

To Split Or Not To Split?

Using bi-wirable speakers with single runs of speaker cable

Many modern speakers offer a split bi- or tri-wirable crossover configuration, fed by multiple sets of terminals on the rear panel. Properly executed, there is no doubt that a bi- or tri-wirable crossover can indeed enhance speaker performance, but this requires ground-up design and far too many companies simply split a conventional crossover after the fact, in an attempt to meet the demands of fashion over sound quality. Seamlessly integrating the drive units is the biggest single challenge facing a speaker designer and playing fast and loose with the crossover designed to do that job is tantamount to throwing the baby out with the bathwater, a fact reflected in the increasing number of high-end speaker designs now appearing, adorned with but a single pair of terminals.

- Use a set of matching bi-wire jumpers constructed using the same cable or cable technology as your main speaker wires.
- Apply normal housekeeping procedures to your jumpers as well as your main cables. That means running them in, cleaning the connectors, treating them with ECO3X and finally making sure that spade connections are securely clamped down with the correct socket wrench. Also, make sure that you check phase integrity (red to red, black to black) and directionality when installing.

The Dos and Don'ts of Bi-Wiring

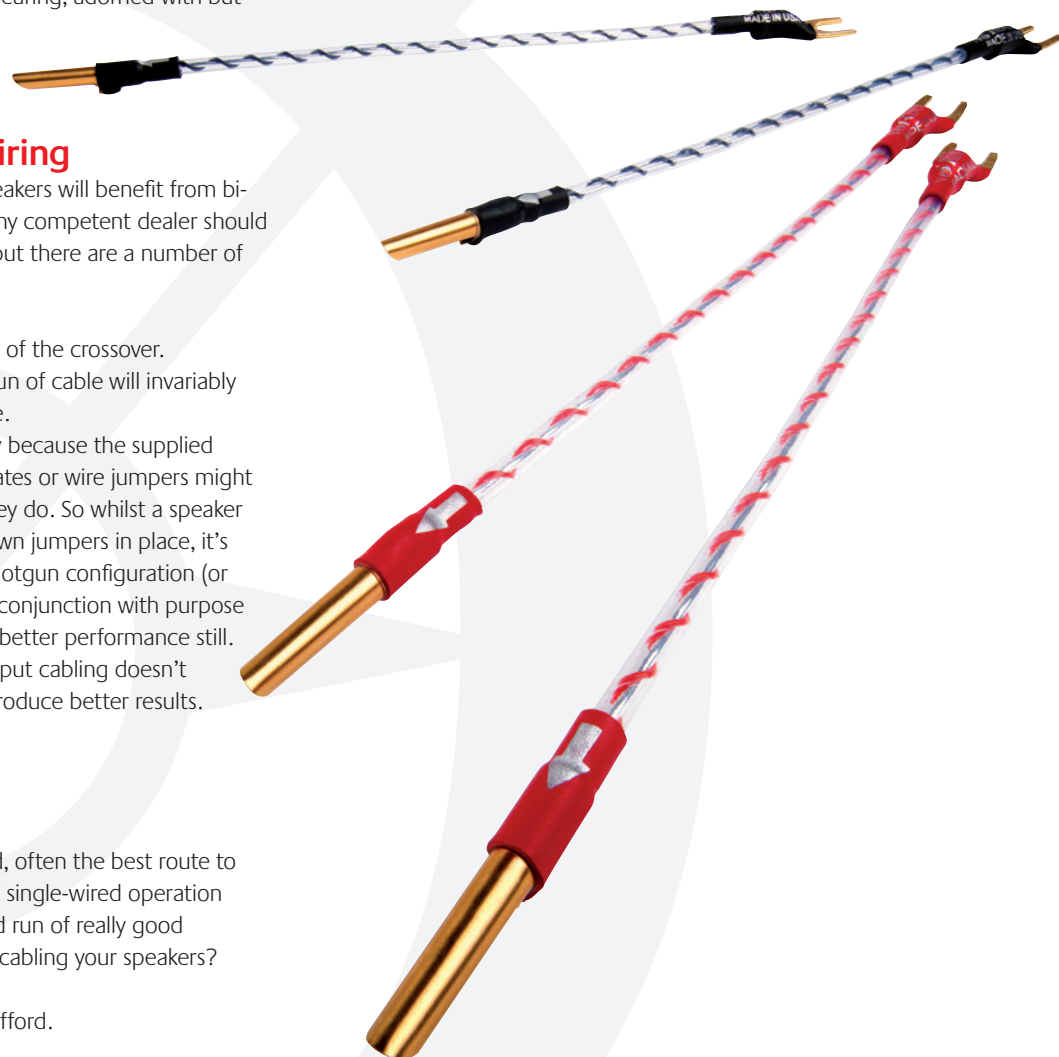
It's easy enough to establish whether your speakers will benefit from bi- or tri-wiring, or not – just try it out and see. Any competent dealer should be equipped to demonstrate the difference, but there are a number of things to take into account:

- Always use the same cable to feed each leg of the crossover.
- Only use the best cable that you can; one run of cable will invariably sound better than two runs at half the price.
- Many speakers sound better bi-wired simply because the supplied links are sonically inadequate. The metal plates or wire jumpers might not seem like they have a big effect, but they do. So whilst a speaker might sound better bi-wired than with its own jumpers in place, it's a fair bet that the same cables wired in a shotgun configuration (or all wired to the bass terminals) and used in conjunction with purpose built links, like the Norse Jumpers, will offer better performance still.
- Just because your speaker offers multiple input cabling doesn't mean that bi- or tri-wiring will necessarily produce better results.

Optimal Bi-Wiring

Even if your speakers do sound better bi-wired, often the best route to optimum performance will involve a period of single-wired operation (that'll be while you are saving up for a second run of really good speaker cable). So, how should you set about cabling your speakers?

- Use a single run of the best cable you can afford.



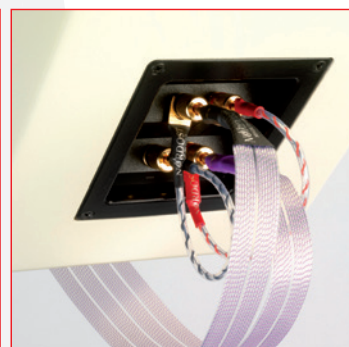
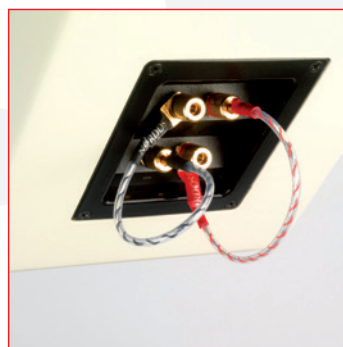
Wiring Configurations

The correct wiring configuration for a bi-wiring arrangement can be readily established by experimentation, but in general, the best results will be obtained as follows:

Connect the jumpers from the bass/mid terminals to the treble terminals, following the guidance outlined above. Then connect the speaker wires to the bass/mid terminals. This should be your default set up, generally offering the greatest rhythmic integrity and mid-band clarity.

Very occasionally the reverse arrangement, connecting to the treble terminals can produce superior results. This is rare, but worth trying, especially where exotic or hard to drive tweeters are employed.

Often, the very best results are achieved using a diagonal connection. This involves connecting the red cable to the bass/mid terminal and the black to the treble, with the jumpers arranged accordingly, bass to treble on the red (or +ve) side of the crossover, treble to bass on the black (or -ve) side. This is slightly more confusing to wire, however, with a little extra care and patience the results can be well worthwhile, and once you are familiar with bi-wiring procedures this often becomes the new default set up, offering greater air, transparency, dimensionality and subtlety.



Although increasingly rare, you may also come across tri-wired speaker designs. The same basic procedure applies, although in this instance the best connection is almost invariably to the midrange terminals. Once again, use jumpers, but in this instance two pairs per speaker with directionality maintained, outwards from the midrange connection (ie. One jumper running mid to treble, the other mid to bass). Again, take great care over directionality and phase coherence.

Finally, most jumpers are supplied with a spade on the send-end and either a spade or 4mm plug on the destination-end. Norse Jumpers run from a spade to the 4mm Z-plug, however, if it is more convenient (for instance, if your speaker cables use spade terminations) other configurations can be ordered: 4mm to 4mm, spade to spade or any other termination you may require. Your dealer, Nordost distributor or Nordost Customer Service can advise.



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