AUDIO*flow*

Smart Speaker Switch with App Control

4 Way Speaker Switch

Zone A Zone B Zone C Zone D

AUDIO*flow*

3S-4Z

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 once 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, 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 using 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 / closet / ensuite 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 relatively low additional cost to add an Audioflow and install speakers in the back yard too. Bedroom systems can easily be extended into bathrooms as well.

CONTROL SYSTEM INTEGRATION

Integration can make systems easier to use. For example, an open plan Kitchen / Family Room in Control4 could force you to create two rooms in the system which the client would have to manage by grouping. With Audioflow you can simply create one room and have buttons on a keypad or in the navigator to turn speakers on and off. You can even program to turn speakers on via PIR sensors when you have a control system.

COST EFFECTIVE

AV Installations are aften considered a luxury, and Audioflow can be a useful tool to help put projects together at a lower total cost, while still providing music in all areas requested.

As well as providing better value and helping close deals with clients, it 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 (Ω) and varies as music is being played – if a speaker has 6Ω impedance this means that at some frequencies it would dip down to a 6Ω 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.

> Connecting two speakers in parallel halves the impedance eg: 8Ω + 8Ω = 4Ω
> *(volume from each of the speakers would be the same, but the amp is working harder)*
>
> Connecting two speakers in series you add the impedances together eg: 8Ω + 8Ω = 16Ω
> *(volume from each of the speakers would be lower, but the amp is working the same)*

3S–2Z 2 WAY SWITCH

The 2 Way switch is in series, so you can pretty much use any speakers. If Zone A is 6Ω and Zone B is 8Ω, having both on at the same time would be 14Ω to your amplifier.

3S–3Z 3 WAY SWITCH / 3S–4Z 4 WAY SWITCH

Both the 3 Way and 4 Way switches have series / parallel internal wiring to keep the speaker impedance in check, but this means that you should follow this rule:

<div align="center">Use 8Ω speakers and an amplifier that works down to 4Ω</div>

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

- 8Ω   for zones A, B, C, D and combination ABCD
- 16Ω   for combinations AB and CD
- 4Ω   for combinations AC, AD, BC and BD
- 5.33Ω   for combinations ACD, BCD, ABC and ABD

ONE-AT-A-TIME MODE

Audioflow includes an interlocking one-at-a-time mode which can be enabled using the app. When this mode is activated you would be able to use any impedance speakers (or two pairs of speakers in a zone) in your system.

FAQ / NOTES

- Most good quality amplifiers can handle loads down to 4Ω including Sonos Amp, Bluesound Powernode, Yamaha WXA-50 etc. Be wary of some low-end AV Receivers with a Zone 2 function, these can sometimes be minimum 6Ω. 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.

- Each Audioflow must be connected to it's own amplifier output, you can't connect more than one Audioflow to an amplifier output.

- You should always have only two speakers or a single-stereo speaker per Audioflow Zone unless you are using one-at-a-time mode.

- 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 louder than the others. 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. It is possible to use inline volume controls and these can work well.
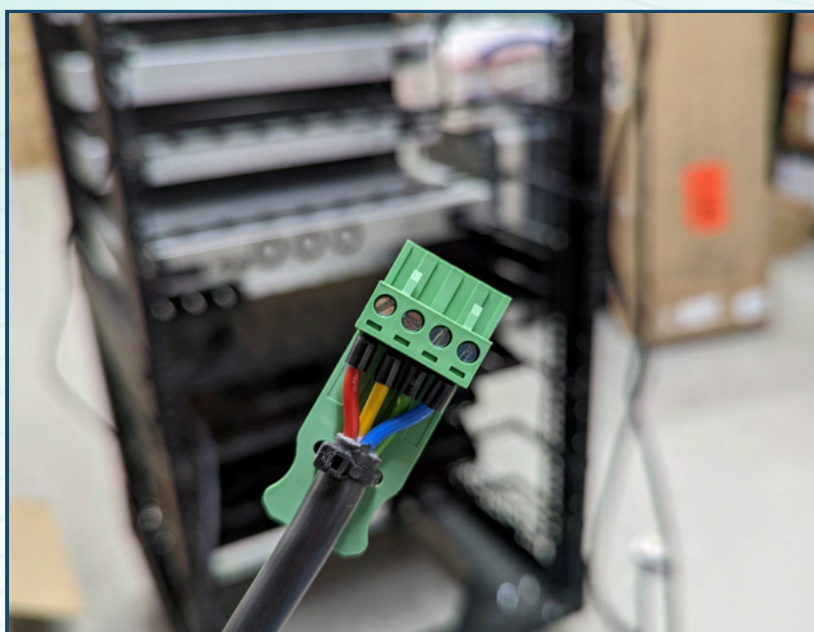
WIRING EXAMPLE A

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

Zone A	*Living Room*	Two Bookshelf Speakers
Zone B	*Kitchen*	Two Ceiling Speakers
Zone C	*Bathroom*	One Single Stereo Ceiling Speaker
Zone D	*Patio*	Two Wall Mounted Outdoor Speakers
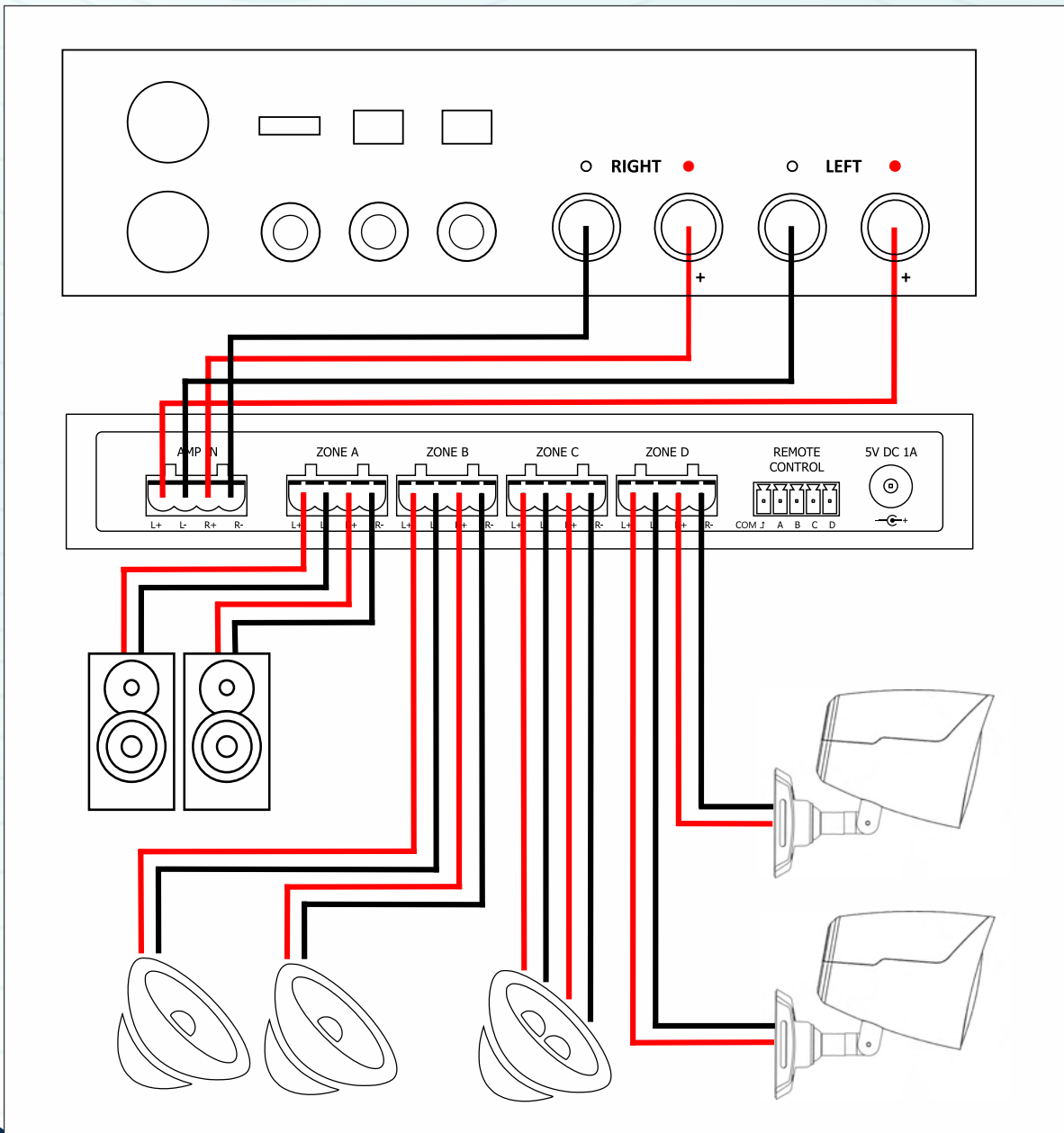
APPS AND INTEGRATIONS

There are apps available for Apple iOS and Android, and built-in native support for Amazon Alexa. Control system drivers are available for Control4, ELAN, RTI, Crestron Home, uControl, URC and Rithum as well as Home Assistant. There is also the ability to use a wired contact closure control for wiring to push switches or contact IO on systems such as Savant, Loxone or Lutron.

You can read more about the detail of all of these, where to get drivers and how they work on our website: **https://flow.audio/support**

HELP & SUPPORT

We are here to help you with any aspect of Audioflow. Visit the help section of our website, or open a support ticket via email at **support@flow.audio**

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*	Ceiling Speakers
Zone B	*Dining*	Ceiling Speakers
Zone C	*Garden*	Outdoor Speakers
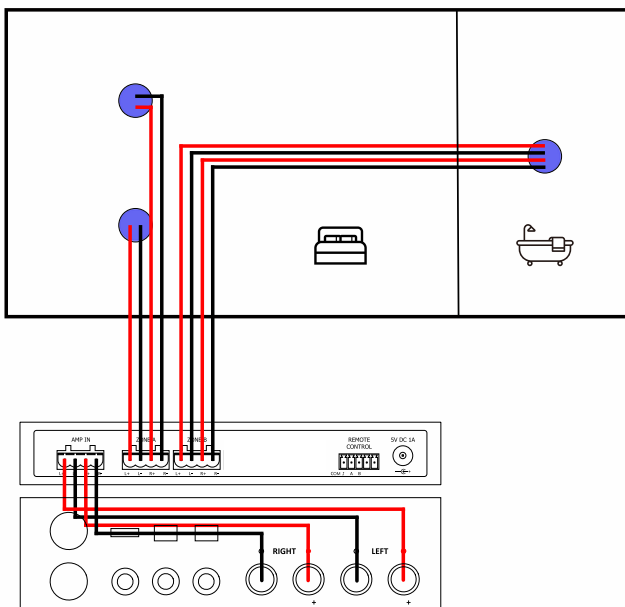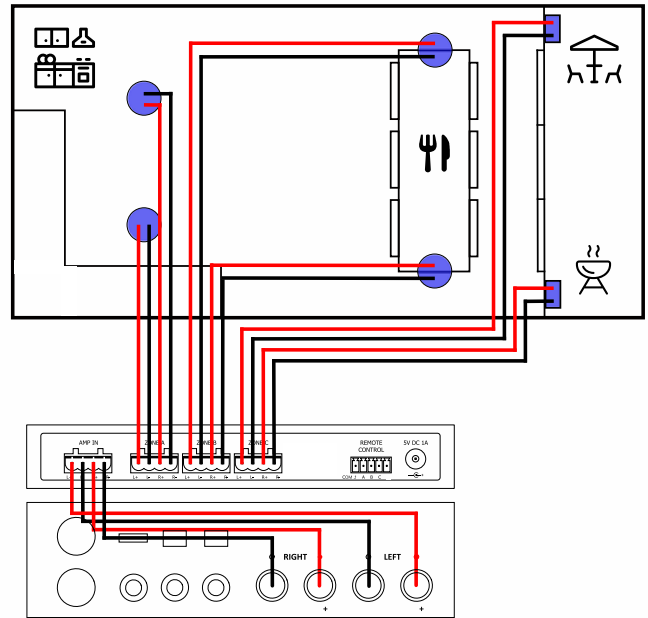
WIRING EXAMPLE C

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 Speaker

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MADE IN BRITAIN

EFFICIENT
TECHNOLOGY