



ArcSystem Pro Multi-Cell RDM Installation Guide

Part Number: 7490M2160 Rev: G

Released: 2023-02

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Introduction

Congratulations on your purchase of ArcSystem products. ArcSystem is a family of overhead LED products designed for installations where dimming, light quality, and ease of installation are absolutely essential. With ArcSystem, you will experience perfectly smooth dimming from 100% down to absolute zero. ArcSystem luminaires come in a variety of form factors, beam angles, and color-temperature options, all with high-efficiency optics and an outstanding quality of light ideal for any application.

This manual provides step-by-step instruction on the installation and RDM configuration of ArcSystem Multi-Cell luminaires. For information on installing other ArcSystem Pro drivers and luminaires, see the manuals listed below. All ETC manuals are available for download free of charge at etconnect.com.

- *ArcSystem Pro Installation Manual* for information on ArcSystem Pro One-Cell and Multi-Cell luminaires with wireless ArcMesh control using the ArcSystem Pro TX1 Transmitter
- *ArcSystem Pro D1 and D2 Series Drivers Installation Guide* for information on installing D1, D1 HO, and D2 Series drivers and one-cell luminaires
- *ArcSystem Pro D4 Drivers Installation Guide* for information on installing the D4 Series drivers and one-cell luminaires

Document Conventions

This document uses the following conventions to draw your attention to important information.



Note: *Notes are helpful hints and information that is supplemental to the main text.*



CAUTION: *A Caution statement indicates situations where there may be undefined or unwanted consequences of an action, potential for data loss or an equipment problem.*



WARNING: *A Warning statement indicates situations where damage may occur, people may be harmed, or there are serious or dangerous consequences of an action.*



WARNING: *RISK OF ELECTRIC SHOCK! This warning statement indicates situations where there is a risk of electric shock.*

All ETC documents are available for free download from our website: etconnect.com.

Please email comments about this manual to: TechComm@etconnect.com.

Help from ETC Technical Services

If you have questions that are not answered by this document, try the ETC support website at support.etcconnect.com or the main ETC website at etcconnect.com. If none of these resources are sufficient, contact ETC Technical Services directly at one of the offices identified below. Emergency service is available from all ETC offices outside of normal business hours.

When calling for help, take these steps first:

- Prepare a detailed description of the problem
- Go near the equipment for troubleshooting
- Find your notification number if you have called in previously

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Safety

ArcSystem products are intended for professional use only. **Read the entire manual before using this equipment.**

IMPORTANT SAFEGUARDS

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

READ AND FOLLOW ALL SAFETY INSTRUCTIONS

- Do not use outdoors.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.

SAVE THESE INSTRUCTIONS

System Overview

Models are available to meet your installation requirements. This guide covers the products listed below. For complete specifications, view the product datasheets at etcconnect.com/ArcSystem.

ArcSystem Pro Two-Cell and Pro Eight-Cell Luminaires

Model	Mounting Options	Driver	Power Input Options
Pro Two-Cell	yoke-mount	integral driver	<ul style="list-style-type: none"> • 100–240 VAC, 50/60 Hz with IEC connector (non-emergency models) • 100–277 VAC, 50/60 Hz hard-wired (non-emergency models) • 100–277 VAC, 50/60 Hz hard-wired (emergency models for all regions)
Pro Eight-Cell			

ArcSystem Pro Four-Cell Luminaires

Model	Mounting Options	Driver	Power Input Options
Pro Four-Cell Square	yoke-mount	integral driver	<ul style="list-style-type: none"> • 100–240 VAC, 50/60 Hz with IEC connector (non-emergency models) • 100–277 VAC, 50/60 Hz hard-wired (non-emergency models) • 100–277 VAC, 50/60 Hz hard-wired (emergency models for all regions)
Pro Four-Cell Linear			
Pro Four-Cell Pendant	<ul style="list-style-type: none"> • stem lengths 6, 12, 24, 36, 48, 72, and 96 inches • custom stem lengths are available • pendant accommodates up to 34° sloped ceiling 	integral driver	<ul style="list-style-type: none"> • 100–240 VAC, 50/60 Hz with IEC connector (non-emergency models) • 100–125 VAC, 50/60 Hz with NEMA 5-15 connectors (emergency models for North America only) • 100–240 VAC, 50/60 Hz with hard-wired cables with bare ends (emergency models for outside North America)
Pro Four-Cell Round	threaded rod (not provided)	integral driver	

Emergency System Overview

ArcSystem drivers and luminaires can be purchased in UL924 listed variants. Each of the luminaires can be configured to be UL924 listed when wired into an existing emergency response system. See [Installing Four-Cell Round Emergency Luminaires on page 23](#) and [Installing 100–277 V Emergency Multi-Cell Luminaires on page 24](#).

Install the ArcSystem multi-cell luminaire in a location that is accessible by qualified personnel for testing of the emergency operation.



Note:

- *Luminaires must be hard-wired to emergency certified drivers to be considered for UL924 certification.*
- *The number of designated emergency lamps and their height is the responsibility of the specifier and installer in order to achieve the minimum FC levels of NFPA 101. Installation scenarios should be evaluated by the AHJ to confirm illuminance and performance requirements of ANSI/NFPA 101 and the IBC.*
- *ArcSystem Pro One-Cell Micro luminaires in emergency installations must be installed with a maximum mounting height of 23.2 ft (7.07 m).*
- *Installation must follow all national and local codes for electrical equipment.*
- *Normal and emergency wiring cannot be contained in the same conduit according to NEC 700.10(B).*

Emergency drivers and luminaires require two branch circuit connections. These inputs have the following functions:

1. **Normal branch circuit to sense failure of the normal supply. Connect to Sense Input connector.**
2. **Normal/Emergency branch circuit providing power to the luminaire in both conditions. Connect to Maintained Input connector.**

Sense detects when power is lost and forces the luminaire to a full-on state, powered by the emergency supply through the Constant Power input. Control of the luminaire will not be available until the sense input has been restored.



WARNING: Do not mix 120 V and 277 V between the sense and emergency feeds.

AVERTISSEMENT : Ne pas inverser les alimentations à 120 V et 277 V entre les alimentations de détection et de secours.

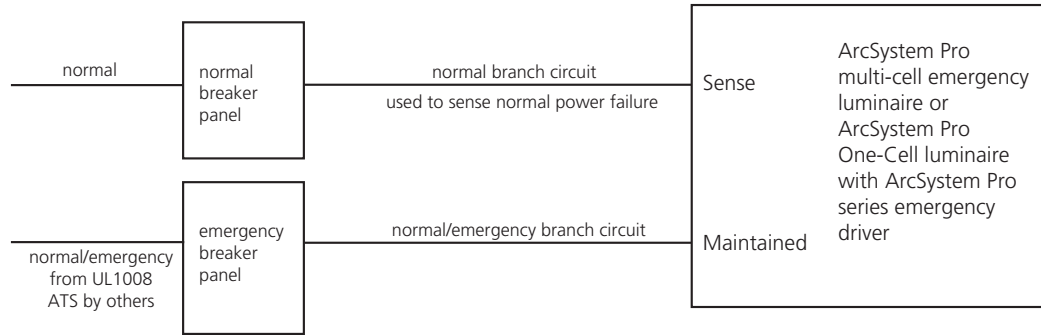


WARNING: Sense (normal) and Maintained (normal/emergency) feeds must have the same phase. The diagram below shows the recommended installation.

AVERTISSEMENT : Les alimentations de détection (normale) et d'entretien (normal/secours) doivent être sur la même phase. Le schéma ci-dessous présente l'installation recommandée.

Typical Installation

The typical installation shown below is suitable for all ArcSystem Pro emergency drivers and ArcSystem Pro multi-cell emergency luminaires.

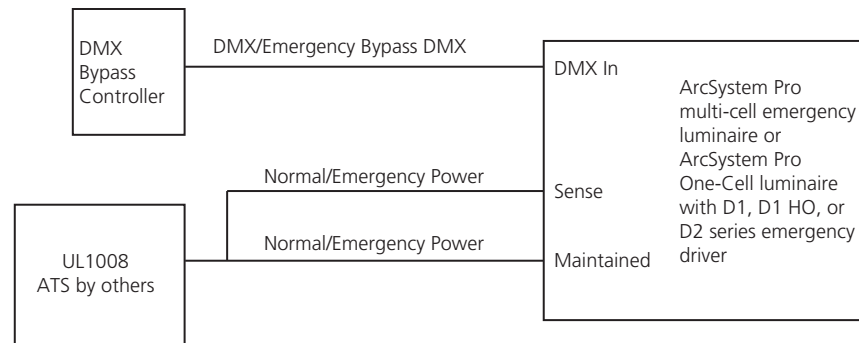


Installation with DMX Bypass Controller

ArcSystem Pro D1, D1 HO, and D2 Series emergency drivers and ArcSystem multi-cell emergency luminaires that are installed in a system with a DMX bypass controller can have their Maintained and Sense inputs fed from an emergency lighting transfer switch (UL1008 ATS).



Note: *The installation shown below is not approved for ArcSystem Pro D4 Series Drivers or ArcSystem ArcLamp Drivers.*



Before You Begin Installation

Review the following sections before beginning your ArcSystem installation. ArcSystem products should only be installed by a qualified installer or electrician.

Power Disconnect Device

Before installation, make sure you have a readily accessible input power disconnect device installed ahead of your ArcSystem products.



WARNING: RISK OF DEATH BY ELECTRIC SHOCK! Failure to disconnect all power to the system before installation, maintenance, cleaning, or any other system modification could result in serious injury or death.

AVERTISSEMENT : RISQUE DE MORT PAR DÉCHARGE ÉLECTRIQUE! Négliger de débrancher toutes les sources d'alimentation du système avant l'installation, l'entretien, le nettoyage ou toute autre modification du système peut causer des blessures graves ou la mort.

De-energize main feed to ArcSystem and follow appropriate Lockout/Tagout procedures as mandated by NFPA 70E. It is important to note that electrical equipment such as breaker panels can present an arc flash hazard if improperly serviced. This is due to the high amounts of short-circuit current available on the electrical supply to this equipment. Any work must comply with OSHA Safe Working Practices.



WARNING: RISK OF ELECTRIC SHOCK! Circuits that are installed without an accessible power disconnect device cannot be serviced or operated safely.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLECTRIQUE! Il est imprudent d'utiliser ou de réparer les circuits installés sans qu'un dispositif de déconnexion de l'alimentation ne soit accessible.

Installation Requirements

- Indoor installation only: 0–40°C (32–104°F), 5–95% non-condensing humidity.
- Dry locations only.
- Installation location must support the weight of the luminaire and applicable mounting hardware.



CAUTION: *ArcSystem luminaires and drivers are not suitable for use in spaces with restricted air flow. Enclosing the luminaires or drivers temporarily or permanently may cause damage to the luminaires or drivers.*

Installing 100–240 V Multi-Cell Luminaires

100–240 V multi-cell yoke mounted luminaires include the Pro Two-Cell, Pro Four-Cell Linear, Pro Four-Cell Square, and Pro Eight-Cell. For 100–240 V Pro Four-Cell Round, see [Installing 100–240 V Four-Cell Round Luminaires on the next page](#). For 100–277 V luminaires, see [Installing 100–277 V Multi-Cell Luminaires on page 10](#).



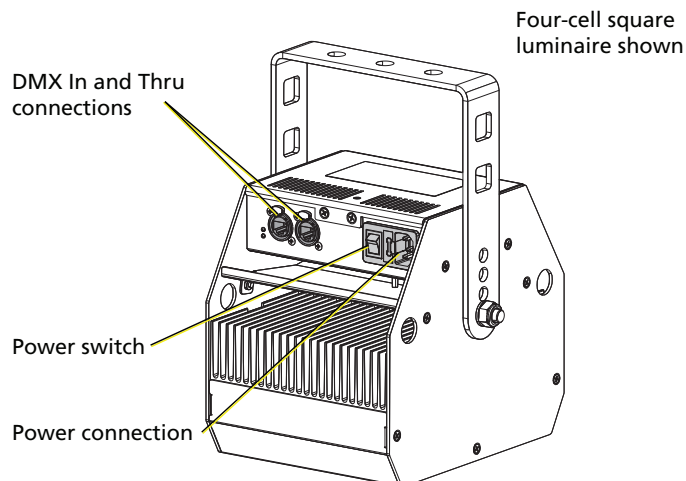
Note: Mounting hardware and installation location must support the weight of the luminaire.

DMX

DMX In and DMX Thru cables terminate to RJ45 connectors. DMX is installed in a daisy chain topology and includes one pair of wires (Data +, Data -) plus an ISO ground (common). ETC recommends Cat5e (or equivalent) minimum 0.2 mm² (24 AWG) conductors terminated to T568B standard. Up to 32 multi-cell luminaires can be connected per DMX run.

RJ45 Pinout Information

Pin	Description
1	Data +
2	Data -
7&8	ISO ground (common)



Installation Procedure

1. Attach a C-clamp or other mounting hardware (not provided) to the yoke of the luminaire.
2. Attach the luminaire to a pipe or other approved mounting device.
3. Insert or attach additional accessories, if desired.
4. Connect the provided power cable.
5. If using hard-wired DMX, plug the RJ45 connector into the DMX in port on the rear of the luminaire.
6. If linking additional luminaires via DMX, plug an RJ45 cable into the DMX thru port on the rear of the luminaire.



Note: ArcSystem luminaires are not self-terminating. You must terminate the last luminaire in line with a 120Ω resistor.

To purchase an RJ45 terminator, please contact your ETC customer service representative and request part number N4086.

7. Toggle the power switch to "ON."
8. Rotate the luminaire so it is roughly focused to its final resting position. This will assist in final focus procedures.

Installing 100–240 V Four-Cell Round Luminaires



Note: Mounting hardware and installation location must support the weight of the luminaire.

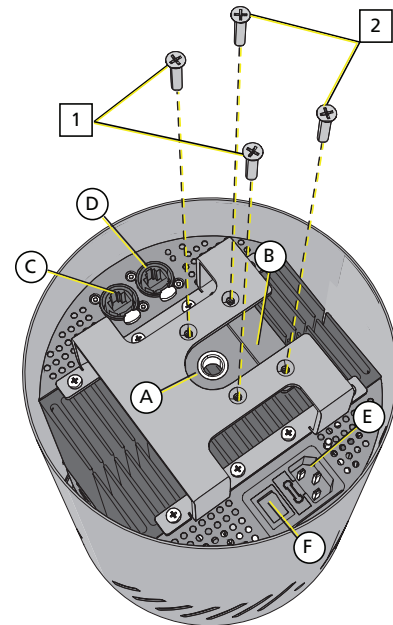
Installing to Threaded Rod

The luminaire attaches to threaded rod with a two-piece nut: a nut with a threaded hole for the rod (A in the illustration below), and a bar to secure the nut (B in the illustration below). Three types of nut are available to fit different threaded rods:

ETC Part Number	Included	Nut Thread Size
7490A3015	Yes	1/2-13 inch
7490A3124	Yes	M10x1.5
7490A3125	No, order separately	M12x1.75

Installation Steps

1. Install the threaded nut (A, shown to the right) with the two provided M4x16 flathead screws.
2. Install the bar (B) with the two provided M4x16 flathead screws.
3. Attach the luminaire to installed threaded rod.
4. Plug the provided power cable into the power input receptacle (E).
5. If using hard wired DMX, plug in the RJ45 connector into the "DMX IN" port on the top of the luminaire (C).
6. If linking additional luminaires via DMX, plug a RJ45 cable into the "DMX THRU" port on the rear of the luminaire (D).
7. Toggle the power switch (F) to "ON".



A	Threaded nut
B	Bar
C	"DMX IN"
D	"DMX THRU"
E	Input power connector
F	Power switch



Note: ArcSystem luminaires are not self terminating. You must terminate the last luminaire in line with a 120Ω resistor.

To purchase an RJ45 terminator, please contact your ETC customer service representative and request part number N4086.

Installing 100–277 V Multi-Cell Luminaires

This section provides the information needed to install 100-277 V Multi-Cell luminaires. For instructions on installing 100–277 V pendant fixtures, see [Installing a 100-277 V Four-Cell Pendant on page 14](#).

Supplies

The following supplies are required for installation, but not provided:

- ½ in flex conduit and conduit fittings
- Appropriate strain relief connectors for the installation type, as needed
- Phillips screwdriver
- 120Ω RJ45 terminator for DMX termination. See [Terminate DMX on page 13](#).
- Wire stripping and cutting tool



Note: Mounting hardware and installation location must support the weight of the luminaire, conduit hardware, and all cable required for installation.

Electrical and Wiring Specification

Install ArcSystem 100–277 V luminaire on a power distribution system with reliably identified earthed neutral and install a maximum 20 A circuit breaker on the line conductor.

ArcSystem 100–277 V luminaires and drivers accept 100–277 VAC, 50/60 Hz. ETC recommends installing all wiring in grounded metal conduit.

Wire and Terminal Specifications

Luminaire Type	Terminal / Connector	Conduit Entry	Wire Range / Specification	Strip Length
Two-Cell, Four-Cell Square, Four-Cell Linear, Eight-Cell	Power Input - line/neutral/ground	½ in conduit	0.2–4 mm (24–12 AWG)	11 mm (0.43 in)
	DMX In/Thru RJ45 Connectors	N/A	Cat5e (or equivalent) minimum 0.2 mm ² (24 AWG) conductors terminated to T568B standard	
Four-Cell Pendant	Power Input - line/neutral/ground	N/A	0.2–4 mm (24–12 AWG)	11 mm (0.43 in)
	DMX In/Thru	N/A	Belden 9729 (or equivalent) or Cat5e (or equivalent) minimum 0.2 mm ² (24 AWG) conductors terminated to T568B standard	



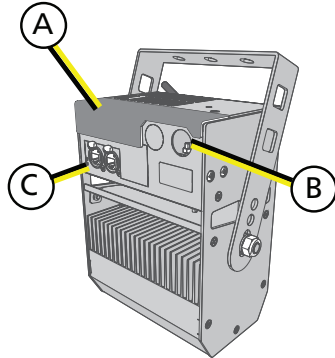
Note: ArcSystem 100–277 V Pro Two-Cell, Pro Four-Cell Square, Pro Four-Cell Linear, and Pro Eight-Cell luminaires are not self-terminating. You must terminate the last luminaire in line with a 120Ω resistor. To purchase an RJ45 terminator, contact your ETC customer service representative and request part number N4086.

ArcSystem 100–277V Pro Four-Cell Pendant luminaires have a DMX termination switch (see [Canopy DMX In and Thru on page 21](#)).

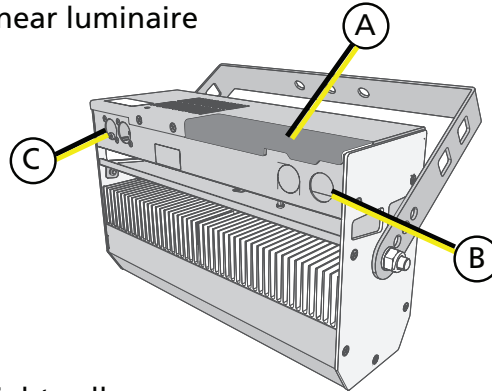
Install the Luminaire

Instructions for installing 100–277 V standard luminaires are below. See [Installing 100–277 V Emergency Multi-Cell Luminaires on page 24](#) for instructions on installing 100–277 V emergency luminaires.

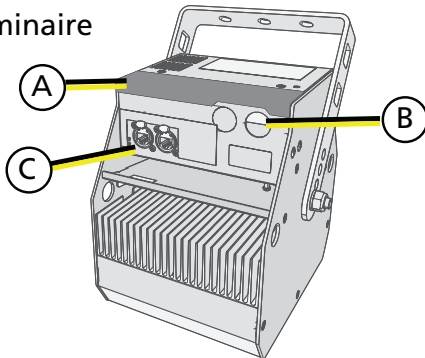
Two-cell luminaire



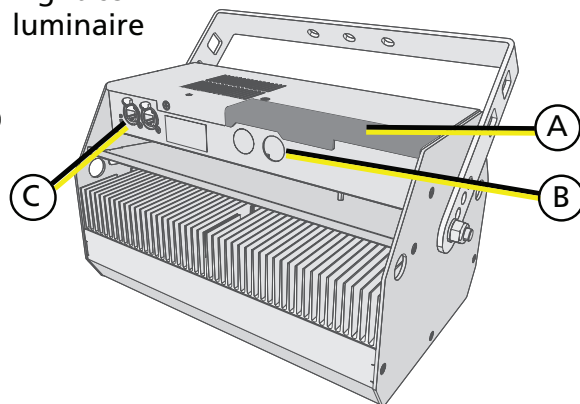
Four-cell linear luminaire



Four-cell square luminaire



Eight-cell luminaire



A	wiring compartment
B	conduit entry for 1/2 in conduit
C	DMX in and thru

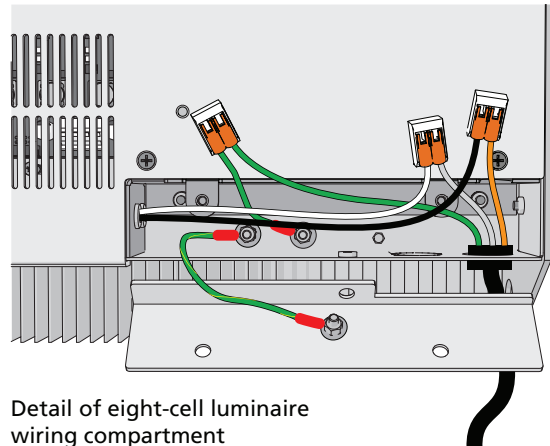
1. Make sure power is off at the main circuit breaker.
2. Attach a C-clamp or other mounting hardware (not provided) to the yoke of the luminaire.
3. Attach the luminaire to a pipe or other approved mounting device.
4. Insert or attach additional accessories, if desired.
5. Using a Phillips head screwdriver, remove the screws securing the cover to the luminaire's wiring compartment. Set the screws aside for later re-installation. The cover is grounded to the enclosure by a tether.
6. Install conduit hardware at the conduit entry in the side of the wiring compartment.

Terminate Power Wiring

ArcSystem 100–277 V systems are supplied with WAGO® connectors in the wiring compartment for convenient power connections in normal and emergency luminaires. Non-emergency ArcSystem 100–277 V systems are supplied with three two-position WAGO connectors (ETC part number J4717, WAGO part number 221-412). See [Installing 100–277 V Emergency Multi-Cell Luminaires on page 24](#) for more information about wiring for emergency installations.

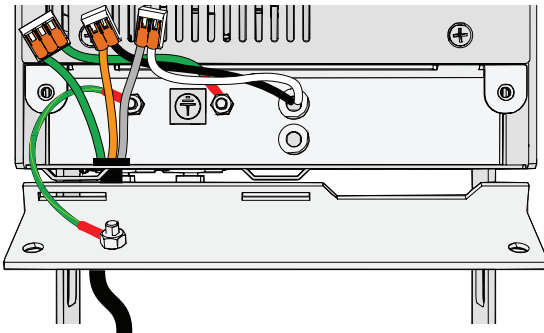
Factory Wire Colors

Model	Color	Type
North America	green/yellow	ground
North America	black	line/hot
North America	white	common
Europe	green/yellow	earth
Europe	brown	live
Europe	blue	neutral

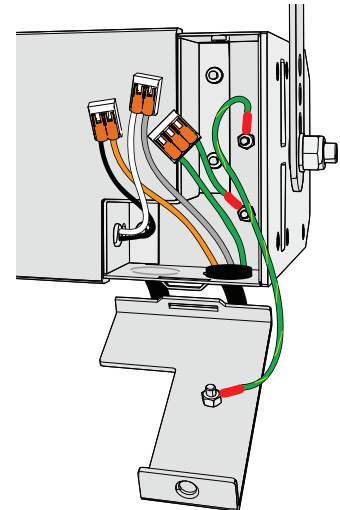


Detail of eight-cell luminaire wiring compartment

Detail of two-cell luminaire or four-cell square luminaire wiring compartment



Detail of four-cell linear luminaire wiring compartment



Note: Building wire colors may be different than shown.

Connect the Power Input

1. See [Wire and Terminal Specifications on page 10](#) for specification of wire and strip length. Prepare wires accordingly.
2. Remove the three screws securing the wiring compartment cover to the luminaire. The cover is grounded by a tether to the enclosure. Set the screws aside.
3. Terminate ground.
 - a. Locate the WAGO connector on the ground wire (green) connected to the bottom of the wiring compartment (⊕).
 - b. Run a ground wire (typically green/yellow) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the ground wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
4. Terminate neutral.
 - a. Locate the WAGO connector on the neutral wire (white) from the input.
 - b. Run a neutral wire (typically white or gray) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the neutral wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
5. Terminate line (hot).
 - a. Locate the WAGO connector on the line (hot) wire (black) from the input.
 - b. Run a line (hot) wire through conduit to a free position on the WAGO connector.



Note: Line (hot) wire color varies based on voltage and region but is typically black, brown, orange, or yellow.

3. Lift up the orange clip, insert the line wire, and press the clip down onto the wire.
4. Tug gently to make sure the wire is secure.

Terminate DMX

DMX In and DMX Thru cables terminate to RJ45 connectors. DMX is installed in a daisy chain topology and includes one pair of wires (data +, data -) plus an ISO ground (common). ETC recommends Cat5e (or equivalent) minimum 24 AWG conductors terminated to T568B standard. Up to 32 luminaires can be connected per DMX run.

1. If using hard wired DMX, plug the RJ45 connector into the DMX in port on the rear of the luminaire.
2. If linking additional luminaires via DMX, plug a RJ45 cable into the DMX thru port on the rear of the luminaire.

RJ45 Pinout Information

Pin	Description
1	Data +
2	Data -
7&8	ISO ground (common)



Note: ArcSystem 100–277 V Pro Two-Cell, Pro Four-Cell Square, Pro Four-Cell Linear, and Pro Eight-Cell luminaires are not self-terminating. You must terminate the last luminaire in line with a 120Ω resistor. To purchase an RJ45 terminator, contact your ETC customer service representative and request part number N4086.

ArcSystem 100–277V Pro Four-Cell Pendant luminaires have a DMX termination switch (see [Canopy DMX In and Thru on page 21](#)).

Complete Installation

1. Check that all wires are terminated properly and secure in their terminals.
2. Tuck wiring inside the wiring compartment and replace the wiring compartment cover using the screws set aside previously.
3. Rotate the luminaire so it is roughly focused to its final resting position. This will assist in final focus procedures.

Installing a 100-277 V Four-Cell Pendant

The ArcSystem 100–277 V Pro Four-Cell Pendant must be assembled from the fixture and the canopy and the stem that is shipped separately. The canopy mounting plate installs onto a voltage-separated junction box. The canopy is supplied with WAGO connectors for convenient internal and external power connections in standard and emergency pendants.

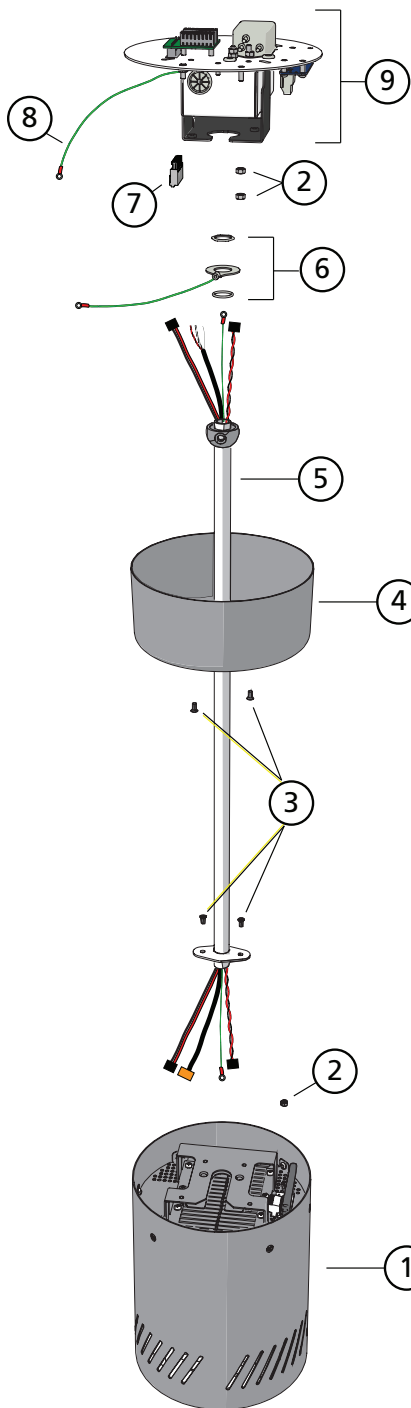
This section covers installation of standard ArcSystem 100–277 V Pro Four-Cell Pendants. For more information about installing emergency models, see [Installing a 100–277 V Emergency Four-Cell Pendant on page 27](#).



Note: *Mounting hardware and installation location must support the weight of the luminaire, conduit hardware, and all cable required for installation.*

Required Tools and Supplies:

- RACO® 232 junction box
- Phillips screwdriver
- Precision flatblade screwdriver
- Wire stripper and wire cutter
- 7 mm nut driver
- 1/8 inch (3.5 mm) hex key



100–277 V Four-Cell Pendant Components

Item #	Description	Quantity
1	Cylinder	1
2	Nuts for ground stud connections (M4)	3
3	Screws for pendant assembly (M4 x 8 mm)	4
4	Canopy cover*	1
5	Stem with pre-run wiring†	1
6	Stem grounding harness with gasket and nut	1
7	Eight-position plug	1 (heat shrink included but not shown)
8	Canopy cover grounding harness*	1
9	Canopy interior	1
not shown	DMX termination kit	1
not shown	Two-position WAGO, ETC part number J4717, WAGO part number 221-412	standard pendant: 4, installed on canopy emergency pendant: 6 installed on canopy
not shown	Five-position WAGO, ETC part number J4630, WAGO part number 222-415	1, installed on canopy mounting plate
not shown	Voltage barrier to fit RACO 232 junction box	1, junction box is not included
not shown	Antenna‡	1

*The canopy cover (4) is sent tethered to the canopy interior (9) by the canopy cover grounding harness (8).

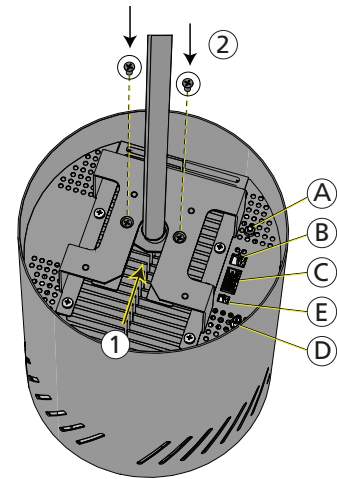
†The stem (5) is shipped separately.

‡Four-Cell Pendants with RDM do not have an antenna.

Prepare the Cylinder and Stem

Connect the Stem to the Cylinder

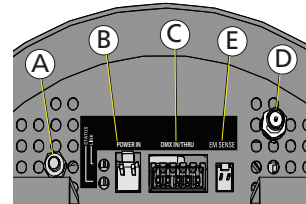
1. Slide the end of the stem with the threaded holes into the slot on the cylinder mounting bracket. See 1 in the illustration to the right.
2. Use two of the M4x8 mm Phillips screws to secure the stem to the cylinder. See item 3 at [100–277 V Four-Cell Pendant Components on the previous page](#). See 2 in the illustration to the right.



Wire the Cylinder

Several wire harnesses are pre-run through the stem. Install the connectors that exit the stem near the cylinder to the corresponding connectors on the cylinder.

1. Install the cylinder grounding harness onto the ground stud on the cylinder. The cylinder grounding harness is green and yellow with a ring terminal.
 - a. Install the ring terminal onto the ground stud (A in the illustrations to the right).
 - b. Use a 7 mm nut driver and one M4 nut from item 2 in the [100–277 V Four-Cell Pendant Components on the previous page](#) to secure the ring terminal onto the ground stud.
2. Install the plug on the black and red two-wire harness to two-pin connector B in the illustration to the right. Receptacle B is labeled "POWER IN".
3. Install the plug on the five-wire Belden cable to receptacle C in the illustration to the right. Receptacle C is labeled "DMX IN/THRU".
4. If you are installing a Four-Cell Pendant with wireless ArcMesh, install the antenna to receptacle D in the illustration to the right. See [Power Up Procedure on page 30](#).



A	Ground stud
B	"POWER IN" emergency/ maintained low-voltage input
C	"DMX IN/THRU"
D	Antenna receptacle*
E	"EM SENSE" normal/sense input

*Antenna receptacle not present on RDM luminaires.



Note: The red-and-black twisted wire pair provides a low-voltage sense feed to an emergency pendant and has no function in a standard pendant. If you are installing a standard pendant, you can connect the wire pair to the "EM SENSE" input (E in the illustration at above right) for convenience. If you are installing an emergency pendant, follow the instructions at [Installing a 100–277 V Emergency Four-Cell Pendant on page 27](#).

Align the Half-Ball on the Stem

You can adjust the orientation of the four cells of the pendant luminaire with respect to the canopy by rotating the half-ball on the stem. For example, if you are installing multiple ArcSystem Pro Four-Cell Pendants, you can rotate the half-ball on each pendant luminaire stem to the same position so that the four cells of each pendant luminaire are oriented the same way.

1. Use the 1/8 inch (3.5 mm) hex key to loosen the set screw.
2. Rotate the half-ball of each pendant stem to point the same direction with respect to the luminaire cylinder. For example, align the set screw on the half-ball with the slot on the cylinder mounting bracket.

3. Tighten the hex head screw to secure the position of the half-ball on the stem.
4. Repeat this process for each pendant.

Remove the Canopy Cover

The canopy cover is tethered to the canopy mounting plate by the canopy cover grounding harness. You must temporarily disconnect the canopy cover grounding harness before proceeding with the rest of the installation.

1. Using the Phillips screwdriver, remove the two screws securing the canopy cover and remove the cover from the canopy.
 - **Set the screws aside for later re-installation.**
2. Detach the canopy cover grounding harness inside the canopy cover.
 - Use a 7 mm nut driver to remove the nut on the ground stud inside the canopy cover.
 - **Set the nut aside for later re-installation.**
 - Leave the canopy cover grounding harness attached to the canopy mounting plate at the other end.

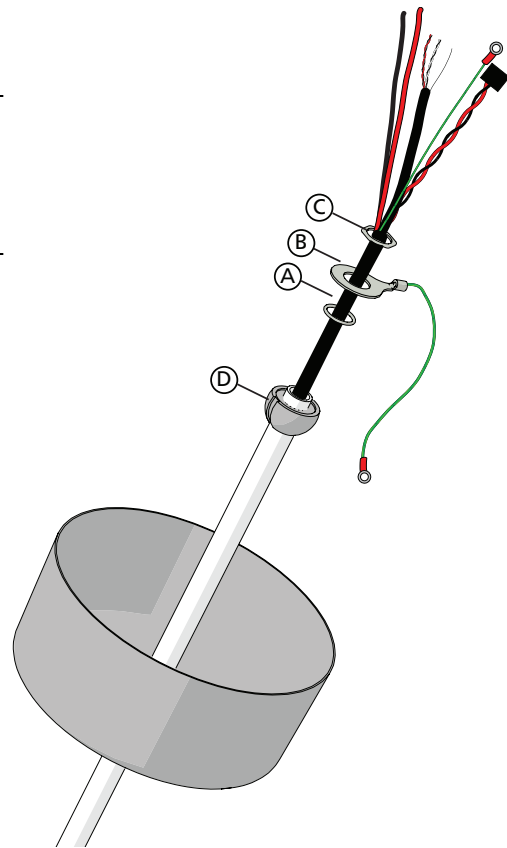
Install the Stem Grounding Harness

The stem grounding harness is shipped with the cylinder and canopy.



Note: You must slide the canopy cover over the stem as instructed in step 1 (below) before installing the stem grounding harness.

1. Slide the canopy cover onto the stem as shown to the right, threading the connectors on the wiring harnesses through the hole in the canopy cover.
 - When oriented correctly, the outside of the canopy cover faces the cylinder.
 - The canopy cover can rest at the bottom of the stem, on top of the cylinder, until all wiring is completed.
2. Thread the wiring harness connectors through the parts below in this order:
 - a. Gasket (A, illustrated to the right)
 - b. Large ring terminal on the grounding harness (B, illustrated to the right)
 - c. Large nut (C, illustrated to the right)
3. Hand tighten the large nut onto the threads at the top of the stem, securing the gasket and large ring terminal in place.
 - The grounding harness should point away from the slot on the half-ball (D, illustrated to the right). See [Hang the Stem in the Canopy on page 20](#) for an additional illustration.



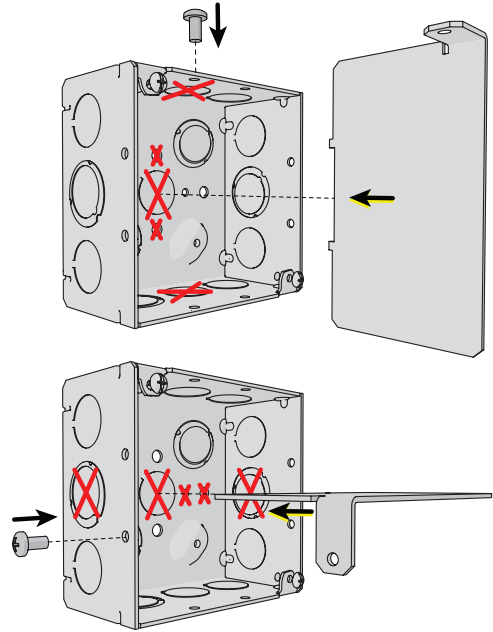
A	Gasket
B	Large ring terminal on the canopy cover grounding harness
C	Large nut
D	Slot on the half-ball

Prepare the Back Box



Note: The Four-Cell Pendant canopy can be installed directly on a 4 inch back box (RACO 232, not supplied). The canopy cannot be installed on one-gang back boxes or trim rings.

The Four-Cell Pendant includes a voltage barrier to separate the data network from the line voltage inside the back box. Install the voltage barrier in the back box with the provided screw (see images at right). The voltage barrier blocks two or more through holes in the back of the junction box, depending on how it is oriented, plus the center conduit knockout in the back of the junction box and the center knockouts on two sides of the junction box. The blocked holes and knockouts are marked with "X" in the illustration to the right.



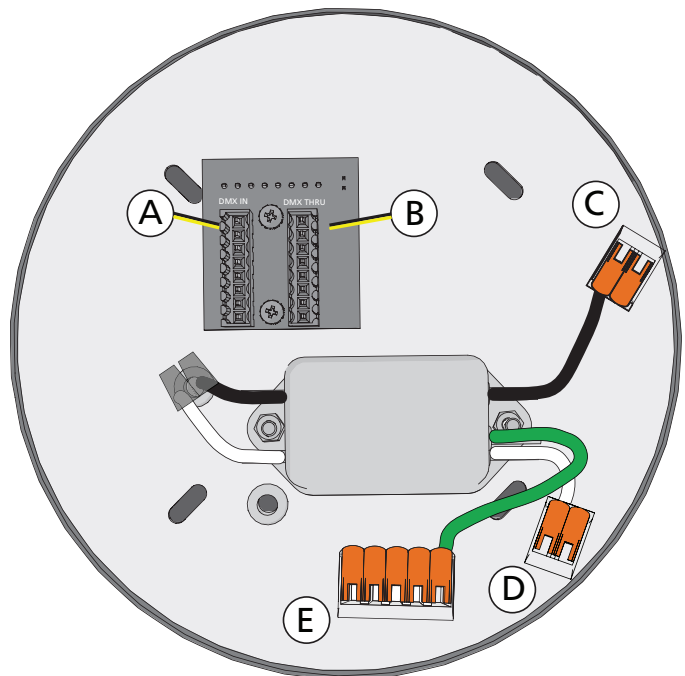
Note: DMX control is a Class 2 circuit. DMX wiring cannot be run through the same conduit as line voltage power supply conductors. Separate the line voltage from the data side in the back box. Install the voltage barrier provided by ETC.

Terminate Building Wiring to the Canopy

A	DMX In
B	DMX Thru
C	Power line/hot (black)
D	Power common (white)
E	Ground (green)

Terminate Power

1. See [Electrical and Wiring Specification on page 10](#) for specification of wire and strip length. Prepare wires accordingly.



2. Terminate ground.
 - a. Locate the WAGO connector on the ground wire (green).
 - b. Run a ground wire (typically green/yellow) through conduit, into the junction box, and to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the ground wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
3. Terminate neutral.
 - a. Locate the WAGO connector on the neutral wire (blue/white).
 - b. Run a neutral wire (typically white or gray) through conduit, into the junction box, and to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the neutral wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
4. Terminate line (hot).
 - a. Locate the WAGO connector on the line (hot) wire (brown/black).
 - b. Run a line (hot) wire through conduit, into the junction box, and to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the line (hot) wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
5. Insert the building line wire (hot) into a terminal on the WAGO with the black wire on the canopy (C in the illustration above).

Factory Wire Colors

Model	Color	Type
North America	green/yellow	ground
North America	black	line/hot
North America	white	common
Europe	green/yellow	earth
Europe	brown	live
Europe	blue	neutral



Note: *Building wire color varies based on voltage and region, but line (hot) is typically black, brown, orange, or yellow.*

DMX In and Thru



Note: *Stem length will impact total length calculations for DMX runs. Add two times the stem length to DMX run length calculations for each Four-Cell Pendant in a DMX run. DMX In wiring runs from the canopy of the Four-Cell Pendant through the stem to the fixture body, and DMX Thru wiring runs from the fixture body through the stem to the canopy.*

Up to 32 DMX/RDM devices can be daisy-chained together per data run.

Follow the DMX termination kit instructions provided with the product to terminate the control wiring.

Termination Switch

Terminate DMX/RDM data signal for the last DMX/RDM device in the data run by setting the termination switch on the termination board to "ON". All other devices in the data run maintain the factory default termination switch setting: "OFF". See [Canopy DMX In and Thru on page 21](#).

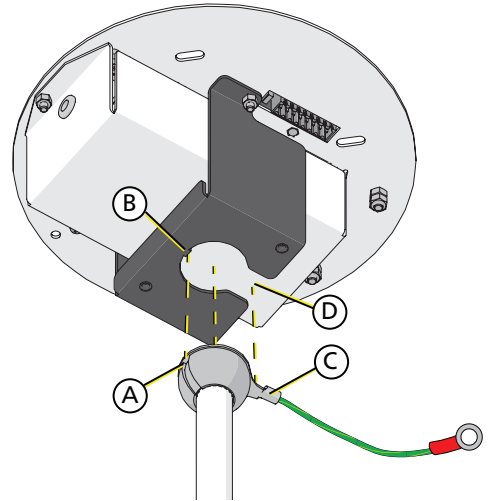
Install the Canopy Mounting Plate on the Back Box

Attach the canopy mounting plate to the back box using the through-hole slots on the canopy mounting plate.

Hang the Stem in the Canopy

Slide the half-ball end of the stem into the slot on the canopy.

- Match the slot in the half-ball to the notch on the mounting bracket. (Match A to B in the illustration to the right.)
- The large ring terminal should be oriented so that the ground harness fits through the slot on the mounting bracket. (C should fit through D in the illustration to the right.)
- If the stem grounding harness is not aligned as shown to the right, loosen the large nut at the top of the stem and rotate the large ring terminal on the stem grounding harness, then hand tighten the large nut to secure the stem grounding harness in the correct position.



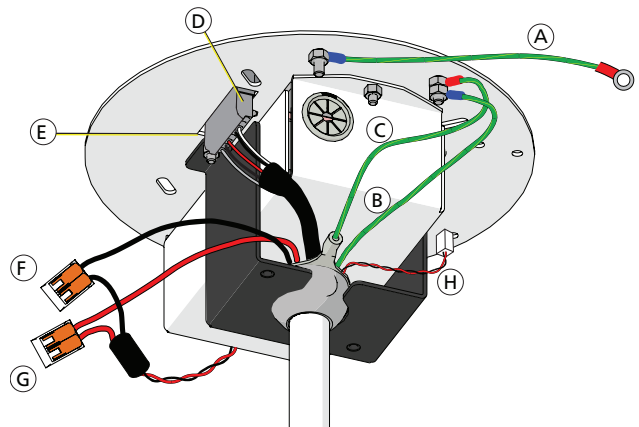
A	Slot in the half-ball
B	Notch in the canopy bracket
C	Stem grounding harness
D	Slot in the canopy bracket

Terminate Wiring Inside the Canopy



CAUTION: *The stem can slide free of the canopy until the stem grounding harness is connected and the canopy cover is reinstalled. Use caution while wiring.*

A	Canopy cover grounding harness (green/yellow)
B	Cylinder grounding harness (green/yellow)
C	Stem grounding harness (green/yellow)
D	Eight-position DMX plug
E	DMX termination switch
F	Low-voltage maintained power - (black)
G	Low-voltage maintained power + (red)
H	Low-voltage sense feed (red and black, not connected)



Note: *The red-and-black low-voltage sense feed (H in the illustration) is provided for an emergency pendant and has no function in a standard pendant. If you are installing a standard pendant, you can leave the wire pair disconnected.*

Ground

You must terminate two grounding harnesses to ground studs on the canopy mounting plate:



Note: *There are already ground connections installed by the factory on a ground stud on the canopy mounting plate. Install the additional grounding harnesses listed below to the empty stud as shown in the illustration above.*

1. Install the stem grounding harness (C in the illustration at [Terminate Wiring Inside the Canopy on the previous page](#)) onto the empty ground stud on the canopy mounting plate.
 - a. Install the ring terminal onto the ground stud.
 - b. Use a 7 mm nut driver and one M4 nut (item 2 in the illustration at [100–277 V Four-Cell Pendant Components on page 15](#)) to secure the ring terminal onto the ground stud.
2. Install the cylinder grounding harness (B in the illustration at [Terminate Wiring Inside the Canopy on the previous page](#)) onto the same ground stud, above the nut installed in step 1b.
 - a. Install the ring terminal onto the ground stud above the existing ring terminal and nut.
 - b. Use a 7 mm nut driver and one M4 nut (item 2 in the illustration at [100–277 V Four-Cell Pendant Components on page 15](#)) to secure the ring terminal onto the ground stud.

Canopy DMX In and Thru



Note: *The DMX cable has a **black-and-red** twisted pair, a **black-and-white** twisted pair, and a shield. Make sure to insert the black wires in the correct terminals listed below or DMX will not function correctly.*

Terminate the pre-stripped ends of the five-wire Belden cable to the eight-position plug (item 7 in the illustration at [100–277 V Four-Cell Pendant Components on page 15](#)).

1. Slide the 50 mm (2 in) piece of the 10 mm (3/8 in) heat shrink tubing onto the cable. Do not shrink the heat shrink tubing yet.
2. Insert the five wires into the eight-position plug according to the table to the right.
10. Check that all wires are securely terminated.
11. Center the heat shrink tubing on the end of the cable jacket and the bases of all the wires in the cable. Shrink the heat shrink tubing.
12. Insert the eight-position plug into the mating receptacle on the DMX board inside the canopy (D in the illustration at [Terminate Wiring Inside the Canopy on the previous page](#)).

Position	Wire Color
1	shield (gray)
2	black wire from black-and-red twisted pair
3	red
4	unused
5	black wire from black-and-white twisted pair
6	white
7	unused
8	unused



Note: *Terminate DMX/RDM data signal for the last DMX/RDM device in the data run by setting the yellow termination switch on the termination board (E in the illustration at [Terminate Wiring Inside the Canopy on the previous page](#)) to ON. All other devices in the data run maintain the factory default termination switch setting OFF.*

Canopy Low-Voltage Power

The low-voltage power wiring consists of red and black wires that have pre-stripped ends. Connect the red and black wires to the WAGO connectors that are wired to the power supply (F and G in the illustration at [Terminate Wiring Inside the Canopy on page 20](#)).

1. Insert the red (+) wire into the empty terminal on the WAGO with the red wire.
2. Insert the black (-) wire into the empty terminal on the WAGO with the black wire.



Note: *The red-and-black twisted wire pair provides a low-voltage sense feed to an emergency pendant and has no function in a standard pendant. If you are installing a standard pendant, you can leave the wire pair disconnected.*

Complete Canopy Installation

1. Slide canopy cover up to the top of the stem.
2. Reconnect the canopy cover grounding harness (A in the illustration at [Terminate Wiring Inside the Canopy on page 20](#)).
 - a. Use a 7 mm nut driver and the nut removed in Step 2 of [Remove the Canopy Cover on page 17](#) to secure the canopy cover grounding harness onto the ground stud inside the canopy cover.
3. Fit the canopy cover to the canopy, ensuring that wires are not pinched in the canopy stem slot or the around the perimeter of the canopy cover.
4. Install canopy cover with two M4x8 mm Phillips screws (item 3 in the illustration at [100–277 V Four-Cell Pendant Components on page 15](#)).

Installing 100-240 V Emergency Multi-Cell Luminaires

With the exception of power input terminations, ArcSystem emergency system installation requirements are the same as those of the standard ArcSystem.

Installing Four-Cell Round Emergency Luminaires

ArcSystem Pro Four-Cell Round emergency luminaires are supplied with hard-wired power cables with NEMA 5-15 connectors for North America and bare ends for Europe and the rest of the world. The cables are labeled near the strain reliefs for Maintained Input and Sense Input.

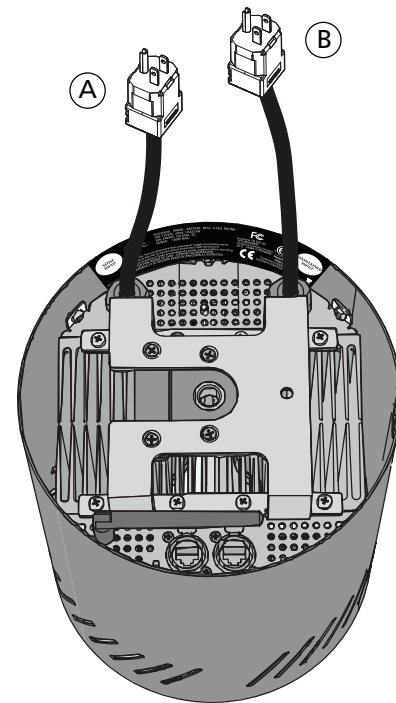
Aside from having multiple power cables, these luminaires are installed in the same way that standard ArcSystem Pro Four-Cell Round luminaires are installed. See [Installing 100–240 V Four-Cell Round Luminaires on page 9](#).



Note: Luminaires with NEMA 5-15 connectors are only for use in 100–125 V applications.

Factory Wire Colors

Model	Color	Type
Europe	green/yellow	earth
Europe	brown	live
Europe	blue	neutral

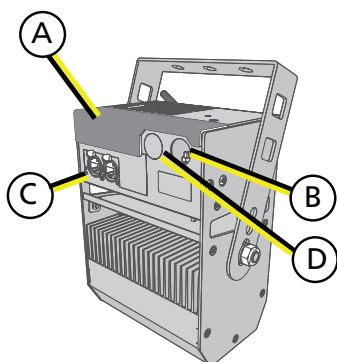


A	Sense Input*
B	Maintained Input*
* European models have cables with bare ends. Actual cable length is 2.1 m (7 ft) for all models.	

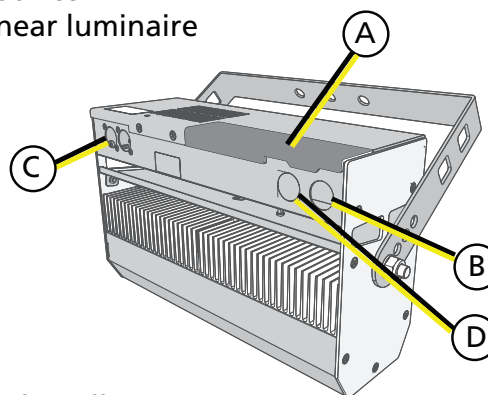
Installing 100–277 V Emergency Multi-Cell Luminaires

Instructions for installing 100–277 V emergency luminaires are below. See [Installing 100–277 V Multi-Cell Luminaires on page 10](#) for instructions on installing 100–277 V standard luminaires. For instructions on installing the 100–277 V emergency pendant, see [Installing a 100–277 V Emergency Four-Cell Pendant on page 27](#).

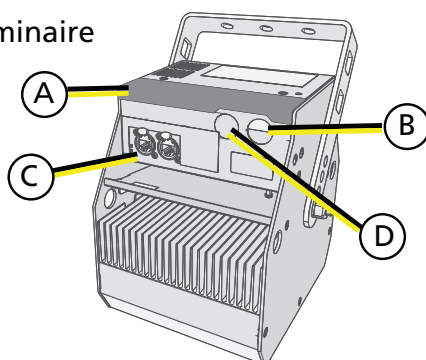
Two-cell luminaire



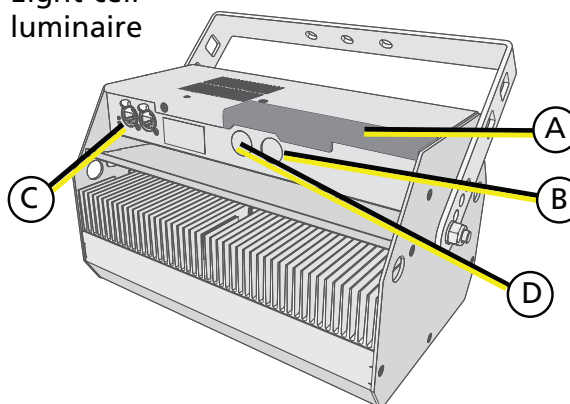
Four-cell linear luminaire



Four-cell square luminaire



Eight-cell luminaire



A	wiring compartment
B	conduit entry for 1/2 in conduit
C	DMX in and thru
D	knockout for 1/2 in conduit

With the exception of power input terminations, ArcSystem 100–277 V emergency system installation requirements are the same as those of ArcSystem 100–277 V non-emergency systems. Complete the installation as follows, referencing these sections for installation details:

1. Complete the steps of [Installing 100–277 V Multi-Cell Luminaires on page 10](#).
2. Install conduit hardware at the knockout or second hole in the side of the wiring compartment.



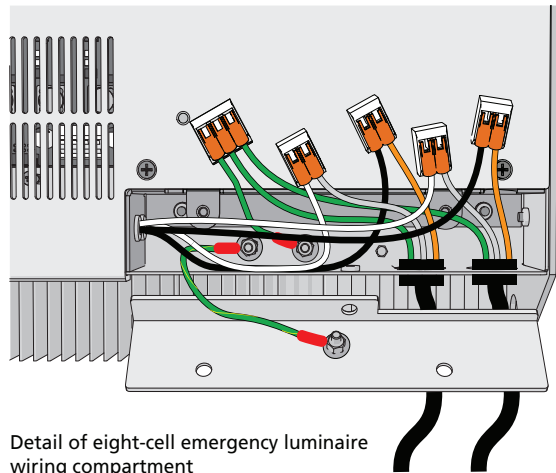
Note: Use flexible metal conduit when installing and focusing 277 V emergency multi-cell luminaires.

Terminate Power Wiring

ArcSystem 100–277 V systems are supplied with WAGO connectors in the wiring compartment for convenient power connections in normal and emergency luminaires. ArcSystem 100–277 V emergency systems are supplied with one three-position WAGO (ETC part number J4629, WAGO part number 221-413) and four two-position WAGO connectors (ETC part number J4717, WAGO part number 221-412).

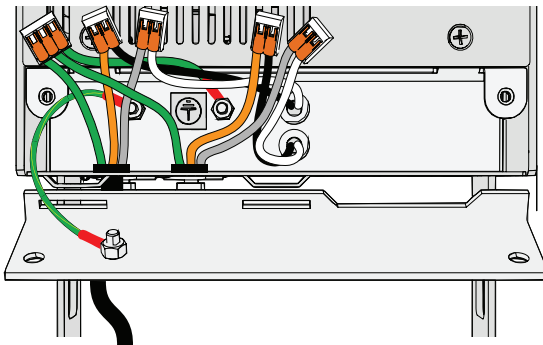
Factory Wire Colors

Model	Color	Type
North America	green/yellow	ground
North America	black	line/hot
North America	white	common
Europe	green/yellow	earth
Europe	brown	live
Europe	blue	neutral

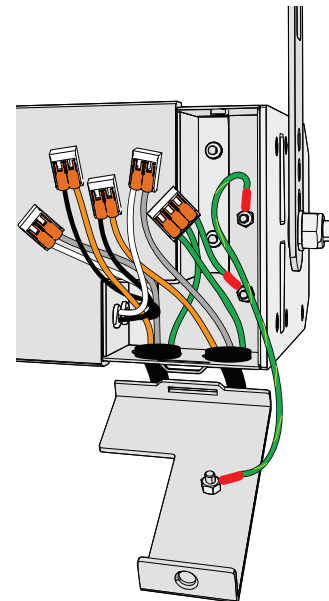


Detail of eight-cell emergency luminaire wiring compartment

Detail of two-cell emergency luminaire or four-cell square emergency luminaire wiring compartment



Detail of four-cell linear emergency luminaire wiring compartment



Note: Building wire colors may be different than shown.

Connect the Maintained Input

1. See [Electrical and Wiring Specification on page 10](#) for specification of wire and strip length. Prepare wires accordingly.
2. Remove the screws securing the wiring compartment cover to the luminaire. The cover is grounded to the enclosure by a tether. Set the screws aside.
3. Terminate ground.
 - a. Locate the WAGO connector on the ground wire (green) connected to the bottom of the wiring compartment (⊕).
 - b. Run a ground wire (typically green/yellow) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the ground wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
4. Terminate neutral to the Maintained input.
 - a. Locate the WAGO connector on the neutral wire (white) from the input labeled Maintained.
 - b. Run a neutral wire (typically white or gray) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the neutral wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
5. Terminate line (hot) to the Maintained input.
 - a. Locate the WAGO connector on the line (hot) wire (black) from the input labeled Maintained.
 - b. Run a line (hot) wire through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the line wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.



Note: *Line (hot) wire color varies based on voltage and region but is typically black, brown, orange, or yellow.*

Connect the Sense Input

1. Make sure power is off at the main circuit breaker.
2. See [Electrical and Wiring Specification on page 10](#) for specification of wire and strip length. Prepare wires accordingly.
3. Terminate ground.
 - a. Locate the WAGO connector on the ground wire (green) connected to the bottom of the wiring compartment.
 - b. Run a ground wire (typically green/yellow) through other conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the ground wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
4. Terminate neutral to the Sense input.
 - a. Locate the WAGO connector on the neutral wire (white) from the input labeled Sense.
 - b. Run a neutral wire (typically white or gray) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the neutral wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.

5. Terminate line (hot) to the Sense input.
 - a. Locate the WAGO connector on the line (hot) wire (black) from the input labeled Sense.
 - b. Run a line (hot) wire (typically brown, orange, or yellow) through conduit to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the line wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.
6. Continue by connecting DMX (see [Terminate DMX on page 13](#)), then complete the installation.

Complete Installation

1. Connect DMX (see [Terminate DMX on page 13](#)).
2. Check that all wires are terminated properly and secure in their terminals.
3. Tuck wiring inside the wiring compartment and replace the wiring compartment cover using the screws set aside previously.
4. Rotate the luminaire so it is roughly focused to its final resting position. This will assist in final focus procedures.

Installing a 100–277 V Emergency Four-Cell Pendant

With the exception of input power terminations, emergency Four-Cell Pendant fixture installation requirements are the same as those of the standard Four-Cell Pendant fixture. Complete the installation as follows, referencing [Installing a 100-277 V Four-Cell Pendant on page 14](#) for installation details.

Prepare the Cylinder and Stem

Complete the following steps as directed for the standard Four-Cell Pendant:

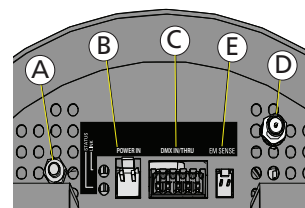
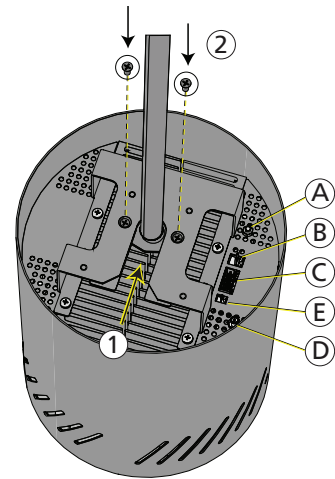
1. [Connect the Stem to the Cylinder on page 16](#)
2. [Wire the Cylinder on page 16](#)

After completing the steps at the link above, install the connector for the sense input (twisted pair, red-and-black, two-wire harness) onto the mating receptacle on the cylinder (E in the illustration to the right).

3. [Remove the Canopy Cover on page 17](#)
4. [Install the Stem Grounding Harness on page 17](#)

Prepare the Back Box

Install the voltage barrier as directed in [Prepare the Back Box on page 18](#).

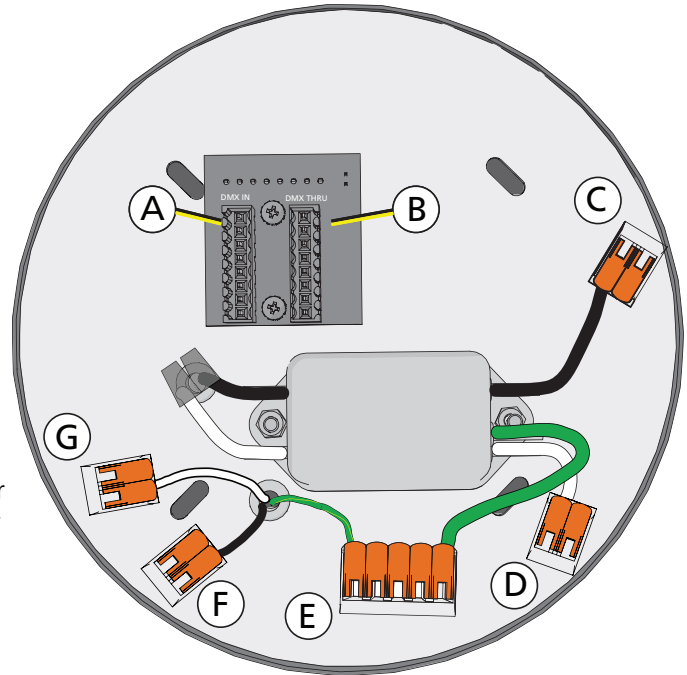


A	Ground stud
B	"POWER IN" emergency/ maintained low-voltage input
C	"DMX IN/THRU"
D	Antenna receptacle*
E	"EM SENSE" normal/sense input
*Antenna receptacle not present on RDM luminaires.	

Terminate Building Wiring to the Canopy

See [Emergency System Overview on page 5](#) for an explanation of Sense (normal) and Maintained (normal/emergency) feeds.

A	DMX In
B	DMX Thru
C	Emergency/maintained power line/hot (black)
D	Emergency/maintained power common (white)
E	Ground (green/yellow)
F	Normal/sense line/hot (black)
G	Normal/sense common (white)



Terminate Power

Connect maintained/emergency power to the Maintained Input on the canopy as instructed in [Terminate Power on page 18](#).

Connect normal/sense power to the sense input on the canopy.

- See [Electrical and Wiring Specification on page 10](#) for specification of wire and strip length. Prepare wires accordingly.
- Terminate ground.
 - Locate the WAGO connector on the ground wire (green, E in the illustration above).
 - Run a ground wire (typically green/yellow) through conduit, into the junction box, and to a free position on the WAGO connector.
 - Lift up the orange clip, insert the ground wire, and press the clip down onto the wire.
 - Tug gently to make sure the wire is secure.
- Terminate neutral.
 - Locate the WAGO connector on the neutral wire (white, D in the illustration above).
 - Run a neutral wire (typically white or gray) through conduit, into the junction box, and to a free position on the WAGO connector.
 - Lift up the orange clip, insert the neutral wire, and press the clip down onto the wire.
 - Tug gently to make sure the wire is secure.

Factory Wire Colors

Model	Color	Type
North America	green/yellow	ground
North America	black	line/hot
North America	white	common
Europe	green/yellow	earth
Europe	brown	live
Europe	blue	neutral

4. Terminate line (hot).
 - a. Locate the WAGO connector on the line (hot) wire (black, C in the illustration at [Terminate Building Wiring to the Canopy on page 18](#)).
 - b. Run a line (hot) wire through conduit, into the junction box, and to a free position on the WAGO connector.
 - c. Lift up the orange clip, insert the line (hot) wire, and press the clip down onto the wire.
 - d. Tug gently to make sure the wire is secure.



Note: Building wire color varies based on voltage and region, but line (hot) is typically black, brown, orange, or yellow.

DMX In and Thru

Terminate DMX In and Thru as instructed in [DMX In and Thru on page 19](#).

Install the Canopy Mounting Plate to the Back Box

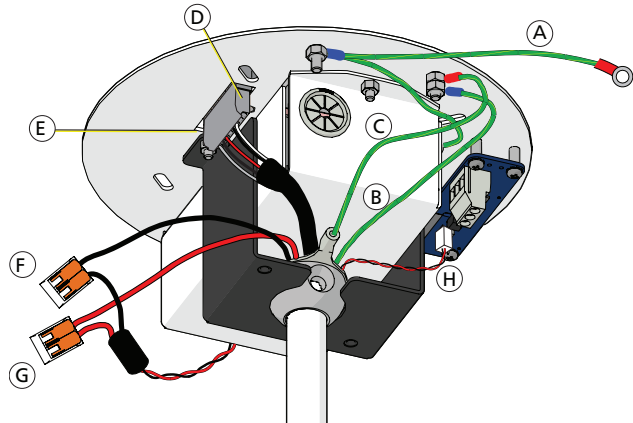
Install the canopy mounting plate to the back box as instructed in [Install the Canopy Mounting Plate on the Back Box on page 20](#).

Hang the Stem in the Canopy

Connect the stem to the canopy as instructed in [Hang the Stem in the Canopy on page 20](#).

Terminate Wiring Inside the Canopy

A	Canopy cover grounding harness (green/yellow)
B	Cylinder grounding harness (green/yellow)
C	Stem grounding harness (green/yellow)
D	Eight-position DMX plug
E	DMX termination switch
F	Low-voltage maintained power - (black)
G	Low-voltage maintained power + (red)
H	Low-voltage sense feed (red and black)



1. Terminate ground as instructed in [Ground on page 21](#).
2. Terminate low-voltage maintained power as instructed in [Canopy Low-Voltage Power on page 22](#).
3. Terminate DMX In and Thru as instructed in [Canopy DMX In and Thru on page 21](#).



Note: Terminate DMX/RDM data signal for the last DMX/RDM device in the data run by setting the yellow termination switch on the termination board (E in the illustration) to ON. All other devices in the data run maintain the factory default termination switch setting OFF.

4. Terminate the red and black sense feed harness to the sense board (H in the illustration above).

Complete Canopy Installation

Complete canopy installation as instructed in [Complete Canopy Installation on page 22](#).

Final Installation and Operation

Power Up Procedure

1. Check that luminaire power switch is on, if applicable.
2. Check the DMX control source to ensure proper installation and termination per the manufacturer's instructions.
3. Apply power at the main circuit breaker.

After the power up procedure, the luminaire will light.



Note: *When commissioning a system installation, check all ArcSystem Drivers and multi-cell luminaires to ensure that the latest firmware is present. If the firmware is not up to date, upgrade it following the instructions at [Updating the Luminaire Firmware](#) below.*



Note: *All ArcSystem luminaires are factory set to provide 100% output level. This allows an electrical contractor to check that all products are properly installed and wired.*

Updating the Luminaire Firmware

When commissioning a system installation, check all ArcSystem drivers and multi-cell luminaires to ensure that the latest firmware is present. If the firmware is not up to date, upgrade it using ETC Concert and ETC UpdaterAator software before commissioning is completed. For more information on UpdaterAator, download the *UpdaterAator Software Quick Guide* for free at etcconnect.com.

DMX System Control

- ArcSystem is compliant with DMX 512-A (ANSI E1.11-2008 (R2013)).
- DMX loss behavior is hold last look.

For wired DMX installation, each luminaire can be addressed to any one of the 512 DMX addresses up to the maximum device limit of 32 devices on each DMX line. Wireless DMX control requires a TX1 Transmitter and luminaires with the wireless ArcMesh transceiver. For wireless DMX installation, there are up to 64 control channels available. See the *ArcSystem Installation Manual*, available from etconnect.com.

RDM Values

Manufacturer ID: 0x6574 (Electronic Theatre Controls)

Model IDs

Product Type	Description	Model ID
ArcSystem Pro Multi-Cell	Pro Two-Cell	0x1207
	Pro Two-Cell Emergency	0x1307
	Pro Four-Cell Square	0x1208
	Pro Four-Cell Square Emergency	0x1308
	Pro Four-Cell Linear	0x1209
	Pro Four-Cell Linear Emergency	0x1309
	Pro Eight-Cell	0x120C
	Pro Eight-Cell Emergency	0x130C
	Pro Four-Cell Round	0x120A
	Pro Four-Cell Round Emergency	0x130A
	Pro Four Cell Pendant	0x120B
	Pro Four Cell Pendant Emergency	0x130B

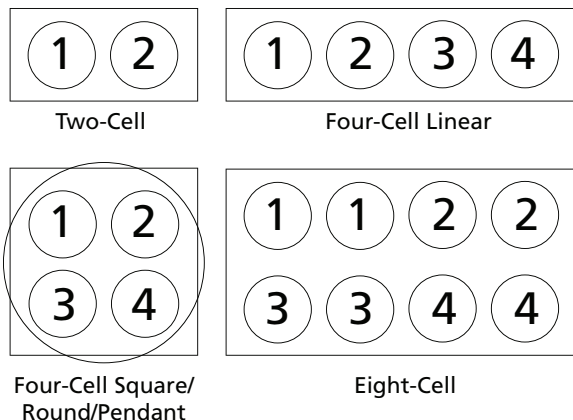
DMX Profile

ArcSystem multi-cell luminaires support two DMX personality types: single-channel and multi-channel. The single-channel personality controls all LEDs with a single DMX address. The multi-channel personality controls individual LEDs or pairs of LEDs with up to four channels as shown below.

Multi-channel Configuration



Note: You cannot manually assign DMX addresses to each channel in a luminaire. You can specify the DMX start address and the channels will be addressed automatically in the order shown.



Parameter	RDM PID	Value	Notes
DMX Start Address	0x00F0	Range = 001 to 512	Default is 001. The upper limit for multi-cell luminaires is 512-N, where N is the number of channels in the luminaire's personality. See DMX Profile for the supported multiple-channel configuration for each multi-cell luminaire type.
DMX Personality	0x00E0	1 or 2	Default is 2. See DMX Profile for the supported multiple-channel configuration for each multi-cell luminaire type. <ul style="list-style-type: none"> Set to 1 sets DMX personality to multi-channel. Set to 2 sets DMX personality to single-channel.
Identify Device	0x1000	0 for stop identify, 1 for start identify	Set to 1 causes output(s) and LEDs of the unit to blink in a one second on, one second off pattern.
Minimum Level	0x0341	Minimum Level - Increasing: 0 to 255 Minimum Level - Decreasing: 0 to 255	Default is 99%. The luminaire will not accept a Minimum Level that is higher than the Maximum Level. Minimum Level - Increasing and Minimum Level - Decreasing need to be set to the same value.
Maximum Level	0x0342	0 to 255	Default is 100%. The luminaire will not accept a Maximum Level that is lower than the Minimum Level.
Curve	0x0343	1, 2, or 3	<ul style="list-style-type: none"> Set to 1 is the Default Tungsten Curve (aka D04A) Set to 2 is Linear Set to 3 is Square Law
Curve Description	0x0344		Get returns an ASCII text string.
Output Response Time	0x0345	<ul style="list-style-type: none"> 0x01 1000 ms/100 steps 0x02 900 ms/90 steps 0x03 800 ms/80 steps 0x04 700 ms/70 steps 0x05 600 ms/60 steps 0x06 500 ms/50 steps 0x07 400 ms/40 steps 0x08 300 ms/30 steps 0x09 250 ms/25 steps 0x0A 200 ms/20 steps 0x0B 100 ms/10 steps 0x0C 50 ms/5 steps 0x0D 0 ms/0 steps 	Default is 500ms/50 steps. This parameter controls dimming up in level.
Output Response Time Down	0x8030		Default is 500 ms/50 steps. This parameter controls dimming down in level. Set 0x00 to set the Output Response Time Down to the same setting as Output Response Time.
Output Response Time Description	0x0346		Get returns an ASCII text string.
Modulation Frequency	0x0347	<ul style="list-style-type: none"> 1 for 300 Hz 2 for 600 Hz 3 for 1.2 kHz 4 for 19.2 kHz 	Default is 300 Hz.
Modulation Frequency Description	0x0348		Get returns an ASCII text string.
Restore Factory Defaults	0x0090		Set resets the luminaire configuration to default settings.
Software Version Label	0x00C0		Get returns the current software version as an ASCII text string.
Bootloader Version Label	0x00C2		Get returns the current bootloader version as an ASCII text string.

Multi-Cell Luminaire LEDs

ArcSystem multi-cell luminaires have DMX LEDs that indicate the status of the processor and DMX communication.

DMX Link LED

- Slow flash (wireless operation): normal operation. DMX broadcast is being received and DMX data is not changing.
- Solid On (wireless operation): active DMX signal is being received
- Solid On (wired operation): DMX is present

DMX Status LED

- Steady blinking: processor is operating normally
- Solid On: system is responding to DMX instruction
- Solid On when no DMX command is being sent: there is a processor fault. Contact ETC Technical Services for assistance.

Maintenance



WARNING: RISK OF DEATH BY ELECTRIC SHOCK! Failure to disconnect all power to the system before installation, maintenance, cleaning, or any other system modification could result in serious injury or death.

AVERTISSEMENT : RISQUE DE MORT PAR DÉCHARGE ÉLECTRIQUE!
Négliger de débrancher toutes les sources d'alimentation du système avant l'installation, l'entretien, le nettoyage ou toute autre modification du système peut causer des blessures graves ou la mort.

De-energize main feed to ArcSystem and follow appropriate Lockout/Tagout procedures as mandated by NFPA 70E. It is important to note that electrical equipment such as breaker panels can present an arc flash hazard if improperly serviced. This is due to the high amounts of short-circuit current available on the electrical supply to this equipment. Any work must comply with OSHA Safe Working Practices.



WARNING: RISK OF ELECTRIC SHOCK! Circuits that are installed without an accessible power disconnect device cannot be serviced or operated safely.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLECTRIQUE! Il est imprudent d'utiliser ou de réparer les circuits installés sans qu'un dispositif de déconnexion de l'alimentation ne soit accessible.



WARNING: RISK OF ELECTRIC SHOCK! The light sources in this luminaire are not user-replaceable, and must be replaced only by a qualified technician. Contact ETC Customer Support for assistance.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLECTRIQUE! Les sources lumineuses de ce projecteur ne sont pas remplaçables par l'utilisateur et doivent être remplacées seulement par un technicien qualifié. Contactez le service client ETC pour obtenir de l'assistance.



WARNING: Disconnect the fixture from power and DMX and allow it to cool before performing any cleaning and maintenance.

AVERTISSEMENT : Débrancher la lampe de son alimentation et du DMX et la laisser refroidir avant d'effectuer un nettoyage ou un entretien.



CAUTION: Check for excessive dust or debris in the heat-dissipating fins around the entire luminaire enclosure. Clean using compressed air or a soft cloth. Keeping the components of the enclosure clean facilitates efficient cooling and extends LED longevity.

NEVER spray liquids into the luminaire.

NEVER spray compressed air into a luminaire that is powered-up.

A can of compressed air or oil-free air from an air compressor set at a low setting can be used to blow through the vent holes and remove dust or other debris. Dust buildup can cause overheating and premature shutdown.

All components can be cleaned using compressed, oil-free air as described above or a clean micro-fiber cloth. The use of any liquid cleaning solution is not recommended.

Inspect all mounting hardware for wear and, if necessary, clean using compressed, oil-free air or a soft, lint-free cloth.

Fuses

Some ArcSystem luminaires have a user-serviceable fuse located in the power switch. Consult the table below for your luminaire type. All emergency luminaires, 100–277 V luminaires, and luminaire types that are not listed do not have user-serviceable fuses.

Voltage	Luminaire	Fuse Quantity	Fuse
100–240 V	Pro Two-Cell	1	3.150 A, 250 V, class T 5x20 mm
	Pro Four-Cell Square		
	Pro Four-Cell Linear		
	Pro Four-Cell Round		
	Pro Eight-Cell		

Emergency Operation and Test

It is important to test ArcSystem emergency systems regularly because they are life safety devices. **NOT SELF-TESTING PER ANSI/NFPA 101 - This equipment is not self-testing in conformance with the Life Safety Code, ANSI/NFPA 101. ANSI/NFPA 101 Life Safety Code requires testing of life safety devices every 30 days.**

To test the emergency functionality of this device, disconnect the sense circuit.



WARNING: RISK OF DEATH BY ELECTRIC SHOCK! Failure to disconnect all power to the system before installation, maintenance, cleaning, or any other system modification could result in serious injury or death.

AVERTISSEMENT : RISQUE DE MORT PAR DÉCHARGE ÉLECTRIQUE!
Négliger de débrancher toutes les sources d'alimentation du système avant l'installation, l'entretien, le nettoyage ou toute autre modification du système peut causer des blessures graves ou la mort.

De-energize main feed to ArcSystem and follow appropriate Lockout/Tagout procedures as mandated by NFPA 70E. It is important to note that electrical equipment such as breaker panels can present an arc flash hazard if improperly serviced. This is due to the high amounts of short-circuit current available on the electrical supply to this equipment. Any work must comply with OSHA Safe Working Practices.



CAUTION: *This equipment 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.*

ATTENTION : *Cet équipement possède plusieurs points de connexion d'alimentation. Pour réduire le risque d'électrocution, débranchez les disjoncteurs de dérivation ou les fusibles et les alimentations de secours avant de procéder à l'entretien.*

Test the ArcSystem emergency system as described:

1. Turn off power at the normal circuit breaker.
2. Test the system per ANSI/NFPA 101 Life Safety Code.

Compliance

For current and complete compliance information, view the product datasheets at etconnect.com/ArcSystem. For complete product documentation, including compliance documentation, visit etconnect.com/products.



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7490M2160 Rev G Released 2023-02