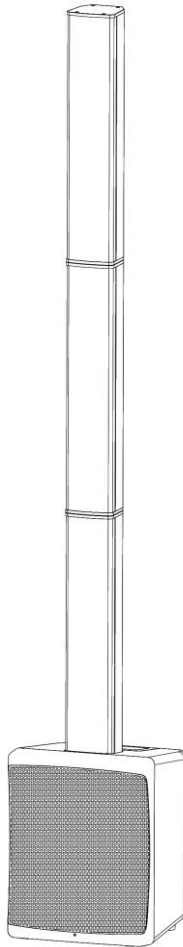# NEOLITH-500

Portable Column Array

Item ref: 171.232UK

User Manual

Version 1.0

⚠	Caution: Please read this manual carefully before operating Damage caused by misuse is not covered by the warranty

Introduction

Thank you for choosing the Neolith portable column speaker system with Bluetooth.
This set provides versatile, high quality sound reinforcement with a minimal footprint.
Please read this manual prior to use to avoid damage through misuse.

Package Contents

Please check the contents to ensure that the product has been received in good condition.

- Active subwoofer
- Full range satellite column speaker
- 2 x column extension pieces
- IEC mains power lead(s)

If you find any accessory is missing or the product has arrived with any problems, please contact your retailer at once. This product contains no user-serviceable parts so make no attempt to try to fix or modify this item yourself as this will invalidate the warranty.
We recommend you keep the original package and proof of purchase for any possible return or servicing requirement.

Warning

To prevent the risk of fire or electric shock, do not expose this appliance to rain or moisture and avoid ingress of water into the enclosure. To prevent electric shock do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

Safety

Prior to connecting mains, ensure that the supply voltage is correct and that the mains lead is in good condition. If the mains fuse blows, refer the unit to qualified service personnel

Placement

Keep the unit out of direct sunlight and away from heat sources.
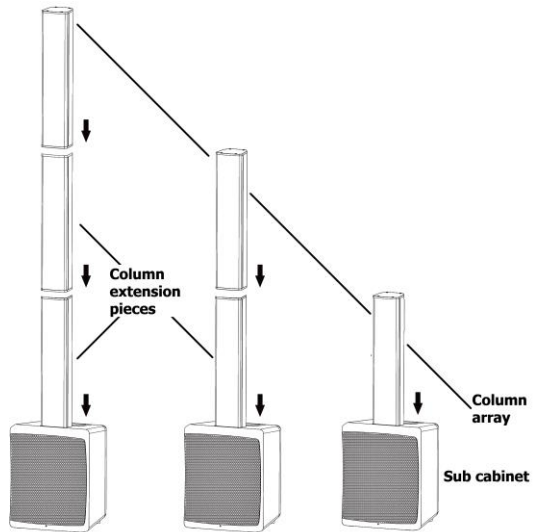Keep the unit away from moisture or dusty environments.

Cleaning

Use a soft cloth with a neutral detergent to clean the cabinet, panel and controls.
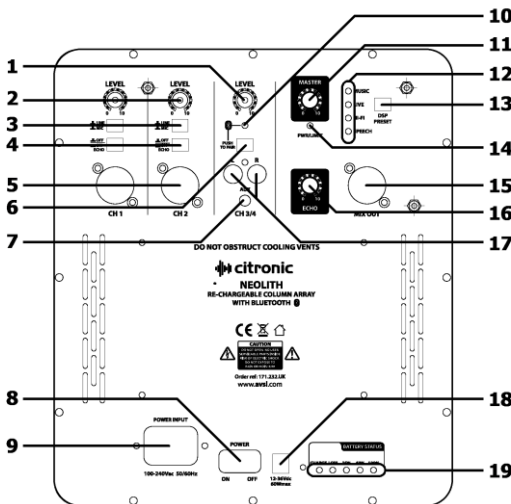To avoid damage, do not use solvents to clean this equipment.

Assembly

The Neolith system comprises an active subwoofer which powers a passive column array speaker that connects directly into the top of the active sub cabinet.

The system can be made taller using one or both extension pieces as required.

All enclosures are made of durable moulded plastic for strength and portability.

Sub cabinet rear panel

1. Volume control - line input
2. Volume controls - mic/line inputs
3. Mic/line level switches
4. Echo select switches
5. Mic/line combo jack/XLR inputs
6. Bluetooth pairing button
7. 3.5mm auxiliary line input
8. Power on/off switch
9. IEC mains power inlet
10. Bluetooth pairing LED indicator
11. Master volume control
12. DSP setting indicators
13. DSP preset select button
14. Power / Limiter LED indicator
15. Mix line output XLR
16. Echo level control
17. Line input L+R RCA
18. D.C. power input 12-36V
19. Charge status LED indicators

Power options

The Neolith system may be powered directly from the mains or from the internal re-chargeable battery. The battery may not be fully charged when shipped.

For mains operation and re-charging the internal battery, connect the IEC inlet (9) to the mains power supply using the power lead provided (or equivalent).
Battery charge status is shown by LED status indicators on the rear panel (19)

Alternatively, the Neolith may be powered from an external battery or other DC power source (60W min.) by connecting to the DC input jack (18) on the rear panel.

Setting up

If microphones are to be connected to the Neolith system, connect these using good quality XLR cables or XLR to jack cables into the combo connectors of CH1 and CH2 (5).
Ensure that Mic/line switches (3) are in the MIC position and the levels (2) are turned down.

Do not direct microphones towards the Neolith speakers as this will allow the microphone(s) to 'hear' their own sound output through the speakers, causing the system to feedback.
This is a loud howl or squeal that can be damaging to the speakers.

Alternatively, a line level signal, such as a CD player, mp3 player, music keyboard or guitar with onboard preamp can be connected to these inputs using good quality jack or XLR cables. For these types of input, ensure that the Mic/line switch is in the LINE position.

CH1 and/or CH2 can have an additional echo effect applied to the input by pressing in the Echo select switches (4) and controlling the amount of effect using the Echo level control (16) This is a preset effect which is applied the same to CH1 and CH2 if echo is selected for both.

A separate line input is provided on CH3, which can be connected via twin RCA sockets (17) or via a stereo 3.5mm jack (7). CH3 input level is governed by the line input volume control (1).

If the overall mix of all 3 inputs (CH1/2/3) is to be fed to an external sound system for more sound reinforcement or recording purposes, an output can be connected from the Mix line output XLR (15)

Operation

With the volume controls (1, 2, 11) turned fully down, switch on the power (8).
The PWR/LIMIT LED indicator (14) will light green.

Turn up the Master volume part way and gradually increase a channel volume control whilst speaking into the mic or playing audio into the line input until it can be heard through the Neolith speakers.
Increase the volume to the required level, increasing the Master if needed.
Repeat this process for all 3 input channels.

If the overall mixed signal is too high for the internal amplifier, an auto-limiter circuit will be activated to avoid overload. This is indicated by the Power/limit LED flashing red. If the LED lights red for more than a brief instant, reduce the volume level(s) until it only lights briefly.

If the echo effect is being used, adjust the amount as required using the Echo control (16).

The sound output characteristics of the Neolith can be altered to suit the venue or application by selecting one of four preset DSP settings (12, 13).

The DSP controls the frequency response and dynamics of the speaker components, which may be experimented with to see which setting is best suited to the situation.

Bluetooth

CH3 input is also shared with a Bluetooth receiver, which can be paired with by pressing the Bluetooth pairing button (6). The LED indicator (10) will flash for a few seconds to open the Bluetooth receiver for pairing.

Search for a device ID called "Bluetooth" on a smart phone or other sending device and select to pair. Once paired, the LED indicator with light constantly.

Play an audio track on the sending device and the signal will be received into CH3.
The Bluetooth LED indicator flashes during playback and lights constantly when it is paused.
The current track can be played or paused by pressing the Bluetooth pairing button.
Again, the output level is governed by the line input volume control.

If the sending device goes out of range or Bluetooth is switched off, it may be necessary to re-pair the device to the Neolith.

Powering down

When not being used, turn down the Master volume control and switch off power to the Neolith system. If external power is still connected, this will charge the internal battery.

Specifications

Power supply	100-240Vac, 50/60Hz, 12-36Vdc or internal battery
DC power	12-36Vdc, 60W
Battery	26V, 5200mAh
Amplifier: construction	Class D
Material	Sub cabinet: polypropylene, Columns: ABS
Output power rms	150W + 150W
Output power peak	600W + 600W
Circuit protection	short circuit, thermal overload, over-current, multi-band limiter
LF driver	203mmØ (8") custom woofer
LF driver: coil size	50mmØ (2")
Impedance: subwoofer	4 Ohms
HF drivers	6 x 76mmØ (2.75") neodymium
HF driver: coil size	25mmØ (1")
Impedance: satellites	8 Ohms
Frequency response	50Hz - 20kHz
SPL max.	95dB (continuous), 121dB (peak)
Limiter	DSP-based multiband limiter
Mic/line inputs	2 x XLR/6.3mm jack combo
Mic/line channel controls	Level rotary, Mic/line switch, Echo on/off switch
Input sensitivity: mic	-38dBu
Input sensitivity: line	-2dBu
Auxiliary input	L+R RCA or 3.5mm stereo jack
Auxiliary controls	Level rotary, Bluetooth link
Input sensitivity: aux	-15dBu
DSP sample rate	48kHz
DSP settings	Music, Live, Hi Fi, Speech
Bluetooth version	4.0
Dimensions (subwoofer)	412 x 325 x 305mm
Dimensions (satellite speakers)	560 x 107 x 107mm
Weight (total)	13.75kg
Height max.	1.99m

Errors and omissions excepted.