

## Speaker connector and wiring for SP amplifiers

Rev H 2-24-06 BRO

### Important Note

**Both + and – wires are “hot”. With no signal applied, half of the DC power supply voltage is present on each output. Each speaker wire should not be allowed to touch any other wire or the amplifier cabinet. Before plugging the amplifier into a speaker, verify with an ohmmeter that the speaker wires are not internally connected to each other. Make sure the power is off before plugging an amplifier into a speaker.**

We recommend using twisted pair wiring to the speakers of at least 16 gauge. The speaker wires are connected to the SP amplifier using a latching polarized 6 pin male plug. Male pins are crimped to the wires, then inserted into the plug housing. The plug housing is AMP MATE-N-LOC 350715-1 (Digikey part number A14288-ND). The individual male pins are AMP 350552-1 (Digikey A14303-ND) for .130 - .200 inch diameter wire insulation. Up to 14 gauge wire is accommodated by these pins.

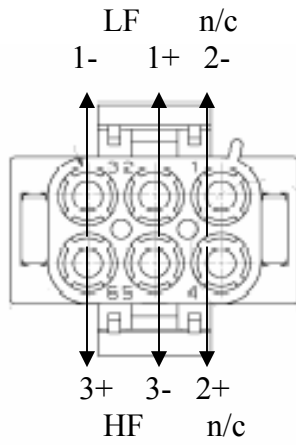
If you want to use the same wiring harness for passive cabinets, you need the female connector to match the speaker connector. This can be either a PC mount version AMP 350762-4 (Digikey A1496-ND) or a cable end version AMP 350781-1 (Digikey A14289-ND). The pc mount version comes with pins already installed. For the cable end version you will need female pins to crimp to the wires AMP 350551-1 (Digikey A14302-ND).

There is a relatively cheap hand tool that will crimp these pins. It is a Molex 63811-1000, Digikey part number WM9999-ND for \$38. A better tool is the AMP 90546-1. A cheap tool to remove the pins if (when?) you make a mistake is AMP 305183, (Digikey A1329-ND). A better tool is the AMP 318851-1.

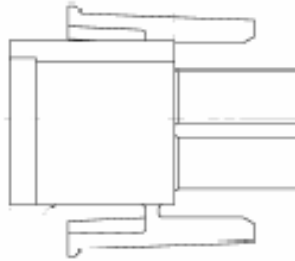
The channels are brought out to the plug as shown in the drawings below. Channel 1 is the amplifier in the ASP module and is connected to the Low Frequency speaker in SP1, SP2 and SP3 models. In SP2 models, Channel 3 is the slave amplifier and is connected to a High Frequency speaker. In SP3 models, Channel 2 is connected to the Mid Frequency speaker and Channel 3 is connected to the High Frequency speaker. An exception is the SP2-1000-1000, which has the LF output on 2+ 2- and the HF or second LF output on 1+ 1-.

## SP1 and SP2

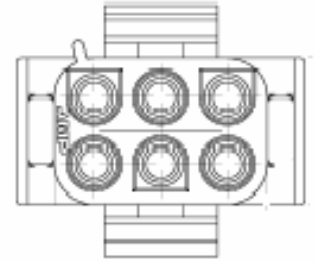
Rear View Wire Exits



Side View

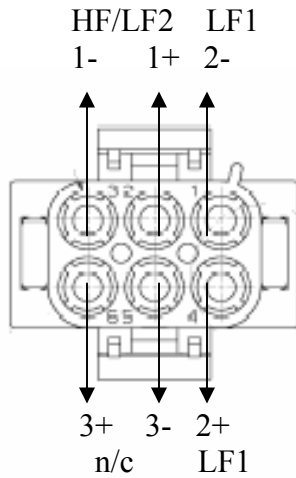


End view

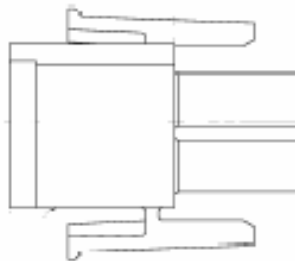


## SP2-1000-1000

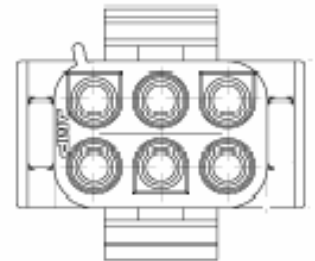
Rear View Wire Exits



Side View

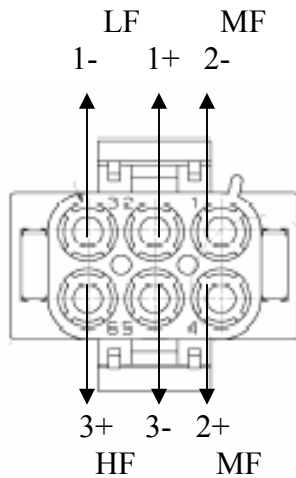


End view

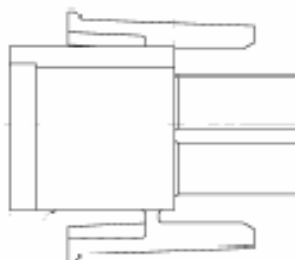


## SP3

Rear View Wire Exits



Side View



End view

