### CONNECTING THE SPEAKERS TO THE AMPLIFIER

Before making any connections, place the loudspeakers in the anticipated position. If you are using speaker stands, place the stands in the appropriate position and place the loudspeakers on top of them. Be sure the amplifier is switched off before connecting the loudspeakers to the amplifier. Observe polarity on the amplifier or receiver and the loudspeaker by identifying the positive and ground binding posts or connectors. On the loudspeakers, the positive connectors are coded red, the grounds are coded black.



Our loudspeakers use high quality five-way gold-plated binding posts that are suited for just about any connection. They accept heavy gauge bare wire, banana plugs, spade lugs, or pin terminators. Use equal lengths of hookup wire to connect the loudspeakers to the amplifier. We recommend low gauge oxygen free copper wire or other high quality speaker cables. For loudspeakers located up to 25 feet from the amplifier or receiver we recommend equal lengths of 16 gauge oxygen free cooper wire or other high quality loudspeaker wire. For loudspeaker located more than 25 feet away from the amplifier or receiver we recommend 14 gauge wire.

Connect the left channel wires from the amplifier or receiver to the speaker that is to the left of the listening position. Connect the right channel wires to the speaker that is to the right of the listening position. Be sure the loudspeaker binding posts are securely hand-tightened if you are using bare wire connections. Also ensure there are no loose strands of wire that can short circuit the binding posts (touch the other binding post). You should now turn on your system and do a listening test to ensure the system is hooked-up and functioning correctly. Use your amplifier balance control to ensure the loudspeakers are connected in the proper left-right orientation. Make sure the system is connected in proper phase. If the system is connected out of phase the volume and bass response will be diminished. To check for correct polarity, place the loudspeakers facing each other a few inches apart. Switch your amplifier to mono. Play a recording that has deep bass then switch around the connections on one loudspeaker. Correct polarity will result in stronger bass response.

#### CONNECTIONS FOR BI-WIRING AND BIAMPING

If your loudspeaker is equipped with bi-wire terminals, bi-wiring can result in improved performance, including less distortion, especially in small loudspeakers. Bi-wiring requires the use of four equal lengths of loudspeaker hook-up wire, two per channel, to connect the amplifier to the loudspeakers. First remove all the bridging brackets from between the loudspeaker binding posts. For the left channel speaker, connect one set of positive and ground wires to the bottom row of binding posts. Connect the other set to the top row of binding posts. Make the respective connections to the right channel loudspeaker.





Bi-amping can further enhance the performance of the system. To bi-amp, remove all the bridging brackets from between the loudspeaker binding posts. Use one amplifier or receiver to power the tweeters and the other to power the woofers. For the left channel speaker, connect one set of positive and ground wires between the tweeter binding posts and the left channel speaker output terminals on the amplifier used to power the tweeters. Connect the other set between the woofer terminals and the left channel loudspeaker output terminals of the amplifier used to power the woofers. Make the respective connections to the right channel loudspeaker.

# CONNECTIONS FOR SYSTEMS WITH AN ACTIVE SUBWOOFER THAT USE THE SUBWOOFER'S HIGH PASS FILTER, OR CONNECTIONS FOR SYSTEMS WITH A PASSIVE SUBWOOFER



Connect two equal-length sets of loudspeaker wire, one per channel, between the amplifier and the input row of binding posts on the subwoofer. Observe polarity. Connect another two equal-length sets of wire, one per channel, between the output row of binding posts on the subwoofer and the terminals of the respective loudspeakers used as satellites.

## CONNECTIONS FOR SYSTEMS WITH AN ACTIVE SUBWOOFER USING LINE LEVEL CONNECTIONS



Connect two equal-length sets of line level interconnects, one per channel, between the amplifier or receiver's RCA preamplifier outputs and the appropriate RCA inputs connectors on the subwoofer. Some receivers have a single line level output for active subwoofers. Connect this single output to the right (red) input on the subwoofer or refer to the owners manual for the subwoofer. If preamplifier outputs are not available on the amplifier or receiver, use high-level or loudspeaker connections between the amplifier or receiver and the subwoofer. Then connect two equal-length sets of loudspeaker wire, one per channel, between the amplifier or receiver loudspeaker output terminals and the terminals of the respective loudspeakers used as satellites.

### CONNECTIONS FOR SYSTEMS WITH TWO SUBWOOFERS

Ideally, the two subwoofers should be place between the loudspeakers. However, they may be placed anywhere in the room for convenience. Use two equal-length sets of RCA terminated interconnects, one per channel, to connect the amplifier or receiver preamplifier outputs to the subwoofers. Use two equal-length sets of loudspeaker wire, one per channel, to connect the left and right channel loudspeaker output terminals on the amplifier or receiver to the left and right loudspeakers used as satellites.