93.23 MKII

Hi-Fi / Home Cinema Monitor speaker

User manual

SOUND IN BALANCE

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Introduction

Introduction

93.23 offers some possibilities, so in order to utilize your new loudspeaker in the best way; you should carefully read through this manual before using the loudspeaker for the first time. It may take some patience in order to make the loudspeaker sound optimal.

If you have no previous experience of these kinds of installations, or if you have any questions, feel free to contact our free of charge support and we will help you. (See further under the heading of **Support** on the last page of this manual).

About 93.23 MKII

93.23 is a monitor speaker that can be used either as a frontspeaker (on a stand for example) or a bookshelf speaker.

It can also be combined with bass modules like 99 W 12.16 S, thus forming a most competent 2.2 speaker system.

About XTZ

Philosophy

Our reference and starting point is to recreate a natural sound, but also in respect to the fact that acoustics and sound always is a matter of taste.

XTZ Goals

To provide the optimal relation between price, performance and quality on the market.

Our concept:

- To produce the perfect compromise.

- Cost-effective manufacturing at a large scale.

- The quality of our products is more important than the marketing.

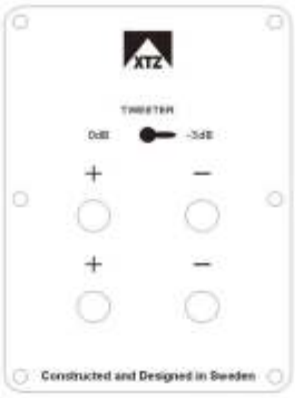
- Reduce the number of middlemen.

Contact us

Website: **www.xtz.se**
E-mail: **info@xtz.se**

Technical presentation

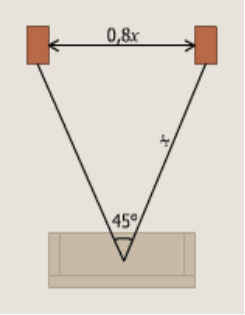
Cabinet design	The pyramid kind of shape and is not only an aesthetically neat shape, but also has some advantages in terms of acoustics, since non-parallel walls muffles internal resonances of the cabinet. The cabinet is constructed with a narrow baffle, also an advantage interms of sonics since. This gives a more stable baffle which effectively muffles resonances in the cabinet. The cabinet is made in 25 mm MDF board, which has good sonic qualities. The cabinet is further strengthened with bars, which in total yields a very stable construction.	
Tweeter driver	We have chosen a 1” silk-made soft dome tweeter which provides superior transient response and a very flat frequency response without resonances.	
Woofer/midrange-driver	After evaluating a large number of drivers from different manufacturers we selected a driver which is very competent. For woofer/midrange we decided on a 6,5" solid coated driver which gives a smooth extended frequency response with a controlled roll off. The driver is made up of solid coated paper which has good sound qualities, high strength and low weight. The surface treated cone is extremely light but still extremely stiff and effectively reduces resonances. The rubber surround makes sure that no edge resonances are present. The moulded metal basket of "high flow" type that is acoustically transparent and high precision since the basket is shaped exactly due to moulding. This makes sure that the basket is very stable and efficiently reduces resonances. The basket is absolutely non-magnetically, which contributes to a higher efficiency of the driver. A strong magnet combined with the light cone yields a high efficiency and a good transient response.	

Crossover/Bindings	We have chosen a -12 dB crossover that has a fast transient response and a minimum of phase shifting. The connectors are gold-plated and of bi-wiring type so that you can connect to the amplifier with double cables (bi-wiring), or connect to two amplifiers (bi-amping) for further improving the sound. The following coupling modes are available: **1. Upper terminal + lower terminal (loops present)** Default setting, the loudspeaker is fed with the entire frequency range. Without the loop between upper and lower terminal: **2. Upper terminal.** The signal is only fed to the tweeter. **3. Lower terminal.** Now the signal is fed to the woofer only. (See further: **Sound settings**)	

Preparations

Unpacking	Carefully unpack the speaker, and pay attention so you don't accidentally break anything. If possible, save the carton box for future transportations. If there should be damage on the loudspeaker, please contact your retailer.	
Accessories	1 pc bass reflex plug User manual	

Practice of sound / Installing and placing tips

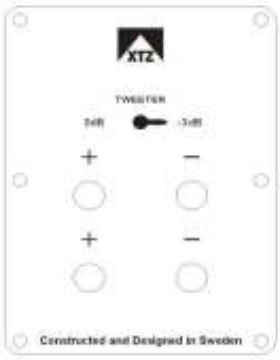
	This chapter contains common information on loudspeaker placement and installation.	
In which room do you achieve the best sound?	No matter how good the equipment is, in the wrong listening environment it will inevitably sound bad. There are some basic rules concerning a proper loudspeaker installation.	
Reflections	Carpets, curtains and soft furniture absorb midrange and high frequency sound, and this is preferable. A large empty area, on the contrary, reflects it and produces a hard sound that may lead to a blurry dialogue. Apart from colouring the sound, also the perspective of the sound will deteriorate.	
Amplification of bass frequencies	A loudspeaker that is placed near a wall, ceiling or floor will be amplified in the lower frequencies in a sometimes not desirable way (since it may lead to an indistinct sound recreation). This amplification becomes even more obvious if the loudspeaker is placed near a corner. Thus, for a sound as clear as possible, the loudspeaker should be placed about 30 cm (about 12 inches) away from the wall. However, there are exceptions from this rule. For some type of walls / rooms it may be advantageous to place the loudspeaker closer to the wall.	
Furniture	Be aware that furniture may vibrate and thus create bad low frequency sound.	
Room dimensions	Quadratic rooms or rooms where the length is exactly twice as long as the width should be avoided, since they may create unwanted resonance.	
Placing the loudspeakers	How the loudspeakers are placed towards the listener is of great importance	
The front speakers	For stereo listening the loudspeakers should be placed symmetrically in front of the listener. The distance between the loudspeakers should be about 80% of the distance between the listener and one loudspeaker, or put in another way: the angle between the loudspeakers, as seen from the listener, should be about 45 degrees. This means for example that if the distance between the loudspeakers is 2 meters, the listener should be placed 2.5 meters from the loudspeakers.	

Angling?	Either you can have the loudspeakers angled in towards the listener or you can have them directed straight ahead. Some loudspeakers sound better when angled, but this may also depend on reflections from the side walls. By angling the loudspeakers inwards, you decrease unwanted reflections and thus you get a better stereo perspective.
The correct height	If the loudspeakers are small, they should be placed on stands or tilted so that they are on the same level as the ears.
Cables	Try to keep them as short as possible. By its electrical parameters, a long conductor will have a larger influence on the sound than a short one. The subwoofer cable should be shielded, to avoid noise. Make sure that all connections are clean and not oxidized. All connections should be mechanically stable, both power, signal and loudspeaker cables. Signal cables should be separated from other cables.
Finally	Please remember that good sound is a matter of taste, so you have to experiment to obtain it. We wish you the best of luck!

Mounting and connecting tips

Mounting alternatives	Normally the 93.23 is placed standing by a wall. The wall behind and the wall beside the loudspeaker have influence on both the bass level and the bass characteristics, so please be patient and try different distances to the rear and side walls.	
Connecting using the correct phase	Always connect using the correct phase, from the +-pole on the amplifier to the +-pole on the loudspeaker and corresponding for minus (-).	If you by accident connect the other way, there is no risk of damage. However, the sound will not be correct, especially in the lower frequencies.
Overload	At high load during extensive time periods, there is always the risk of overloading the driver and amplifier.	All loudspeakers have a limited patience for high power, so be careful not to play extremely loud and not to increase treble or bass settings to much. By increasing the bass or treble from 0 to max you will increase the power by about 16 times.
The initial playing time	It takes about 50 to 100 hour of initial playing time, for the driver to sound optimal. During this time, the speaker may be used normally.	

Sound settings

Room Tuning – Mechanical adjustment of the boundary frequency	By using the supplied bass plugs in the bass reflex ports, you can alter the lower boundary frequency on the 93.23. Also the treble level may be adjusted, which allows you to perfectly alter the sonic to fit the room, equipment and your own taste. **Closed port** With the bass plug mounted in the bass reflex port, the cabinet is closed and the loudspeaker operates as a closed construction. This yields a more ”tight” bass reproduction. **Bass reflex** With no plug present in the port you have a higher bass level and the loudspeaker is capable of handling lower frequencies.	These settings also depend on the size and shape of the room, and also on your own taste, so please have patience when trying out your preferred setting.
Level adjustment - Treble	The treble range can be adjusted in 2 different settings.	
Level adjustment in the treble range	In the treble range the level is adjustable in two different modes using the switch on the back of the speaker. **Mode 1, 0 dB** In this mode the sound is neutral with a flat frequency response. **Mode 2, -3 dB** In this mode the treble level is decreased by -3 dB.	
Binding post / Bi-wiring	**1. Upper terminal + lower terminal (loops present)** Default setting, the loudspeaker is fed with the entire frequency range. In this mode, it doesn't matter which connectors you use when connecting the speaker cables. Without the loop between upper and lower terminal: **2. Upper terminal.** The signal is only fed to the tweeter. **3. Lower terminal.** Now the signal is fed to the woofer only.	PLEASE NOTE!! When the loops are connected, ensure that all four contacts are properly fastened so that the loops connectors are stuck -if the loop falls of, it may short-circuit between the + and - contact and thus damage the amplifier.

Technical specifications

Contruction typ	2-way, Bass reflex cabinet that may be set as a closed box. The treble level is adjustable in two different levels.
Dimensions	260 x 365 x 340 mm (W x H x D)
Weight	10 kg
Magnetically shielded	No
Impedance	4-8 ohm
Binding posts	Gold plated bi-wiring/Banana plug / Pole screw
Efficiency	89 dB
Power	200 W Short term IEC 268-5 80 W Long term IEC 268-5
Tweeter driver	1” Silk-made softdome tweeter, SACD/DVD–Audio -ready, strong magnet.
Woofer/midrange-driver	6,5" Solid coated paper driver, moulded "high flow" driver basket, powerful magnet, voice coil former in aluminum, phase plug. Weight 2000 gram.
Connections and settings	Gold plated bi-wiring. Bass reflex settable to closed box. The treble level is adjustable in 2 diffrent modes.

Service & support

”Do It Yourself” - service	We apply "do-it-yourself" service on all XTZ products. If you by yourself are able to find out what part of the loudspeaker is defective, you are fully allowed to unmount that part (which would normally be a driver, a filter or the amplifier) and send it back to us for exchange. IMPORTANT! Always contact your dealer or us before taking the loudspeaker apart. It can also help you finding the fault. You can of course always choose to return the whole loudspeaker; therefore you should save the original package.	To aid service, XTZ products are constructed and produced using common technology, so that basically most people are able to "unscrew" the loudspeaker using common tools.
If something is broken	If you cause additional defects by yourself when unmount the defective part, the warranty still applies if it is obvious that the part had a manufacturing defect. In other cases however, the warranty does not apply if you cause other defects on the loudspeaker.	
Where to send the product for a warranty repair	For service we refer to your retailer. For questions regarding service, contact us by email: **support@xtz.se** Website: **www.xtz.se**	ALWAYS pack the product / part very carefully. Unfortunately damages during transportation are very common. If the package is weak, the transporting company does not compensate damages. Always enclose a copy of the receipt and a description of the defect.
Support	Please contact our free of charge support if you need installation advice, or if any problem occurs during the installation. Contact us by e-mail **support@xtz.se** and include your phone number if you wish verbal help, and we will call you back.	