

# AUDIOflow

Smart Speaker Switch with App Control



## WHAT IS AUDIOFLOW?

Audioflow is a speaker switch which allows you to connect multiple pairs of speakers to your stereo amplifier and turn each pair on and off individually. It comes in 2, 3 & 4-way versions.

## WHY IS IT DIFFERENT?

Manually operated mechanical speaker switches were popular when Hi-Fi Systems were a tactile experience with record players, CD players and radio tuners. Now that music is typically streamed from the Internet, mechanical speaker switches rarely get used as pressing buttons on a physical switch is inconvenient – however, Audioflow changes this.

Audioflow is the only speaker switch which connects to your Wi-Fi Network and allows you to operate the switch remotely via the iOS / Android App, Amazon Alexa and Control Systems. Where manually operated switches are a generally poor user experience, Audioflow is much more convenient as you can operate the switch with the same device you are using to play and control music.



## USE CASES

### SUB-ZONES

There are some situations such as bedroom / dressing / en-suite and open plan living spaces which are not separate zones as you would typically play the same music throughout. It is logical that they are operated via one amp and an Audioflow switch to turn speakers on and off in different areas.

### ADD MORE AUDIO TO PROJECTS

Audioflow makes it easier to expand installations. For example, if speakers are specified in an extension it is a low additional cost to add an Audioflow switch and install speakers in the garden too. Bedroom systems can easily be extended into bathrooms as well.

### CONTROL SYSTEM INTEGRATION

An open plan Kitchen / Lounge in Control4 would have two audio endpoints, and this would force you to create two rooms in the system which the client would then have to manage by grouping. The advantage of using Audioflow in this situation is that you can simply create one room in Control4 and have buttons on a keypad or in the navigator to turn speakers on and off which is much easier for the client to use. You can even program to turn speakers on and off via PIR sensors when you have a control system.

### COST EFFICIENT

AV Installations are often considered a luxury. With Audioflow you can put projects together at a lower total cost and offer high value solutions when AV installations are budget limited.

Audioflow can also be used as a reasonable stop-gap to be replaced with amplifiers to be installed in the future.



# SPECIFYING AUDIOFLOW

## SPEAKER IMPEDANCE

It is important to understand some basics of speaker impedance when specifying Audioflow.

Impedance is measured in Ohms ( $\Omega$ ) and varies as music is being played – if a speaker has  $6\Omega$  impedance this means that at some frequencies it would dip down to a  $6\Omega$  level.

The lower the speaker impedance is, the more power your amplifier is able to supply. However, if the speaker impedance is too low your amplifier may cut-out (protection), overheat or be damaged. You should always pay attention to the minimum impedance your amplifier is rated for to avoid this.

**Note:** Connecting two speakers in parallel halves the impedance eg:  $8\Omega + 8\Omega = 4\Omega$   
(the volume from each of the speakers would be the same, but the amp is working harder)

**Note:** Connecting two speakers in series you add the impedances together eg:  $8\Omega + 8\Omega = 16\Omega$   
(the amp is working the same, but the volume from each of the speakers would be lower)

## 3S-2Z 2 WAY SWITCH

The two-way switch is in series so you can pretty much use any speakers. If Zone A is  $6\Omega$  and Zone B is  $8\Omega$ , having both on at the same time would be  $14\Omega$  to your amp.

## 3S-3Z 3 WAY SWITCH / 3S-4Z 4 WAY SWITCH

Both the three-way and four-way switches have series / parallel internal wiring to keep the speaker impedance in check, but this means that you should follow this rule:

### Use $8\Omega$ speakers and an amplifier that works down to $4\Omega$

For example, if you are using a 3S-4Z 4 Way Switch and  $8\Omega$  speakers on each Zone A, B, C and D the following would be presented to your amp:

- $8\Omega$  for A, B, C, D, ABCD
- $16\Omega$  for AB, CD
- $4\Omega$  for AC, AD, BC, BD
- $5.33\Omega$  for ACD, BCD, ABC, ABD

## NOTES

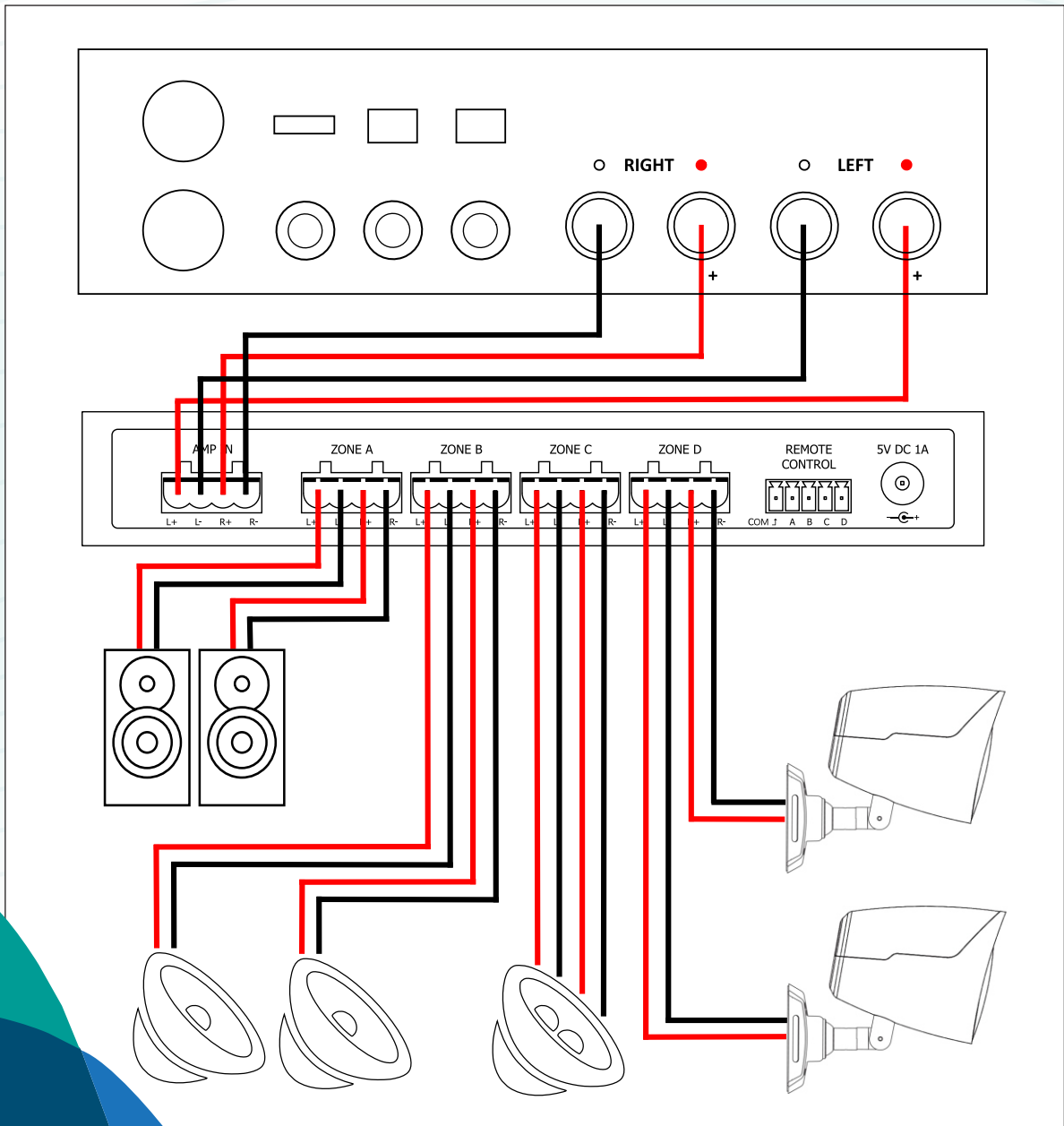
- Most good quality amplifiers can handle loads down to  $4\Omega$  including Sonos Amp, Bluesound Powernode, Yamaha WXA-50 etc. Be wary of some cheap AV Receivers with a Zone 2 function, these can sometimes be minimum  $6\Omega$ . If you can't find impedance details on the spec sheet, it'll be printed on the back of the amplifier itself.
- You can use multiple Audioflow switches on the same Wi-Fi Network. For example; if you set up a 3-Way and a 4-Way, the app will show you seven buttons.
- Some speaker brands can have confusing ratings which state both Nominal  $8\Omega$  and Minimum  $4.5\Omega$  for example. In this case, you should observe the minimum rating.
- You should always have only two speakers or a single-stereo speaker per Audioflow Zone.
- It is possible to disable a zone so you can turn a 4 Way Switch into a 3 Way (or a 3 Way into a 2 Way) if you want to save a connection for speakers which may be installed in the future.
- When three zones are active together there may be one at a different volume level. This will depend on which combination you have selected, the sensitivity of your speakers and the size of your room.
- Audioflow does not include a volume control, you will need to control volume via your source amplifier and this will affect all of the active zones at the same time.



## WIRING EXAMPLE A

Below is an example of an Audioflow 3S-4Z 4-Way switch connected to the following:

<b>Zone A</b>	<i>Lounge</i>	Two Bookshelf Speakers
<b>Zone B</b>	<i>Kitchen</i>	Two Ceiling Speakers
<b>Zone C</b>	<i>Snug</i>	One Single Stereo Ceiling Speaker
<b>Zone D</b>	<i>Garden</i>	Two Wall Mounted Outdoor Speakers



## APPS AND INTEGRATIONS

There are apps available for Apple iOS and Android, and there is built-in native support for Amazon Alexa. Control system drivers are available for Control4 and ELAN and it is also possible to integrate with the Rithum Switch and Home Assistant. You can read more about the detail of all of these, where to get them and how they work on our website:

<https://flow.audio/support>

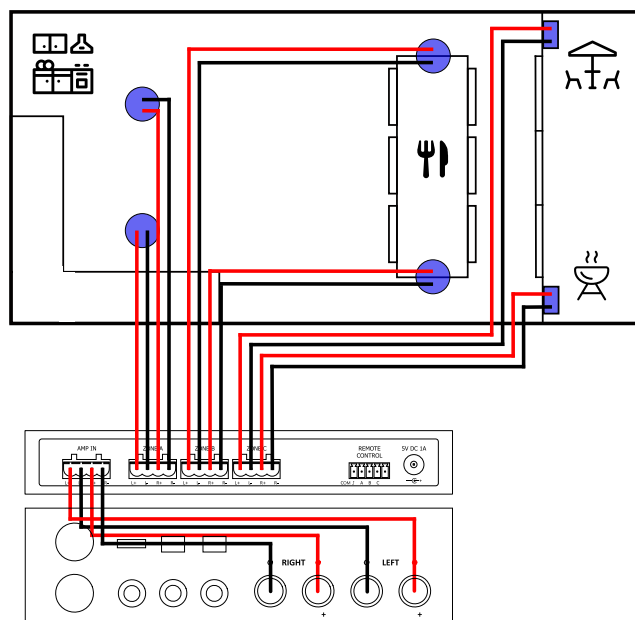
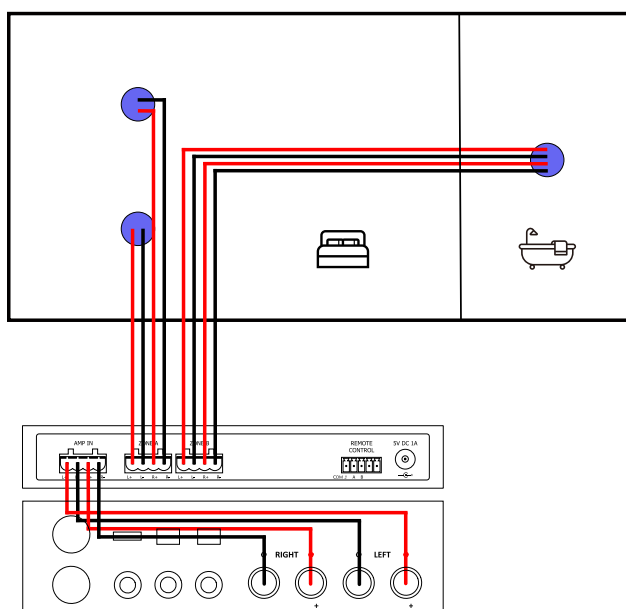
## GETTING MORE HELP

We are here to help you with any aspect of Audioflow. Visit the help section of our website, open a support ticket via email at [support@flow.audio](mailto:support@flow.audio), or call / WhatsApp us on +44 (0)20 3588 5588.

### WIRING EXAMPLE B

Right is an example of an Audioflow 3S-3Z 3-Way Switch connected to the following speakers in an open plan area:

- Zone A** Kitchen Two 8Ω Ceiling Speakers
- Zone B** Dining Two 8Ω Ceiling Speakers
- Zone C** Patio Two 8Ω Outdoor Speakers



### WIRING EXAMPLE C

Left is an example of an Audioflow 3S-2Z 2-Way Switch connected to the following speakers in a Master Bedroom:

- Zone A** Bedroom Two Ceiling Speakers
- Zone B** Ensuite Single-Stereo Ceiling Speaker

AUDIOflow

MADE IN  
BRITAIN 

EFFICIENT  
TECHNOLOGY