

WATERFALL AUDIO

SOUND DESIGNERS

MADE IN FRANCE



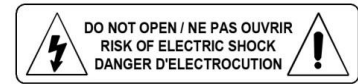
USER'S MANUAL

S500EX

EXCLUSIVE TECHNOLOGIES :
X-GUARD™ & U-GUARD™

READ BEFORE USE

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS



Safety symbols: The lightning 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. This voltage may be of sufficient magnitude to constitute a risk of electric shock. The exclamation mark 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.

Before installing your S500EX amplifier, it is imperative to read this manual entirely. Follow and keep these instructions. If in any doubt about the configuration or any of the connections to be made, consult your dealer.

- Do not expose the device to moisture, dripping or splashing
- Do not introduce foreign objects into the device
- Do not use the device near heat sources such as radiators, heaters, etc.
- **The power cord supplied with the device corresponds directly to the power requirements. It should never be replaced by one of a lesser capacity**
- Only connect the device to the type of connector indicated by the labeling on the device
- **Before connecting the device to the mains, ensure that your electrical installation can provide sufficient power and is earthed. If you are unsure, consult your electrician**
- If the power cord does not fit your AC outlet perfectly, consult an electrician and replace the outlet
- The power cord must not be trampled, crushed or pinched
- The wall outlet that the S500EX is connected to must remain accessible
- Do not overload wall outlets or extension cords this will create the risk of fire or electric shock
- Risk of Electrocution - Never open the appliance whilst it is connected to the mains
- Take great care when making the required internal configuration of the amplifier, it must be disconnected from the mains and the cover properly replaced before testing. Never operate the internal switches when the device is connected to mains power
- Power off* the amplifier when not in use. In case of thunderstorms or if the device is not to be used for long periods of time ensure that it is unplugged at the power outlet
- **Connect only one speaker per speaker output. Never connect multiple speakers or subwoofers either in parallel or in series on the same channel**
- Ensure that all maintenance instructions are carefully followed
- Risk of Choking - Do not leave the packaging bags within the reach of children
- In the event of any technical issues or servicing, refer this device to your dealer and/or an authorized technical service agent

Failure to comply with these important safety instructions and warnings will result in the immediate termination of the manufacturer's warranty.

CONCEPTION & INNOVATIONS

• X-GUARD™ PROCESSING

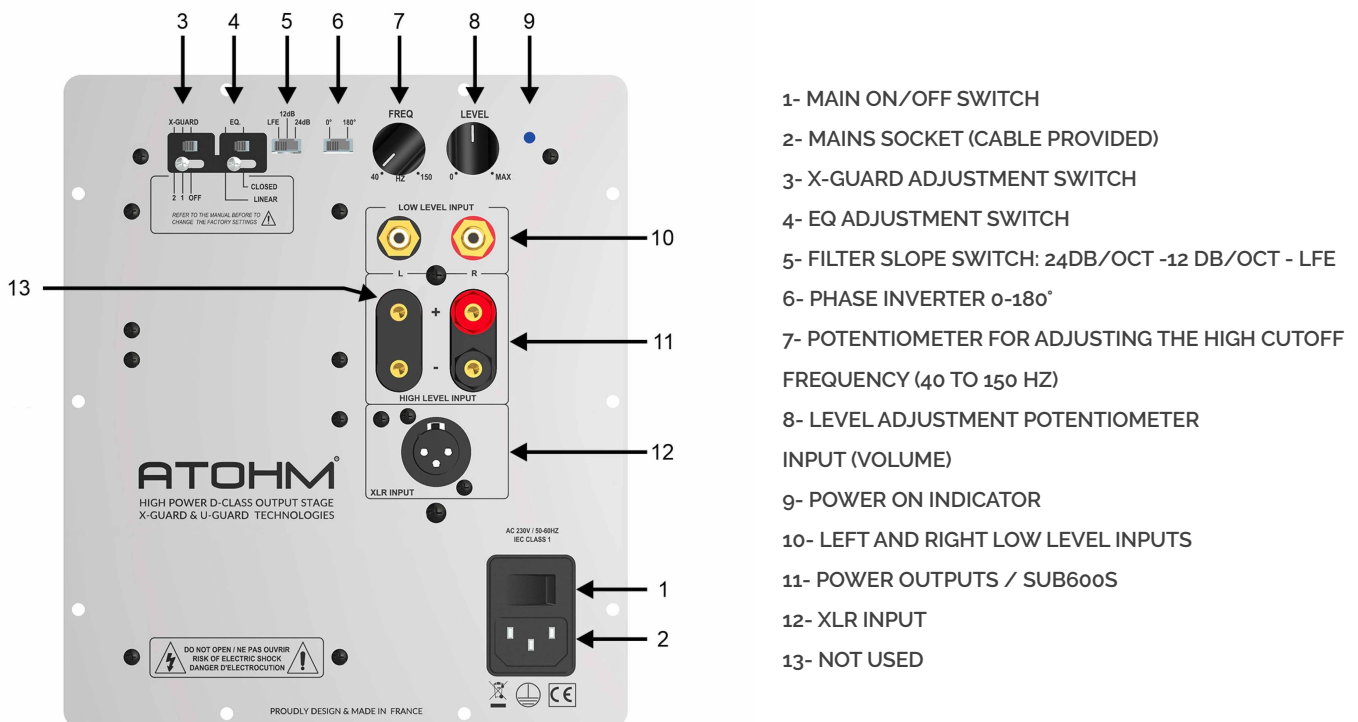
X-GUARD™ excursion control ensures that bass driver excursions never exceed an absolute limit (too high distortion and risk of breakage). This excursion control device constantly compares the input signal and its parameters (notably frequencies/amplitude) to a specific "setpoint". When the signal becomes too high, it immediately intervenes to limit the amplitude of the signal without inducing audible artifacts.

Unlike a classic subsonic filter, X-GUARD™ preserves signal integrity as well as phase and does not induce group delay while protecting the speakers much more effectively. Its presence is undetectable to any extent when it does not intervene on the signal. This technology makes it possible to exploit all the dynamics available from the woofers without putting them in danger.

• U-GUARD™ PROCESSING

The U-GUARD™ device aims to reduce square wave formation (clipping distortions) by output of the device and to avoid saturation of the power stages at maximum power. When the signal exceeds the set threshold, U-GUARD limits the formation of harmonics. This point is important for subwoofer applications because the harmonics (odd ranks) created by clipping are located at higher frequencies and make the subwoofer(s) perfectly localizable.

The process is timed so that the power stages are never in full saturation. Unlike certain circuits placed in a feedback loop, U-GUARD intervenes from the first rising edge by maintaining a signal shape closer to the original and more pleasant to listen to.

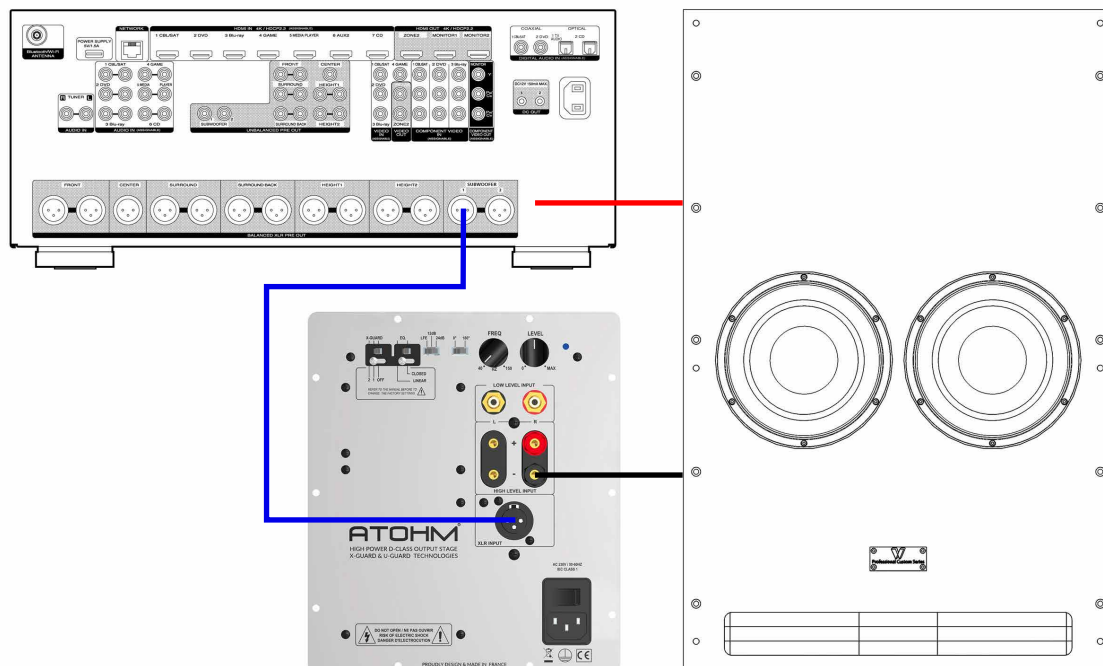


SECTION: CINEMA SET-UP - POWERING A SUB600S

AUDIO-VIDEO PROCESSOR SETTINGS

In the "setup" menu of your A/V processor, configure all speakers in "small" mode. Select the crossover frequency: **80Hz**

Continue with the rest of the settings (distance, test tone, etc.). If necessary, refer to the user manual for your Audio/Video amplifier.



Reminder: Connections must be made with all electronics turned off.

- Connect the SUB PREOUT output of the Audio-Video processor to the R input (10) in RCA or (12) in XLR
- Connect the power outputs (11) to the SUB600S
- Set the Switch (5) to LFE
- Adjust the volume with the potentiometer (8)

Points to note:

- Potentiometer (5) FREQ is inactive. The amplifier operates in LFE mode; the cutoff frequency is managed directly by the AV processor.
- Depending on the "Bass Management" of the Audio-Video processor, phase inversion on the Switch (6) may be necessary.

CLEANING

For cleaning **(with the amplifier turned off)** you can use a window cleaner with a soft, lint-free cloth.

Never use any kind of abrasive product.

WARRANTY

Waterfall speakers are guaranteed for 5 years - covering both parts and manufacturing defects. Amplifiers are guaranteed for 2 years. For detailed warranty conditions see www.waterfallaudio.com (warranty section).

WATERFALL AUDIO

ZA les praderies - 83 570 Carcès - France
waterfallaudio.com

Made in France, 5 years warranty on speakers, 2 years warranty on amplifiers (parts & service).
We operate a policy of continuous improvement and reserve the right to amend designs and specifications without prior notice.



All drivers and amplifiers are developed and manufactured by ATOHM (France).