ColorMix
Lighting Solutions by Allanson

ACL-SC-DMX

DMX Sub-Controller
Installation Manual

Allanson
Tried · Trusted · True
cservice@allanson.com I 1.800.661.7251 I www.allanson.com

#21-501
03.04.25

ACL-SC-DMX
DMX Sub-Controller

ColorMix
Lighting Solutions by Allanson

Installation Instructions for ACL-SC-DMX

Thank you for your purchase of our RGBW DMX system. Prior to installing the system, we kindly request that you carefully review all the provided instructions. For any specific programming requirements tailored to your needs, please reach out to our LED department at led@allanson.com.

Specifications

Operating Voltage: 12V-24V DC
Maximum Power: 100W (4 channels combined) with 24V DC class 2 Power supply or 60W (4 channels combined) with 12V DC Class 2 Power Supply
Signal In: DMX512 Channels : 4
Dimensions (LxWxH): 3.8” x 2.48” x 0.78”

Please note that the unit should be mounted upright with the Allanson logo positioned vertically. At the last sub-controller in a daisy-chained series, the cable has to be terminated with a ACL-SIG-T Signal Terminator (terminator resistor) to prevent reflections of the signal.

The ACL-SC-DMX Sub-Controller is a versatile device designed for efficient control of lighting systems by decoding DMX signals and converting them to RGBW signals. It supports up to 100W power output across 4 channels with a 24V DC power supply or 60W with a 12V DC power supply. Compatible with DMX512 signal input from a DMX controller, this sub-controller is perfect for sophisticated lighting setups, cascading sub-controllers, and providing reliable and precise control over your lighting effects.

Specifications

A. **Output to RGB modules**
W (White).....White/Black wire
B (Blue).....Blue wire
G (Green).....Green wire
R (Red).....Red wire
V+ (12V – 24V DC).....Gray wire

B. **Power Input 12-24 VDC**
V+.....Gray wire
V-.....White wire

C. **DMX512 Signal input**
GND.....White wire
DMX A+.....Orange wire
DMX B-.....Yellow wire

D. **DMX512 Signal output**
GND.....White wire
DMX A+.....Orange wire
DMX B-.....Yellow wire

E. **RGBW Indicator**

Address Setup

Factory default setup

RGBW - starting Channel 1 for CH-1 or Channel 5 for CH-5

The factory-set channel is indicated on the label. If you wish to set the unit on a different channel, you can order the ALLANSON Address Writer for self-programming or contact Allanson Customer Service for a pre-programmed unit.

Allanson
Tried • Trusted • True
cservice@allanson.com I 1.800.661.7251 I www.allanson.com

#21-501
11.21.25

ACL-SC-DMX
DMX Sub-Controller

ColorMix
Lighting Solutions by Allanson

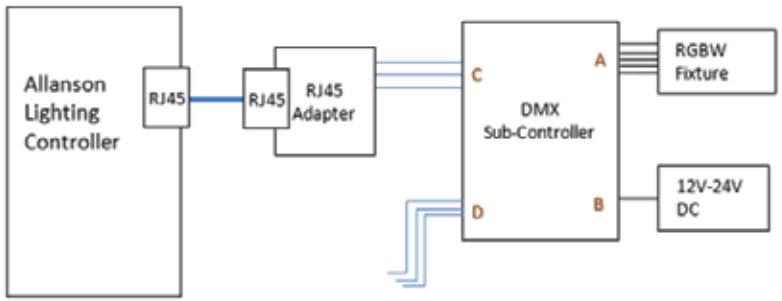
Note

- Allanson Power supply CV12 or CV24 series should be used to match the 12VDC or 24VDC LED module/fixture rated operating voltage.
- Minimum 18 Gauge wires are recommended for long run wires connecting RGB modules.

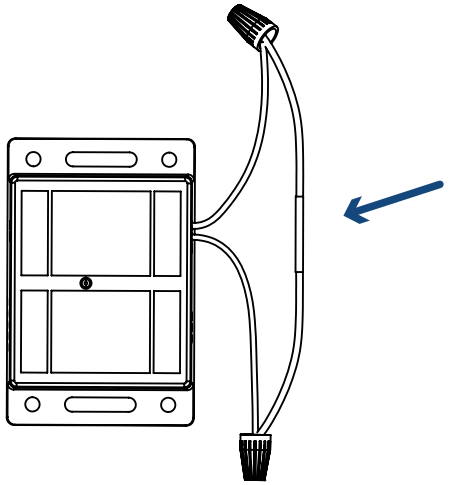
Attention

- The product shall be installed and serviced by a qualified person.
- This unit is a water splash proof product. Please avoid the direct sun and rain and that will prolong the working life of the controller. Please ensure good ventilation.
- Please check if the output voltage of the LED power supply used complies with the working voltage of the product.
- Please ensure that proper wire gauge is used from the controller to the LED power supply and RGBW products to carry the current.
- Ensure all wire connections and polarities are correct before applying power to avoid any damage to the LED and RGB products.
- If a fault occurs, please return the product to your supplier. Do not attempt to fix this product by yourself.
- This manual only applies to this model. Allanson reserves the right to make changes without prior notice.

Connections Diagram



Add Signal Terminator to the last sub-controller. Connect orange wire to A+ orange to orange wire and yellow wire to B- yellow wire at DMX out.



Signal Terminator
Part No. ACL-SIG-T

Note: To prevent reflections of the signal, a Signal Terminator must be added to the last sub-controller in daisy-chained series. **This is required for any DMX system.**

Allanson
Tried · Trusted · True
cservice@allanson.com I 1.800.661.7251 I www.allanson.com

#21-501
11.25.25