# **PowerLink AUX Expander**

OneRemote Type 30017774

**User Manual** 







#### Content

Powerlink AUX Expander
Plug & Play Operation4
LED Indication
Features5
Galvanic Isolation5
Lossless PowerLink Audio Pass5
DataLink Pass
Installation6
Cable Quality
AUX Source Noise Reduction6
AUX Sound Level
Technical Specifications
Connections
PowerLink AUX Expander – Application Examples



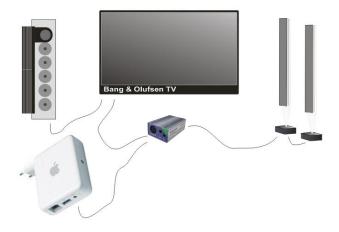
## POWERLINK AUX EXPANDER

The OneRemote Powerlink AUX Expander enables two different sound sources to share ONE set of Bang & Olufsen Powerlink Speakers.

#### Input Sources:

- 1. Any Bang & Olufsen radio or TV sound source.
- Any level controlled analog audio source like a TV, a Sonos system, an Apple Airport, a Bluetooth receiver, a DAB receiver or similar.







#### **PLUG & PLAY OPERATION**

No programming is needed to make the AUX Expander work. As soon as fully connected sound from one connected device is lead to the AUX Expanders, in accordance with below truth table.

The PowerLink source will always have priority over the AUX source. See the truth table.

When detecting sound from the AUX input, the AUX Expander powers on the Speakers and loop the AUX source to the speaker.

The AUX Expander keeps the Powerlink speakers powered up, until no sound has been detected from the AUX source for about 90 seconds.

PowerLink Source	AUX	PowerLink Out
ON	No sound	PowerLink Source
ON	Sound	PowerLink Source
OFF	Sound	AUX *1
OFF	No sound	AUX Expanders off *1

\*1 The AUX Expander remain powered up for 90 seconds after sound has ended from the AUX source.

#### LED INDICATION

When the AUX Expander is powered up the LED flashes RED a few times and then stops flashing. When sound is flowing it turns Green, now and then blinking with sound pulsation.

Red Flash	At power on the LED flashes a few times, while initializing.	
Red	Standby, no input is sensed at either input.	
Green	Sound is detected at one of the inputs and speaker is powered on.	
Green flash.	AUX source is playing <b>but</b> the sound level has been too low for more than 10 seconds. After 90 seconds of flashing the speaker will power off, unless the sound level rises during this period and thereby reset the time-out period.	



#### FEATURES

#### GALVANIC ISOLATION

Designed with galvanic isolation the input signals are kept completely separate from each other. This prevents problems with floating grounds and the two separate ground potentials for data and audio.

- Signal switching is made with a mechanical relay.
- The data ground signal is switched with a mechanical relay.
- The analog ground signal is switched with a mechanical relay.
- Digital data signal flow via a galvanic isolating optocoupler.

#### LOSSLESS POWERLINK AUDIO PASS

The PowerLink audio signals pass without any modification; the output of the is the same as the input.

#### DATALINK PASS

When the PowerLink source is active, any DataLink signals herein are passed directly to the output.



#### INSTALLATION

The OneRemote PowerLink AUX Expander is easily installed:

- 1. Connect the AUX Expanders with PowerLink cable(s). Not included.
- 2. Connect the two sound sources with appropriate cables. Not included.
- 3. Connect the power supply.

#### CABLE QUALITY

Be sure to use good quality PowerLink cables, preferably the double-shielded type, especially if long cables are used. DO NOT use un-shielded cables for any connection.

PowerLink Cable MKII with 4-wire connections is not recommended.

Poorly or non-screened cables pick up noise from the surroundings.

#### AUX SOURCE NOISE REDUCTION

The AUX input can connect to any controlled line like an output from a preamplifier or a headphone output from a TV.

Use the NR switch on the OneRemote AUX Expander to match the source and thereby reduce noise. Use the position giving the best result.

Left positionAUX Noise reduction on.Right positionAUX Direct loop through.

If noise disappears when pulling out the AUX jack, the noise is either being picked up from cables or the quality of the source is poor.

In rare setups a humming low pitched noise can appear due to problems with ground planes. If this occurs, an audio transformer can solve the problem.





#### AUX SOUND LEVEL

Use the two potentiometer adjustments to align the levels of the PowerLink and AUX sources.

This adjustment also sets the maximum volume for the AUX source.



#### TECHNICAL SPECIFICATIONS

Dimensions 25 x 45 x 74 mm

Included accessories Power 12VDC @ 400mA Euro

#### CONNECTIONS



### Sockets: PowerLink in AUX in OUT Power

DIN 8-pin PowerLink 3.5 mm stereo jack DIN 8-pin PowerLink 12V DC 300mA



#### POWERLINK AUX EXPANDER - APPLICATION EXAMPLES

#### Non Bang & Olufsen TV, all Beo4 controlled



When the Bang & Olufsen radio is powered up, sound from the radio is automatically routed through the AUX Expander.

When only the TV is powered up,

the TV sound is routed through the AUX Expander.

*If a Beo4 is modified with a OneRemote RMB4 converter, it can operate both the TV and the radio.* 

# A complete Bang & Olufsen system with a PowerLink AUX Expander connecting:

Airport Express, Bluetooth adapter, DAB+ tuner ....



Add music to any Bang & Olufsen system wirelessly using Apple Airplay or Bluetooth or cable directly via the OneRemote PowerLink AUX Expander:

- Wirelessly from any mobile phone with Bluetooth using a Bluetooth Music Receiver
- Wirelessly from an Apple iPhone, iPad, Mac computer etc using Airplay.
- Wirelessly or cabled from any PC.
- Cabled from an Internet Radio or DAB+ receiver.

If a Beo4 is modified with a OneRemote RMB4 converter, it can operate a OneRemote DAB+ or WiFi receiver too.