

Aria Lights DMX Decoder User Guide

Model DMX1, Revision C



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Revision C

Introduction

The Aria Lights DMX1 Decoder is designed to allow up to 30 Aria Diva or Solo music stand lights to be dimmed from a central lighting console. Lights can be dimmed in three separate banks of ten. 256 dimming levels allow fine control over lighting conditions.

Warnings

- This device is not intended for operation in wet environments. Make sure that the decoder box and all cables are free from moisture. Never operate in wet conditions.
- Do not extend the cables more than six feet beyond their lengths.
- Do not use with any devices other than Aria Lights brand Diva and Solo LED music stand lighting.
- Use only 120VAC power to supply the box. Excessive voltage will cause damage.
- Modifications to the hardware will void the warranty and could pose a fire hazard.
- Do not operate the decoder with the cover removed. High voltages are present inside and could cause electrical shock.
- Do not exceed DMX voltages on the DMX inputs as damage may result.
- Do not use a dimmed outlet to power the decoder or damage may result. A steady 120VAC power source is to be used.
- Do not use more than 30 lights on a single decoder.
- Do not attempt to create “Y” connections to add additional lights.
- Ensure that all cables are free from damage and not pinched before operating.
- If cables are damaged, discontinue use at once.
- Keep the decoder cool and free from obstructed air flow or damage may result. The cabinet is used to dissipate heat. Do not operate without rubber feet.

Connecting the Decoder to Music Stand Lights

Insert one to three of the 35-foot music stand light cables in the back of the decoder. Twist the connector clockwise to lock it onto the controller. You should feel a click when the cable is locked. Turn the connector counterclockwise to disconnect.

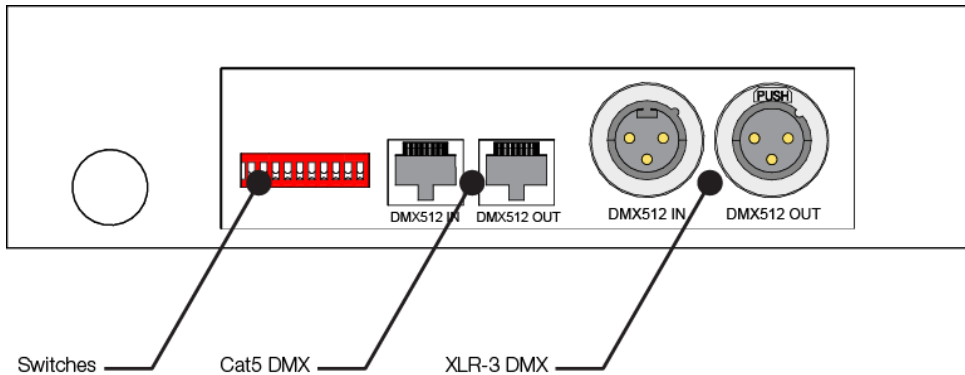


Each cable serves up to ten stand lights and occupies one DMX address or one bank. There are three DMX addresses and three cables per decoder. The left connector, bank 1, corresponds with the primary DMX address (as configured by the DIP switches). The center connector, bank 2, is the primary address plus one. The right connector, bank 3, is the primary address plus two.

Connect the barrel connectors on the other end of the cable to your music stand lights. Cord extenders are available if your cables do not reach. One six-foot cord extender may be used on each light. Additional cord extenders will drop the voltage and may produce a dimmer light and are therefore not recommended.

The Front Panel

The front of the decoder provides power, allows you to set the DMX address, and provides two different types of connections to your DMX lighting control system.



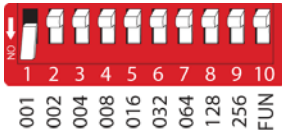
Connecting the Decoder to a Lighting System

The decoder is designed to accept either Cat5 DMX or XLR-3 DMX cabling. Use one type of cable or the other, but not both. Connect the cable from your lighting system to the DMX512 IN port. If you wish to daisy chain additional decoders or other DMX devices, connect a cable to the DMX OUT port for the next device in the chain.

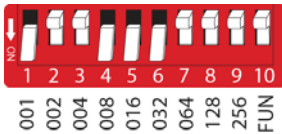
Setting the DMX Address

The 10-position DIP switch sets the starting DMX address for the decoder's three DMX addresses. Three addresses are used, one for each bank of 10 lights. Switch 10 (FUN) must be set to OFF (up) in order for the DMX address to be recognized by the decoder.

The diagram below shows the setting for DMX addresses 1, 2, and 3.



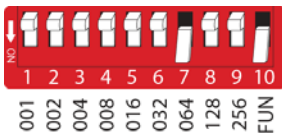
The numbers below the DIP switches are added together to form the address. For instance, here the decoder is set to operate at DMX addresses 57, 58, and 59 ($1+8+16+32 = 57$).



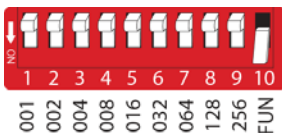
Manual Operation

When a DMX signal is not present, manual operation may be used. This mode is especially useful when music is being performed at a venue with no lighting console, and the DMX decoder is used for simplicity of cabling.

Manual operation is selected by setting switches 8, 9 to OFF (up) and switch 10 (FUN) to ON (down). Switch 7 controls all three banks together. This setting turns all the lights on:



And this setting turns all the lights off:



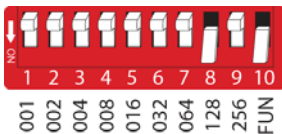
To control each bank separately, additional switch settings may be used:

Switches	Function
Switch 1=ON	Bank 1 on
Switch 2=ON	Bank 2 on
Switch 3=ON	Bank 3 on
Switch 4=ON	Bank 1 and 2 on
Switch 5=ON	Bank 1 and 3 on
Switch 6=ON	Bank 2 and 3 on
Switch 7=ON	All three banks on

Testing the Lights

To test that the music stand lights will dim properly or to identify which lights will be controlled in a single bank, test mode may be used. Test mode turns on the banks in eight combinations and then repeats. Either instant change or gradual change may be used.

Test mode is selected by setting either switch 8 or 9 to ON (down) and switch 10 (FUN) to ON (down). If switch 8 is ON, each bank instantly turns on in sequence. If switch 9 is ON, each bank gradually turns on in sequence.



The speed for the sequence is controlled by switches 1 through 7 as shown in the table below.

Switches	Function
Switch 1-7=OFF	Slowest sequence change mode
Switch 1=ON	1 step faster
Switch 2=ON	2 steps faster
.....
Switch 7=ON	Fastest sequence change mode

Replacing the Fuses

Each of the three banks has its own fuse to protect the DMX decoder from overload. If one of the three banks is no longer working, a fuse may have blown.

To replace a fuse, remove the four screws on the cover of the DMX decoder. Inside there are three inline fuse holders, one on each bank cable. Replace the fuse in the cable which is no longer working with a 4 amp fast-blow fuse of size 20mm x 5mm. Replace the cover and reinstall the screws and test.

WARNING: Do not operate the DMX decoder without a cover in place. There are high voltages inside.

Troubleshooting

If you are having difficulty with the DMX decoder, check the troubleshooting table below. If you cannot resolve the issue, contact Aria Lights at support@arialights.com.

Problem	Troubleshooting Tips
Lights will not turn on through DMX commands	<p>Ensure that the DMX decoder is plugged in to a working 120VAC outlet which is <u>not</u> controlled by a lighting system. Ensure that the DIP switches are set to the correct DMX address and switch 10 is OFF (up). Remember that down is ON.</p> <p>Remember that the DMX decoder occupies three sequential DMX addresses, so although the DMX decoder switches may be set for address 7, your lights in one bank may be controlled by DMX address 9.</p> <p>Ensure that the DMX cable you used is wired correctly and does not have a short circuit. Test the DMX cables in another DMX fixture to ensure that they work.</p> <p>Make sure that only one type of DMX cable is used at a time. Use the test mode to make sure that the lights turn on. If they do, check that the DMX system is providing the correct address. If they do not, check the fuses (see Replacing the Fuses).</p>
Lights will not turn on without the DMX signal	<p>Ensure that the DMX decoder is plugged in to a working 120VAC outlet which is <u>not</u> controlled by a lighting system. Put switch 10 ON (down) and switch 7 ON (down) and all other switches OFF (up). All lights should turn on. Check the fuses (see Replacing the Fuses).</p>