

Juke Application Note – Connecting Juke to Subwoofer

Revision 1.2

Summary

Juke provides zone outputs that power speakers in each zone. This application note explains how to add a powered subwoofer to a zone. If possible, select a subwoofer with speaker-level inputs. If your subwoofer doesn't have speaker-level inputs, you can still connect it to Juke using an adapter in parallel with either the left or right speaker in the room where a subwoofer will be used. The adapter converts the speaker voltage to line-level so that it can be connected to the input of a powered subwoofer.

Instructions

1. If possible, select a powered subwoofer that has speaker-level inputs. Here is a list of subwoofers with this capability as provide by Crutchfield: [Subwoofers with speaker-level inputs](#). Connect the 4 speaker wires from the Juke to the corresponding inputs on your subwoofer, and follow the instructions that came with your subwoofer to set its volume and crossover frequency, or simply adjust them by turning the knobs until you like the sound. For example, for a Polkaudio PSW10, the speaker-level inputs are the alternating red and black terminals on the bottom row:



- 1.
2. If your subwoofer doesn't have speaker-level inputs, buy two inexpensive items on Amazon or elsewhere (the Rockford Fosgate part converts the speaker-level signal to line-level, and the Boss part ensures that there is no ground-loop noise):
 - a. Rockford Fosgate RF12SW High Level RCA Input Plug. The Amazon ASIN number is B009B8EJYU, and the price is about \$9.77. Here is the Amazon link: [Speaker-level to line-level converter](#)
 - b. BOSS Audio Systems Ground Loop Isolator B25N noise Filter for Car Audio Systems. The Amazon ASIN number is B000LP4RMG, and the price is about \$7.80. Here is the Amazon link: [Ground loop isolator](#)
3. Connect two of the four bare wires of the Rockford Fosgate part to two of Juke's speaker terminals for the zone where the powered subwoofer is located (you can use the left channel, but either should be fine). Please note that this adapter must be connected in parallel with a speaker. If no speaker is connected, Juke senses this and will not provide an output.

4. Plug the corresponding RCA connector of the Rockford Fosgate part into a connector on the Boss part, then connect the same color RCA connector to the RCA input on the powered subwoofer.

Here is what the Rockford Fosgate and Boss parts look like when connected together (this shows both the left and right channels being connected, but only one is necessary):



Here is what the wires from the Rockford Fosgate part look like when they are connected in parallel with the left speaker for a zone:

