

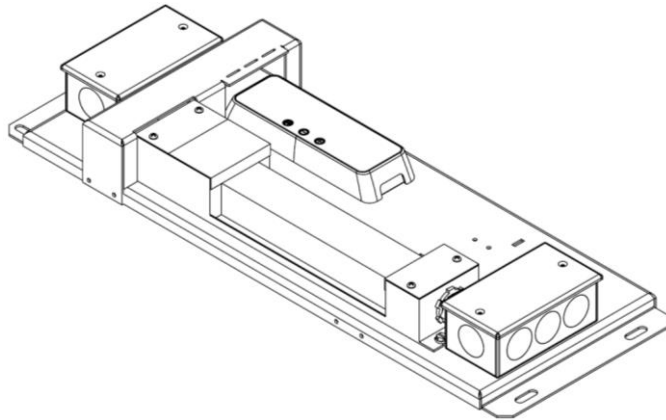
INSTRUCTION MANUAL

IMPORTANT SAFEGUARDS

When using electrical equipment, basic safety precautions should always be followed, including the following:

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

1. T-BAR RGBW™ and T-BAR LED® Tunable White fixtures are designed to work with Class 2 – 24VDC power supplies only. Use of any other power source will cause damage, shorten the life of the fixture, and may void the warranty.
2. This fixture must be installed and wired by a licensed electrician.
3. JLC-Tech LLC will not be held responsible if the fixtures are not installed according to applicable codes and safety standards.
4. Installation is subject to local codes and jurisdiction.
5. Keep these instructions for the person responsible for the maintenance of this installation.
6. The DMX driver kit must be installed in an accessible location.
7. For IC (insulated ceiling) installations: Do not install insulation within 3 inches (76mm) of driver kit.
8. For Chicago Plenum installations locate the driver in an appropriate enclosure (by others) or in a non-Chicago Plenum rated area.
9. Ensure driver is not energized before connecting fixtures.
10. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition, void warranty, and result in non-compliance with UL specifications.



SAVE THESE INSTRUCTIONS

T-BAR910: Instruction Sheet for DMX Driver Kit Rev.02

CE RoHS



INSTALLATION INSTRUCTIONS

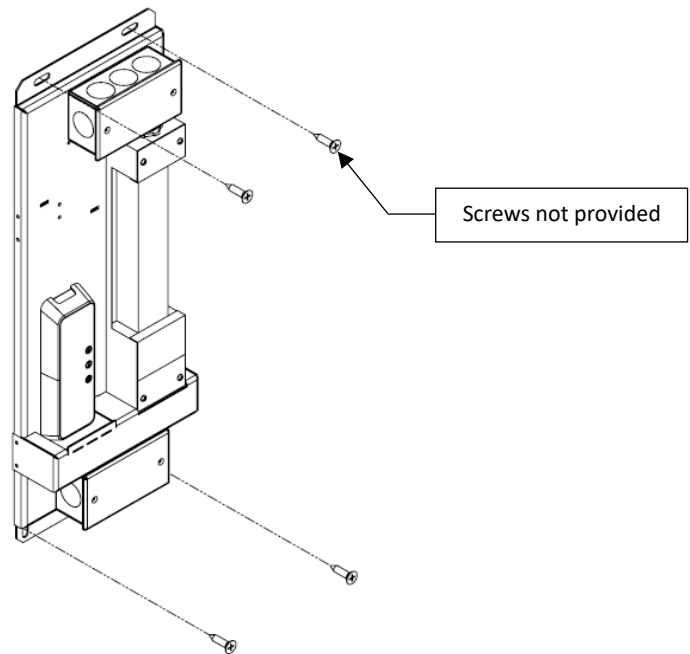
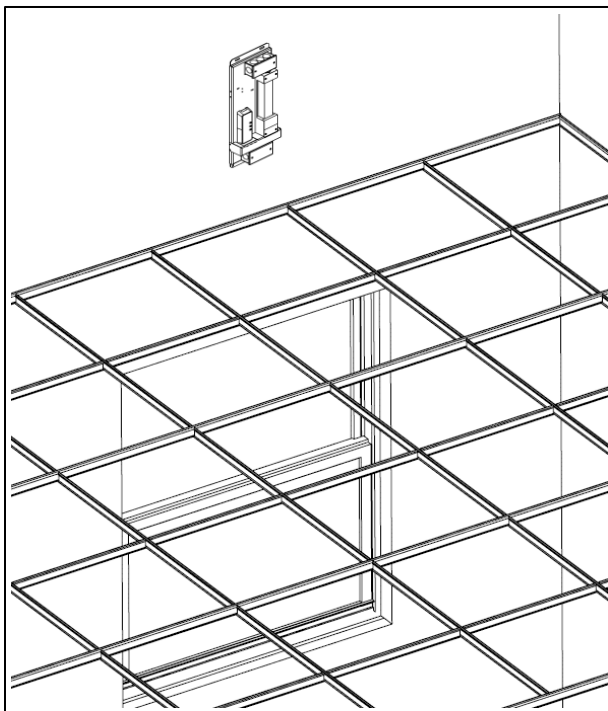
READ INSTRUCTIONS ENTIRELY BEFORE INSTALLATION

1. FIXTURE COMPATIBILITY

The DMX driver kit is designed to be used only with T-BAR RGBW™ 24V DC product lines (max run of 8ft of product per kit) or T-BAR LED® Tunable White 24V DC product lines (max run of 6ft of product per kit).

2. MECHANICAL INSTALLATION

The DMX driver kit must be securely fastened on site. Appropriate location and mounting hardware to be determined by the installer depending on field conditions. The driver kit must be installed in an accessible location.



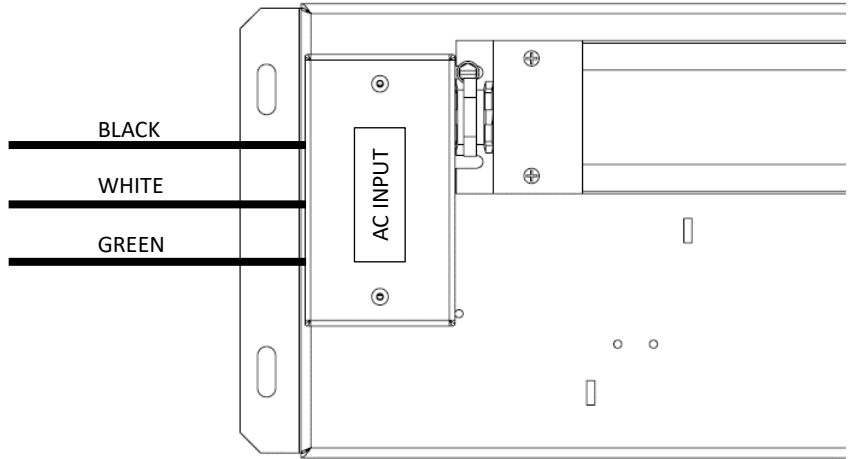
WARNING – For IC (Insulated Ceiling) installation, do not install insulation within 3 inches (76mm) of the DMX driver kit.

For Chicago Plenum installations locate the driver in a non-Chicago Plenum rated area.

3. AC INPUT WIRING

The DMX driver kit requires an AC power source of 120 to 277 volts AC, 50/60Hz. See the below illustration for wiring details.

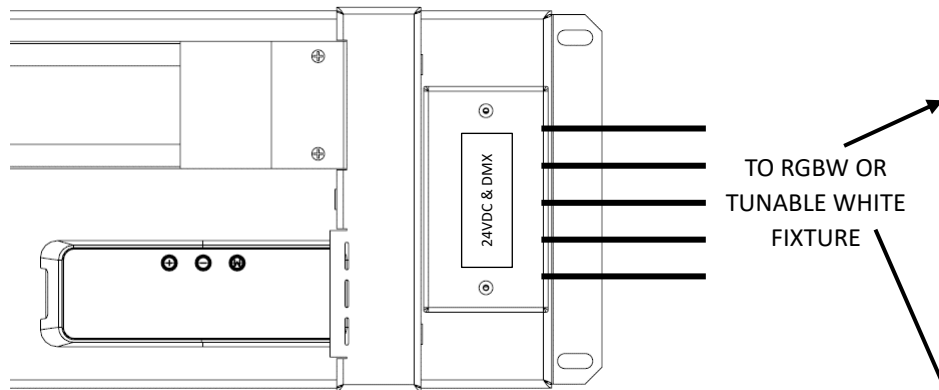
120-277 50/60 Hz
VAC INPUT



AC WIRING COLOR SCHEME	
BLACK	HOT
WHITE	NEUTRAL
GREEN	EARTH GROUND

4. OUTPUT WIRING TO FIXTURE

The DMX driver kit is designed to be used with T-BAR RGBW™ 24V DC product lines (max run of 8ft of product per kit) or T-BAR LED® Tunable White 24V DC product lines (max run of 6ft of product per kit). See the below illustration for wiring details.



T-BAR RGBW™	
KIT	FIXTURE
Common (+) [BLACK]	Common (+) [WHITE/BLACK]
Channel 1 (-) [RED]	Red (-) [RED]
Channel 2 (-) [GREEN]	Green (-) [GREEN]
Channel 3 (-) [BLUE]	Blue (-) [BLUE]
Channel 4 (-) [WHITE]	White (-) [WHITE]

Max run of 8ft of product per kit

T-BAR LED® TUNABLE WHITE	
KIT	FIXTURE
Common (+) [BLACK]	Common (+) [RED]
Channel 1 (-) [RED]	5000K (-) [BLACK]
Channel 2 (-) [GREEN]	2700K (-) [WHITE]
Channel 3 (-) [BLUE]	OPTIONAL
Channel 4 (-) [WHITE]	OPTIONAL

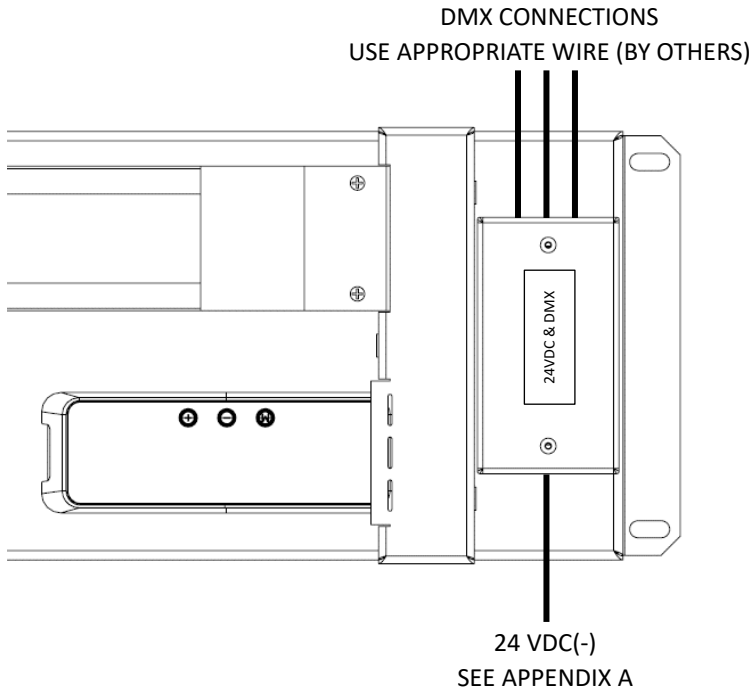
Max run of 6ft of product per kit

**DMX DRIVER TO FIXTURE REMOTE MOUNTING DISTANCE
(WIRES NOT PROVIDED)**

GAUGE	LENGTH
20 AWG	20ft (6m) maximum
18 AWG	30ft (9m) maximum
16 AWG	40ft (12m) maximum

5. DMX WIRING

In the provided junction box, make the three wire connections to the DMX control system (by others). If using multiple kits in the same DMX network, it is recommended to make an additional connection to 24VDC(-) between kits. See appendix A for more details.



DMX WIRING COLOR SCHEME	
WHITE/ORANGE	DATA 1+
ORANGE	DATA 1-
WHITE/BROWN	DATA LINK COMMON



DMX/RDM is a robust and reliable system for lighting control. However, if not implemented correctly, problems can arise such as random flashing of lights, erratic operation, and delays in responding to commands. Below are important things to consider in DMX wiring.

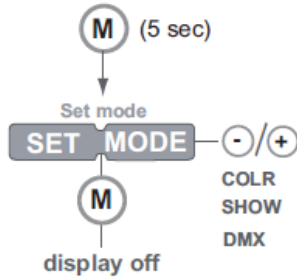
- DMX is a three-wire system, use all three.
- Always use cable specifically designed for DMX / RS-485. These cables have an impedance of 120Ω and a low capacitance. For instance: Belden 9841 or 3105a.
- DMX must be terminated with a 120Ω resistor to prevent reflections.
- A daisy chain topology should be used.
- After 32 unit loads a repeater/booster should be used.
- Keep cabling below 300 meters between the controller and the last driver.

Not following the above recommendations may seem to work at first but can cause problems. Sometimes after weeks of seemingly normal operation. For more information, refer to additional [technical documents](#) provided by eldoLED.

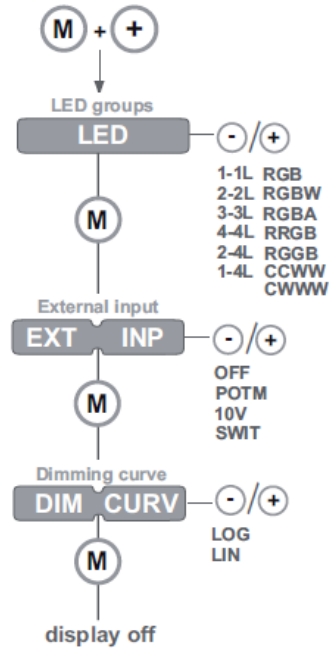
6. DMX DRIVER CONFIGURATION

The DMX driver has been factory set to DMX mode and default address: 1. This DMX driver is DMX/RDM compatible. For manual configuration, see the diagram below for button sequence. For more information, reference [LINEARdrive 100D/180D Quick Start Guide](#)

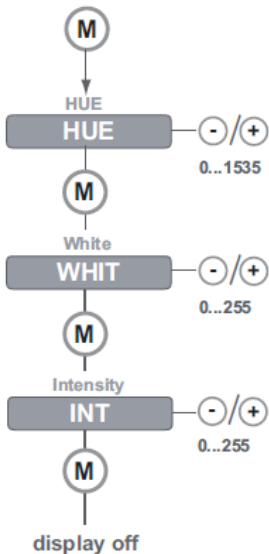
1. Select mode of operation:



2. Set LED groups:

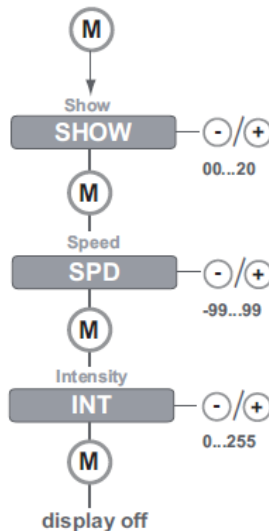


3. Standalone operation - Colour*-



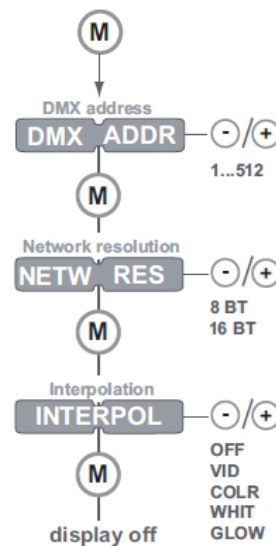
or

Standalone operation - Show -



or

Networked operation - DMX -

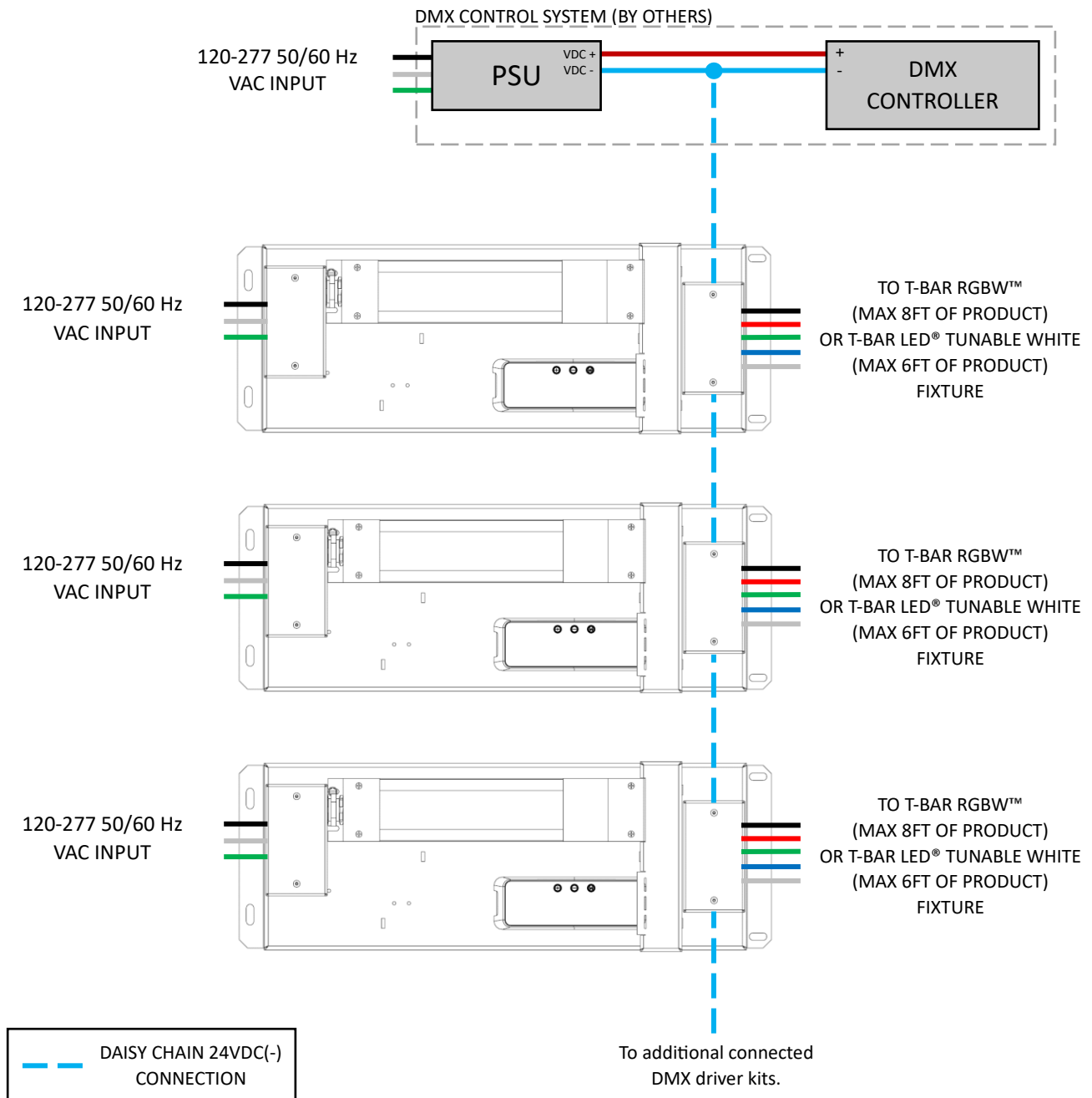


*The colour menu depends on the LED group settings you have selected in step 2.

APPENDIX A

With several power supply units in a DMX network, the possibility exists that their absolute VDC-potentials differ from one another. Within the eldoLED DC drivers, the DMX shield is connected to VDC- through a 100Ohm resistor. So, if fluctuations occur in the ground of the various power supply units, this creates fluctuations in DMX shield, possibly resulting in random flicker in the light output.

The wiring diagram below shows how to interconnect the VDC- wiring of both the LED drivers' and DMX controller's power supply units in order to prevent random flickers in light output.



Bussed network of multiple DMX driver kits.