

Can I make my speakers active

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There is no doubt that active crossovers offer greater flexibility than passive types. You can do exotic things like put in delay to compensate the difference in distance to each driver's acoustic centre or even steer the optimum response quite readily. You can put in variable controls to partly compensate room acoustics. The complex speaker load does not interact with the filter response, as is the case with passive designs, so it is easier to get the shapes you want without worrying about the speaker system impedance.

However, a fully active design is more expensive to execute, it removes the customers ability to choose a different electronics brand and the ability to use the same amplifier to drive another set of speakers in another room. So passive designs have their place and, designed properly, give excellent results.

When considering converting to active, you have to remember that good crossovers, be they active or passive, are custom designed for the drivers used and the particular enclosures in which they are mounted. You can get off the shelf active crossovers, but we do NOT recommend these for high quality audio unless they are purpose designed for the system. If they are not, they will not have the correct in-band equalisation for the drivers' natural responses, compensate for the acoustic centre positions, or match the phase through the crossover region.

There is often a good deal of hacking required to the speaker itself. You have to remove the passive crossover and give direct connection to each of the drivers. You may be into serious woodwork if, for example, you have a 3-way speaker that only has two pairs of terminals for bi-wiring.

The bottom line is that, unless you have access to the facilities to properly design and execute an active circuit for yourself and measure the acoustic results, don't do it! We cannot unfortunately offer active designs equivalent to our passive ones.