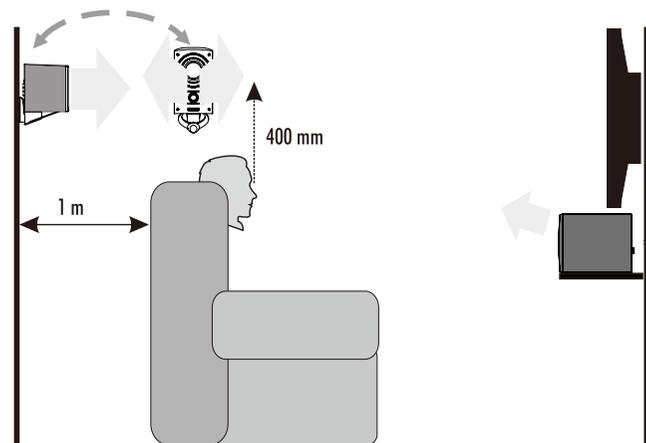
Mission ZX-3, ZX-4 and ZX-5 loudspeakers should be placed on the floor (ideally on spikes). Mission ZX-1 and ZX-2 should be mounted on rigid stands, ideally spike coupled to the floor.

Height is important: A stand should place the top of a speaker at ear level to a seated listener. Shelf or bracket mounting is second best. The distance from the wall can profoundly affect loudspeakers' sonic performance. If your speakers are too close to the wall the bass will boom and sound will be coloured. Moving them into the room may increase clarity but tends to reduce the bass output. When positioned correctly, the high frequency response is smooth with well-defined, powerful bass. Start with the speakers about 300mm from the wall and 1.8m apart. The distance from each loudspeaker to the side wall should be at least 500mm. Vary the distance between the two loudspeakers and the distance from the wall until you get a perfect stereo stage. If your loudspeakers are wired correctly, the sound should be full with a clean treble and a deep, rich bass.

Centre and surround speaker

Your ZX-C1/C2 centre loudspeakers should be positioned ontop of the TV monitor or on a shelf in a console below the TV set. If you place the unit directly on top of the TV, ensure that the cabinet can stand the weight and the assembly is stable. Place the stand on a stable surface and place the ZX-C1/C2 on the stand. Ensure the stand is central to the speaker cabinet. Check your TV handbook or consult your TV dealer if you are in any doubt.

The surround speakers should be placed above head height and behind the listening seat. They may be stand or bracket mounted on the side walls or on the rear walls but always behind the listener. Do not operate them within 450mm of a TV screen.



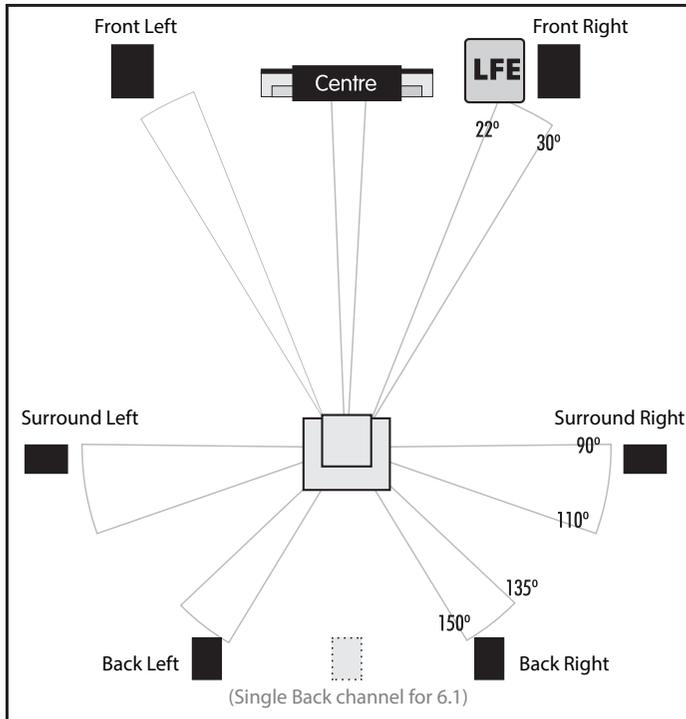
Tuning and Phase

Phase: To check the loudspeaker phase, check the polarity of your speaker wire at the terminals of the loudspeakers and at the loudspeaker terminals of the amplifier. The conductor colour should always be connected the same way round. If your loudspeakers are connected correctly, you will hear a full sound with clean midrange and a deep, powerful bass.

Fine Tuning: All the loudspeakers except the ZX-S are reflex enclosures. Although these will not normally be needed, foam port bungs are provided which may be used to alter the bass parameters and damp resonances, especially when operating the loudspeakers next to walls etc.

Place a bung in each speaker port and adjust them in and out as needed.

Home Theatre Topics



Loudspeaker Positioning

Front Loudspeakers: The front loudspeakers are placed on either side of the TV monitor, 2 to 3 metres apart. The speakers should be angled slightly so they are aimed towards the listeners.

Rear Surround Channels

We recommend placing the surround speaker in a high position, behind the listeners head. If the rear wall is more than 1 metre behind the listening seat, an alternative position is on the side walls. If the walls are a long way from the listening seat, consider stand mounting the loudspeakers.

Centre Channel

Most of the dialogue comes from the centre loudspeaker. Speech should appear to originate from the actors mouths. Operating height is important. Ideally the front and centre channel speakers should be at the same height. The front of the cabinet should be level with the TV screen.

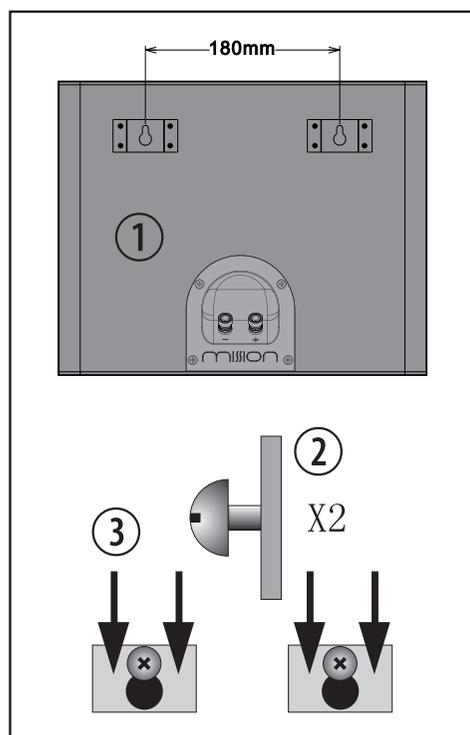
Positioning Surround Loudspeakers

ZX-S Surround Loudspeakers

The speakers should ideally be sited 600 mm-1.5 metres above the listening position and 2.5-3.5 metres apart, central to the listener and behind the listening position, preferably on a rear wall. If the listening position is some distance from a rear wall, the speakers may be mounted on opposite side walls but always behind the listening position.

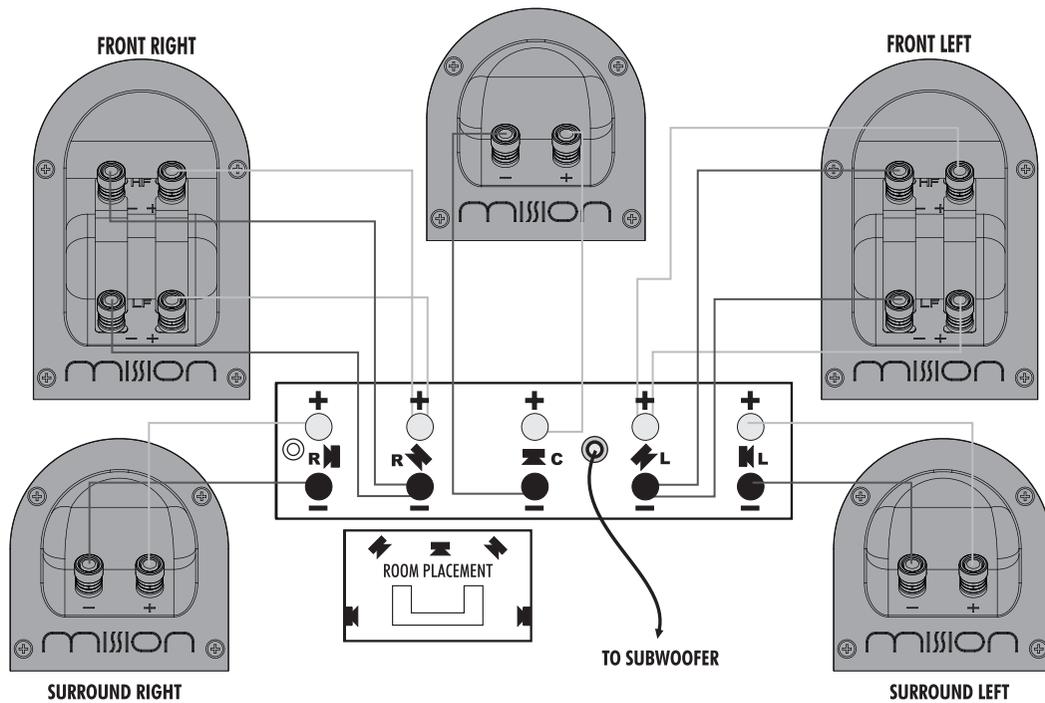
Ensure that the wall is sound and can support the product. Drill two 5mm holes in the wall 180mm apart. Fix a suitable No 8 round head screw firmly into each hole using appropriate wall plugs. Leave a stub of 5mm protruding from the wall.

Connect the loudspeakers. Align the holes in the mounting brackets over the screw and carefully lower the unit onto the screws. The speaker should now be securely attached with the spacers resting against the wall. Now connect the speakers to the amplifier.



5.1 System connections

The front left and front right channels are bi-wired to provide the best fidelity.



Setting Speaker Sizes

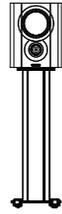
When used with a subwoofer, digital AV processors usually require you to set the size of the loudspeakers for good bass management. This is usually 'Large' or 'Small'. With the exception of the ZX-1 and ZX-2 all the loudspeakers should set to 'Large'. Depending on the performance of your subwoofer you may set the ZX-3 to 'Large' or 'Small'.

Loudspeaker maintenance

Use a cloth to clean your cabinet and very occasionally a slightly damped cloth to remove finger marks, etc. Although the grilles may be removed, these speakers

have been voiced to sound at their best with grilles on. We do not advocate removal of the grilles: if necessary clean the grilles carefully in place with a soft brush.

Specification



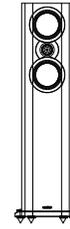
ZX-1

Model	ZX-1
General Description	2-way bookshelf speaker
Enclosure Type	Bass reflex
Transducer Complement	2-way
Bass Driver	5.25" (130mm) aluminium cone
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	88dB
Recommended Amplifier Power	25-100W
Peak SPL	108dB
Nominal Impedance	8Ω compatible
Minimum Impedance	3.5Ω
Frequency Response(+/-3dB)	52Hz ~ 24kHz
Bass Extension(-6dB)	46Hz
Crossover Frequency	2.6kHz
Dimensions (HxWxD)	300 * 240 * (350+12)mm
Net Weight	7.6kg/pcs



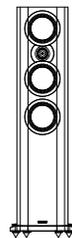
ZX-2

Model	ZX-2
General Description	2-way bookshelf speaker
Enclosure Type	Bass reflex
Transducer Complement	2-way
Bass Driver	5.25" (130mm) aluminium cone x2
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	89dB
Recommended Amplifier Power	25-150W
Peak SPL	110dB
Nominal Impedance	8Ω compatible
Minimum Impedance	3.8Ω
Frequency Response(+/-3dB)	45Hz ~ 24kHz
Bass Extension(-6dB)	40Hz
Crossover Frequency	2.4kHz
Dimensions (HxWxD)	420 * 240 * (350+12)mm
Net Weight	9.4kg/pcs



ZX-3

Model	ZX-3
General Description	2-way floorstanding speaker
Enclosure Type	Bass reflex
Transducer Complement	2-way
Bass Driver	5.25" (130mm) aluminium cone x2
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	90dB
Recommended Amplifier Power	25-150W
Peak SPL	110dB
Nominal Impedance	4Ω (compatible 8Ω)
Minimum Impedance	3.4Ω
Frequency Response(+/-3dB)	42Hz ~ 24kHz
Bass Extension(-6dB)	38Hz
Crossover Frequency	2.4kHz
Dimensions (HxWxD)	1025 * 240 * (350+12)mm
Net Weight	20.4kg/pcs



ZX-4

Model	ZX-4
General Description	3-way floorstanding speaker
Enclosure Type	Bass reflex
Transducer Complement	3-way
Bass Driver	5.25" (130mm) aluminium cone x2
Midrange Driver	5.25" (130mm) aluminium cone
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	90dB
Recommended Amplifier Power	25-150W
Peak SPL	110dB
Nominal Impedance	4Ω (compatible 8Ω)
Minimum Impedance	3.4Ω
Frequency Response(+/-3dB)	40Hz ~ 24kHz
Bass Extension(-6dB)	35Hz
Crossover Frequency	530Hz,2.7kHz
Dimensions (HxWxD)	1075 * 240 * (350+12)mm
Net Weight	24.6kg/pcs



ZX-5

Model	ZX-5
General Description	3-way floorstanding speaker
Enclosure Type	Bass reflex
Transducer Complement	3-way
Bass Driver	6.5" (165mm) aluminium cone x2
Midrange Driver	5.25" (130mm) aluminium cone x2
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	91dB
Recommended Amplifier Power	30-200W
Peak SPL	114dB
Nominal Impedance	4Ω (compatible 8Ω)
Minimum Impedance	3.4Ω
Frequency Response(+/-3dB)	36Hz ~ 24kHz
Bass Extension(-6dB)	30Hz
Crossover Frequency	570Hz,2.5kHz
Dimensions (HxWxD)	1155 * 265 * (400+12)mm
Net Weight	31.2kg/pcs



ZX-C1

Model	ZX-C1
General Description	2-way centre speaker
Enclosure Type	Bass reflex
Transducer Complement	2-way
Bass Driver	5.25" (130mm) aluminium cone x2
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	89dB
Recommended Amplifier Power	25-150W
Peak SPL	109dB
Nominal Impedance	8Ω compatible
Minimum Impedance	4.0Ω
Frequency Response(+/-3dB)	48Hz ~ 24kHz
Bass Extension(-6dB)	45Hz
Crossover Frequency	2.5kHz
Dimensions (HxWxD)	180 * 600 * (300+12)mm
Net Weight	12.6kg/pcs

Specification



ZX-C2

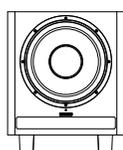
Model

General Description	2.5-way centre speaker
Enclosure Type	Bass reflex
Transducer Complement	2.5-way
Bass Driver	5.25" (130mm) aluminium cone x4
Treble Driver	1.5" (38mm) ring dome
AV Shield	No
Sensitivity (2.0V @ 1m)	90dB
Recommended Amplifier Power	25-150W
Peak SPL	110dB
Nominal Impedance	8Ω compatible
Minimum Impedance	4.4Ω
Frequency Response(+/-3dB)	48Hz ~ 24kHz
Bass Extension(-6dB)	42Hz
Crossover Frequency	430Hz, 2.1kHz
Dimensions (HxWxD)	180 * 880 * (300+12)mm
Net Weight	17.6kg/pcs



ZX-S

General Description	2-way surround speaker
Enclosure Type	Closed-box system
Transducer Complement	2-way
Bass Driver	5.25" (130mm) aluminium cone x2
Treble Driver	1.5" (38mm) ring dome x 2
AV Shield	No
Sensitivity (2.0V @ 1m)	88dB
Recommended Amplifier Power	25-150W
Peak SPL	109dB
Nominal Impedance	8Ω compatible
Minimum Impedance	4.3Ω
Frequency Response(+/-3dB)	120Hz ~ 24kHz
Bass Extension(-6dB)	100Hz
Crossover Frequency	2.7kHz
Dimensions (HxWxD)	285 * 335 * 185mm
Net Weight	8.6kg/pcs



ZX-12SUB

Model

Description/Format	Active Dynamic-Drive IB subwoofer system
Drive Units	1 x (12")300mm cone long-throw
Frequency Response	35- 120Hz 33dB
Amplifier Power Output	300W
Peak Power Output	450W
Line Input Sensitivity	200mv for maximum output
Crossover Range	30 - 150Hz
Inputs	Stereo Line In (2 x RCA Phono) Mono (LFE) Line In (RCA Phono)
Input Impedance	Line Input 10kΩ LFE 5kΩ
Signal-to-noise ratio (S/N)	≥85dB
Avg. Max Output @1m	118dB
Features	Phase inversion, Auto on-off
Dimensions	Height: (420+58)mm(with feet) Width: 400mm Depth: (450+15)mm
Net weight	23.0kg
Accessories	IEC power cord



Service Centre

Should a fault occur with your loudspeakers, please pack it correctly, using the original packing, so you can ship it safely. Product for service should be returned to the appointed dealer from whom you purchased the product. If you experience difficulties or there is no mission dealer in your area, contact the Mission distributor or the office below.

UK

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Tel: +44 0 1480 452 561

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