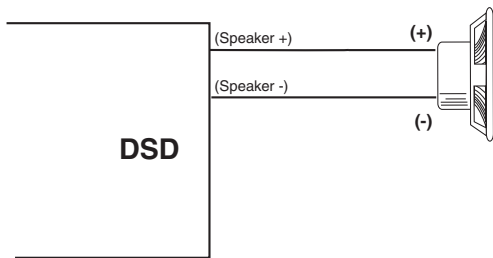


Technical Note #8
Wiring Multiple Speakers to a SoundTraxx Tsunami®

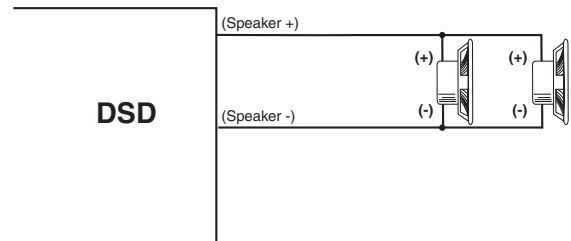
The SoundTraxx Tsunami Digital Sound Decoder (DSD) sound modules use an amplifier that is sufficiently powerful to drive more than one speaker. Using more than one speaker will increase the overall sound volume and often the sound quality as well. However, care must be taken to not overload the amplifier with too many speakers and SoundTraxx recommends using either one, two, or four 8 ohm speakers per decoder connected as shown below.

When wiring multiple speakers, it is also very important to observe speaker polarity. If a speaker is wired backwards with respect to another speaker, each speaker will produce a sound wave that is 180 degree out of phase with each other. The two sound waves will effectively cancel each other out resulting in a diminished volume level!

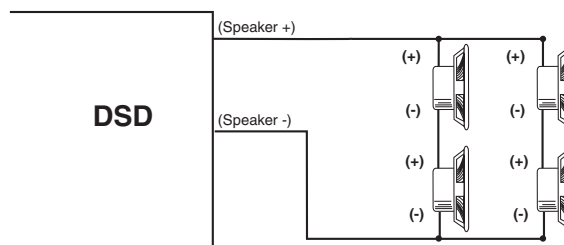
Many of the miniature speakers available today do not have polarity markings on their terminals. In such cases, it is usually acceptable to wire like terminals to like terminals (i.e., left terminal to left terminal). If in doubt, try swapping the polarity of one speaker and see if the sound improves or worsens. For detailed diagrams identifying polarity on some of SoundTraxx smallest speakers, see Technical Note #9, Speaker Polarity.



One 8 Ohm Speaker



Two 8 Ohm Speakers



Four 8 Ohm Speakers