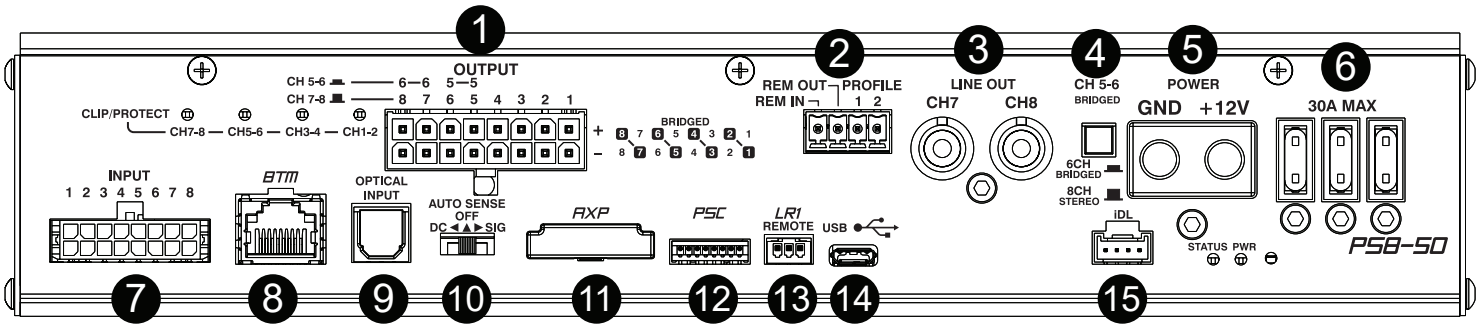
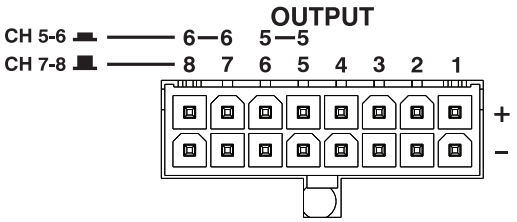
PS8-50 CONNECTION GUIDE



1 ***SPEAKER OUTPUT CONNECTOR-***

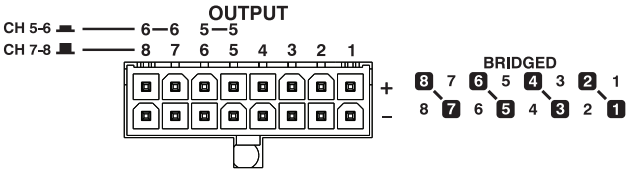
The PS8-50 comes with a pre-wired speaker wire output dongle for connection of your speakers. We recommend for connection to these leads that you make secure, electrically sound connections only such as solder and heat shrink. Please take note of the channel vs plug position for proper connection, channel assignment and polarity of each speaker connected to achieve desired performance and system setup.

(NOTE) Channel input to output signal channel assignment is dictated by the user defined mixer settings within the PS8-50 software utility.

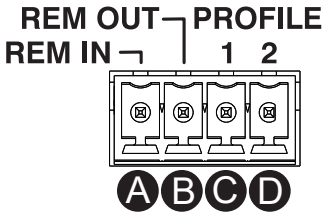


Bridging- Each pair of the PS8-50 output channels may be bridged together to achieve single chanel higher power speaker outputs. If you are bridging all of the outputs of the PS8-50 (for example) to achieve a 4 channel amplifier your conneciton configuration would be as follows-

CH1-2 (Bridged Output)- Negative lead to CH1- / Positive Lead to CH2+
CH3-4 (Bridged Output)- Negative lead to CH3- / Positive Lead to CH4+
CH5-6 (Bridged Output)- Negative lead to CH5- / Positive Lead to CH6+
CH7-8 (Bridged Output)- Negative lead to CH7- / Positive Lead to CH8+



2 ***REMOTE LEAD/PROFILE SWITCH PLUG-***



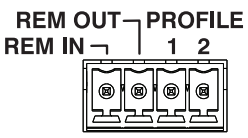
A "REM IN"- Connect your source units "Remote out" or "Remote turn-on" lead to the PS8-50 here. Making connection to this point from your source unit tells the unit when to turn on or off. The timing on this process is customizable from within the Pro-Series DSP software utility..

B "REM OUT" – If you are using an external amplifier to your system to run a higher power subwoofer amplifier in your system via the "Line Out Ch 7 / CH 8) RCA signal connection, please connect your secondary amplifiers Remote Turn-On lead to this point to control the amplifiers turn-on / turn-off time. (NOTE: The timing of the turn-on out signal is adjustable and can be user defined in the Pro-Series software utility.)

C "PROFILE 1" – Using a toggle switch with a latched ground signal to this point or in combination with "Profile 2" allows users to toggle between the DSP's 4 user defined presets without the need of a controller or PC. This feature can be used by itself or in conjunction with the PSC or LR1 controller.

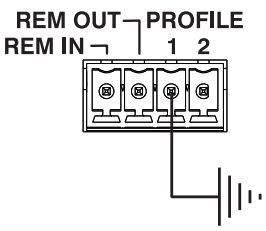
D "PROFILE 2" - Using a toggle switch with a latched ground signal to this point or in combination with "Profile 1" allows users to toggle between the DSP's 4 user defined presets without the need of a controller or PC. This feature can be used by itself or in conjunction with the PSC or LR1 controller.

PRESET 1

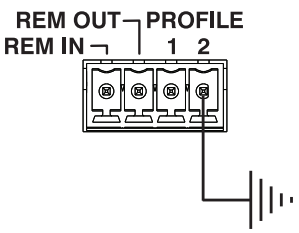


NO CONNECTION

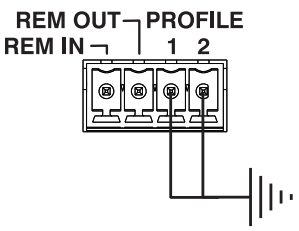
PRESET 2



PRESET 3

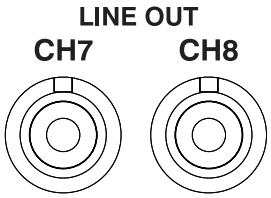


PRESET 4



3 *RCA SIGNAL LINE CH7/8 OUTPUT-*

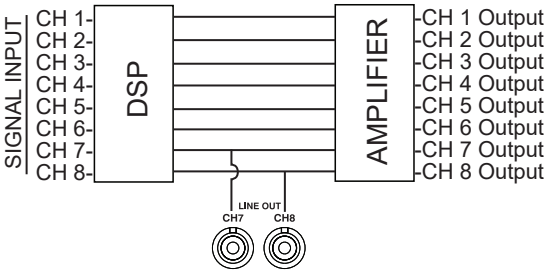
These RCA connection points are to be used when connecting an additional amplifier to the PS8-50 such as one that would be used on a dedicated higher power subwoofer application. These outputs are controlled via the CH7 and CH8 DSP controlls in the Pro-Series DSP Software and allows you to the signal going to your second amplifier with all of the crossovers, EQ, signal delay, phase etc features that are found in the Pro-Series software utility.



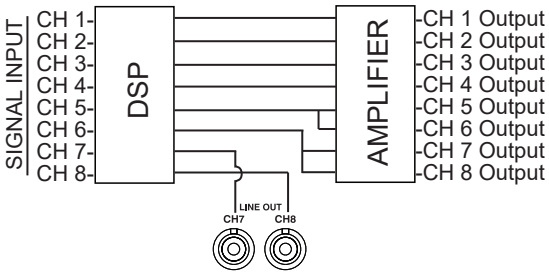
4 *CH 5/6 INPUT BRIDGED SWITCH-*

The PS8-50 has a user selectable input bridging switch available to modify the normally 8-channels in to 8 channels output stereo to 8 channels in to 4-channels stereo, 2 channels bridge out (on ch 5/6 inputs plus separate ch 7/8 RCA signal outputs.

CH5/6 Bidge Switch
NOT SELECTED (NOT PRESSED IN)



CH5/6 Bidge Switch
SELECTED (PRESSED IN)

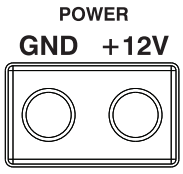


Above drawings depict what is going on internally on the PS8-50 and not that of a separate amp and processor setup.

5 *MAIN POWER CONNECTION TERMINAL-*

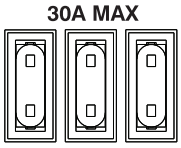
"+12V" – Main amplifier power connection. Connect this lead to the positive side of your vehicles battery using 8 AWG OFC power cable. (Always remember to install a fuse within 18" of your vehicles battery with a properly rated fuse).

"GND" – Connect your amplifier with this terminal to the vehicles ground. The ground wire should be connected directly to the chassis of your vehicle via a 4 Gauge OFC ground cable. Find a clear location close to the amplifier and remove all paint and/or sound deadening. Use a #10 or larger screw to secure it. Never use a seat or seat belt bolt for grounding.



6 *FUSES-*

The PS8-50 DSP/Amplifier uses three (3) Mini ATC style blade fuses and is included with this amplifier. In the event that the fuses blow or are damaged please do not replace with any other value or type of fuse.



7 *SIGNAL INPUT CONNECTOR-*

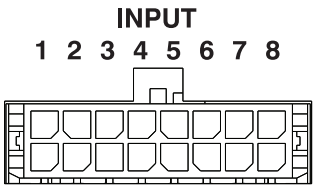
The signal input connection is a balanced differential style input capable of handling low-level RCA signal or hi-level speaker level signal from your vehicles source. To connect your Low Level RCA signal cables simply plug the source unit RCA channel into the coorosponding input channel of your choice. For Example-

RCA Inputs Example

Front Left RCA-	CH 1
Front Right RCA-	CH 2
Rear Left RCA-	CH 3
Rear Right RCA-	CH 4
SUB 1 RCA-	CH 5
SUB 2 RCA -	CH 6

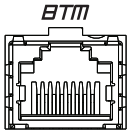
Speaker Level Example
(Signal Summing)

Left HighFrequency-	CH 1 in
Right High Frequency-	CH 2 in
Left Mid Frequency-	CH 3 in
Right Mid Frequency-	CH 4 in
Left Low Frequency-	CH 5 in
Right Low Frequency-	Ch 6 in



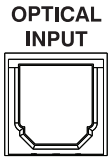
8 *BLUETOOTH DONGLE CONNECTOR-*

This connection point is for use with the ARC Audio BTD (Bluetooth Dongle) and BTM (Bluetooth Module) in order to allow any of the Pro-Series digital sound processors to accept hi-resolution bluetooth signal from a hi-resolution source Bluetooth source unit. (Sold Separately)



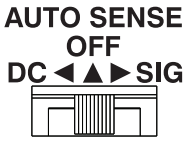
9 ***OPTICAL SIGNAL CONNECTOR-***

Each of the Pro-Series DSP products have a single S/PDIF optical connector on them for use to send Hi-resolution digital signal directly to the prodcut in use. Each Pro-Series DSP product is capable of processing audio streams up to 192kHz at 32 bits for the ultimate audiophile experience.



10 ***AUTO SENSE SELECTION SWITCH-***

The PS8-50 has a selectable microprocessor controlled auto-sense turn on circuit for those applications where there may be no hard wired switched turn on lead available from the source unit. There is two available options on all Pro-Series processors. Users can select from a BTLD (Bridge Tied Load Detect) Turn-on circuit that offers a significant improvement in reliability over previous designs. Instead of relaying on the music to supply enough signal to turn the amplifier on. Robert Zeff's design detects the IC (chip) used in the vast majority of stock head units and amplifiers. It is important to note the DC sense will not always work. Do to the hundreds (or thousands) of different OEM system configurations, no single solution can be 100% successful which is why we also offer traditional signal sensing options "SIG" for activation with normal signal levels passing from your vehicles source. If your system does not reliably switch on and off, look for an alternative turn on source. It is possible to spend many hours trouble shooting an Auto Sense problem. This is time that could be spend enjoying your new audio system.

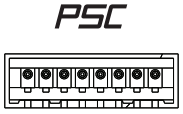


11 ***AXP PORT-***

Experience the best in wireless control of your new Pro-Series processor with the AXP Wi-Fi module (sold separately). This accessory module somple plugs into the port and you now have access to all of the tuning features without the need of any USB cables etc.

12 ***PSC CONNECTION PORT-***

Each of the Pro-Series DSP products accomadate direct conneciton from the ARC Audio PSC Controller (Sold Separately). The Controller when connected will automatically update its available features and options based on the unit that you ar plugigng it into.

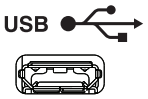


13 ***LR1 REMOTE LEVEL CONNECTION PORT-***

This connection post is compatible with the ARC Audio LR1, programmable remote level control (Sold Separately). Connect your LR1 remote level control as a stand along control knob to this port and assign the desired fucntion of the LR1 via the Pro-Series DSP Software utility. The LR1 can be used in conjunction with the PSC controller or as a stand alone control option.

14 ***USB CONNECTION PORT-***

Connect your Windows 10 based PC to this port to control the DSP features on your DSP equipped product via the ARC Audio Pro-Series DSP Software Utility.



15 ***IDL/MAESTRO CONNECTION PORT-***

The IDL conneciton port is for direct connection with the Maestro AR Module (Sold Separately) for plug and play integration capabilities on a wide variety of OEM vehicles. For vehicle compatibility please visit http://maestro.idatalink.com/product/product/product_id/412