SUB10.17

Owners Manual

IMPORTANT SAFETY INSTRUCTIONS

CAUTION!
RISK OF ELECTRIC SHOCK
DO NOT OPEN
USE IN DRY LOCATIONS ONLY

The lighting flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point symbol, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

1. READ INSTRUCTIONS - All safety and operating instructions should be read before this product is operated.
2. RETAIN INSTRUCTIONS - The safety and operating instructions should be retained for future reference.
3. HEED WARNINGS - All warnings on this product and in the operating instructions should be adhered to.
4. FOLLOW INSTRUCTIONS - All operating and use instructions should be followed.
5. WATER & MOISTURE - Do not use this product near water - for example, near a bathtub, washbowl, kitchen sink, laundry, tub, in a wet basement, near a swimming pool, or the like.
6. ATTACHMENTS - Do not use any attachments not recommended by the product manufacturer as they may cause hazards.
7. ACCESSORIES - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with accessories recommended by the manufacturer.
8. WALL or CEILING MOUNTING - This product should be mounted to a wall or ceiling only as recommended by the manufacturer.
9. VENTILATION - This product should be situated so that its location or position does not interfere with its proper ventilation. For example, this product should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
10. HEAT - This product should be situated away from heat sources such as radiators, heat registers, stoves, or other equipment that produce heat.
11. POWER SOURCE - This product should be operated only from the type of power source indicated on the marking label. If you are unsure of the type of power supply to your home, consult your product dealer or local power company.
12. POWER CORD PROTECTION - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point at which they exit from the subwoofer.
13. CAUTION: To prevent electric shock, match wide blade of power plug to wide slot of receptacle and fully insert.
14. OVERLOADING - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
15. CLEANING - This product should be cleaned only as recommended by the manufacturer.
16. NON-USE PERIODS - The power cord of the subwoofer should be unplugged from the outlet when left unused for a long period of time.
17. OBJECT & LIQUID ENTRY - Care should be taken so that objects do not fall and liquids are not spilled onto the enclosure.
18. DAMAGE REQUIRING SERVICE - The subwoofer should be serviced by qualified service personnel when:
    a. The power-supply cord or plug has been damaged.
    b. Objects have fallen or liquid has been spilled into the subwoofer.
    c. The subwoofer has been exposed to rain.
    d. The subwoofer does not appear to operate normally or exhibits a marked change in performance.
    e. The subwoofer has been dropped or damaged.
19. SERVICING - Do not attempt to service the product yourself, beyond what is described in these operating instructions.
20. REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
21. SAFETY CHECK - Upon completion of any service or service of repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition. All other servicing should be referred to qualified service personnel.

CONTENTS

Introduction

Introduction

Congratulations on your purchase of an XTZ subwoofer. This product represents the state of the art in subwoofer performance and will provide you with years of listening pleasure when properly setup and cared for. We strongly urge you to read this owner's manual and follow the instructions provided to help you attain maximum system performance.

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).

Prior to installation

Please unpack the system carefully. Use caution when lifting or moving to avoid injury. Save the carton and all packaging materials for future use. Packing this unit in any other carton may result in damage when shipping that is not covered by the warranty. Fill out and return the warranty card to complete your product registration and record the serial number and purchase information in the space provided for your own records.

Operating environment

Operating environment temperature 40°F to 95°F (4°C to 35°C) with less than 85% relative humidity. Do not install this product in a poorly ventilated area, or in locations exposed to high humidity, direct sunlight, or strong artificial light.

Warning!

This equipment is not waterproof. To prevent a fire or shock hazard, do not expose this equipment to rain, moisture or any liquids. Do not place a container filled with liquid on or near this equipment (such as a drink or flower vase). To prevent a fire hazard, do not place an open flame (such as a lighted candle) on this product. Please observe all warnings on the equipment itself. There are no user serviceable parts inside. Please refer all service questions to your authorized dealer.

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 intermediaries.

Contact us

Website: www.xtz.se / www.xtzsound.com
E-mail: info@xtz.se

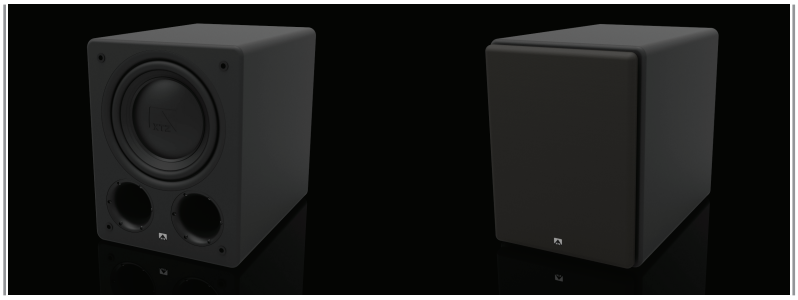
Product information

Product features

- 10” High Speed Driver
- Suspension (spider) optimized to provide linear travel at high excursion for low distortion
- High excursion ultra linear rubber surround
- High efficiency class D amplifier optimized for low distortion & excellent sound quality
- High power amplifier design: 500W continuous power
- Line-level unbalanced RCA inputs (Left, Right & LFE) and XLR input with pass trough
- Signal sensing auto turn on/off
- Variable volume control
- Phase control (0° to 180°)
- Adjustable (40 to 160 Hz) low-pass crossover (24dB/octave)
- Bypass function on adjustable low-pass crossover with LFE input
- Adjustable bass characteristics with two different sizes bass ports
- EQ-functionality
- Power & standby mode indicator LED

Grill

The cloth grill can be chosen to have fixed to the speaker if you want to hide the drivers or taken off if you want a rougher but still a clean look.



Before you begin

Your new subwoofer provides for a number of installation options. Read all the installation information contained within this manual in order to determine which installation option is best for your system configuration.

- Select appropriate AC Power source for subwoofer. Do NOT plug the power cord of the subwoofer into the switched outlet of a receiver or other piece of equipment. The power cord should be plugged directly into an AC outlet.
- NOTE: the AC power line voltage varies according to country or region. Be sure that the AC power of the area where the unit will be installed matches the required voltage (e.g., 120VAC or 230VAC) indicated on the subwoofer’s rear amplifier panel.
- Select appropriate signal connection type (RCA signal cable or high level speaker cable) to match your equipment.
- Determine the optimum subwoofer placement location.
- Determine system configuration (e.g. music or surround sound system type for proper equipment settings & calibration)

NOTE: Remember to make all equipment connections with system power disconnected to reduce the risk of personal shock or damage to equipment. Consult your dealer or info@xtz.se for optional accessories that may be required to properly complete your system installation.

Installation

Cables - RCA unbalanced

When installing your new subwoofer using unbalanced RCA connections, you should use high quality shielded coaxial cables. Poor quality cables may pickup interference and result in hum or noise. Keep the length of cable as short as possible and route all input signal cables away from power cables to reduce the potential of induced noise.

Cables - XLR

When using balanced XLR connections, be certain to use a high quality cable that maintains proper connections to each pin, the pins are often marked with numbers. If an XLR cable that is improperly wired is used, subwoofer performance may be degraded and you may experience increased noise and/or hum. Due to various design differences between different brands & types of equipment (e.g. different ground methods for power supplies and signal reference) and long cables required in some installations, there is a potential for any product to pickup noise via the connections and/or connected equipment (via ground loops).
If you have audible hum/buzz after completing your subwoofer connections, you may need to modify your equipment's cables, routing, or connection methods (power line connections and/or signal cables).

Placement

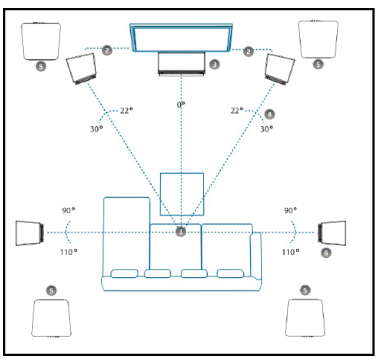
While true subwoofers operate at extremely low frequencies which are primarily omni-directional, keep in mind that frequency response and output level can be dramatically influenced by where you place the subwoofer within the room. Placing the subwoofer in the wrong location may degrade sound quality, limit low frequency response and reduce maximum output level, substantially reducing your overall listening pleasure. Many rooms often end up with non-optimal placement, depending on the size and location of the furnishings within your room and if the possibility to reposition them exists. Finding the optimal location usually requires some experimentation to determine what sounds best in your room, from your listening position. We suggest you read the general guidelines below and setup the subwoofer in one of the suggested locations.

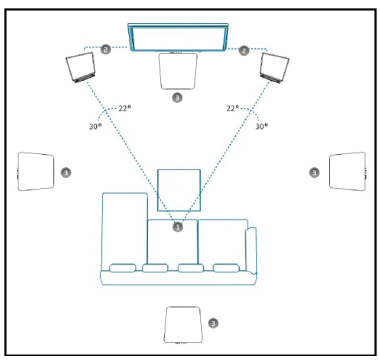
Proceed to listen to the loudspeakers multiple times, trying a few different locations before settling on the final location. To do this, perform basic setup and listen to a familiar music track or movie scene. Then move the loudspeakers to an alternate location & repeat listening to the same music track or movie scene. If you have a test CD and SPL meter or preferably one of our measurement systems (Room Analyzer II / II Pro), performing a basic frequency response test can help you determine which location provides the best frequency response.

General guidelines

In most rooms, the optimum location for your subwoofer is in the closest solid front corner or somewhere along the front wall in line with your front speaker.
This location typically offers optimal energy coupling with the room, front-speakers and the deepest low frequency extension, with the best high impact bass. Try to avoid location for a subwoofer that is far away from walls or near the center of your room. When using a pair of subwoofers in stereo, it is preferable to place each subwoofer by the satellite of the same channel, see figure below to the left. If you want a more flat frequency response and the bass evenly distributed over a larger area of listening positions, then four subwoofers one in each corner is a terrific option.

The figure below to the right shows alternative subwoofer placement options with subwoofer/- placed at the midpoint of the wall. This can be used for one subwoofer with the subwoofer placed in the front, for two subwoofers with the subwoofer placed at the front and back and for four subwoofers with the subwoofers placed in the mid point of each wall.





Caution

1. This subwoofer has electronics built into the cabinet and must be properly ventilated.
2. Do not place the rear of cabinet against a wall, you must allow room for adequate ventilation of the amplifier (at least 2 inches).
3. Do not place the subwoofer next to heat sources, such as furnace registers, radiators, etc.
4. Do not place the subwoofer near sources of excessive moisture, such as evaporative coolers, humidifiers, etc.
5. The power cord should be routed in such a way that it will not be walked on, pinched, cut, or compressed in any way that could result in damaging the insulation or wire. Damage to the power cord may result in a shock or fire hazard.

Connections

All connections for the subwoofer are located on the rear of the unit. Whether you choose the LFE (Low Frequency Effects) coaxial, Left & Right coaxial or XLR-input, the subwoofer is auto selecting the one input where there is signal.

Home theater system

Utilizing this method, the receiver or processor is the main control center for the system and it provides all the bass management (e.g. sending the low frequency signals from the satellite speaker channels & LFE for movies, to the subwoofer), and it provides a low-pass filtered signal (bass information only) to the subwoofer.

Most home theater receivers/processors have at least 1 unbalanced RCA “SUBWOOFER” output jack, some models have two. For this type of equipment, connect a single high quality cable from your receiver’s “SUBWOOFER” output jack to the subwoofer’s input marked with as “LFE”

If your receiver or processor has multiple subwoofer outputs, you may have additional connection options. Consult the owner’s manual for your receiver/processor to verify if these outputs are all the same.

Receiver/pre-amp with internal crossover

- By connecting to “LFE” input, the internal crossover filter is now by-passed
- The frequency control knob has no effect when using the “LFE” input.
- Adjust the “VOLUME” control knob to poiningt upwards, 12 o’clock.
- Set the “PHASE” to “0”

Music system

Utilizing this method, the preamp provides a full range signal from both left & right audio channels to the subwoofer. If your preamp does not offer an internal crossover or bass management functions, the subwoofer’s built in controls will need to be properly set to utilize the built in crossover and phase adjustments to blend the subwoofer output with the satellite speakers.

This subwoofer is designed to operate from either a full range audio signal (when using the subwoofer’s built-in crossover) or home theater (surround sound) processor/receiver with a “SUBWOOFER” output jack and built in low-pass filter & bass management. In both cases, proper control settings are required to achieve optimal system performance.

Amplifier/pre-amp without internal crossover

- By connecting to high level speaker cable inputs or RCA L & R inputs the internal crossover is used
- Adjust the “FREQUENCY” control knob to blend the subwoofer output seamlessly with your main speakers.
- Adjust the “VOLUME” control knob to match the output level of the subwoofer toyour main speakers
- Adjust the “PHASE” switch to smoothly blend the mid-bass output of the subwoofer to your main speakers (read Calibration section for further information).

Multiple subwoofers

When connecting multiple subwoofers, it is recommended to use the XLR pass through to the next subwoofer. The pass through is a signal split the XLR input. It is also possible to use the RCA signal connections,however you will need to use “Y” cables (signal splitters) to route your amplifier/receiver/processor output to each woofer if it does not have multiple “SUBWOOFER” output jacks or L & R variable signal output.

Calibration

Introduction

For optimal performance, you should calibrate your system to ensure proper level matching between all speakers and the proper setting of all controls (including crossover frequency, phase, and any channel delays your receiver/processor may offer). This procedure will vary depending on system configuration and the information below is provided as a basic guide to assist you. Refer to the owner's manual for your receiver/processor for information on performing the steps required to enter their setup mode and adjust any applicable settings.

After all connections have been made, turn on the AC power to your system, starting with the first piece of source equipment in the signal chain (such as a CD or DVD player), then power on any dedicated equalizer, then power on your receiver/processor/amplifier(s), and last but not least, power on the subwoofer-/s. You will need to enter your receiver's/processor's setup mode and adjust any applicable speaker settings to properly match your system configuration

Receiver/Processor With Automated Setup & Calibration Function

After you have verified all speakers are connected and you have measured distances of each to the listening position, perform the auto-setup routine on your receiver/processor (if available). Many newer home theater receivers/processors combine a measurement microphone and an automated setup routine to assist you with proper setting of speaker levels, crossover frequency, speaker delay and phase. Consult the owner's manual for your receiver/processor for further instructions on how to perform the setup routine. After the auto-setup routine is complete, verify the final settings the receiver/processor selected to ensure there are no erroneous settings (e.g. the settings should match your system configuration). Some settings to verify may include:

- Number of speakers (e.g. 7.1 or 5.1 system, etc.)
- Type/size of speakers (e.g. small or large front/surround and subwoofer set to yes/on)
- Crossover point should be similar for identical speakers (e.g. if your system using 3 of the samespeakers for all front channels, verify the receiver/processor selected the same crossover point for all these channels)
- Crossover frequency should be selected. We recommend 80Hz for the satellite speakers to start with. Higher or lower crossover point may yield better results in your system depending on your speaker setup
- Note: some receivers do not have an adjustable frequency, instead there is only a choice of "small" or "large". In this case, we recommed choosing "small".
- Gain settings for each channel should be reasonably close (e.g. if the speakers are placed at even distances, the gain setting for each channel should typically be within a couple dB from channel to channel). If the receiver/processor gain trim setting for the subwoofer channel is a large value (e.g. +12 or -12dB) you may need to increase or decrease the subwoofer's volume to achieve a better match.
- Low subwoofer gain/trim settings (on your receiver/processor) effect the operation of the "AUTO ON/OFF" signal sensing circuit. If your receiver/processor gain is set to a low values (e.g. attenuating the signal -6dB or more) this reduces the signal available to properly "turn on" the subwoofer when using the "AUTO ON/OFF" feature. If your subwoofer turns off unexpectedly when watching movies at low volumes, you may wish to increase the receiver's/processor's subwoofer gain trim, and manually reduce the volume using the subwoofer's "VOLUME" control to maintain proper balance.
- Polarity/phase; This should be adjusted for smoothest frequency response near the crossover point.
- EQ settings; if your receiver/processor allows you to see the eq settings for each channel, verify that it is not adding any extra "limiter", or "HPF" to the subwoofer channel, and that it is not adding a high level of boost (e.g. >+3dB) or cut (e.g. -10db).

NOTE:
In some installations, automated room eq algorithms may make undesired changes to the subwoofer signal settings trying to obtain what they believe is the best room response curve. In some systems these changes have been known to degrade the overall sound quality of the subwoofer. If using a receiver/processor with automated room EQ- function, we advise you listen to the system first with the EQ disabled, then again with the EQ enabled, to determine if the changes are beneficial.

Receiver/Pre-amp Without Automated Setup

Older receivers and/or music preamps may not provide an automated setup function. With these sytems, optimal calibration usually requires some type of test equipment be utilized to provide test tones and take measurements to properly calibrate your system. Some equipment you may use for this includes:

- One of our measurement systems Room Analyzer II / II Pro. They are excellent tools to use when optimizing and setting up subwoofer/-s or other speakers in a system.
- Test signal source; pink noise and/or sine wave of various frequencies (CD, DVD, your receiver/preamp, or external measurement equipment)
- SPL meter
- RTA or other frequency response measurement tool (optional)
- Start with a quiet room free of excess background noise (e.g. people talking, kids playing, dogs barking, etc.).
- Verify that subwoofer control settings match illustrations for your type of system configuration
- Set any receiver/pre-amp speaker settings to an appropriate starting point (e.g. crossover). We recommend 80Hz crossover as a good starting point.
- Start playing a test signal with energy in the subwoofer crossover region (e.g. full bandwidth pink noise) through all speakers
- While observing an SPL meter (or listening to the mid-bass level), have an assistant adjust the “PHASE” switch between 0° and 180° and observe any change in mid-bass level near the crossover frequency. Set the control to the position with the highest/loudest amount of bass.
- Play a test signal (e.g. pink noise) through only 1 speaker at a time. If using your receiver, you may need to enter it’s setup mode to perform this function.
- Place an SPL meter in your typical listening position, approximately at ear height (use of a tripo may be required), and set to “C” weighting and “Slow” response (if those settings are available)
- Adjust volume to a modest level -typically 75-85dB (loud enough to clearly hear, but not excessively loud)
- Adjust controls as necessary to play the same test tone through each speaker and subwoofer/-s in the system, 1 speaker at a time.
- Adjust the individual channel gain/trim of your equipment to obtain the same SPL reading from each speaker as you measured from the first speaker

NOTE

A home theater receiver may walk you through portions of this procedure. Follow any instructions from your receiver’s owner’s manual as applicable to your system setup. Once finished, listen to some familiar music and movie tracks. Minor adjustment of the levels may be desired. Do not be afraid to experiment with adjustments and try different EQ settings to find what may improve the sound in your system and room the best!

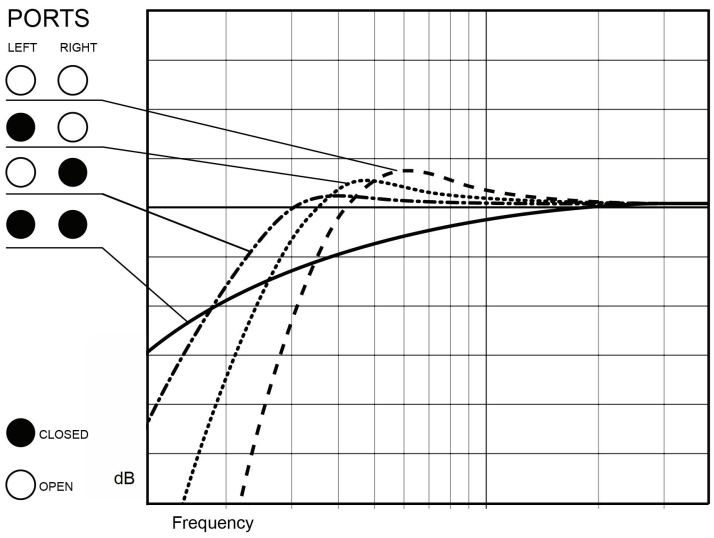
Volume, phase and crossover frequency (also placement of listening position and placement of the sub) are depending on each other, if one of these parameters is change the other are also changed. i.e. if the crossover frequency is changed it also influences the volume and phase, so they need to be compensated for this effect. In a room there is never any absolute correct phase over the whole frequency range, phase needs to be set to arrange the best result over the whole frequency range.

There are limitations on how well the bass management works in a receiver/processor. The settings for the subwoofer/-s might need to be adjusted manually either on the subwoofer/-s OR preferably in the receiver/processor. For some cases when having only one “SUBWOOFER” output jack and multiple subwoofers and the subwoofers are not placed symmetrically in the room (e.g. having an opening on one side of the room) you might need to apply different settings for the “PHASE”, “VOLUME” and EQ setting on the subwoofers. There is also the option to use one of our measurement systems Room Analyzer II / II Pro. They are excellent tools when optimizing and setting up subwoofer/-s or other speakers in a system. Do not be afraid to experiment with slight adjustments to find what may improve the sound in your system and room the best way.

Do not hesitate to contact us at info@xtz.se for questions about settings. We are happy to assist you in optimizing your system!

Room Tuning & EQ Settings

Mechanical adjustment of the boundary frequency	By using the supplied bass plugs in the bass reflex ports, you can alter the lower boundary frequency of subwoofer. This makes it possible to alter the sound characteristics of the subwoofer. The picture below shows four settings. One or two open reflex ports will increase the efficiency so that the subwoofer can handle higher sound pressure than with both ports closed.	
Tuning - High freq.	With no plugs in the ports the subwoofer will provide a “quick” and “punchy” bass character. It has increased output higher up in frequency.	○ ○
Tuning - Mid. freq.	If the left port is blocked and the right port is open, this will provide a bass with an increased output in the mid region.	● ○
Tuning - Low. freq.	If the right port is blocked and the left port is open, this will provide a deep bass with an increased output in the lower frequencies.	○ ●
Closed	With both ports blocked this closed box will provide a dry and controlled bass character.	● ●



EQ

This control allows you to adjust characteristics of the subwoofer to match the room and speakers in your system. EQ “equalization” aims to get as even frequency response as possible in your sound system.

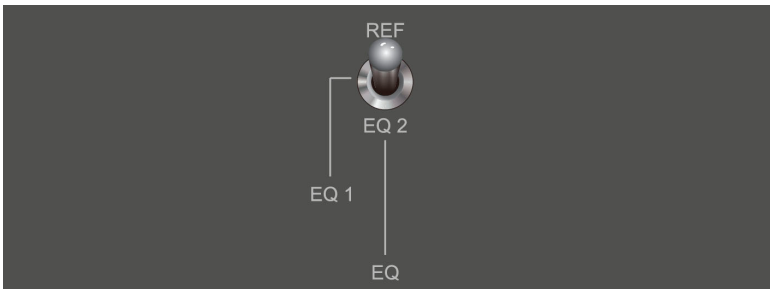
SUB EQ

The subwoofer has a switch marked with “EQ”, this allows you to choose between three different EQ “Characteristics” settings.

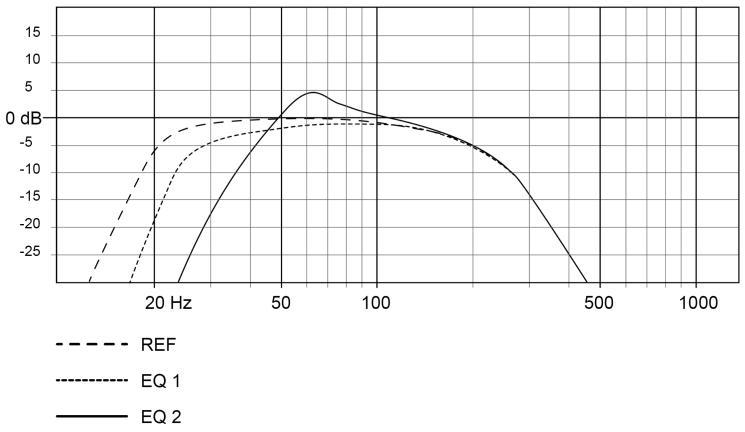
-REF gives an extended frequency response for the deepest bass, however the lower frequencies can be over represented and “muddy”, depending of the room geometrics, placement of the sub and listening position. (Reverberation)

-EQ1 is a direct countermeasure to the “muddy” bass problem of over represented low bass/room gain, by lowering the bass extension, the bass will be more controlled.

-EQ2 stores more energy a bit higher in the frequency, recognized as a more punchy fast bass



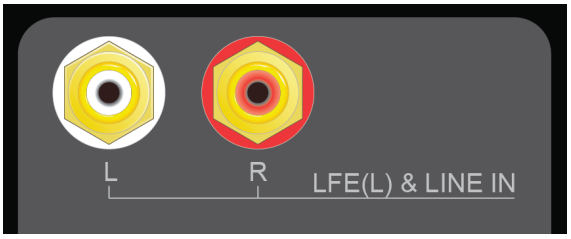
The picture below shows the effects of the different EQ settings. (These curves illustrates the frequency response of a anechoic room, have in mind that the frequency response will change depending of the room and placement of the subwoofer and listing position. E.g. A setup in a regular room with the EQ 2 could have a total frequency response that extends much lower than represented in the graph below due to room gain.



Connections & controls

RCA Line Input (LFE), L & R

LFE & Unbalanced RCA inputs for left and right channel. Choose the left one when using LFE signal. The left and right inputs are a sum, providing bass for both channels.



XLR Balanced

This is a balanced version of the LFE signal

XLR Pass Through

This works as a pass through for the XLR balanced signal, this makes it possible to connect several subs with one signal from the source.

Program Port

This is a direct access to the programmable parts of the amplifier. Bare in mind this is not for consumers, the program port is meant to be used by XTZ employees only.

CROSSOVER 40 to 160 Hz

This control allows you to adjust the upper limit of the subwoofer's frequency response from 40 to 160 Hz. The subwoofer's output level will be reduced above the frequency this control is set to. You should set the crossover frequency to obtain a smooth and seamless transition from the subwoofer to the main speakers in your system. If your main speakers are smaller units with limited low frequency output, start with a higher frequency (such as 100-150 Hz). With larger speakers that have greater low frequency output, you might start with this control set lower (such as 60-100 Hz).

PHASE 0° - 180° (set to 0° if using a surround processor)

This control allows you to alter the phase of the subwoofer's output signal , 0° - 180° to correct for a possible mismatch and resulting cancellation between the subwoofer and your main speakers/amplifier. To adjust, listen to the system with music playing and tune between 0° and 180° and listen for a change in mid-bass output. The correct position will have a higher amount of apparent mid-bass output.

VOLUME (set to pointing upwards/12 o'clock if using a surround processor)

This control allows you to adjust the output level of the subwoofer to match the main speakers in your system. For most home theater receivers & surround sound processors, set the volume control to pointing upwards / 12 o'clock position. For music systems, start with the volume control at a low setting and proceed slowly from there until the levels match. The use of test tones (from a receiver/processor's built in calibration function or test disc) and SPL meter are suggested for proper level matching of all speakers.

Low Pass Switch

The low pass filter cuts away high frequencies at a certain point and over, the frequency point is set by the crossover variable. We recommend that when using LFE signal to turn the low pass filter off, as most receivers are handling filters internally.

EQ Setting Switch

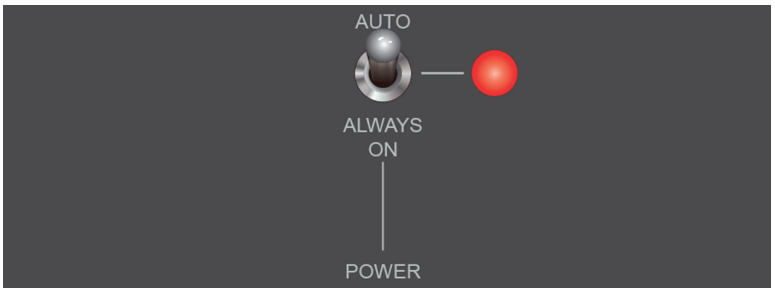
This switch allows you to choose between the three different EQ settings.
REF, EQ1 & EQ 2 are explained in the "SUB EQ" section, found on previous page.

Power AUTO/Always ON

With this function in the "AUTO" position, your subwoofer can be safely left with the main power switch on continuously. The subwoofer will turn itself on automatically when an audio signal is present. If no signal is present for approximately **1 hour**, the unit will switch to standby mode (indicated by red power LED color). While in standby mode, your subwoofer will only need minimal power. This function can be disabled by setting this switch to the "OFF" position.

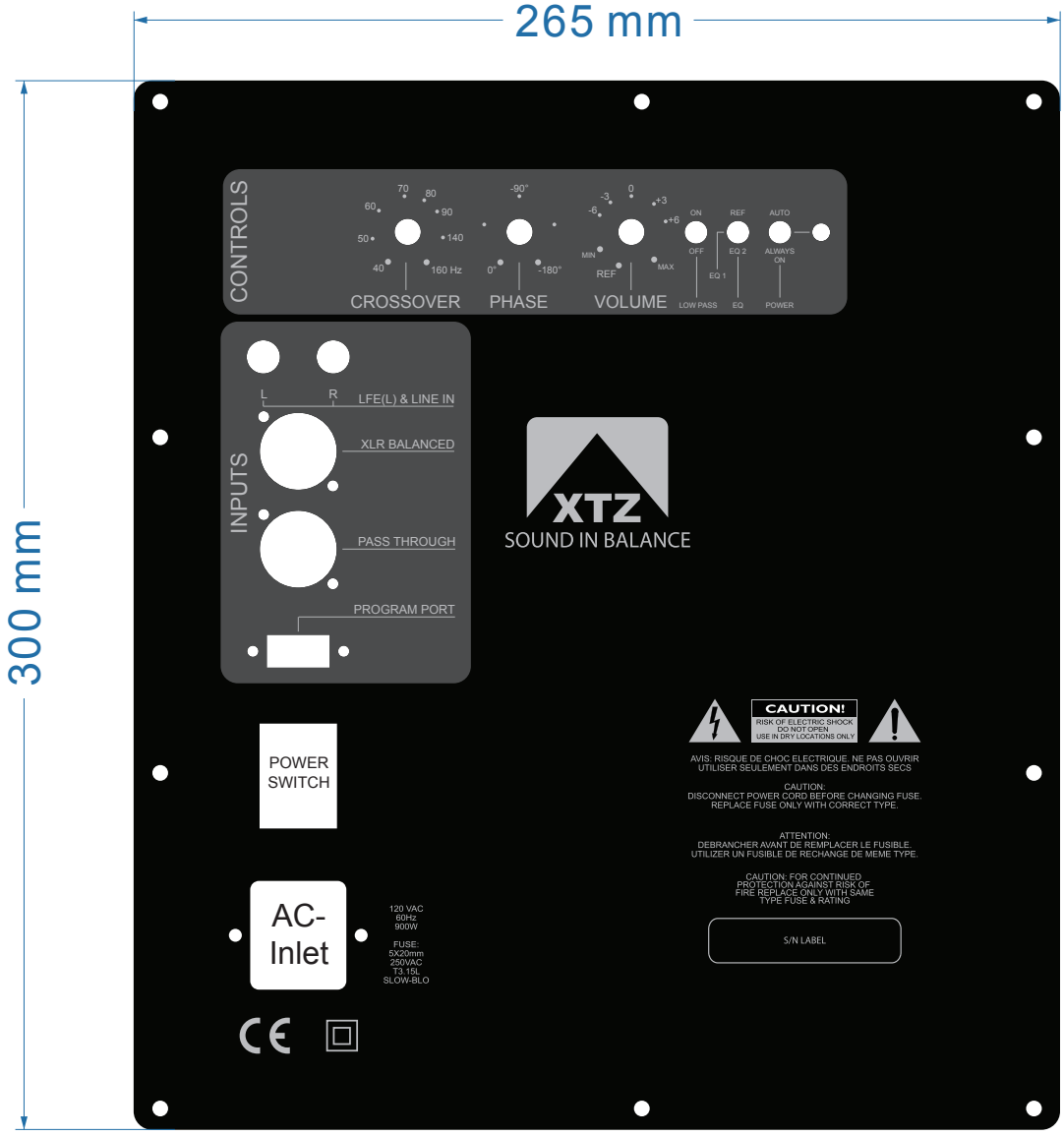
Power Indicator LED

Function	LED Color	
ON	GREEN	The unit is turned on and working normal
OFF	None	LED first turns red then off after shutdown is complete
STANDBY	RED	Waiting for signal to power on
MUTE/PROTECT	RED	During turn on and turn off temporary mute



Master Power Switch

The master power switch is located on the lower half of the unit. This rocker style switch is the main on/off for the unit. This switch should be set to position 1 (up) for on, and 0 (down) for off. If the unit is to be left unused for an extended period of time (e.g. when you are away on vacation), the master power switch should be turned off, or the main power cord disconnected.



Care of your speaker

Your new subwoofer/-s does not require any regular maintenance or calibration. Normal dusting or cleaning of the surface for appearance purposes is all that is required.

Cabinet and baffle

Avoid using harsh detergents or chemicals when cleaning the cabinet. Abrasives, detergents, or cleaning solutions may damage the finish on the cabinet. We recommend using only a damp cloth or automotive grade “quick detailer” designed for painted surfaces, plastic & metal trim, to clean the cabinet.

Grill

The cloth grill may be carefully cleaned using a vacuum. Animal hair can be removed using masking tape or similar. Avoid using brushes with stiff bristles that may damage the grill cloth.

Woofer

DO NOT use liquids, brushes or a vacuum to clean the drive units.

Protection circuitry

Your new subwoofer is equipped with special protection circuitry to provide maximum performance with greatest reliability.

The unit is protected against:
- Overheating the transistors.
- Excessive drop in power line voltage.

The first type of protection circuitry which prevents overheating of the transistors operates constantly without being audible under most situations. In some extreme situations (e.g. sustained high output levels in warm environments), the unit may shut down momentarily. This indicates operation of the thermal or under voltage protection circuitry. If this should happen, you should reduce the volume setting or shut the unit off until normal operating conditions return. You may also want to plug the unit into a different wall outlet (or circuit), as inadequate power line voltage & current will be most noticeable under high output conditions.

Warning

WARNING: There is no protection circuit for longterm excessive volume use for some parts in the amplifier and speaker driver, in this case critical components may break due to sheer exhaustion.
Note: If clear audible distortion appear at high volumes, it is recommended to lower the volume.

Troubleshooting and service

If you should experience a problem with the operation of your subwoofer, please check all of the following before seeking service. Following is a simple troubleshooting guide to assist you.

1. Verify unit is plugged in and that the power outlet used supplies the proper AC voltage & current.

2. Is the power switch on?

3. Has the external fuse blown? Unplug the power cord from the amplifier, then use a small screwdriver to remove the fuse holder cartridge (located below the cord connection), and inspect fuse for damage. If blown, replace with the same type & value fuse.

4. Is the auto turn on/off properly set for the inputs used?

5. Is the subwoofer receiving an input signal from your source equipment?

6. Have all controls on the subwoofer (volume, crossover, phase, etc.) been properly set?

7. Is the volume control properly set to match source signal level?

8. If the subwoofer has been running at high levels for an extended period of time, one of the protection circuits may be engaged;

- Does the built-in amplifier panel feel extremely hot (located on the rear of the cabinet)?
- Is your AC power line circuit sufficiently rated to supply adequate VA required for full amp output? If your powerline is not capable of supplying enough engergy, the maximum output power will be reduced & distortion may become audible.

9. If the protection circuitry is active, the unit may cycle on and off until operating parameters return to normal. Under more serious conditions, the unit may shut off completely. Normal operation should return upon cooling, but depending on the type of fault condition you may be required to turn the main power switch off for several minutes and then back on again to reset the unit.

10. If the unit exhibits a drastic change in output sound, after you check the items above you may wish to perform the steps below to assist in troubleshooting by verifying the proper operation of both amplifier module and driver;

- Turn on your audio equipment, except for the subwoofer's main power switch, which should remain "OFF"
- Prepare to play a 20 to 30Hz sine wave (test tone) from your CD/DVD test disc, smartphone, computer, or other signal source (note: if you do not have this type of test signal, contact customer service or your place of purchase for assistance)
- Adjust the volume of your equipment & the subwoofer to a medium-high volume level
- Start playing the test signal
- Prepare to carefully listen to the subwoofer's low frequency output (make sure the room is quiet)
- Turn the subwoofer main power switch "ON"
- After a couple of seconds, you should hear amplifier & driver start playing in a loud, somewhat uncontrolled fashion, with extra harmonics (warmer fuller sound that normal)
- Turn down the volume or stop the test signal after a few seconds
  The above process helps determine if both amps & drivers are functional. If there is no change from the 2nd amplifier and driver powering up, repeat the test. If you are still unable to hear the 2nd driver and amp power up, further troubleshooting by a qualified technician may be required.

The following conditions require service by a qualified technician:

- The unit has been exposed to liquid.
- The power cord has become damaged.
- The unit does not appear to operate normally or exhibits a marked change in performance.
- Part of the cabinet, drivers, or electronics have been physically damaged.
- The amplifier (or any amp module) does not power up (if fuses are OK and proper AC power is applied).

Technical specifications

Driver size	10" High Speed Driver
Anechoic REF	20 Hz - 160 Hz (Ported), 26 Hz - 160 Hz (Closed)
Variable low pass crossover	40 Hz - 160 Hz 24 dB/octave
Phase	0° - 180°
Amp power (Class D)	500W rms continuous power.
Inputs	L & R Unbalanced RCA, LFE Unbalanced RCA, Balanced XLR, Program Port
Outputs	Pass Through Balanced XLR
Input impedance	CA: 8k ohms
Warranty (speaker)	Five years
Warranty (amp)	Two years
Dimensions (HxWxD)	420 x 320 x 380 mm
Weight	19,5 kg
AC power require-ments	750VA (min.), 1250VA (preferred)

Specifications subject to change without notice.

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 / www.xtzsound.com

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.

Thanks for your purchase!