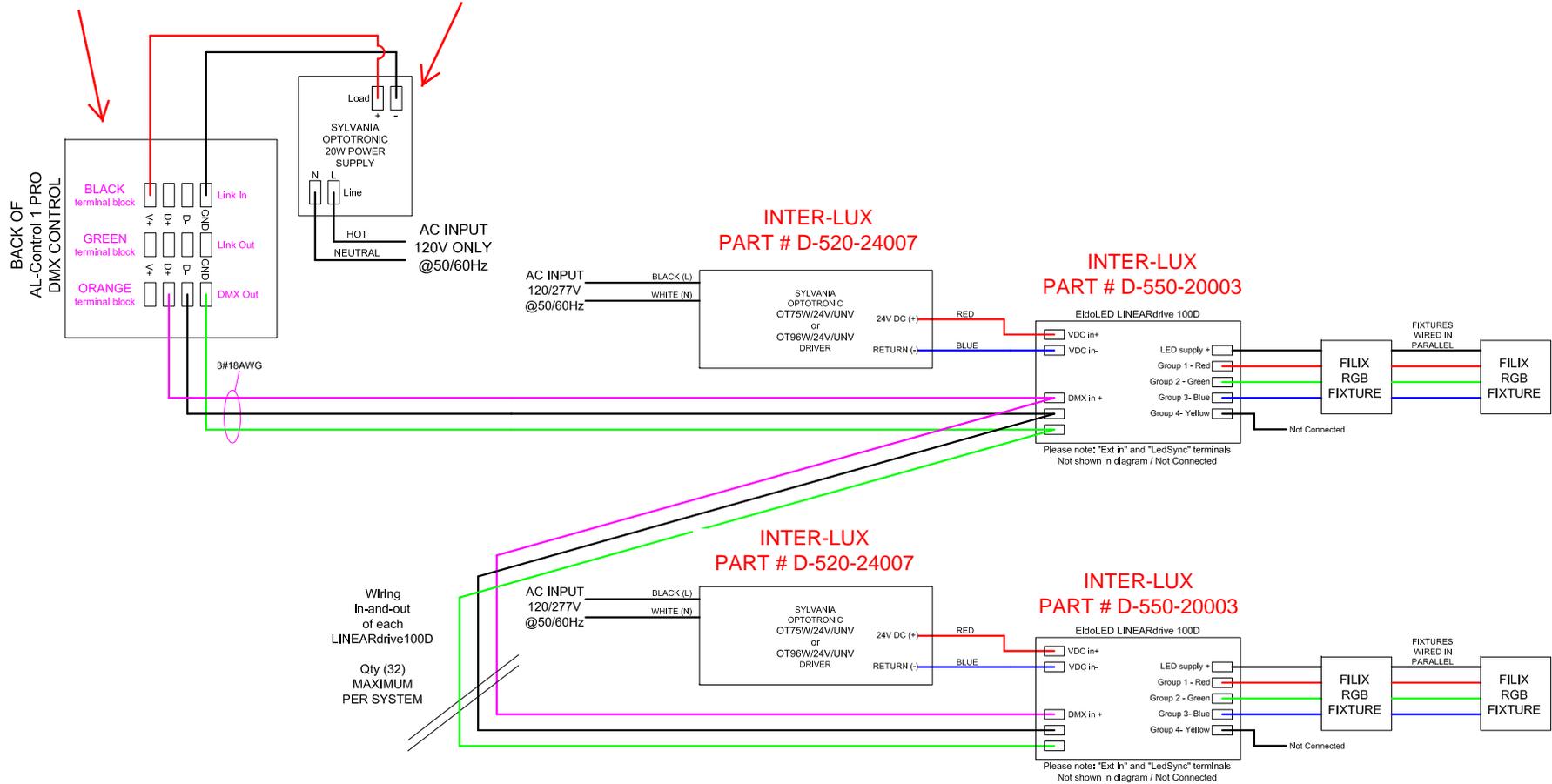


**INTER-LUX  
PART # 88-044-3450-00-KIT =**

**INTER-LUX PART # 88-044-3450-00 + INTER-LUX PART # D-520-24004**



# OPTOTRONIC® Power Supply OT96W/24V/UNV

Inter-lux part #  
D-520-24007



## GENERAL INFORMATION

Item Number	51522
Type	Constant Voltage
Output Power	96W (Max.)
Output Voltage	24V DC
Input	Universal (120-277V)

## ELECTRICAL SPECIFICATIONS

### Input

Input Voltage (VAC)	120V-277V (+/- 10%)
Frequency Range (Hz)	50 – 60 Hz (+/- 10%)
Input Current (A)	0.91 @ 120V 0.39 @ 277V
Input Power (W)	111W
THD	< 20%
Power Factor	> 0.95
Inrush Current (A <sub>pk</sub> )	< 55A
Line Regulation	< 5%
Stand-by Power (W)	< 1.5W

### Output

Output Voltage (VDC)	24V (+/- 5%)
Output Current (A)	0.1 – 4.0A
Output Ripple (V)	1V
Efficiency	>85% (Typical)
Load Regulation	<5%

## ENVIRONMENTAL SPECIFICATIONS

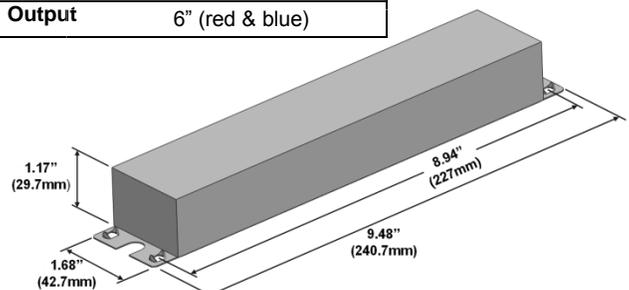
Ambient Operating Temp	-25 to 40 °C
Max. Case Temp. Tc	75°C
Storage Temp.	-25 to 50 °C
Max. Relative Humidity (%)	96% non-condensing
Surge Protection (KV)	ANSI C62.41 Cat A (2.5KV)
Vibration Rating	3G
Overvoltage Protection	Yes
Short Circuit Protection	Yes
Over-temperature Protection	Yes
UL Environmental Rating	Damp
IP Rating	IP64
EMI Compliance	FCC Part 15 Class A

## WIRING DIAGRAM

See page 1

## MECHANICAL DIAGRAM

Wiring	Leads Only
Wire Gauge	18AWG
Input Wire	6" (black & White)
Output	6" (red & blue)



# Colour is our nature



### 4/6/24A Full-Colour Dimmable LED Driver

LINEARdrive DC is a constant voltage LED driver with multiple LED outputs that are controlled over four channels. It is targeted at larger networked and smaller standalone installations that require dimmable, low-power full-colour static or dynamic LED lighting. LINEARdrive DC is DALI, DMX/ RDM and LedSync compatible.

### Applications

- Entertainment lighting
- Full-colour architectural lighting
- Signage / advertising lighting
- Cove lighting
- Decorative lighting
- Dynamic colour panel lighting

### Features & benefits

#### Input

- Voltage: 12 - 28 VDC for LINEARdrive 100D/180D/720D1  
12 - 48 VDC for LINEARdrive 720D2
- Current, max:
  - LINEARdrive 100D: 4A at 24V, 6A at 12V
  - LINEARdrive 180D: 6A, irrespective of PSU voltage
  - LINEARdrive 720D: 24A, irrespective of PSU voltage



LINEARdrive 720D

#### Output

- Voltage: 5V, 12V, 24V or 48V (5V and 48V: LINEARdrive 720D2 only)
- Max load per output:

	RGBW @ 12V	RGB @ 12V	RGBW @ 24V	RGB @ 24V	RGBW @ 48V	RGB @ 48V
→ LINEARdrive 100D	1.5A	2A	1A	1.3A	n.a.	n.a.
LINEARdrive 180D	1.5A	2A	1.5A	2A	n.a.	n.a.
LINEARdrive 720D1	6A	6A	6A	6A	n.a.	n.a.
LINEARdrive 720D2	6A	6A	6A	6A	6A	6A

### General

- DALI (LINEARdrive 720D only), USITT DMX512A / RDM (ANSI E1.20) and LedSync compatible
- HydraDrive: 15-bit resolution
- Dimming control: smooth dimming from 100% to 0.1%, gamma-corrected curve
- Intuitive 3-button user interface for on-the-fly configuration
- Interface for external control device: 10kΩ potentiometer, 0-10V source or momentary switch
- ShowMaster: 9 default shows, up to 20 user-defined shows, uploadable via TOOLbox and PC software

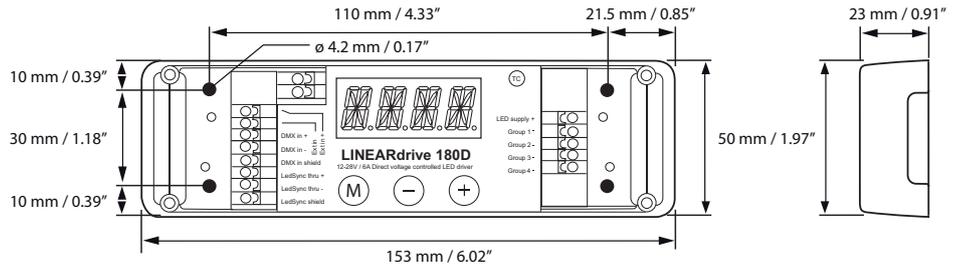
### Product offering

Description	Product	Order no.
LINEARdrive DC, 100W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs →	LINEAR 100D	LIN100D2
LINEARdrive DC, 180W, DMX/0-10V, 4 control channels, constant voltage, 4x LED outputs	LINEAR 180D	LIN180D2
LINEARdrive DC, 720W, 48V, DMX/DALI/0-10V, 4 control channels, constant voltage, 4x LED outputs	LINEAR 720D	LIN720D2

**Dimensions, weight, packaging**

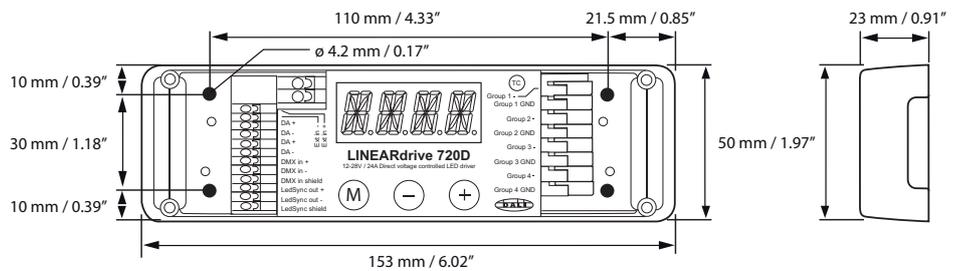
**LINEARdrive 100D/180D**

- Weight: 120 g, 4.2 oz
- Packaging: 12 pcs/carton



**LINEARdrive 720D**

- Weight: 144 g, 5.0 oz
- Packaging: 12 pcs/carton



**Connections**

**Connectors LINEARdrive 100D/180D**

- VDC: + and -
- DMX in: +, - and shield
- LedSync thru: +, - and shield
- Ext in: + and -
- LED outputs: 4 outputs with common +

**Wiring**

- Cross section: 0.5 - 1.5 mm<sup>2</sup>, AWG 20 - 16
- Strip length: 9 mm / 0.35 in.

**Connectors LINEARdrive 720D**

- VDC: + and -
- DMX in: +, - and shield
- LedSync out: +, - and shield
- DALI: + and - (x2)
- Ext in: + and -
- LED outputs: + and - (x4)

**Other information**

**Certifications**

- CE
- IEC 61347, EN 55015, IEC 61003, EN 61547
- UL: UL Recognized Component (file no. E333135)  
LINEARdrive 100D is Class 2 output.

**Environmental ratings**

- Ta range: -20°C...50°C / -4°F...122°F
- Tc max: 65°C / 149°F
- For use in dry locations

**Control compatibility**

- DALI control gear (LINEARdrive 720D)
- DMX512A and RDM explore & address (ANSI E1.20) control gear
- Standard 0-10V switch controls



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F: +31 40 2054058

**North America**

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1762 Technology Drive #226  
San Jose, CA 95110  
USA  
T: +1 408 451 9333  
F: +1 408 451 9335

**Other documentation and support**

Visit [www.eldoled.com/support](http://www.eldoled.com/support) for further documentation such as quick start guide, wiring diagram, tech sheet and 3D IGES files.

**Warranty**

eldoLED represents and warrants that for a period of 3 (three) years, as of the date of invoice, Products materially meet the specifications and specifically agreed upon quality, both as stated in the applicable datasheet and/or written design-in specifications, or as stated in writing otherwise by eldoLED, provided that these specifications are explicitly designated by eldoLED as "warranted specifications".

For the complete warranty text, visit [www.eldoled.com/terms](http://www.eldoled.com/terms).



**CAUTION:** incorrect installation of the device can cause irreparable damage to the device and the connected LEDs. Therefore, the device must only be connected and installed by a qualified electrician. All applicable regulations, legislation and building codes must be observed!

### 12V - 28V DC IN

To connect the driver/controller to a 12-28V DC power supply unit (PSU), connect the PSU's positive voltage supply wire to the VDC+ connector and the PSU's negative voltage supply wire to the VDC- connector.

### EXT in (optional)

You have the possibility to connect an external control device (0-10V control device, 10kΩ potentiometer or show selection switch) to the driver/controller's Ext in+ and Ext in- connector. Configure the driver/controller for use with an external control device over the 3-button user interface.

### DMX in/LedSync thru (optional)

Use these connectors when the driver/controller is used in a DMX network.

For DMX in, connect the network cable's DMX+, DMX- and DMX shielding wire (the orange/white, orange and brown wire in a CAT5 cable) to the DMX in+, DMX in- and DMX in shield connector respectively.

For LedSync thru, connect the network cable's data+, data- and shielding wire to the LedSync thru+, LedSync thru- and LedSync shield connector respectively.

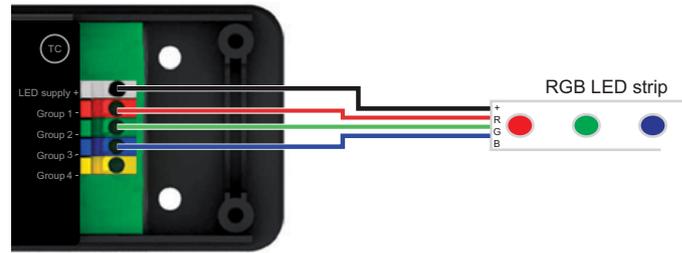
### LED groups

Indicates the location of the connectors to which you can connect your LED groups. R(ed) represents channel 1, G(reen) represents channel 2, B(lue) represents channel 3 and W(hite) represents channel 4. The default group color allocation can be changed over the 3-button user interface.

**Connecting an RGB LED strip**

Maximum current per output at 12V: 2A  
 Maximum current per output at 24V: 1.3A

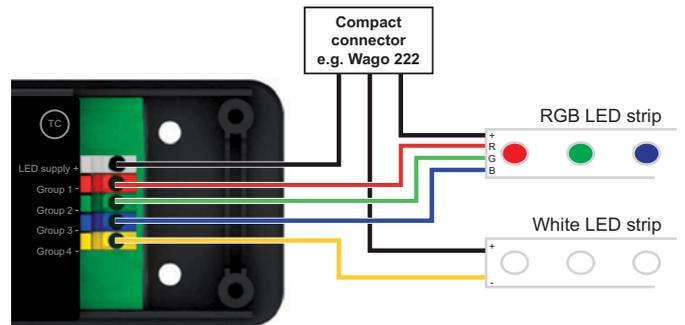
Configuration of the LED groups:  
 Press M and + simultaneously, in the LED menu choose RGB and save this setting by pressing M.



**Connecting an RGB strip and a white LED strip**

Maximum current per output at 12V: 1.5A  
 Maximum current per output at 24V: 1A

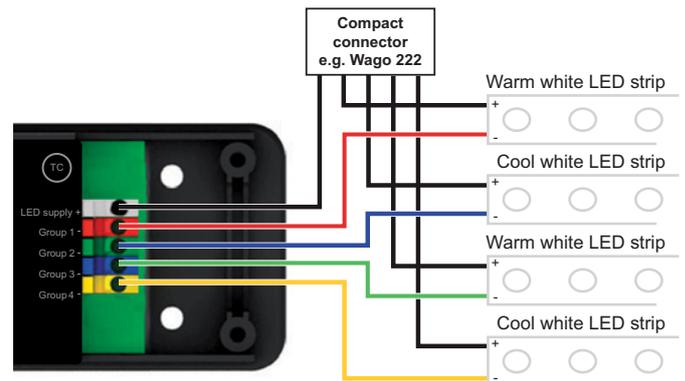
Configuration of the LED groups:  
 Press M and + simultaneously, in the LED menu choose RGBW and save this setting by pressing M.



**Connecting warm white and cool white LED strips**

Maximum current per output at 12V: 1.5A  
 Maximum current per output at 24V: 1A

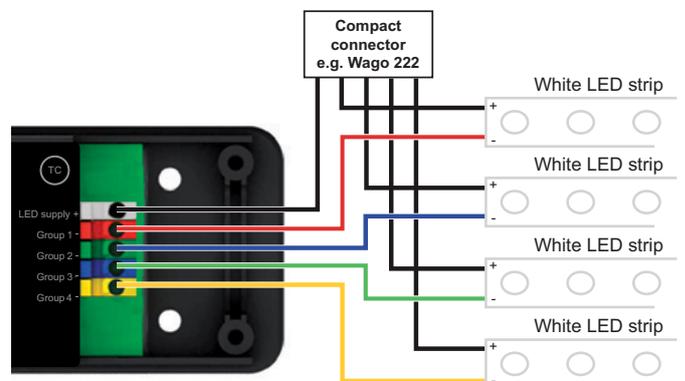
Configuration of the LED groups:  
 Press M and + simultaneously, in the LED menu choose 4-4L and save this setting by pressing M.



**Connecting four white or self-colored LED strips**

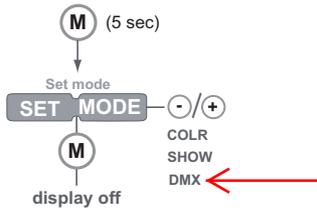
Maximum current per output at 12V: 1.5A  
 Maximum current per output at 24V: 1A

Configuration of the LED groups:  
 Press M and + simultaneously, in the LED menu choose 1-4L and save this setting by pressing M.

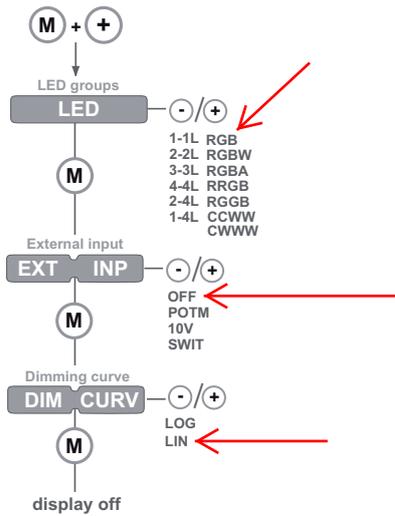


Manual configuration

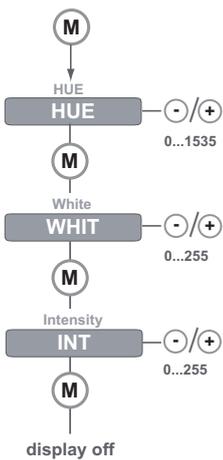
1. Select mode of operation:



2. Set LED groups:

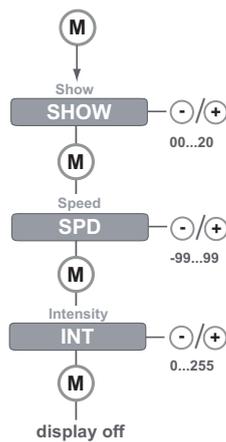


3. Standalone operation - Colour\*



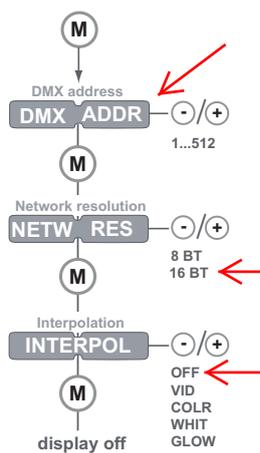
or

Standalone operation - Show -



or

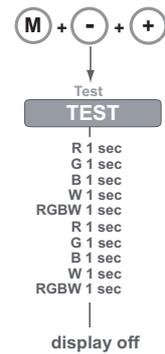
Networked operation - DMX -



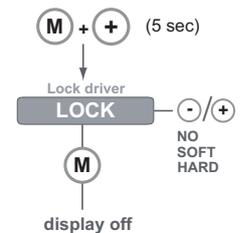
\* The colour menu depends on the LED group settings you have selected in step 2.

Other features

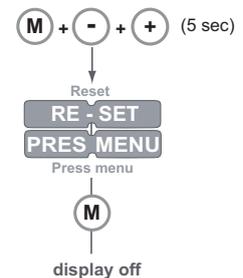
Visual test run



Locking the configuration:



Reset to factory defaults



Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## AL-Control 1 Pro



The **AL-Control 1 Pro** is a professional, multi-function DMX controller, designed for RGB LED fixtures. It features 12 programmable scenes, 7 built in effects and an internal time clock for triggering. Ambient light and proximity sensors allow the controller adapt to it's environment. It is a simple, yet powerful solution for wall mount DMX control.

### ORDER CODE

**88-044-3450-00 - US Version, White**

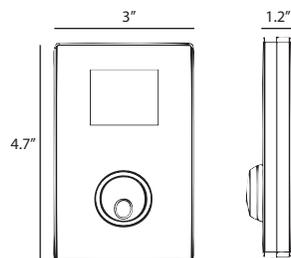
### SPECIFICATIONS

<b>Power Input</b>	12-24v DC, PSU Sold Separately (PSU-10-24)
<b>DMX Control Channels</b>	512
<b>Programmable Scenes</b>	12 w/ 8 Physical Playback Buttons
<b>Language Support</b>	English, Spanish, French, German, Japanese, Chinese
<b>Link Function</b>	Use Up To 32 Units Simultaneously With Link In/Out Ports
<b>Internal Clock</b>	Trigger Scenes via Date & Time
<b>Sensors</b>	Ambient Light, Proximity, IR w/Remote Included
<b>Display</b>	Blue LCD
<b>Mounting</b>	Single Gang Electrical Box (Not Included)
<b>Housing</b>	White Polycarbonate
<b>Operating Temperature</b>	32°F to 104°F (0°C to 40°C)
<b>Connectors</b>	4 Pin Screw Terminal for Data and Link Connections
<b>Rating</b>	Dry Location
<b>Warranty</b>	2 Years
<b>Weight</b>	4.4 oz. (125g)
<b>Dimensions</b>	W 3" x H 4.7" x D 1.2" (76 mm x 31 mm x 120 mm)

### Certifications

**CE RoHS**

### DIMENSIONS



Please note that all controllers must be installed by a qualified electrician. Acclaim Lighting, LLC is not responsible for improperly installed units.

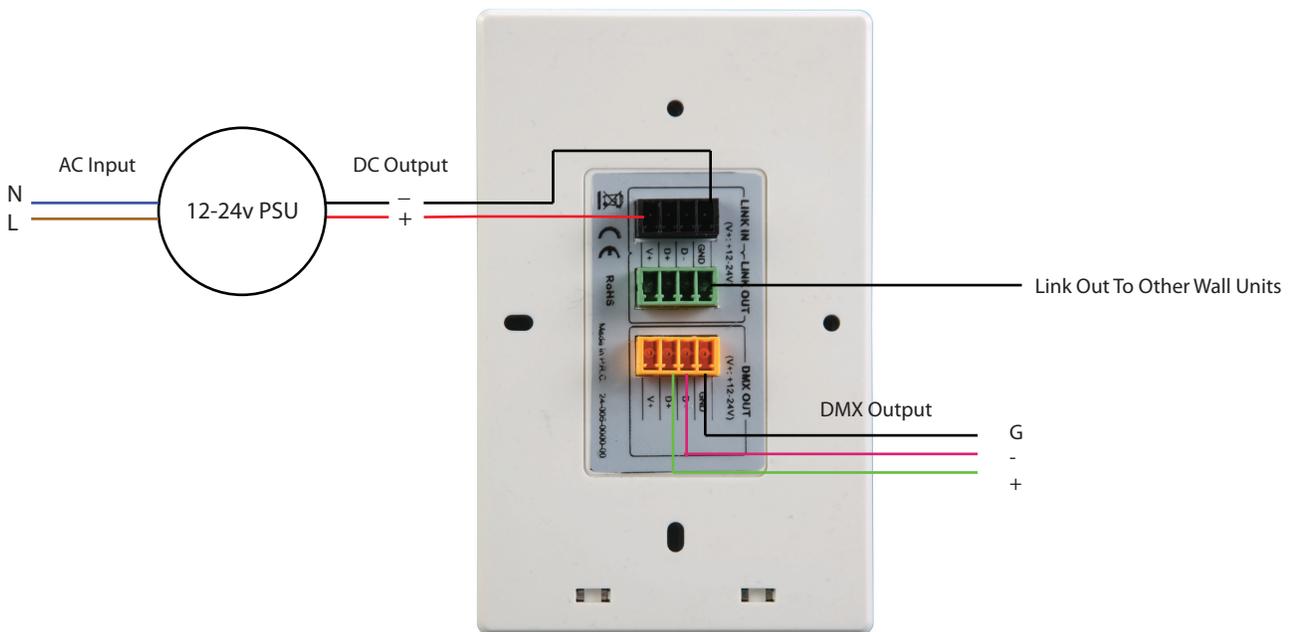


### TABLE OF CONTENTS

1. How to install your AL-Control 1 Pro
2. Playback Mode
3. Program Mode
4. IR Remote Functions

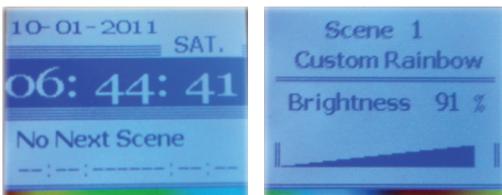
## 1 HOW TO INSTALL YOUR AL-CONTROL 1 PRO

The AL Control 1 Pro will fit into any standard US single gang box.



## 2 PLAYBACK MODE

Within Playback Mode, the user has 2 modes of control. The Toggle can be used to increase or decrease the output intensity. When pressed, the Toggle will switch through the scenes in succession 1-12. The user can also use the SCENE buttons to directly choose Scenes 1-8. The LCD screen will display the output of the chosen Scene while in Playback Mode.



### 3 PROGRAM MODE

---

Program Mode is where the user can create and edit scenes, set timed scene triggers, and change system settings. It is accessed by pressing and holding the toggle button for 2 seconds. The main menu contains six options which are navigated by the user toggling left and right and pressing the Toggle Button to choose the desired option.



- Select Scene
- Edit Scene
- Save as Scene
- Event Edit
- System Settings
- Password
- Exit

#### Select Scene

When this option is selected, the user can quickly toggle through and choose any scene, 1-12.

#### Edit Scene

This function is used to edit the scene that the controller is currently on. The user can change the scene by either preselecting the scene under Select Scene or by pressing the correlating scene button on the controller. When Edit Scene is selected the primary option will be Change Effect. The LCD Screen will continue to display the output of the Scene as it is modified by the user. Within Change effect the following options will be available.

##### Change effect-

- Fixed Color
- Color Changing
- Rainbow Change
- Custom Rainbow
- Random Color
- White
- Auto Program



##### Fixed Color

With Fixed Color, the user can create a single color scene by adjusting the following options:

- Change Effect
- Hue
- Saturation
- Save & Exit



##### Color Changing

Color Changing allows the user to adjust an automatic color fade with the following options:

- Change Effect
- Speed
- Direction
- Save & Exit



##### Rainbow Change

Rainbow Change utilizes the entire 512 channel matrix by creating an automatic RGB color changing circle. The Speed, Direction and Width are all adjustable. The Width is determined by number of channels being used within the DMX 512 universe. The user will see the following options:

- Change Effect
- Speed
- Direction
- Width
- Save & Exit



**Custom Rainbow**

Custom Rainbow gives the user the same basic options as Rainbow Change but adds the ability to choose how many colors, and the RGB values of each color. The user can from 2-10 different color steps, and adjust the RGB values for each when the step is selected. The following options will be seen when Custom Rainbow is selected:

- Change Effect
- Speed
- Direction
- Width
- Edit Colors
- Save & Exit



**Random Color**

Random Color is an effect that will automatically cycle through a series of random colors. The user is able to adjust the Speed and the Fade of the color change. The Fade determines how much the colors Fade into and out of each other. The following options will be seen under the Random Color menu:

- Change Effect
- Speed
- Fade
- Save & Exit



**White**

White gives the user the ability to create a fixed white color by adjusting the color temperature of the output. The following option will be seen under the White effect:

- Change Effect
- Temperature
- Save and Exit



**Auto Program**

Auto Program gives the user 10 different built in programs to choose from. Once a program is chosen, the user can modify the Speed and Fade of the program. The following options will be seen under Auto Program:

- Change Effect
- Speed
- Fade
- Program Select

**Save as Scene**

The Save as Scene option gives the user the ability to copy and store a scene to a specified Scene button.



**Event Edit**

The following options will be seen under Event Edit:

- Date & Time
- Timer Settings
- Exit





Date & Time give the user to adjust the Date and Time.



Timer setting is where the user can program Scenes to be triggered by the built in clock. The user has the ability to choose an already programmed scene and adjust when the cue will come on and turn off. A Max of 16 Timers can be set. The user can also choose from a variety of Modes within Timer Setting. The Mode contains the following options:

- Sun. Sunday Only
- Mon. Monday Only
- Tue. Tuesday Only
- Wed. Wednesday Only
- Thu. Thursday Only
- Fri. Friday Only
- Sat. Saturday Only
- 7-Days. Everyday
- 5-Days. Monday thru Friday
- Sat&Sun. Every Saturday and Sunday

### System Settings

System Setting is where the user can change some of the basic preferences of the AL Control 1 Pro. The following options will be seen when System Setting is selected:

- LCD Settings
- Language Select
- Firmware
- Exit



### LCD Setting

LCD Setting give the user the ability to adjust the LCD Displays output and Backlight settings. The following options will be seen:

- LCD Backlight
- Display Mode
- Output Preview
- Exit



### LCD Backlight

The LCD Backlight is used to vary how the LCD Display adjust to ambient light. Manual Mode allows the user to manually adjust how bright the LCD Display is. Time Out determines how long the LCD Display will take to fade out after the controller is left stagnant. The controller senses motion and light variance to turn the LCD Display back on after it has been in Time Out mode.



### Display Mode

Display Mode allows the user to adjust the color of different sections of the LCD Screen. The following options will be seen for adjustment:

- Default Color
- Font Color
- Back Color
- Top Font Color
- Top Back Color
- Exit

## PROGRAM MODE (Cont.)

---

### Password

When the user accesses this mode, the controller will ask for a password. The default password is 123456, which the user can change once in Password mode. The controller also has a Master Password 168168 which can always be used to access the panel and cannot be changed by the user. The following options will be seen when password mode is entered.



- Change Password
- Program Status
- Factory Default

Program Status allows the user to lock out any changes to the existing Scenes.  
Factory Default allows the user to restore the entire unit to its original factory settings.

## 4 IR REMOTE FUNCTIONS

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