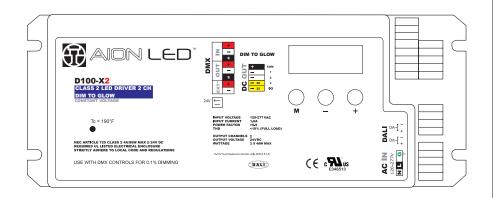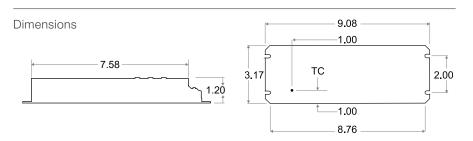# X2
## DMX, 2 CHANNEL

DIM TO GLOW™

**2 Channel DMX Driver**

**Factory Programmed for Dim to Glow**

**Factory Wire Harness for Ease of Installation**

Integrated Class 2 Supply

LCD interface

Universal 100-277VAC Input

UL, CE, & CSA APPROVED

Requires UL Listed Enclosure

Default Address 1



Dimensions



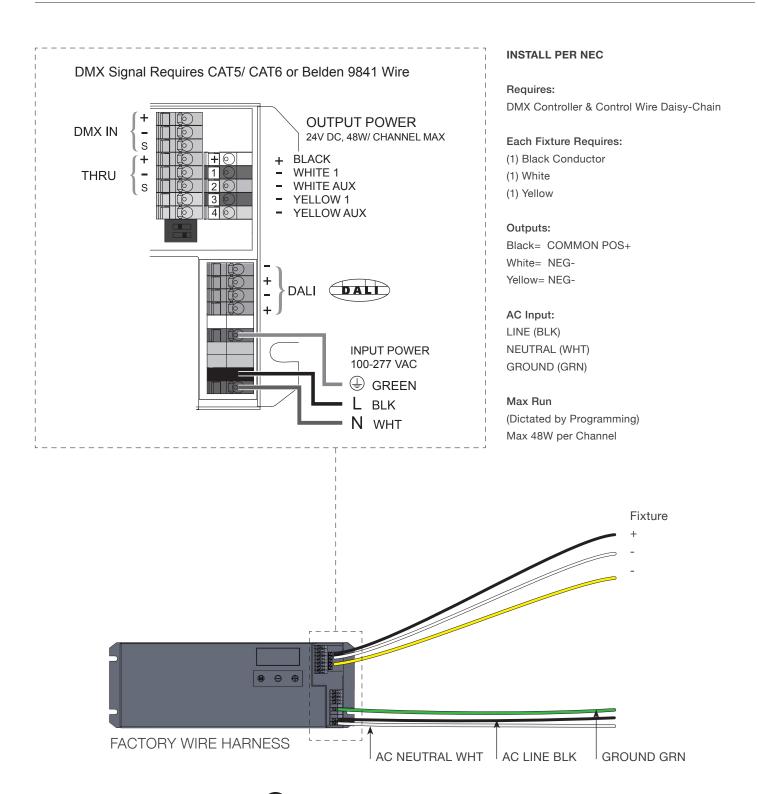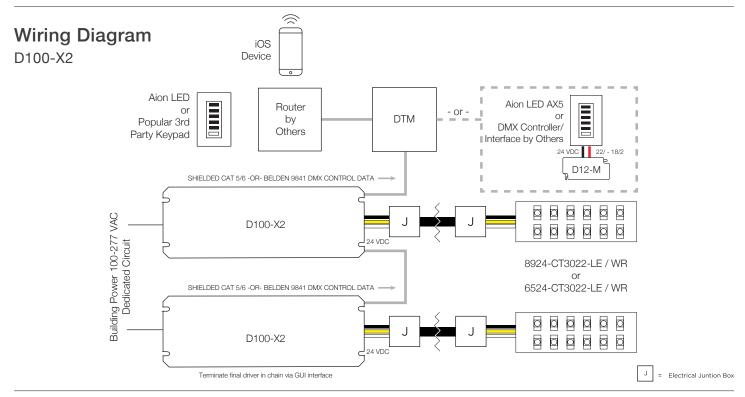| MODEL | D100-X2 | DIMENSIONS (L-W-H)" | 9.06 x 3.15 x 1.18" |
|---|---|---|---|
| CASE | DRY & DAMP | PRIMARY BREAKER | AUTO-RESET |
| WATTAGE | 96W @ 24 VDC | DIMMING | 0.1% |
| INPUT VOLTAGE (Hz) | 100-277 VAC, 60HZ | CONTROL TYPE | Aion LED AX5-2 Controller, DTM or 3rd Party DMX Interface |
| INRUSH CURRENT | 120 VAC: 35A 240µs<br>277 VAC: 75A 240µs | 3RD PARTY DMX COMPATIBILITY | Lutron, Vantage, Crestron, ETC AMX (ANY DMX) |
| INPUT CURRENT | 120 VAC: 1.05A<br>277 VAC: 0.45A | THERMAL CLASS | (B) 130 C |
| POWER FACTOR | >0.94 | MAX FEET 8924-CT3022 | 30 ft. (Max 48W/ Channel) |
| VOLTAGE LOADED | 23.5 VDC | MAX FEET 1524-CT3022 | 30 ft. (Max 48W/ Channel) |
| VOLTAGE OPEN | 24.2 VDC | MAX FEET 6524-CT3022 | 8 ft. (Max 48W/ Channel) |

*Requires, Sold Separately: Aion LED DTM*

## DMX Signal Requires CAT5/ CAT6 or Belden 9841 Wire

DMX IN { + - S }

THRU { + - S }

OUTPUT POWER
24V DC, 48W/ CHANNEL MAX

+ BLACK
− WHITE 1
− WHITE AUX
− YELLOW 1
− YELLOW AUX

DALI

INPUT POWER
100-277 VAC

GREEN
L BLK
N WHT

### INSTALL PER NEC

**Requires:**
DMX Controller & Control Wire Daisy-Chain

**Each Fixture Requires:**
(1) Black Conductor
(1) White
(1) Yellow

**Outputs:**
Black= COMMON POS+
White= NEG-
Yellow= NEG-

**AC Input:**
LINE (BLK)
NEUTRAL (WHT)
GROUND (GRN)

**Max Run**
(Dictated by Programming)
Max 48W per Channel

Fixture
+
−
−

FACTORY WIRE HARNESS

AC NEUTRAL WHT | AC LINE BLK | GROUND GRN

C UL US
E348513

C UL US
LISTED
E364348

# Wiring Diagram
## D100-X2

iOS Device

Aion LED
or
Popular 3rd
Party Keypad

Router
by
Others

DTM

- or -

Aion LED AX5
or
DMX Controller/
Interface by Others

24 VDC    22/ - 18/2

D12-M

SHIELDED CAT 5/6 -OR- BELDEN 9841 DMX CONTROL DATA →

D100-X2

24 VDC

J    J

8924-CT3022-LE / WR
or
6524-CT3022-LE / WR

Building Power 100-277 VAC
Dedicated Circuit

SHIELDED CAT 5/6 -OR- BELDEN 9841 DMX CONTROL DATA →

D100-X2

24 VDC

J    J

Terminate final driver in chain via GUI interface

J = Electrical Juntion Box

# Installation Instructions

1. Install per NEC and Local code by qualified personnel

2. Requires UL Listed enclosure with adequate ventilation

3. Strain-relief wiring to enclosure to prevent wires from pulling out

4. Wire AC power with 18AWG power wire

5. Ensure that jacket goes all the way into connector

6. Connect DMX controller to 'DMX in' on first unit with Belden 9841 DMX wire (plus, minus, shield),-or- shielded CAT5/6

7. Daisy chain additional units from 'DMX out' to 'DMX' of following unit with Belden 9841 cable -or- shielded CAT5/6

8. Terminate only the final unit in DMX chain via programming interface

9. Wire fixture to wire harness with wire nuts [White, Yellow, DC+ (Black)]

10. Drivers are pre-programmed and tested at Aion LED for specific Aion LED fixtures. Each of the four D100-X series models (X1,X2, X3, X4) ship with a separate and unique Aion LED factory wiring harness for plug and play functionality and to eliminate mistakes in the field. Aside from changing the default DMX address (1) via supplied GUI interface, or activating "Termination" on the final unit in a control chain, only certified integrators and qualified personnel should attempt changing other settings. Default programming settings are for reference only.
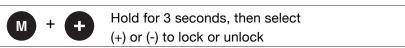
CE  FC  RoHS  cULus E348513  cULus LISTED E364348

# Programming Guide
D100-X2



**USER MENU**    Highlighted Yellow = User Defined

| | |
|---|---|
| **M** | DMX Address = 1 Default |
| **M** | Network Resolution = 8 bit |
| **M** | Term = No<br>terminate final driver in chain |
| **M** | Network Set = Manual |
| **M** | Interpolation = White |

**M** Enter    **+** **−** Selection Keys

## TO LOCK/ UNLOCK MODE MENU

| | |
|---|---|
| **M** + **+** | Hold for 3 seconds, then select<br>(+) or (-) to lock or unlock |

## TO ACCESS OUTPUT MENU

| | |
|---|---|
| **M** + **+** | Hold for 0.5 seconds<br>LED = 2 - 4 L |
| **M** | External Input = OFF |
| **M** | Dim Curve = Log |

## TO ACCESS MODE MENU

| | |
|---|---|
| **M** | Hold for 3 seconds<br>SET MODE = DMX |
| **−** + **+** | SET MODE = DMX, DALI, SHOW |
| **M** | Select M to Select |

Can operate Aion LED X Series with DMX or DALI controls. DMX as default. To change to DALI, follow appropriate steps on page 2 of programming guide.

Ensure all wiring is correct and properly terminated

Default DMX address is 1 and can be changed via GUI interface.

Drivers are pre-programmed and tested at Aion LED for specific Aion LED fixtures. Each of the four D100-X series models (X1,X2, X3, X4) ship with a separate and unique Aion LED factory wiring harness for plug and play functionality and to eliminate mistakes in the field.

Aside from changing the default DMX address (1) via supplied GUI interface, or activating "Termination" on the final unit in a control chain, only certified integrators and qualified personnel should attempt changing other settings. Default programming settings are for reference only.

# Programming Guide
D100-X2

## DALI

| | |
|---|---|
| **M** | Press M to view the number of ballasts connected (Channels per fixture). Address is set by DALI Control (or via LED type set in DMX menu.) |
| **M** | Press M again to view address (ADDR SET) or if one has not been set (NO ADDR) |
| **M** | Press M again to exit configuration and turn off display |

In DALI mode, fixtures are addressed through the DALI controller

## SHOW

| | |
|---|---|
| **M** | Press M and (+) or (-) to select a different SHOW sequence (1-20) |
| **M** | Press M again and (+) or (-) to change the speed (SPD) of the selected show sequence (-99 through 99)<br>-99      Twice as Slow<br>0      Sequence's Default<br>99      Twice as Fast |
| **M** | Press M again and (+) or (-) to change the intensity (INT) of the selected show sequence (0 through 255)<br>0      Off<br>255      Full On |
| **M** | Press M again to exit configuration and turn off display |

SHOW mode is intended to pretest fixtures prior to controls installation. Return to DMX or DALI mode after testing.