

1 SPEAKER OUTPUT CONNECTOR-

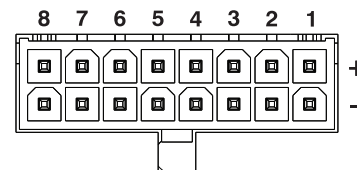
The BLACKBIRD comes with a pre-wired speaker wire output dongle for connection of your speakers. We recommend for connection to these leads that you make secure, electrically sound connections only such as solder and heat shrink. Please take note of the channel and polarity of each speaker connected 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 Pro-Series DSP software utility.

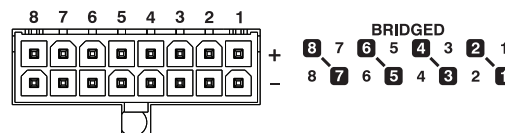
Bridging- Each pair of the Blackbird output channels may be bridged together to achieve single channel higher power speaker outputs. If you are bridging all of the outputs of the Blackbird (for example) to achieve a 4-Channel amplifier your connection configuration would be as follows-

- 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+

OUTPUT



OUTPUT



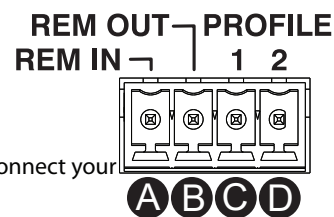
2 REMOTE LEAD/PROFILE SWITCH PLUG-

A "REM IN"- Connect your source units "Remote out" or "Remote turn-on" lead to the Blackbird 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..

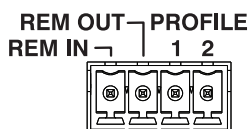
B "REM OUT" - If you are using an external amplifier to your system to run a higher power subwoofer amplifier in your system via the "Line Out Ch 9 / Ch 10 / Ch 11 / Ch 12) RCA signal connections, please connect your secondary amplifiers Remote Turn-On input terminal to this point to control the amplifiers 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.

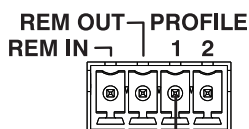


PRESET 1

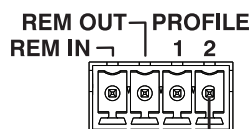


NO CONNECTION

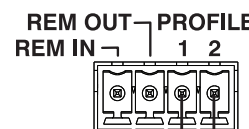
PRESET 2



PRESET 3

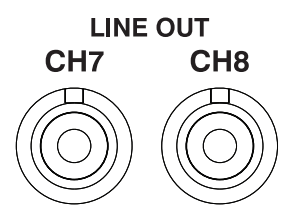


PRESET 4



3 RCA SIGNAL LINE CH9/10/11/12 OUTPUT-

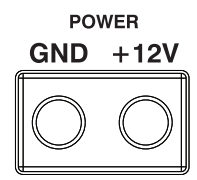
These RCA connection points are to be used when connecting an additional amplifier to the Blackbird such as one that would be used on a dedicated higher power subwoofer application. These outputs are controlled via the CH9 - 12 controls in the Pro-Series DSP Software and allows you to route the signal 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 MAIN POWER CONNECTION TERMINAL-

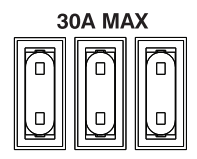
"+12V" – Main amplifier power connection. Connect this lead to the positive side of your vehicles battery using 4AWG OFC power cable. (Always remember to install a fuse within 18" of your vehicles battery with a properly rated fuse).

"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.



5 FUSES-

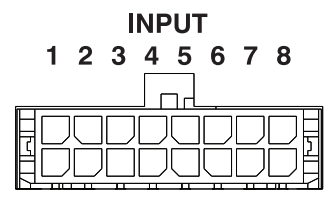
The Blackbird DSP/Amplifier uses three (3) Mini ATC style blade fuses and is included with this amplifier. In the event that the fuses blow or are damaged please do not replace with any other value or type of fuse.



6 SIGNAL INPUT CONNECTOR-

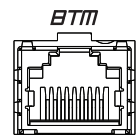
The signal input connection is a balanced differential style input capable of handling low-level RCA signal or hi-level speaker level signal from your vehicles source. To connect your Low Level RCA signal cables simply plug the source unit RCA channel into the corresponding input channel of your choice.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

RCA Inputs Example		Speaker Level Example (Signal Summing)	
Front Left RCA-	CH 1	Left HighFrequency-	CH 1 in
Front Right RCA-	CH 2	Right High Frequency-	CH 2 in
Rear Left RCA-	CH 3	Left Mid Frequency-	CH 3 in
Rear Right RCA-	CH 4	Right Mid Frequency-	CH 4 in
SUB 1 RCA-	CH 5	Left Low Frequency-	CH 5 in
SUB 2 RCA -	CH 6	Right Low Frequency-	Ch 6 in



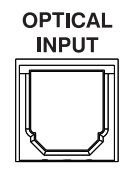
7 BLUETOOTH DONGLE CONNECTOR-

This connection point is for use with the ARC Audio BTM (Bluetooth Dongle) 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)



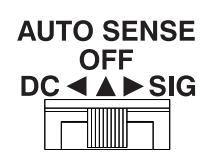
8 OPTICAL SIGNAL CONNECTOR-

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 product in use. Each Pro-Series DSP product is capable of processing audio streams up to 192kHz at 32 bits for the ultimate audiophile experience.



9 AUTO SENSE SELECTION SWITCH-

The Blackbird 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 relying 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.



10 AXP PORT-

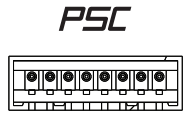
Experience the best in wireless control of your new Pro-Series processor with the AXP Wi-Fi module (sold separately). This accessory module simply plugs into the port and you now have access to all of the tuning features without the need of any USB cables etc.



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PSC CONNECTION PORT-

Each of the Pro-Series DSP products can accommodate direct connection from the ARC Audio PSC Controller (Sold Separately). The Controller, when connected to any compatible ARC Audio processor will automatically update its available features and options based on the unit that you are plugging it into.



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LR1 REMOTE LEVEL CONNECTION PORT-

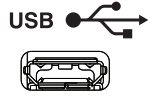
This connection post is compatible with the ARC Audio LR1, programmable remote level control (Sold Separately). Connect your LR1 remote level control as a stand alone control knob to this port and assign the desired function of the LR1 via the Pro-Series DSP Software utility. The LR1 can be used in conjunction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



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USB CONNECTION PORT-

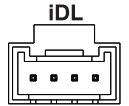
Connect your Windows 10 or higher based PC to this port to control the DSP features on your DSP equipped product via the ARC Audio Pro-Series DSP Software Utility.



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IDL/MAESTRO CONNECTION PORT-

The IDL connection 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



BLACKBIRD DSP AMPLIFIER

DIAGNOSTIC FAULT CODE REFERENCE GUIDE

DIAGNOSTIC FAULT CODES

Thermal (Heatsink) The Amplifier has Over Heated. Turn the volume down and let it cool off.	<u>Long</u>					<u>Long</u>					<u>Long</u>				
Thermal (Transformer) The Power Supply Transformer has Over Heated. Turn the volume down and let it cool off.	<u>Short</u>					<u>Long</u>			<u>Short</u>					<u>Long</u>	
Code 11 Under Voltage The Battery Voltage is too low. I bet your car won't start. If it does, you have a bad connection.	<u>Short</u>					<u>Flash</u>									
Code 14 Over Voltage Your Alternator is Over-Charging. Have your vehicle's electrical system tested right away.	<u>Short</u>					<u>Flash</u>			<u>Flash</u>			<u>Flash</u>			
Code 15 DC Output Protection DC Current was detected on the speaker line and to avoid damaging the speakers, this amplifier has shut down. This will probably require factory service.	<u>Short</u>					<u>Flash</u>			<u>Flash</u>			<u>Flash</u>			
Code 16 Short (High Power Channel) Shorted speaker or wire on subwoofer channels (5 or 5-6) also includes internal shorts.	<u>Short</u>					<u>Flash</u>			<u>Flash</u>			<u>Flash</u>			

It is always recommended that you obtain your amplifiers active fault code as well as click on the "Email Support Info" on the firmware page of the Pro-Series Software utility prior to contacting ARC Audio tech support. Once you have documented the active fault code and if you need additional support please feel free to contact us at 209-543-8706

Additional diagnostic information is available in the Pro-Series DSP Software utility.