



Professional Audio



SUB SERIES

Active Subwoofers

EN – User's Manual
IT – Manuale Utente
FR– Manuel de l'Utilisateur
SP– Manual del Usuario
DE– Benutzerhandbuch
Ver. 2.0

www.verseaudio.com

IMPORTANT SAFETY INSTRUCTIONS

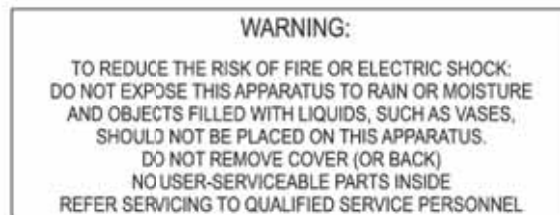
WARNING: READ THIS FIRST!



This symbol 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.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



"INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS"

WARNING:

- 1) Read these instructions.
- 2) Keep these instructions.
- 3) Heed all warnings.
- 4) Follow all instructions.
- 5) Do not use this apparatus near water.
- 6) Clean only with dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8) Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produces heat.
- 9) 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 wider blade or the third prong are provided for your safety. If the provided plug does not fit in to your outlet, consult an electrician for replacement of the obsolete outlet.
- 10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 11) Only use attachments/accessories specified by the manufacturer.
- 12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold, with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 13) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as 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.



NOTE: The socket-outlet shall be installed near the equipment and shall be easily accessible.

SAVE THESE INSTRUCTIONS



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OPEN SYSTEMS FOR OPEN MINDS

We live in a universe of sounds.

Sounds to be captured and reproduced, which can just accompany our life, but can also be exalting and exciting. We were convinced we could reproduce this universe of sound in a new way - which is why we created Verse. New manufacturing technologies for amplifiers and loudspeakers, combined with constantly increasing precision in reproduced sounds, made us decide to accept this challenge. In fact, Verse is total sound purity, giving results whose quality is unrivalled in such small dimensions. Verse systems are built to astonish for their incredible quality and, thanks to their compactness and light weight, can always fit in alongside you anywhere. Follow us in our new venture and make it yours, re-discovering your universe of sounds.

The Verse team



THANK YOU FOR CHOSING A VERSE PRODUCT.

THIS GUIDE WILL GIVE YOU INFORMATIONS AND USEFUL TIPS FOR A CORRECT USE OF YOUR INSIDER SYSTEM.

THE VERSE STAFF WISHES YOU GOOD WORK AND... HAVE FUN!

IMPORTANT NOTES

LOOKING AFTER THE PRODUCT

- Never apply excessive force to the structures or controls (knobs, switches).
- Do not stress the speaker in transit or during use.
- Do not place the device close to heat sources, in damp or dusty places or close to strong magnetic fields.
- When possible, do not place the speaker close to units which generate strong interference, such as radio and TV sets, monitors, etc.
- Never insert objects or liquids of any kind inside the device, for any reason.
- Clean using a soft brush or an air jet only; never use detergents, solvents or alcohol.
- When disconnecting cables from sockets, always take hold of them by the connector and not by the cable itself, and when winding take care to avoid knots or twisting.
- Do not expose the speaker to direct sunlight.

CONNECTING TO THE MAINS

- To avoid the risk of electric shock, do not make connections with wet hands.
- Make sure that the mains voltage is the same as that indicated on the control panel.
- Connect the speaker to a mains socket with earth contact.

CONNECTING TO A MIXER

- Always use good quality screened cables.
- Before making the connections, check that all the speakers you are about to connect are switched off. You will avoid noisy, if not hazardous, signal peaks.

IN CASE OF MALFUNCTION

- In case of malfunction, contact only an authorised service centre.



OVERVIEW

Verse speakers are developed from the idea that speech and music satisfy us when they are intelligible, undistorted and pleasant to listen to. There's no such thing as a system suited to one musical genre or another – these are just illusions caused by our personal taste. A real sound system can follow you anywhere: whether you're in a lounge bar accompanying an aperitif, in a traditional theatre, or just outdoors with a few instruments or a large orchestra.

In order to do this we applied the latest design and manufacturing technologies, and that's what gives Verse systems a huge reserve of dynamics, which can be heard when the need arises.

The experience of listening to Verse will enable you to discover many new horizons – a real uniVerse:

- natural, dynamic low frequencies that are not pumped up, but give an unforgettable physical sensation
- a great natural reaction to equalization, to satisfy users' personal taste, thanks to the great reserve of dynamics and the capacity of the new transducers

TECHNOLOGY

AMPLIFIERS

The new digital technology totally changed the way a professional audio amplifier is developed. No other way make possible to give great power and long term reliability.

Remarkable heat reduction and outstanding weight decrease make digital amplifier, that equip VERSE speaker, efficient, powerful and less heating. The output stages of the amplifiers typically run at 95% efficiency, dissipating only 5% of the input energy as heat.

Moreover the efficiency doesn't depend on the output level, and since standard music has an average power density of 40% of the maximum level, conventional amplifiers can easily generate 10 times more heat than VERSE ones for the same volume of sound.

To grant reliability and durability, VERSE amplifiers are provided with short-circuit protection, thermal protection with fan-speed control (that avoid temperature rising over 60° C) and amplifier disactivation system thus preventing amplifier breakdown if temperature rise to intolerable values. And also: protection circuit to cancel direct current component, protection from ultrasonic components in input and output. The I.T.P (Intelligent Thermal Protect) is warranty of perfect-working and long-lasting speakers.



COMPONENTS

Together with high performance amplifiers, VERSE decided to put speakers conceived specifically to do their best with a so remarkable reserve of power. The woofers are made with neodymium magnets, aluminium coil and PET membrane. They make use of the O.M.A. (Orbital Magnet Array) technology to obtain huge excursions, "present" and dynamic bass, high acoustic pressure and mild weights.

PROCESSING

The processors include cross-over and pass-band filters, equalization correctors, level compressors/limiters, delay for the phase alignment of the system. The processors work automatically and are conceived to assure the best condition of playback and safety.

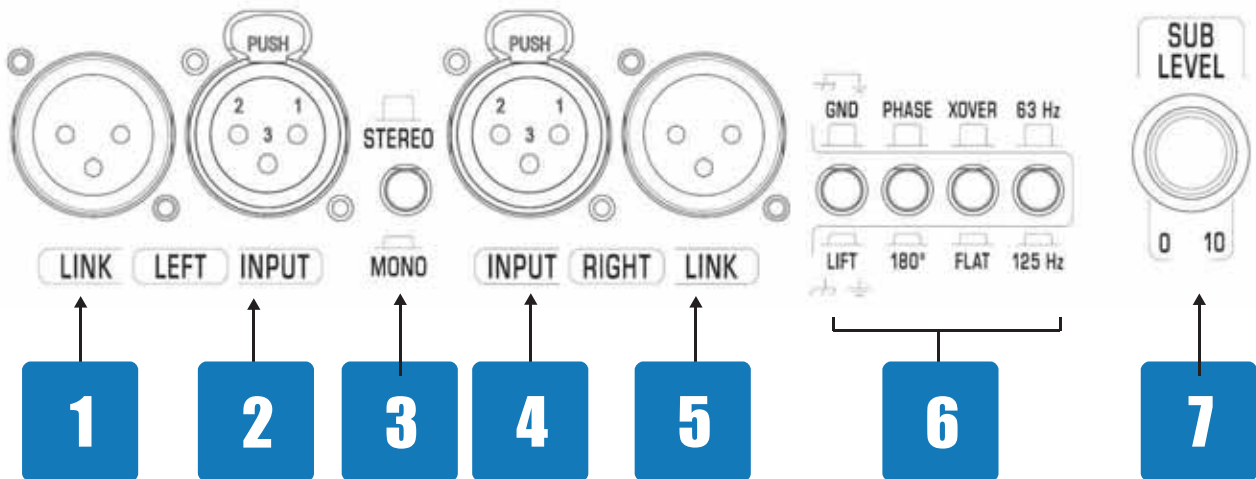
The limiter act on the equalizer section and not - as usually happens - on the overall level only.

This leaves - also when the limiter acts - the sound nearly unchanged, because only the critic frequency region is damped.



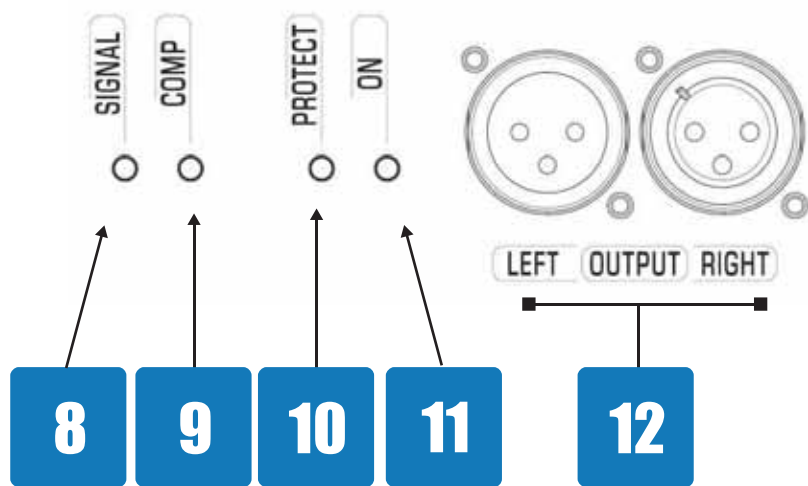


CONTROLS AND CONNECTIONS

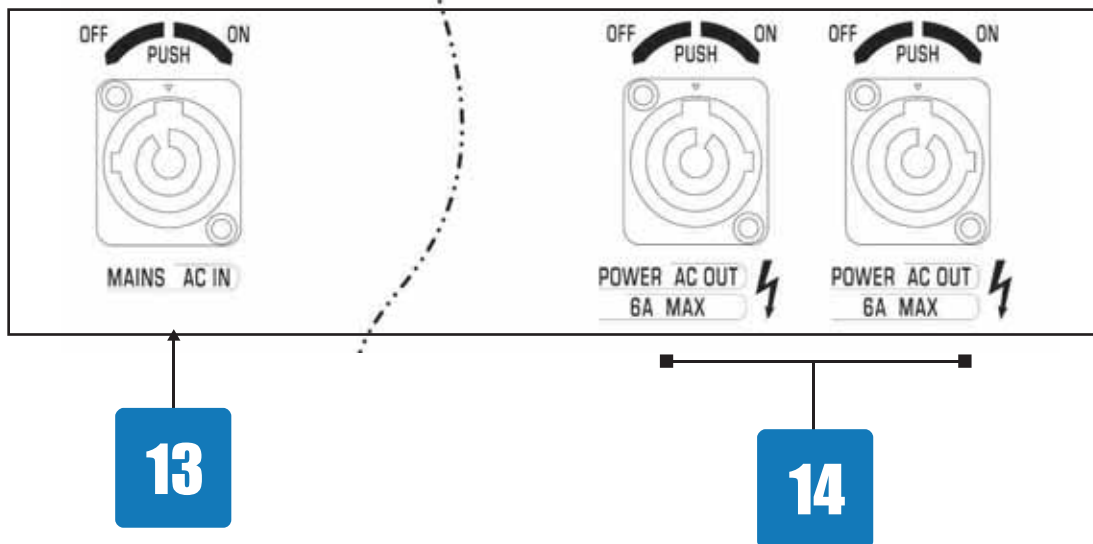


- 1 & 5. LEFT/RIGHT LINK: sends to the output the same signal coming from LEFT/RIGHT INPUT connector. This allow the cascade connection of different devices to the same sound source.
- 2 & 4. LEFT/RIGHT INPUT: XLR input socket for connection of the signal to be amplified.
- 3. L(MONO)/STEREO: use L(MONO) when using only LEFT INPUT, STEREO, when using both inputs.
- 6. CONTROL SWITCHES:
 - » GND LIFT: switch that allows the amplifier ground to be disconnected from the chassis. However, the speaker ground connection remains unchanged. This is useful in situations where ground loops occur, causing hissing if more than one device is connected to the same power supply socket.
 - » PHASE: invert the phase of the input signal.
 - » X-OVER: insert cross-over filter in the output signal.
 - » 63/125Hz: switch x-over cut frequency between 63Hz/125Hz.
- 7. SUB LEVEL: to adjust the signal gain in range from 0 to 10.

- 8. SIGNAL LED: indicates that the signal is present.
- 9. COMP LED: indicates compressor's activity. If the signal passes over the safety threshold, the compressor guarantees a good quality playback, without acoustic distortion, damping the appropriate signal frequencies. The system operates in total safety. If the LED is constantly on, there is an excess of signal. In this case, please reduce the incoming signal level.



- 10. PROTECT LED: the internal amplifier is in thermal protection mode due to overheating.
- 11. ON LED: indicates that the speaker is On.
- 12. OUTPUT: XLR socket to send signal out. This signal is affected by X-OVER.



13. AC-IN powercon: connect the mains cable supplied from the factory with the loudspeaker to this socket.
14. AC POWER OUT: easily connect another VERSE speaker to the mains. Pay attention not to exceed the current limit reported on the chassis near the grey connector.

CONNECTION EXAMPLES

The Powercon connectors make the system very practical and, thanks to the LINK OUTPUT on each enclosure, avoid the problem of having to run a power feed to each element.

All VERSE Systems are provided with special customized cables made of a pair of powercons and balanced XLR connectors. Therefore it is possible to provide for signal and power a VERSE Insider from another VERSE Insider or a VERSE Sub. Subwoofers feature a double output link to simplify the left and right audio channels.

Please note: the purchase of a spare VERSE speaker (i.e: not buying it in a –k system) doesn't include the customized cables.



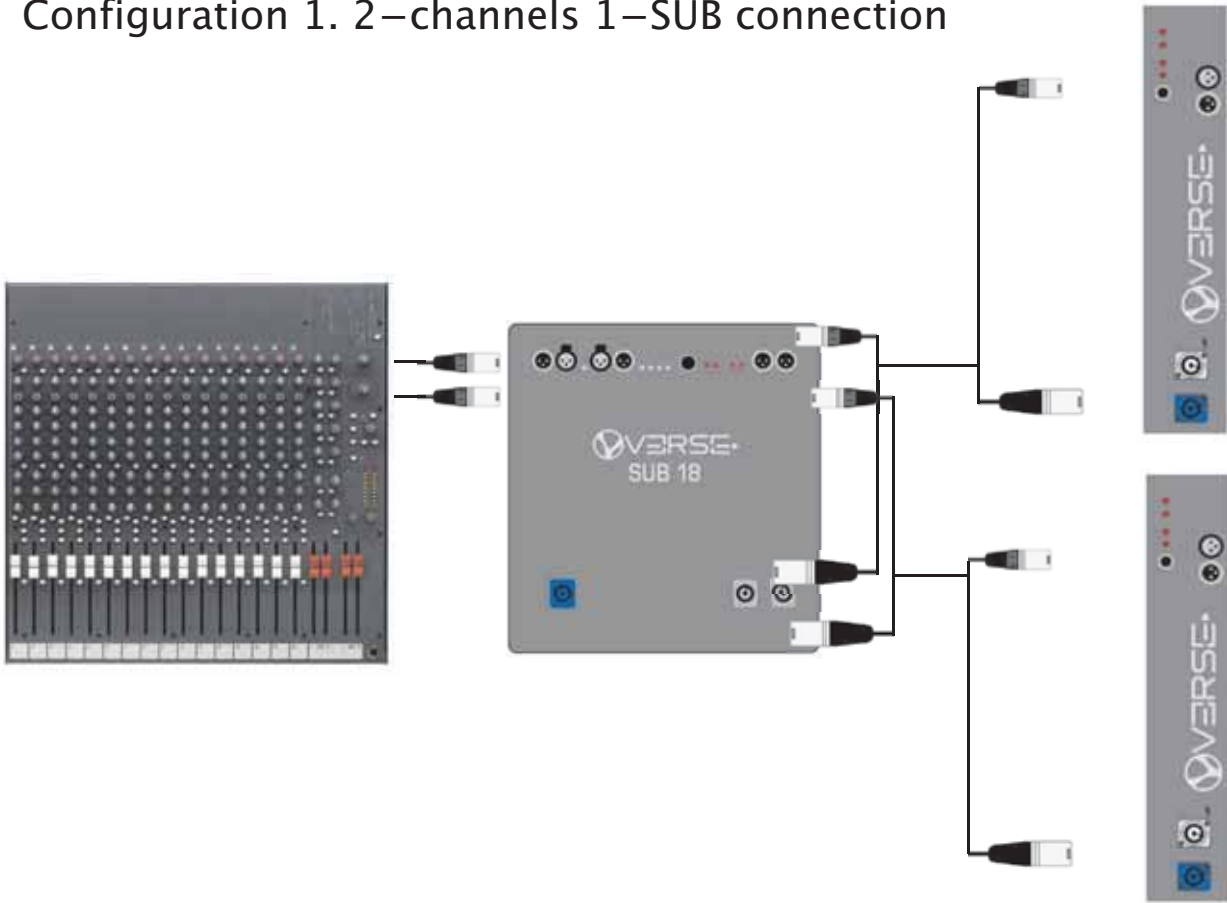
Detail of a Powercon main input



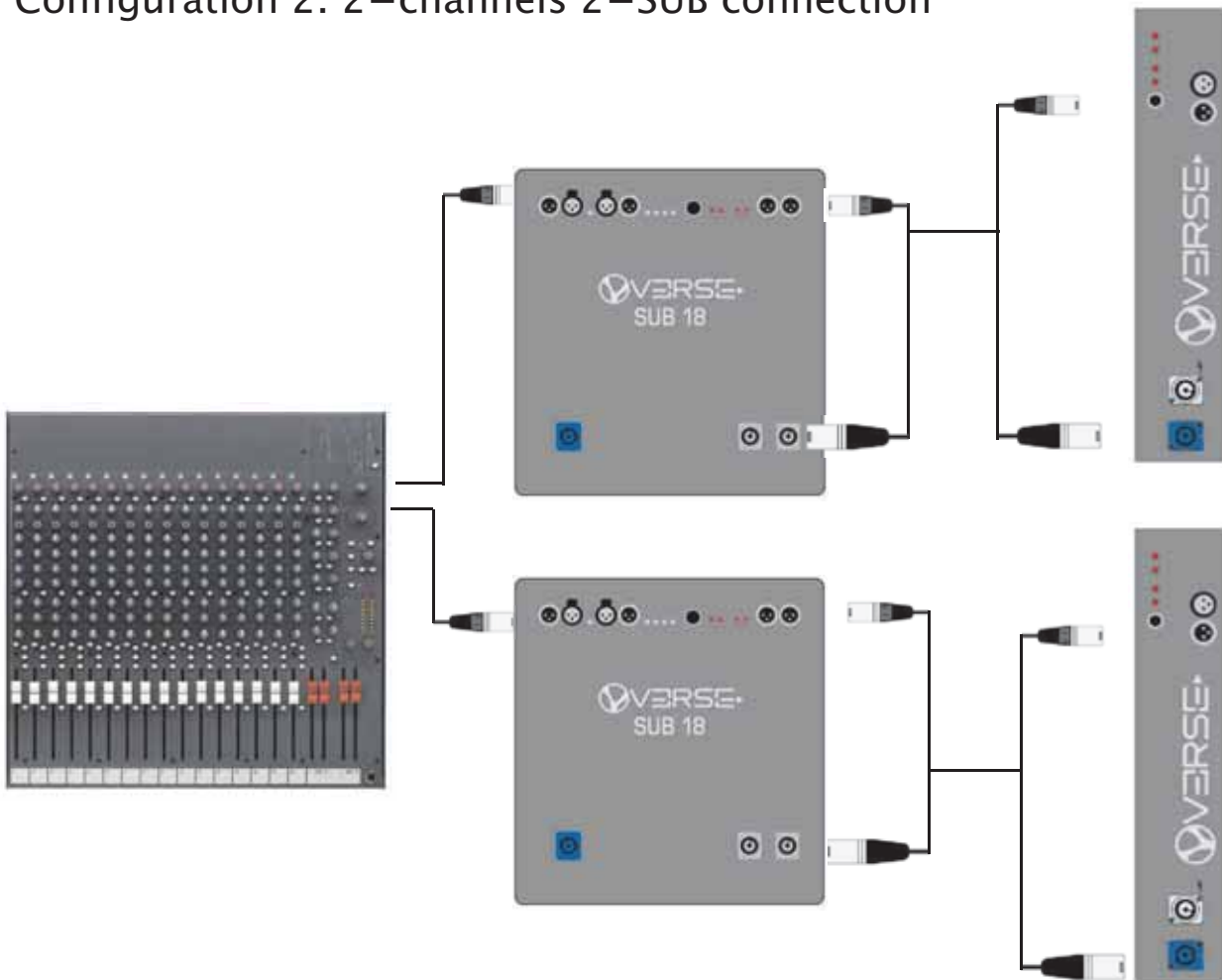
The customized cable provided with VERSE speakers.



Configuration 1. 2-channels 1-SUB connection



Configuration 2. 2-channels 2-SUB connection





USAGE SUGGESTIONS

The acoustic characteristics of the room/environment in which a sound system is used have sometimes very significant effects on the overall sound produced.

Thanks to its special technical features (such as the optimal width of its dispersion range), with the VERSE Sub some of the most common problems can be reduced or prevented. However, some factors should be borne in mind as they may help to optimise its performance.

- Do not place speakers in the corners of a room or in recesses (e.g. niches), since this causes an increase in the low frequencies, producing sounds which are redundant or blurred.
- Do not place speakers against a wall, as this also causes an increase in the low frequencies, although less pronounced than that produced in a corner or niche.
N.B.: on the other hand, this phenomenon may sometimes be used to advantage to reinforce the low range, but it must be employed carefully and in a controlled way.
- Do not place speakers straight on a stage, a floating floor or any other support with cavities, as this tends to trigger resonances that alter and interfere with the overall sound.
N.B.: solid supports should always be used when possible, or a speaker stand.
- Remember that high frequencies have a high level of directivity and a much higher absorption coefficient than low frequencies. Therefore, to guarantee that the signal reaches the listener in an intelligible form, position speakers so that they are in a direct line with the audience (clearly visible) about $\frac{1}{2}$ metre / 1 metre above the audience's heads.
- In buildings with a lot of reverberation (places of worship, gymnasiums, etc.) first of all keep the sound reflections down using materials which absorb sound (carpets, curtains, special panels, etc.). If this is not possible or is not sufficient, do not simply turn up the volume, because this will also increase the volume of the reflected sound, and may make the situation even worse. The best solution is to use more speakers, placed around the room and closer to the audience (e.g. front+back; front+sides; front+sides+back).
N.B.: in these circumstances it may prove necessary to use a delay processor to realign the timing of the sound of the various speakers (i.e. to overcome the delays caused by the sound propagation time), ensuring that the sound heard by the audience will be free from "echo".
Example: since the speed of sound is about 344 metres a second, sound takes about $\frac{1}{10}$ of a second to travel 30 metres. Therefore, a listener close to a "back" speaker 30 metres from the "front" speaker would hear the sound from the "back" speaker about $\frac{1}{10}$ of a second before the sound from the "front" speaker: in other words, he would hear two identical sounds $\frac{1}{10}$ of a second apart. To ensure that the two sounds strike the ear of this specific listener at exactly the same time, the sound of the "back" speaker will have to be delayed by $\frac{1}{10}$ of a second using a delay processor.



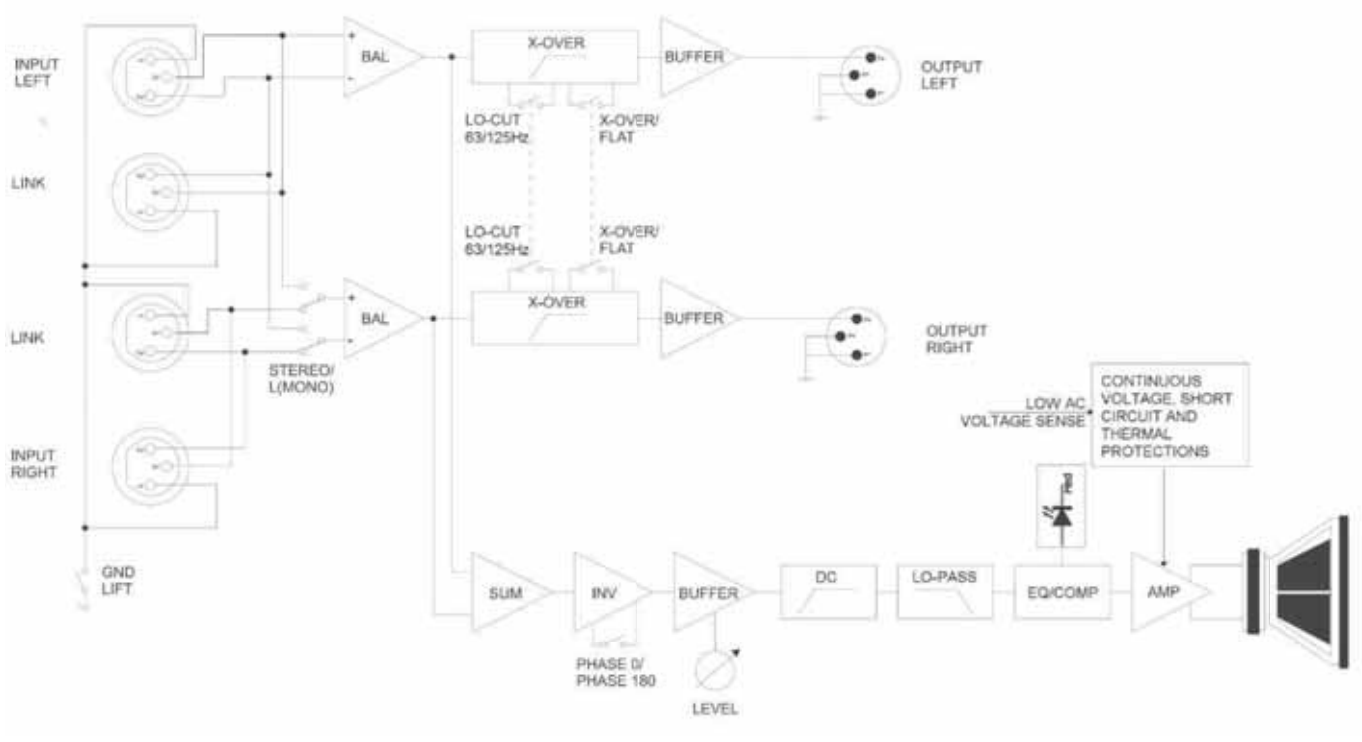
TECHNICAL SPECIFICATIONS

	SUB 10	SUB 15	SUB 18
Power-handling nominal	1000 W	2000 W	2000W
Frequency response	38Hz-400Hz	35Hz-400Hz	30Hz-400Hz
Input sensitivity	0dBu	0dBu	0dBu
Max SPL average *	130dB	138dB	138dB
Max SPL peak *	134dB	140dB	140dB
Max SPL peak half space **	137dB	143dB	143dB
Woofer amplifier	1000 W	2000 W	2000W
Subsonic filter	Yes	Yes	Yes
Active protective circuitry	Thermal, overload	Thermal, overload	Thermal, overload
Nominal impedance	input bal 20Kohm	input bal 20Kohm	input bal 20Kohm
Connections	2x female XLR L-R input, 2x male XLR L-R link outputs, 2x male XLR L-R line outputs, 1 powercon AC input, 2x powercon AC link out	2x female XLR L-R input, 2x male XLR L-R link outputs, 2x male XLR L-R line outputs, 1 powercon AC input, 2x powercon AC link out	2x female XLR L-R input, 2x male XLR L-R link outputs, 2x male XLR L-R line outputs, 1 powercon AC input, 2x powercon AC link out
Midrange woofer	Neodimium 10"	Neodimium 15"	Neodimium 18"
Crossover frequency	63Hz-125Hz selectable	63Hz-125Hz selectable	63Hz-125Hz selectable
Pole mount	1 top side	1 top side	1 top side
Dimensions (HxWxD) mm	370x350x560	580x450x560	640x640x700
Weight	19Kg	30Kg	39Kg

* MLS signal in anechoic chamber @1m

** calculated

BLOCK DIAGRAM



FCC RULES

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced Radio/TV technician for help.

The user is cautioned that any changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.