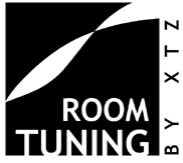




XTZ 99 W8.16

Active subwoofer

User's manual



Congratulations on your purchase of a XTZ Home Theatre Powered Subwoofer System!

When combined with surround audio/video electronics, you'll experience motion picture sound as it was originally meant to be. Now when you watch your favorite movie, you'll hear and feel the soundtrack surround you in the same way as created by the film's original sound engineers.

XTZ Home Theatre Speaker Systems are modular, so you can select only the components you need to enhance a current system or create a totally new one. The Powered Subwoofer Systems combines a 300-watt continuous power amplifier and a heavy-duty 12" woofer in a compact single system designed to perfectly enhance your Home Theatre System. It features phase switch, a power on indicator, both line-level and speaker inputs and a variable crossover control.

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About XTZ

Philosophy	<p>Our reference and starting point is to recreate a natural sound, but also in respect to the fact that acoustics always is a matter of taste.</p>	
XTZ goals	<p>Our main goal is to provide the best possible compromise of cost, performance and quality available on the market.</p> <p>Our concept:</p> <ul style="list-style-type: none">● Produce the perfect compromise.● Cost effective production at a big volume.● The product quality if more important than marketing.● Providing honest and correct information about our products - no "hush-hush" or "abracadabra".● Reduce the number of middlemen.● Having an absolute sonic reference is important, but still sound is a matter of taste.	
Contact	<p>Website: www.xtz.se Email: info@xtz.se</p>	

Technical presentation

Cabinet design	<p>The cabinet is very lavishly fitted out and made of 25 mm MDF. It is equipped with a specially modelled bass reflex gateway to avoid blowing noise and to decrease the air resistance in the gateway.</p> <p>We have chosen 25 mm MDF to have a low own resonance. The cabinet is built with bars to make it even more stable.</p>	
The woofer driver	<p>The XTZ W8.16 is equipped with a powerful and well-sounding 8 " woofer. The cone has an aluminium frame for maximal stiffness and has at the same time a low weight, which contributes to the high efficiency. Also the powerful magnet contributes to this.</p> <p>To gain a high power patience, we have chosen a larger diameter on the coil. The driver is equipped with rubber suspension for high strength, flexibility and to gain a longer peak-to-peak excursion.</p> <p>The diaphragm is one of the type "non pressed paper" which gives a very stiff yet light driver. The basket is founded in aluminium. This combination of a powerful magnet, light driver and stable suspension makes up for both enough power and high precision in the sound.</p>	
The amplifier / crossover	<p>We have equipped the XTZ W8.16 with a very powerful amplifier with a big cooling flange for effective cooling. The terminal connectors are gold-plated and very solid.</p> <p>To achieve a high power and a long durability, the amplifier is built with a large ring-coil transformer, large electrolyte capacitors, and has MosFet transistors in the power amplifier.</p> <p>The active amplifier also provides a variety of possible adjustment possibilities, unable to obtain using a passive filter. This includes phase, frequency, high pass filtering, volume etc. By using these settings, the main amplifier is relieved and thus only takes care of the midrange and trebble. Thus it works better and the risk of damages on it is lowered.</p>	

Preparation

Unpacking the subwoofer	Carefully unpack the speaker, and pay attention so you don't brake anything. If possible, save the carton box for future transportations. If there should be a damage on the loudspeaker, please contact your retailer.	
Accessories	2 bass plugs (found in the bass reflex gates) User's manual	

Practice of sound / Installation and placement tips

<p>In which room do you achieve the best sound?</p>	<p>This chapter contains common information on loudspeaker placement and installation.</p>	
	<p>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:</p>	
<p>Reflexions</p>	<p>Carpets, curtains and soft furniture absorbs mid range and high frequency sound, and this is preferable. Big empty area, on the contrary, reflects it and produces a hard sound that may lead to a blurry dialogue. Apart from coloring the sound, also the perspective of the sound will deteriorate. Reflexions in the room can roughly be compared to the reflexions that yield ghost pictures on a TV screen.</p>	
<p>Amplification of bass frequencies</p>	<p>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 inch) away from the wall.</p> <p>However, there are exceptions from this rule. For some type of walls / rooms the loudspeaker it may be advantageous to place the loudspeaker nearer the wall (read more below).</p>	
<p>Furniture</p>	<p>Be aware that furniture may vibrate and thus create bad sound at loud bass.</p>	
<p>Room dimension</p>	<p>Quadratic rooms or rooms where the length is exactly twice as long as the width should be avoided, since they may create unwanted resonance.</p>	
<p>Placement of the subwoofer</p>	<p>Since it is so hard to judge the direction of bass frequencies, the placement of the woofer is not that critical as for instance the placement of front loudspeakers. However, different placements <i>will</i> influence the sound. One basic rule is to place the subwoofer together with or near the front system (especially important if the front loudspeaker also recreates bass frequencies) as this will minimize the risk of phase eliminations in the room.</p> <p>For some combinations of rooms / wall types, it may be advantageous to place the woofer near a wall, however this may also yield unwanted reflexions, hence a "dirty" sound. How near the wall you place the subwoofer is a matter of balance.</p> <p>Never put the subwoofer inside a cabinet, the amplifier need to be cooled by circulating air.</p>	

Cables

Try to keep them as short as possible. By its electrical parameters, a long conductor will have a bigger influence on the sound than a short one. It may also work as an antenna and thus receive various signals, that may become a constant noise in an active subwoofer.

Make sure that all connections are clean and not oxidated. 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 luck!

Mounting

Mounting alternatives	<p>The XTZ 99 W8.16 is best placed standing on the floor.</p> <p>However it is fully possible to lay it down without affecting the sound.</p> <p>Driver and bass reflex gates should not be faced towards floor or wall, they need to "breathe" freely.</p>	<p>The loudspeaker should stand as stable as possible, at loud sound levels both the speaker and the surroundings may vibrate so heavy that it may move the speaker.</p>
Overload	<p>At high load during extensive time periods, there is always the risk of overloading the driver and amplifier.</p>	
The initial playing time	<p>It takes about 50 to 100 hour of initial playing time, for the driver to sound optimal. During this time, the speaker may normally used.</p>	

Connections

Amplifiers with low level output (sub-out)	From the low level output (sub-out) on the amplifier you connect a RCA cable to SUB IN on the XTZ 99 W8.16. If you wish to use an additional active subwoofer, you may connect this from the SUB OUT of the XTZ 99 W8.16.	Please note: Never connect the main power cord until everything else is connected!
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Control Descriptions

	<p>By using the controls and the supplied bass plug, you can alter the sonic characteristics in a wide variety. This is a great aid in obtaining the optimal sound.</p>	<p>Sound is always a matter of time, so please take your time to find the sound to fit your personal taste.</p> <p>For further instructions on the controls and connections mentioned here, see the chapter Functional reference.</p>
VOLUME	<p>Controls volume level of subwoofer.</p>	<p>Be gentle on the volume knob, please remember that certain sound signals may contain a lot of energy.</p>
CROSSOVER	<p>Using this variable control, you can adjust the boundary frequency for the low pass filter from 50Hz to 250Hz. You can hereby change the character of the woofer, depending on what you prefer (more or less deep) and matched to your other speakers.</p> <p>On modern amplifiers you commonly have the possibility to set the size of the loudspeakers (small / big etc). If you have small front speakers, you should set the size to small. Thus, they will recreate middle bass, mid-range and treble much better - leaving the deep bass tones alone to the subwoofer.</p>	
PHASE	<p>Variable control for 0-180 phase adjustment.</p>	<p>In a normal installation, this should be set to 0. But it will have impact on the sonic characteristics, especially the co-operation with the front speakers.</p>

Room Tuning - Mechanical adjustment of the boundary frequency



By using the supplied bass plugs in the bass reflex gates, you can alter the lower boundary frequency on XTZ 99 WW10.16.

This makes it possible to alter the sonic characteristics of the woofer. The picture below shows 3 basic settings. By altering the volume, phase and frequency you can do further adjustments on the sound.

1st mode - 2 bass plugs in the reflex gates/ Closed box

All plugs in the gates will turn the cabinet into a closed box. This will provide a "tight" bass character especially suitable for larger rooms where the lower frequencies often are amplified by the room itself.

2nd mode - no plugs in the reflex gates

This will provide a "quick" bass setting.

3rd mode - 1 plug in the left reflex gate

One plug will provide a "deep" bass suitable for smaller rooms.

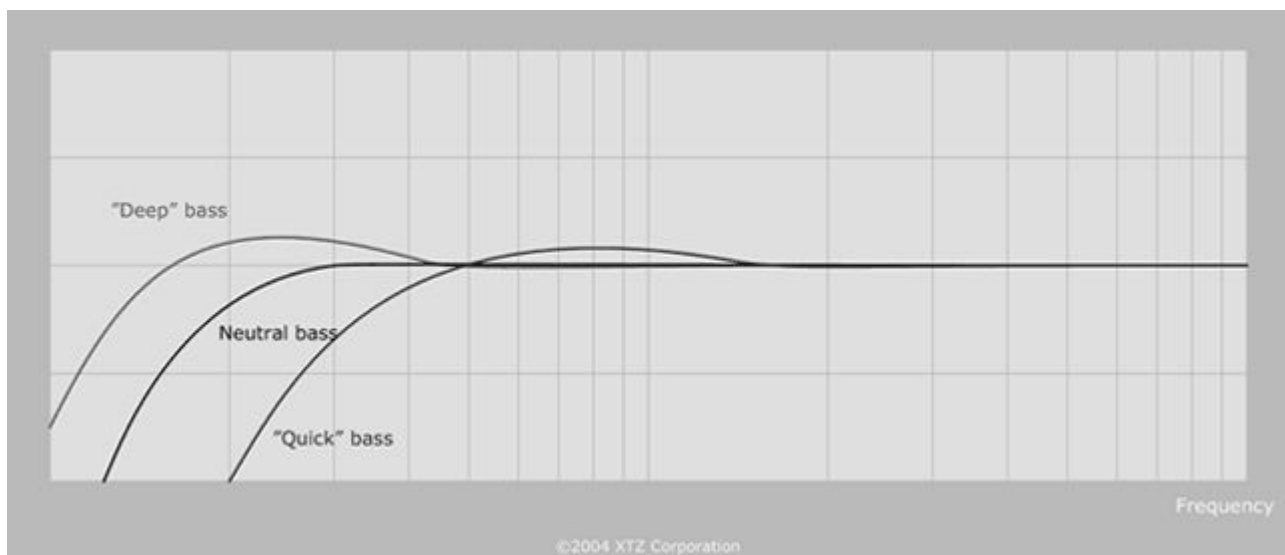
4rd mode - 1 plug in the right reflex gate

This will provide a neutral bass.

Room tuning will also have influence on the efficiency you will have to adjust the volume, frequency and High Pass in the room tuning modes.

"Quick" bass explained:

By this we mean a bass with less deep bass information. This might also be called "hard", "attack", "tight", "punchig" etc.



This picture shows not actual measured curves. It is only intended to be used as an illustration on the different acoustic characteristics in the lower frequencies.

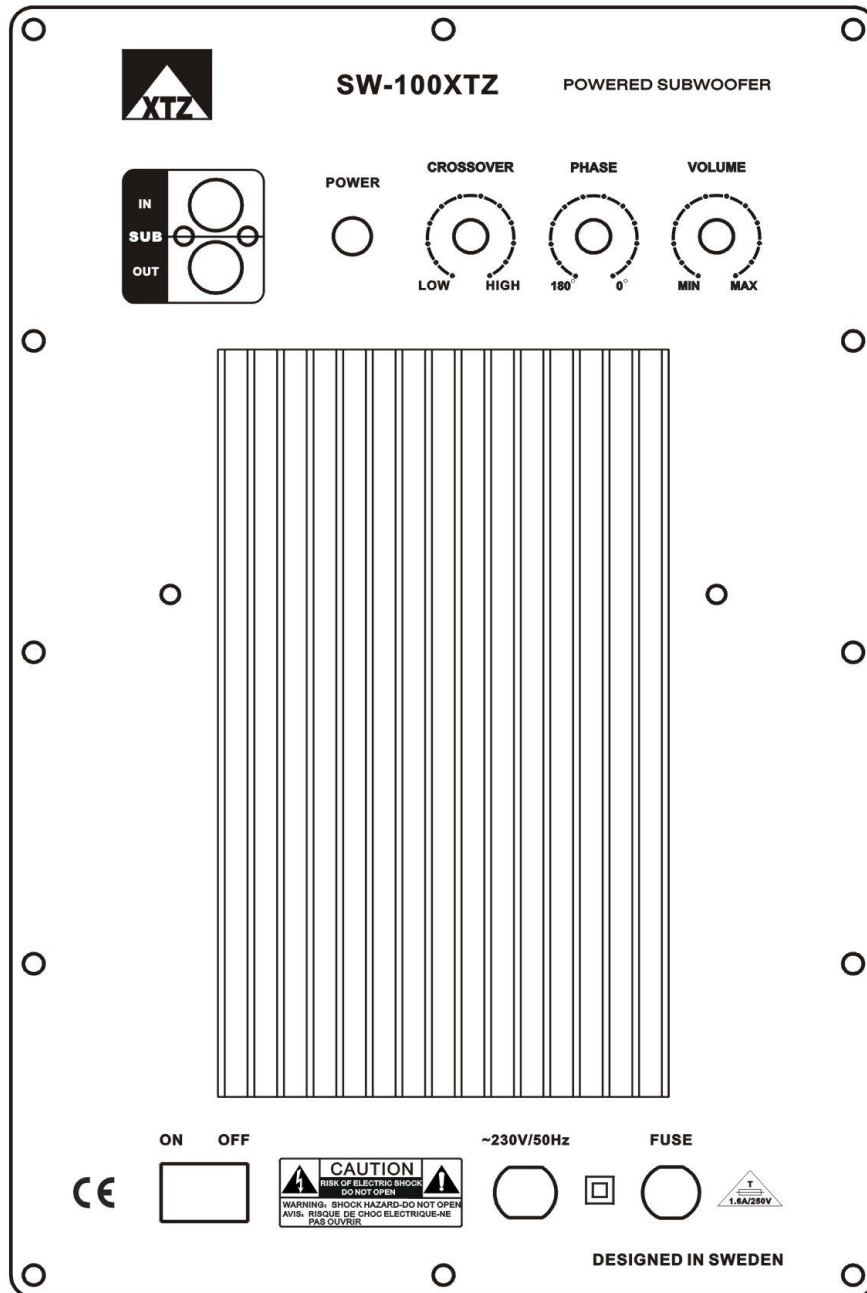
Sound settings

Basic setting for a neutral bass representation	<p>Since the sonic characteristics depends on a whole range of external factors, there exists no "standard" setting for a neutral representation.</p> <p>The external factors that have impact on the sound include the room, the placement of the speaker, output levels etc.</p> <p>To aid in the installation, you may use this basic setting which is for an average room of about 20m²:</p> <ul style="list-style-type: none">● Phase set at 0● The frequency set at mid position● 1 plug in the right reflex gate	
	<p>All these possibilities provides you with a wide variety of combinations, allowing you to obtain the perfect sound.</p>	

Functional reference

This chapter describes all settings and connections.

XTZ 99 W8.16
rear panel



<p>Power switch (ON, OFF)</p>	<p>Power switch. Press down "I" to power on and the indicator will be lighted. Press "o" to power off. Make sure it is set OFF when connecting / disconnecting cables.</p> <p>There is an automatic switch on the subwoofer. When it has signal in, it will switch on and consequently switch to standby (this is indicated by the LED, which turns green when standby is present) when no signal is present (after a certain time period). Therefore, you can have it ON constantly.</p>	<p>To obtain the optimal sound, you should let the subwoofer be in ON mode. The amplifier will then immediately have the right working temperature from the beginning.</p> <p>Turn off the subwoofer if it is not in use for a long period.</p>
<p>VOLUME</p>	<p>Controls volume level of subwoofer. Be gentle on the volume knob, please remember that certain sound signals may contain a lot of energy.</p>	
<p>CROSSOVER</p>	<p>Variable control from 50Hz to 250Hz provides optimum setting of subwoofer crossover frequency to match crossover frequency of Home Theatre components.</p>	
<p>PHASE</p>	<p>0-180 phase adjustment</p>	
<p>SUB IN</p>	<p>Line-level input to subwoofer. Use these RCA jacks to connect audio signals from line-level outputs on a receiver, preamplifier, television set or surround sound decoder.</p>	<p>Certain types of simpler low level audio cables may create a noise in the subwoofer. We recommend double shielded low level cables to be used.</p>
<p>SUB OUT</p>	<p>To pass the signal on to an additional active subwoofer.</p>	
<p>AC INPUT</p>	<p>Connect to regular 230 V / 50 Hz.</p>	

Technical specifications

Construction type	Active subwoofer, Bass reflex gate or may be set as closed box.	
Dimensions	300 x 360 x 380 mm (WxDxH) Foot +15 mm Amplifier +20 mm	
Weight	16 kg	
Terminal connection	Goldplated RCA	
Power	100 W RMS at 4 ohms 200 W DIN	
Settings and possibilities	<ul style="list-style-type: none">● Low level input and output.● Auto on (turns on the unit automatically when signal is present.● Phase selector 0 to 180 degrees.● Crossover frequency control.● Volume control.● Room tuning	

Service & support

<p>"Do-It-Yourself"-service</p>	<p>We apply "do-it-yourself" service on all XTZ loudspeakers.</p> <p>Exceptions: Amplifiers, CD and DSP products and other active products is not included in this "do-it-yourself" service. All active products can cause electrical shock so don't open this kind of products.</p> <p>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.</p> <p>Contact us or your dealer before you send the part back to us.</p> <p>However, if you are not certain about how to do it, please contact us before taking the loudspeaker apart. We can also help you finding the fault.</p> <p>You can of course always choose to return the whole loudspeaker, therefore you should save the original package.</p>	<p>To aid service, XTZ are constructed and produced using common technology, so that basically most people are able to "unscrew" the loudspeaker using common tools.</p>
<p>If something is broken</p>	<p>If you cause additional defects by yourself when unmounting 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.</p>	
<p>Where to send the product for a warranty repair</p>	<p>For service we refer to your XTZ dealer.</p> <p>Or contact us:</p> <p>Website: www.xtz.se Email: info@xtz.se</p>	<p>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.</p> <p>Always enclose a copy of the receipt and a description of the defect.</p>
<p>Support</p>	<p>Please contact our free of charge support if you need installation advice, or if any problem occur during the installation.</p> <p>Contact us by e-mail support@xtz.se and include your phone number if you wish verbal help, and we will call you back.</p>	