INSTALLATION INSTRUCTION
DMX to ELV Controller
A2C01

SAFETY INSTRUCTION
IMPORTANT: NEVER attempt any work without shutting off the electricity.
- Prior to installation, ensure power is OFF at the circuit breaker or fuse box prior to prevent electrical shock.
- System is intended for installation by a qualified technician in accordance with the National Electrical Code and local regulations.|
- Intended for indoor use in Dry locations.
- Must be installed to an electrical junction box or wireway.
- Do NOT connect product input power leads to dimmed power sources.
- Do NOT use a fixture or a combination of fixtures where the total wattage exceeds the rating of the controller.

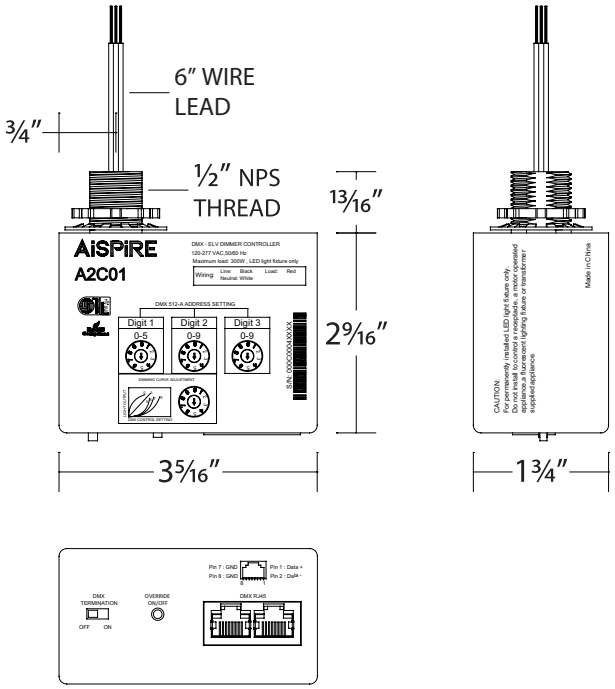
CAUTION:
All parts must be used as indicated in these instructions. Do not substitute any parts, leave parts out, or use any parts that are worn out or broken.

AVERTISSEMENT
IMPORTANT : Coupez l'électricité avant TOUTE manipulation.
- Avant l'installation, assurez-vous que l'alimentation est coupée au niveau du disjoncteur ou de la boîte à fusibles avant d'éviter tout choc électrique.
- Le système est destiné à être installé par un technicien qualifié conformément au Code national de l'électricité et aux réglementations locales.
- Destiné à une utilisation intérieure dans des endroits secs.
- Doit être installé sur une boîte de jonction électrique ou un chemin de câbles.
- Ne connectez PAS les câbles d'alimentation d'entrée du produit à des sources d'alimentation à intensité variable.
- N'utilisez PAS un luminaire ou une combinaison de luminaires dont la puissance totale dépasse la puissance nominale du contrôleur.

MISE EN GARDE:
Toutes les pièces doivent être utilisées tel qu'il est indiqué dans ces instructions. Ne remplacez pas les pièces, n'en laissez pas de côté et ne les
utilisez pas si elles sont usées ou brisées.

OVERVIEW:
The AiSPIRE A2C01 DMX to ELV Controller provides single channel dimming control to 120 – 277 VAC line voltage lighting fixtures that require ELV or reverse-phase dimming, for up to 300 watts. This controlller may be wired to individual lighting fixtures or to groups of lighting fixtures for zoned control. With supplied ring nut and lock washer, this unit may be installed to knockouts located on junction boxes, panel, or wireway junctions (by others).

MECHCANICAL DIMENSIONS



CONTROLLER OVERVIEW DETAIL

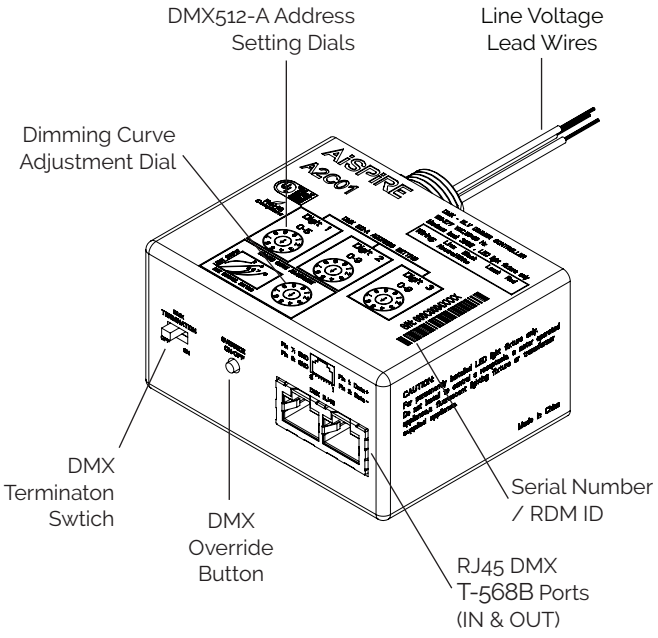


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FIG. 1

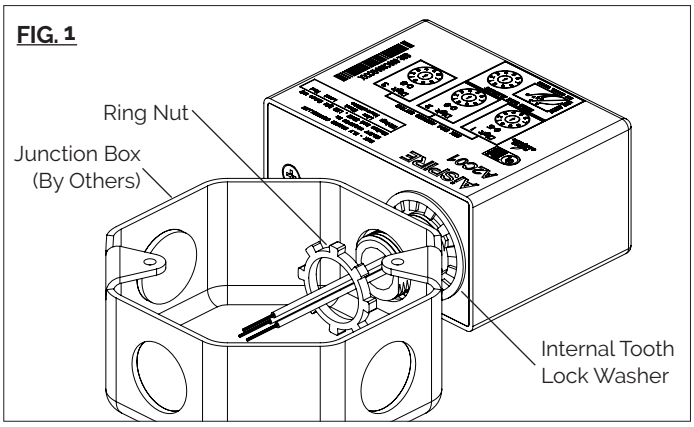


FIG. 2

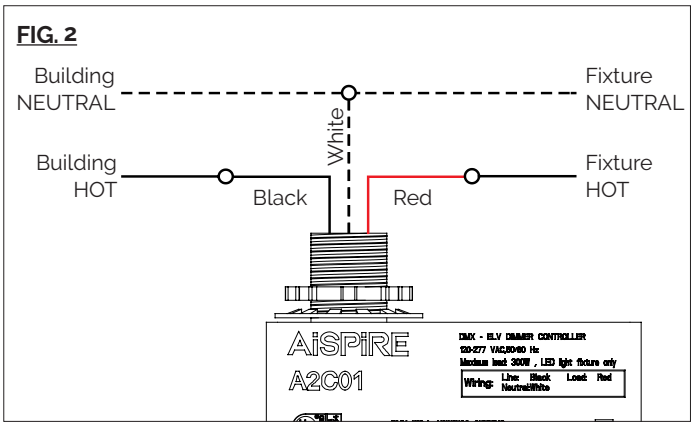


FIG. 3

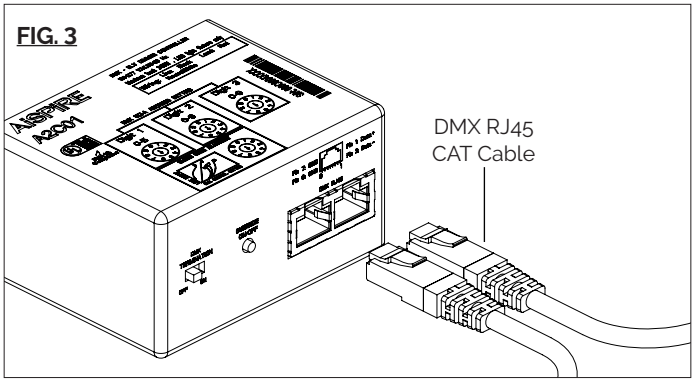
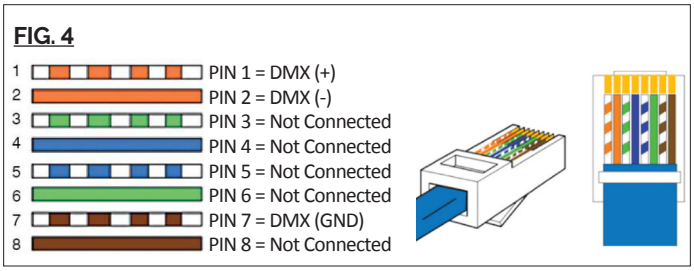


FIG. 4



MECHANICAL INSTALLATION:

The A2C01 unit may be installed to knockouts located on junction boxes, panels, or wireway junctions (by others).

1. Loosen and remove the ring nut from the A2C01 unit and insert the its 1/2" NPS threaded nipple into the knockout of the junction box. Reinstall and tighten the ring nut on the A2C01 to secure to the junction box (See **FIG. 1**).

2. Ensure the A2C01 unit is oriented such that the "DMX Address Setting Dials" and "Dimming Curve Adjustment Dial" are accessible.

   Note: The A2C01 is supplied with 6 inches of lead wire for spliced connections.

ELECTRICAL INSTALLATION (LINE VOLTAGE):

The A2C01 is provided with 6 inches of 18/3 AWG copper wires for direct connection of up to 300W of lighting loads.

1. Connect wires of the mechanically installed A2C01 to BOTH building wires and the fixture lighting load as follows:

   Connect the A2C01 **LINE** (Black) wire to BUILDING LINE wire. Connect the A2C01 **NEUTRAL** (White) wire to the BUILDING and LIGHTING NEUTRAL. Connect the A2C01 **LOAD** (RED) wire to the LIGHTING LINE wire. (See **FIG. 2**).

   NOTE: A2C01 connections are intended for use with 120 – 277VAC 50/60Hz circuits rated for 15A.

DMX-512A CONNECTION AND WIRING:

The A2C01 may be connected to DMX512-A control sources (by others) for lighting load control. It contains RJ45 DMX T-568B IN & OUT ports for daisy chained DMX connections.

The A2C01 may be networked as part of a DMX chain with up to 32 devices. The total combined of wiring for the DMX network may NOT exceed 1000ft (300M).

NOTE: DMX network topology does NOT permit "Y", "star" or looped connections.

CAT5, CAT5e, CAT6 UTP cabling or equivalent, when appropriately shielded may be used for DMX-512A connection to the A2C01 via RJ45 ports (See **FIG. 3**).

For RJ45 connections, the A2C01 ports adhere to ANSI/ TIA-568B standards and utilize PIN 1, 2, & 7 for DMX communication (See **FIG. 4**):

PIN 1 = DMX/DATA (+)
PIN 2 = DMX/DATA (-)
PIN 7 = DMX /DATA (GND)

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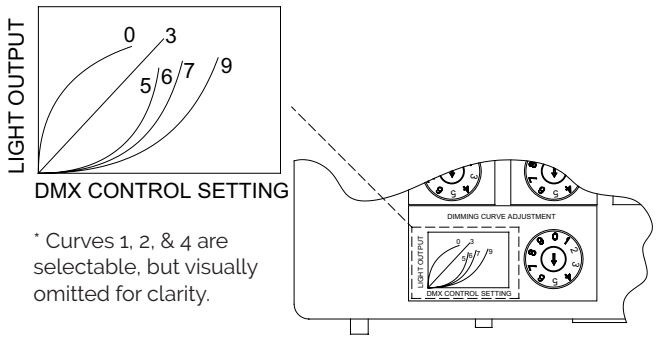
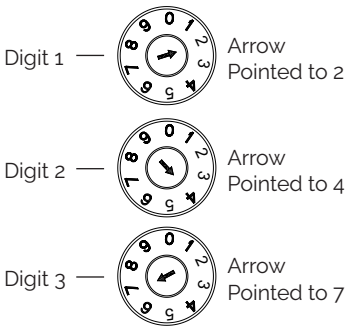
FIG. 5



* Curves 1, 2, & 4 are selectable, but visually omitted for clarity.

FIG. 6



Example
DMX Starting Address:

Set Digit 1: 2
Set Digit 2: 4
Set Digit 3: 7

DMX Address is 247

FIG. 7

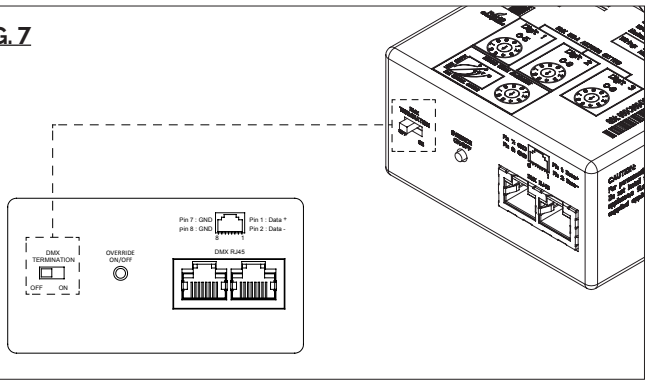
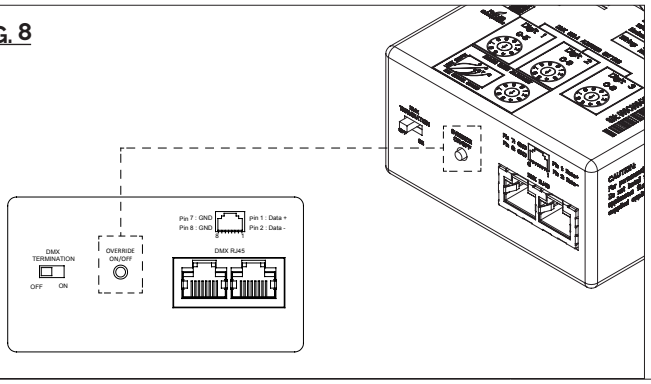


FIG. 8



GENERAL OPERATION INSTRUCTION:

1. **DIMMING CURVE ADJUSTMENT:** The on-board rotary "Dimming Curve Adjustment" dial may be used to select dimming curves 0 - 9 (See **FIG. 5**).

2.1. **DMX ADDRESS SETTING (DIAL):** The on-board rotary "DMX 512-A Address Setting" dial may be used to select the DMX starting address for the A2C01 with the started address range of 001 - 512 (See **FIG.6**).

2.2. **DMX ADDRESS SETTING (RDM):** The A2C01 supports the DMX Remote Device Management Protocol (RDM) protocol as a means to set the device's DMX starting address.

When using a RDM controller (by others), the particular A2C01 unit may be identified by its Serial Number/RDM ID, and the DMX starting address can be remotely set. When set by RDM, the DMX starting address will override any previous DMX address set by rotary dial.

NOTE: The A2C01 has a DMX footprint of 1 CH.

3. **DMX TERMINATION SWITCH:** When networked with DMX "daisy chain" topology, the end of line DMX device is to be terminated at DMX connection points. End of line termination utilizes a 120 Ω (Ohm) resistor between DMX Data "+" and DMX Data "-" connections.

The A2C01 features on-board DMX termination in the form of a settable switch. When set to "ON" position, the A2C01 controller, an internal 120 Ω (Ohm) be applied to terminate the device. When set to the "OFF" position, the controller will NOT be DMX terminated (See **FIG. 7**).

4. **SYSTEM OVERRIDE ON/OFF BUTTON:** If DMX input signal to the A2C01 device is interrupted to or removed, the onboard "OVERRIDE ON/OFF" button may be used to test unit functionality and provide illumination during the trouble shooting process (See **FIG. 8**).

The OVERRIDE ON/OFF button when pressed will ramp all connected lighting loads to 100% brightness OR dim connected loads at 0% brightness. Cycling button presses will alternate between maximum and minimum brightness.

When DMX input signal is restored, the A2C01 control result will automatically reflect DMX input command.

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