

Installation Instructions & Users Manual



IMPORTANT SAFEGUARDS READ AND FOLLOW ALL SAFETY INSTRUCTIONS

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

1. **CAUTION:** This unit has more than one power supply connection point. To reduce the risk of electric shock disconnect both the branch circuit-breakers or fuses and emergency power supplies before servicing.
2. **CAUTION:** This equipment provides more than one power supply output source. To reduce the risk of electric shock disconnect both normal and emergency sources within this unit before servicing any equipment connected to this unit.
3. **CAUTION:** Sealed unit. components are not replaceable. Replace entire unit when necessary.
4. **CAUTION:** Installation and Servicing should be performed by qualified personnel only. De-energize before opening.
5. Do not use outdoors.
6. Do not mount near gas or electric heaters.
7. Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
8. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
9. Do not use this equipment for other than its intended use.
10. Install in accordance with the National Electrical Code and local regulations.
11. Approved for field or factory installation.
12. Lighting fixture manufacturers, electricians, and end-users need to ensure product compatibility before final installation.

LIMITATIONS

1. The output voltage and current of the ELC as marked on the data label must not exceed the maximum output voltage and current of the normal driver, as marked on the data label.
2. For emergency operation, ELC models may only be connected to Sigtex Lighting Inc Series CBM or CBL central battery systems, which include an automatic transfer switch Part No. 300BXC1-24D manufactured by Magnecraft, UL/CSA Recognized under UL Standard 508.
3. ELC package P4 may only be installed within a rated fire and electrical enclosure with sufficient volume to accommodate the ELC device and all required wiring connections.
4. ELC output to the LED array may not be connected by soldering direct to a circuit board. All connections from the ELC to the normal driver and the LED array should be made using standard wire nuts or terminal blocks.

SAVE THESE INSTRUCTIONS

EMERGENCY LIGHT OUTPUT

To verify compliance with required minimum light output defined by Federal, state and local municipal codes for emergency illumination of the path of egress, emergency light output may be calculated as follows:

1. Refer to luminaire specification data and locate the efficacy of the fixture (lumens delivered per watt).
2. If not available on data sheets, if necessary log onto the DesignLights Consortium website at www.designlights.org, click on "search by keyword", enter luminaire manufacturer name and part number, then click on "Search" tab to open the "Qualified Products List". Look up under "RATED DATA" the efficacy level in lumens per watt.
3. Note the ELC power rating on the data label. Then:

$$\text{Emergency light output} = \text{ELC Power Rating} \times \text{Luminaire Efficacy Lumens (Lm)}$$

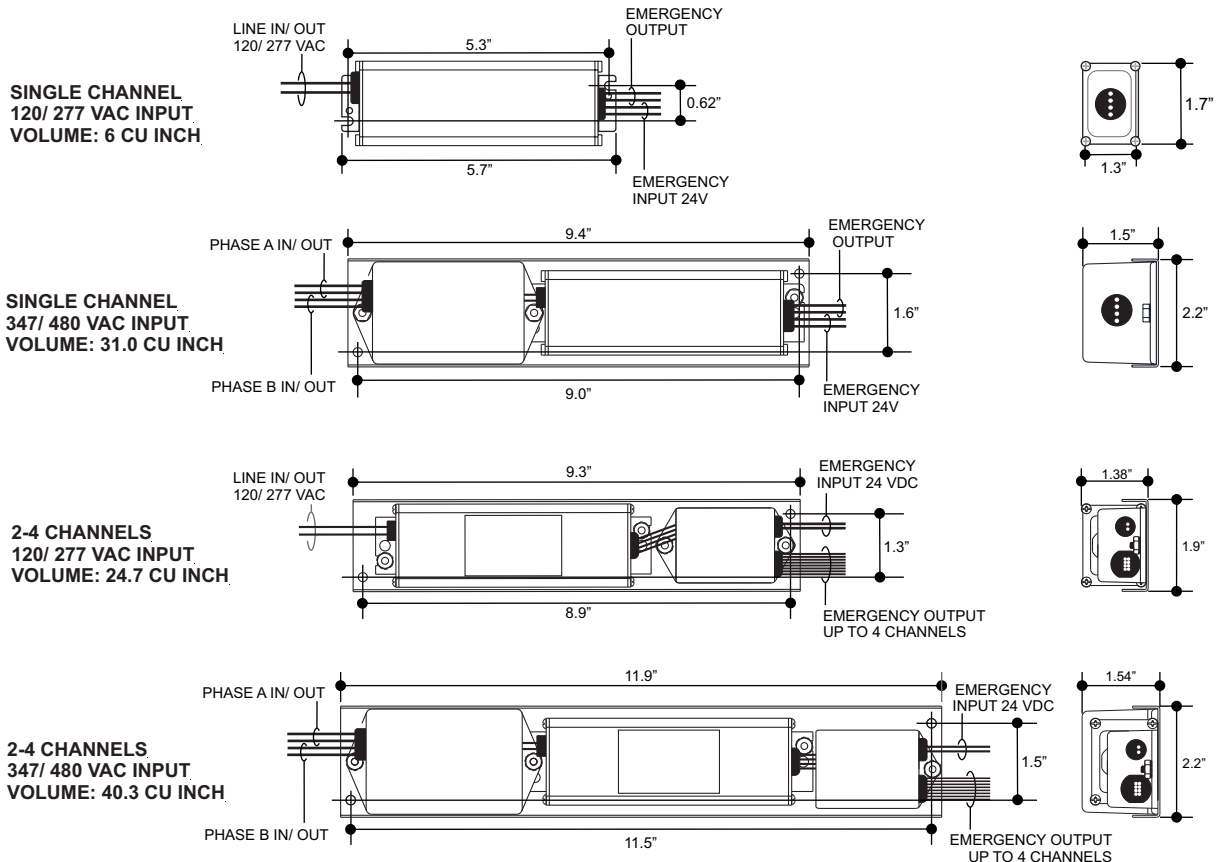
4. Download available IES photometric files for the luminaire. Use the calculated emergency lumen output to determine minimum illuminance when the fixture is mounted at the specified height above floor level.
5. The National Fire Protection Association minimum standard is 1 Foot Candle (Fc) average, and 0.1 Fc minimum at any point, on the path of egress. Verification of minimum lighting standards for emergency lighting for a single luminaire does not imply that a complete installation will meet all required codes. That responsibility remains with the specifying engineer or designer.

RATINGS

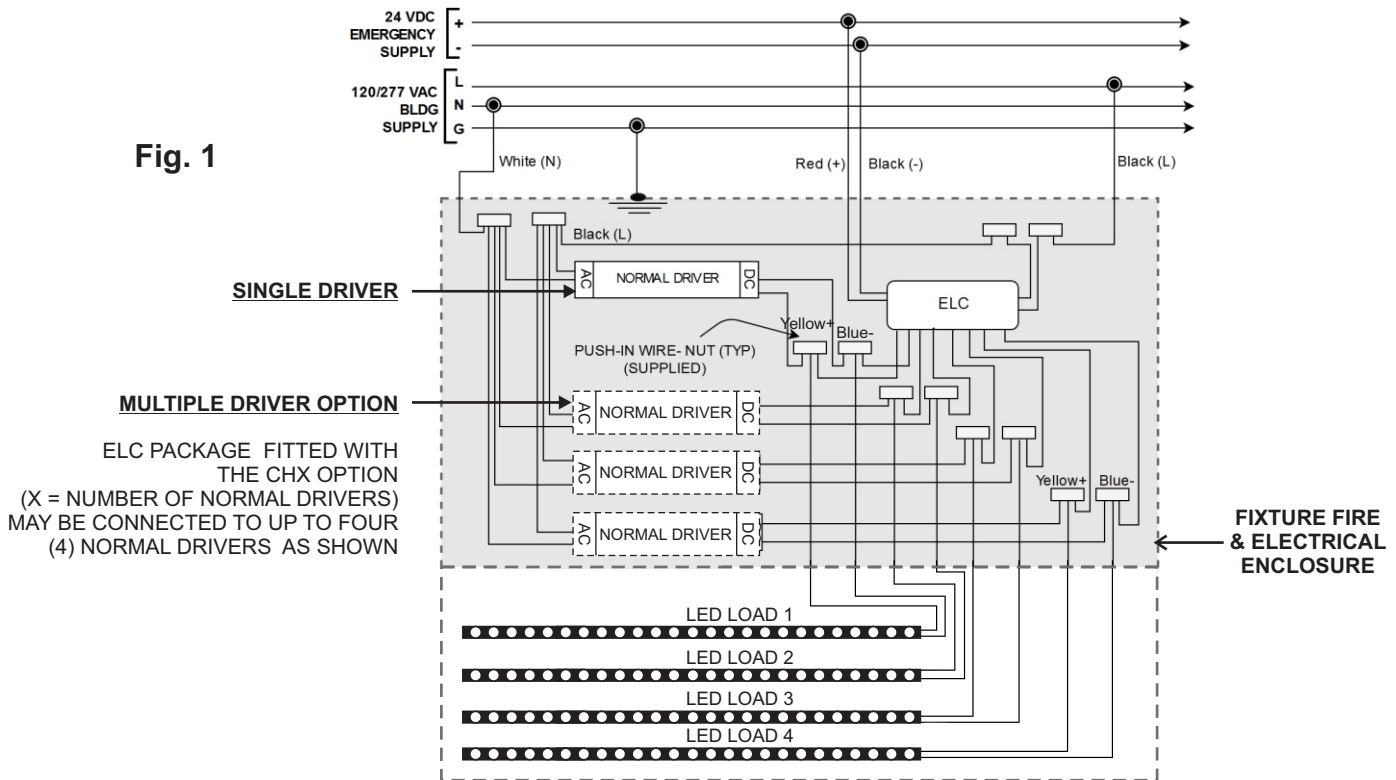
MODEL	INPUT		OUTPUT	
	EMERGENCY	NORMAL	EMERGENCY	NORMAL
P4				
STANDARD	24 VDC; 2.6 A	120/277 VAC; 6 A	24-57 VDC; 100-1050 mA 35-180 VDC; 100-330 mA	NA
HIGH VOLTAGE (HV OPTION)	24 VDC; 2.6 A	347/480 VAC; 15 A	60-210 VDC; 100-290 mA 60 W	

ELC Package Type P4 has ratings above Class 2 levels.

DIMENSIONS & MOUNTING



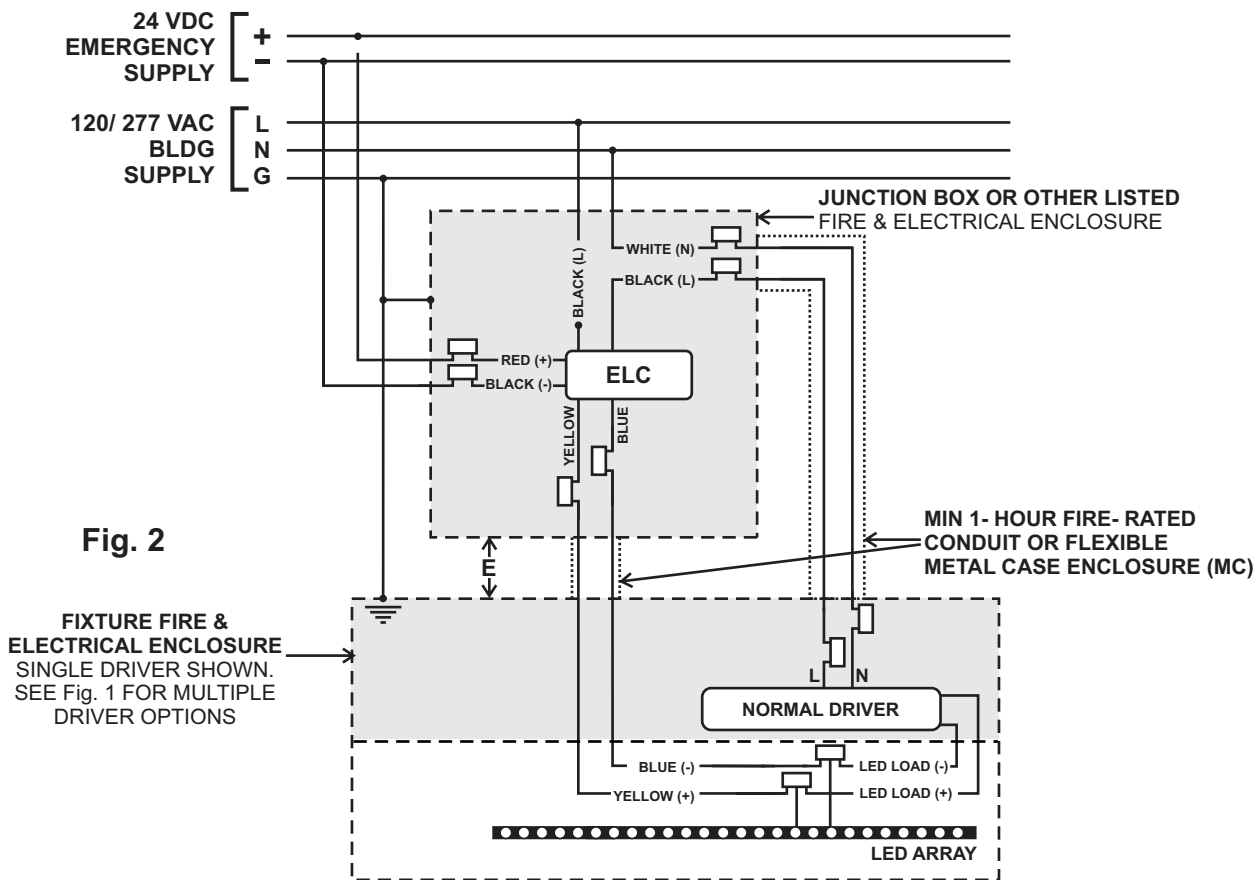
FIXTURE MOUNT



1. Open luminaire driver compartment to enable access to all input/output wiring.
2. Mount ELC package within the fixture driver enclosure or other fire and electrical enclosure which is part of the fixture assembly. (NOTE: If supplied, comply with ELC location and mounting instructions for specific fixture types). Complete all wiring connections shown in above diagram and secure wiring inside driver compartment.
3. See Fig 1. Maximum of four (4) output channels may be wired to the ELC. Each output has a POSITIVE (Yellow) and NEGATIVE (Blue) wire. Using push-in wire nuts supplied, connect each output from the ELC as shown to LED LOAD NEGATIVE and LED LOAD POSITIVE output wiring from the normal driver. DO NOT CROSS POLARIZE LED WIRING.
4. Connect 24V Emergency Supply from CB POSITIVE (Red) and NEGATIVE (Black) branch circuit wiring to ELC POSITIVE INPUT (Red) and NEGATIVE (Black).
5. Replace compartment cover and close fixture. Activate AC normal branch circuit power to confirm LED lamp operation. Activate the CB and check Emergency Power Operation (AC power can remain ON).

NOTE: Building AC supply and Emergency DC supply from CB must be routed through separate cable openings (K.O.).

REMOTE MOUNT



1. See Fig. 2. Locate Junction Box of suitable size for required wiring and ELC unit. NOTE: Using wiring size #18 AWG for the low voltage output to the luminaire (BLUE and YELLOW connections to the ELC) maximum distance from ELC to the luminaire should not exceed 30 ft. (dimension E on Fig. 2).
2. Connect Emergency Supply from CB 24VDC POSITIVE and NEGATIVE emergency branch circuit wiring to ELC POSITIVE INPUT (Red) and NEGATIVE (Black) and 120/277VAC building supply LINE and GROUND inputs to the ELC in the J-Box as shown.
3. Route AC wiring and DC wiring from J-Box to luminaire through separate conduit or MC flexible cables, to separate connectors on luminaire housing.
4. Using standard wire nuts or approved push-in type connectors, connect Normal Driver AC LINE and NEUTRAL INPUT and connect GROUND to appropriate fixture terminal.
5. Connect ELC POSITIVE OUTPUT (Yellow) and NEGATIVE OUTPUT (Blue) to LED LOAD NEGATIVE and POSITIVE output wiring from Normal Driver. DO NOT CROSS POLARIZE LED WIRING.
6. Activate AC normal branch circuit power to confirm LED lamp operation. Activate the CB and check emergency power operation (AC power can remain ON).