

## Sound sensitive controller notes

### Application information

It is very important to understand how this sophisticated sound sensitive LED controller works in order to achieve the same visual effects demonstrated in our Gallery video for this product here:

<http://www.visualchillout.co.uk/home%20cinema%20video.htm>

(Note that, in this Gallery video, the LED controller is connected only to the LED strips behind the speakers, the TV backlighting uses our 1500-colour kit).

### Using the in-built microphone

The LED controller supplied with this kit has an in-built microphone, and this will pick up a broad range of audio frequencies. In our Gallery Video for this product, the RF controller is attached to the rear of the floor-standing loudspeaker with the microphone in close proximity to the loudspeakers bass reflex port. This biases the colour-change sequencing towards the low frequencies, and hence the lighting changes colour to the beat of the music. Positioning the LED controller behind or below a 5.1 sub-woofer also works well.

In situations where the LED controller may be some distance from the flexible LED strip that it is 'driving' – e.g. TV backlighting, or left/right loudspeaker backlighting (as as in the Gallery video), it may be necessary to use our 4-core twisted cable, available in multiples of 1m up to 5m, to connect the LED strip(s) together, back to the LED controller. Our wiring diagrams on the next pages show how this is achieved.

The LED controller is capable of 'driving' both the loudspeaker backlighting and the TV backlighting simultaneously - see the 3<sup>rd</sup> Installation example. This involves cutting the flexible strip into 3 pieces (left speaker, TV & right speaker) and connecting them all together using 4-core cable. Note that once the flexible LED strip has been cut into more than 2 pieces, the 3<sup>rd</sup> and subsequent pieces will be 'wireless' and will need 4 wires attaching using a soldering iron. We can provide a pre-cutting and pre-wiring service for this type of custom installation. See our Services page here : <http://www.visualchillout.co.uk/services.htm>

### Using the 3.5mm line-in socket

For installations where the RF controller microphone cannot be sited in close proximity to a bass speaker, the LED controller 3.5mm line input socket can be used, and this socket can be connected directly to an i-Pod, i-Phone, MP3 player or hi-fi pre-amp output at line level (approximately 1V rms). It is important to understand that this line input socket has a wide-band audio response, and will respond to mid and higher frequencies as well as the low frequencies, and this can produce a rather 'rushed' sequencing effect on the lighting.

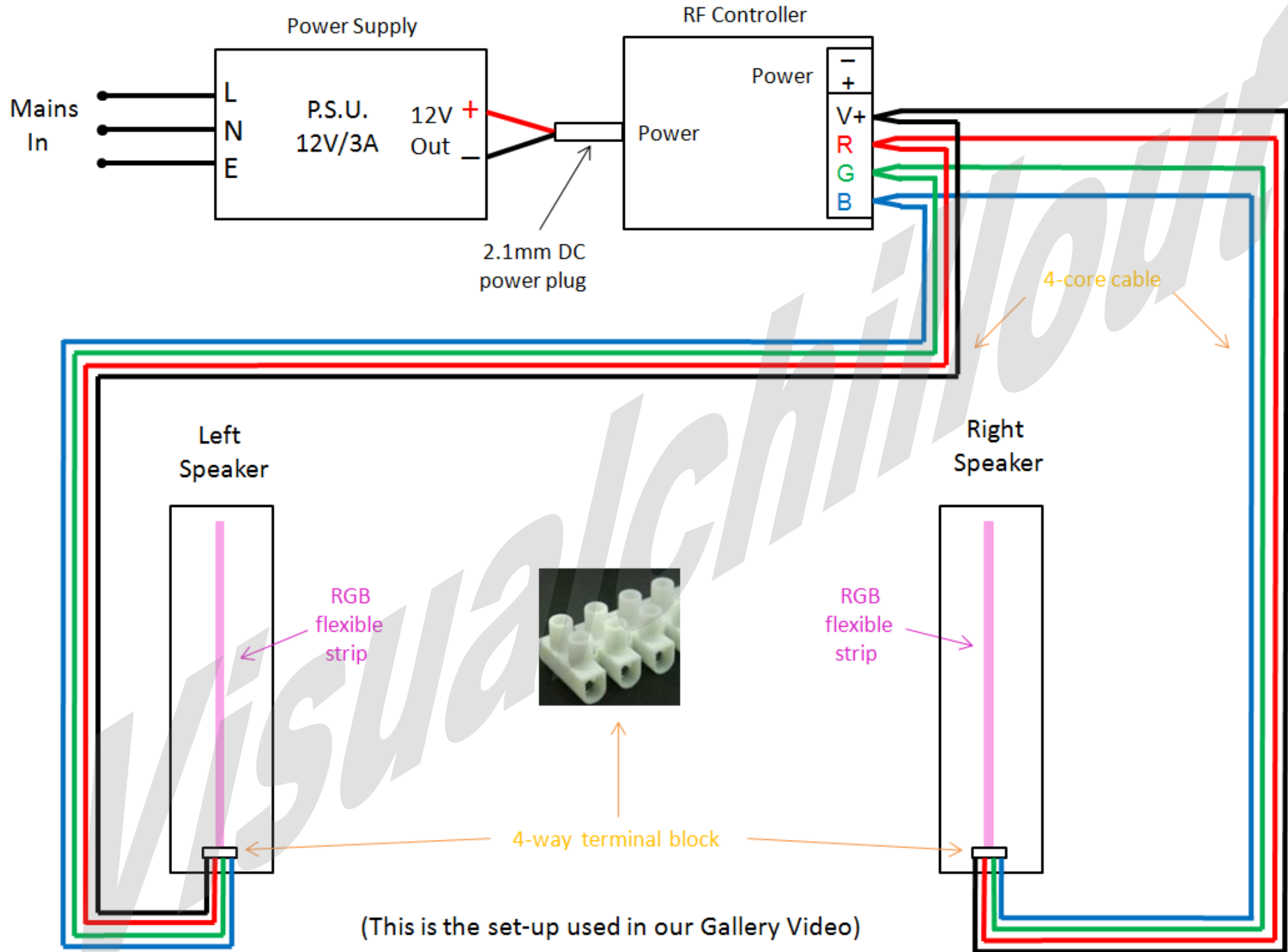
When using the 3.5mm line-in socket, in order to bias the sequencing towards the low bass frequencies (as in our Gallery Video), the use of an in-line low-pass filter is recommended to remove the mid and high frequencies present. We can supply a low-pass filter lead assembly comprising a 3.5mm plug, 1m of screened audio lead incorporating the low-pass filter components, and a 3.5mm socket. Please email us for details.

Connection of the LED controller line input socket to loudspeaker terminals is also possible with the use of an attenuator to reduce the high audio levels present. We can supply a lead assembly comprising a 3.5mm plug, 1m screened audio lead incorporating the adjustable attenuator and low-pass filter components, and twin wires for connection to the speaker terminals. Please email us for details.

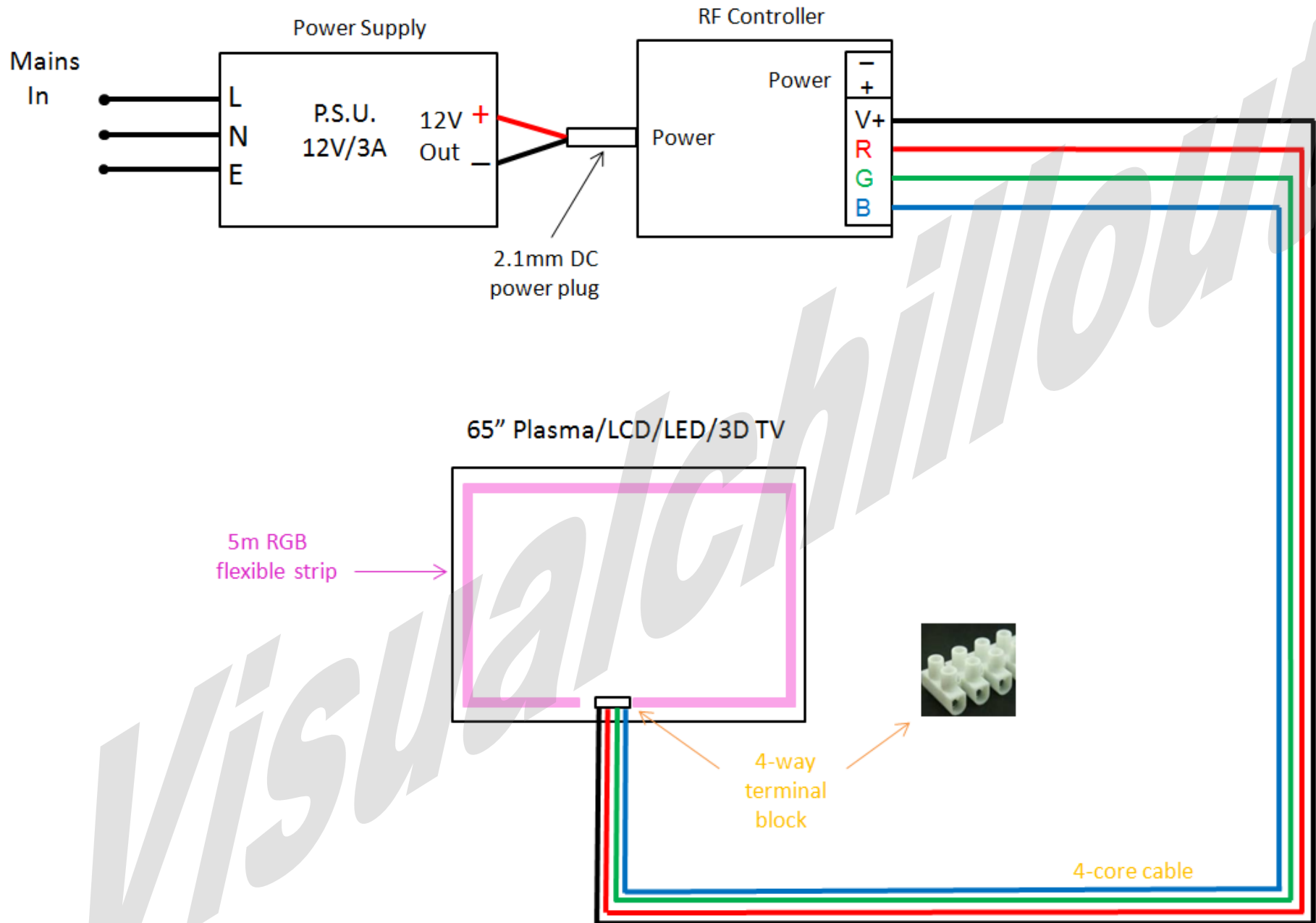
### Installation examples

3 installation examples using the sound-activated RF controller are shown on the next 3 pages.

# Sound-activated controller driving loudspeaker backlighting



# Sound-activated controller driving 65" TV backlighting



# Sound-activated controller driving TV backlighting + loudspeaker backlighting

