

# AEON RAVEN® DMX BLACKBIRD™ USER MANUAL



## PRODUCT DESCRIPTION:

AEON RAVEN's DMX BLACKBIRD is a state-of-the-art DMX Control Module which is activated by direct audio input. The DMX BLACKBIRD provides DMX commands to supported lighting fixtures from live audio feeds creating a synchronized light show which far surpasses simple beat recognition. It operates on live music with no lag, pre-programming or computer interface, freeing you up to play any music and still provide a choreographed light show. DMX daisy-chained fixtures will all be synchronized to the module's DMX output.

## IMPLEMENTATION:

The BLACKBIRD only operates on supported lighting fixtures. Please refer to the CONFIGURATION section for setting up your lights to receive commands.

1. Plug in your BLACKBIRD's power adapter to an AC outlet and the plug to the DC power jack on the BLACKBIRD module. Only use the supplied power adapter or EPS050100 equivalent.
2. Using a standard RCA audio cable, connect the right and left side to the audio input of the BLACKBIRD and the other end to an audio output jack from your DJ console, mixing board, or other audio device. DJ mixing consoles will typically have a "Monitor Out", "Booth Out", or "Record Out", these are suitable outputs for the BLACKBIRD. If your audio device uses 3.5mm or ¼ inch phone jacks, you may use an adapter (not included).
3. Connect a 3 pin XLR DMX cable to the DMX output jack of the BLACKBIRD and the other end to the DMX input jack of the lighting fixture. Configure your fixture's DMX settings according to the configuration table for your specific light.

## MODES:

The 3 position switch on the left side of the module sets the mode of operation. In the "OFF" position, your connected light will be off. In "LIVE MODE" position, DMX commands will be sent in real-time to the lighting fixture according to the audio content of the music provided through the audio input. In the "BEAT MODE" position, the light will react primarily to the beat of the music. This is a "slower" mode.

## PERFORMANCE:

For the best results, set the equalization flat on your music device's audio output connected to the BLACKBIRD. Any bass-boosting or other equalization should be done on the speaker output only. Music files should be uncompressed or only minimally compressed. Compressed MP3 files sound bad and your results will look bad. If you tend to overdrive the bass in order to activate typical "beat detect" lighting, you no longer need to do this and can equalize your mix properly.

## LIGHTING CONFIGURATION:

**Please refer to your light fixture's manual for instructions on setting DMX configurations.** In order for the BLACKBIRD to communicate properly with your lighting fixture, the light must be configured according to the following table:

### American DJ® - REVO III™ FUNCTION MENU

1. Set DMX ADDRESS to 1
2. Set CHANNEL MODE to 10ch
3. Set Master/Slave to SLAVE 1

### American DJ® - REVO4™ FUNCTION MENU

1. Set DMX ADDRESS to 11
2. Set CHANNEL MODE to 256ch
3. Set Master/Slave to SLAVE 1

If you are daisy-chaining multiple lighting units, make sure they are all configured exactly like the table.

The DMX BLACKBIRD also provides real-time music-reactive DMX signals to many 3 channel and 4 channel RGB and RGBW/A Par, Bar, Flood, Wash, and accent lighting units. For a list of many Chauvet, ADJ, and other compatible lights, visit our website.

### 3 CHANNEL RGB LIGHTS:

1. Set DMX ADDRESS to 267
2. Set CHANNEL MODE to 3ch

### 4 CHANNEL RGBW or RGBA LIGHTS:

1. Set DMX ADDRESS to 267
2. Set CHANNEL MODE to 4ch

Please refer to the instruction manual for your specific light in order to properly set up DMX communication. Your lighting unit must conform to the following format:

Channel	Value	Function
1	0-255	0% - 100% RED
2	0-255	0% - 100% GREEN
3	0-255	0% - 100% BLUE
(4)	0-255	0% - 100% WHITE or AMBER

## TROUBLESHOOTING:

In the event that the DMX BLACKBIRD does not function properly or as expected, please review this troubleshooting guide to ensure everything is properly connected and configured.

1. Complete Non-Functionality: Is the power LED on? If not, power is not reaching the unit. Check power connector, DC adapter and AC Outlet. If LED is on, power is OK.
2. LED is on but no functionality: Is the MODE switch set to the "off" position? If yes, the lighting unit should be off and that's normal. If the switch is set to "LIVE MODE" or "BEAT MODE", check power to the lighting unit and its DMX address, channel mode and slave status. Fixture must be configured according to the tables in this guide.

3. Lighting unit is powered and properly configured but still no functionality: Check to make sure the volume level on the audio output of your console, mixer, etc. (which is connected to the DMX BLACKBIRD) is at least mid-way up and that audio is routed to the output (monitor, booth, rec., etc) which is connected to the DMX BLACKBIRD.

4. Light fixture behaves erratically or unexpectedly: Make sure the light fixture is configured properly; many RGB(A/W) fixtures can operate in more than 3 or 4 DMX channels, be sure they are set properly. The audio signal equalization should be as flat as possible, make sure volume isn't too low, or so high that clipping occurs. Music which does not contain dynamic content (wall-of-sound, white noise, etc.) will produce equally un-dynamic lighting patterns. Make certain your light is supported by your version of the DMX BLACKBIRD.

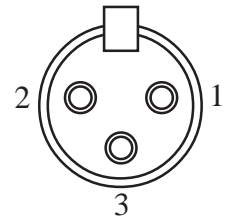
### Cautions:

The BLACKBIRD is designed for indoor use; do not let the product get wet. There are no user serviceable parts inside. Opening the unit or attempting to repair it will void the manufacturers warranty. If something goes wrong, call us, we'll be happy to help. Do not operate with an inappropriate or damaged power supply. Do not operate if unit is damaged. The unit should not be placed on top of speakers; constant direct vibration can damage the unit.

### Data Connector:

The 3 pin XLR DMX connector uses the following pin definitions.

- XLR Female
- Pin 1 - Common/wire Shield
  - Pin 2 - Data -
  - Pin 3 - Data +



### Line Termination:

If long runs of cable are used, a line terminating resistor may be needed at the end of the cable run. Use a 120 ohm ¼ watt resistor between Pin 2 and Pin 3 at the end of the cable run, to minimize poor signal quality.

### Audio Cable:

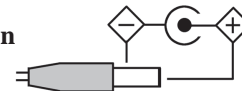
Use a stereo shielded RCA cable to minimize external noise.

### Power Requirement : 5 volt DC 1A

Power supply is included. LED indicator is lit when power is applied to the unit. Use only Model: EPS050100 or equivalent.

### DC Power Jack Dimen

2.1mm x 5.5mm



**Customer Support:** AEON RAVEN® provides a customer support line to provide help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at [www.aeonraven.com](http://www.aeonraven.com) for any comments or suggestions. Office Hours: Monday through Friday 10:00 a.m. to 6:00 p.m. Pacific Standard Time. (805) 484-2306

## [www.aeonraven.com](http://www.aeonraven.com)

**Manufacturer limited warranty:** AEON RAVEN warrants that the product will be free of manufacturing defects in material and workmanship for a period of 30 days from the date of purchase. The warranty is limited in that it only covers the repair or replacement of the product.

AEON RAVEN under no circumstance will be liable for any loss or damage arising from the use or inability to use this product.

*Please Note: Specifications and improvements in the design and function of the DMX BLACKBIRD module and this manual are subject to change without any prior written notice.*

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