

# ETC Installation Guide

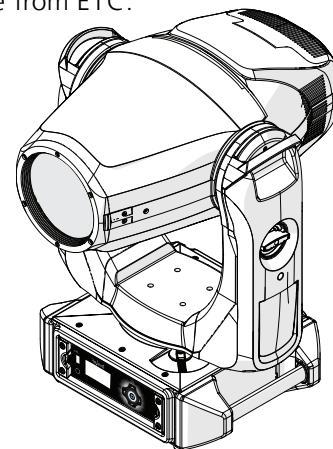
## Relevé Spot

### Introduction

Congratulations on your purchase of the Relevé Spot automated luminaire from ETC.

Relevé Spot is an LED-based automated spot luminaire that provides high-quality color control, predictable smooth pan and tilt control, and unparalleled zoom optics.

Relevé Spot builds on the legendary color control of ETC LED products and provides a reliable, full-featured automated luminaire of the highest quality.



### Safety Notices

Relevé Spot is a high-performance automated spot luminaire that is intended *for professional use only*. Read the entire user manual before installing and operating this equipment. The user manual is available as a download from the ETC website [etconnect.com](http://etconnect.com).

READ AND FOLLOW THESE SAFETY WARNINGS BEFORE USE:

- For indoor use only. The luminaire is IP20 rated for installation in dry locations only. When selecting the installation location, ensure the luminaire will not be exposed to extreme cold or heat outside of the operational range (see [Environment on the next page](#)), moisture, or dust.
- Disconnect the luminaire from power and DMX and allow it to cool before performing any cleaning and maintenance procedures.

### Warranty Service

ETC warranty terms and conditions are available on the ETC website [etconnect.com](http://etconnect.com).

## Installation

### Unpacking Instructions

The luminaire is fully calibrated and tested at ETC, then carefully packaged in a shipping carton that includes the luminaire and two clamp mounting rails.

Visually inspect the shipping carton for damage that may have occurred during transit. If the shipping carton shows signs of damage, document the damage fully before unpacking the luminaire. Documentation of any damage is helpful when reporting a claim with the carrier.

The luminaire weighs approximately 67 lbs. (30.4 kg). For your safety, ETC recommends that two people unpack the luminaire from the shipping carton. Use the provided handles on the yoke arms and the enclosure to lift the luminaire from the shipping carton.

The shipping carton and packaging materials can be valuable if you ever need to ship the fixture, including transporting the fixture for service. Do not discard. If you do not require this packaging for future use, please recycle the materials through your local recycling program.



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### Power Requirements

#### Input Power Voltage Range

- 100-240 VAC at 50/60 Hz
- Relevé Spot features a universal auto-switching power supply

#### Power Factor

- Maximum power consumption - 285 W
- Minimum power consumption - 29 W

#### Luminaires per Circuit (20 A)

- 4 luminaires at 100 VAC
- 5 luminaires at 120 VAC
- 10 luminaires at 240 VAC



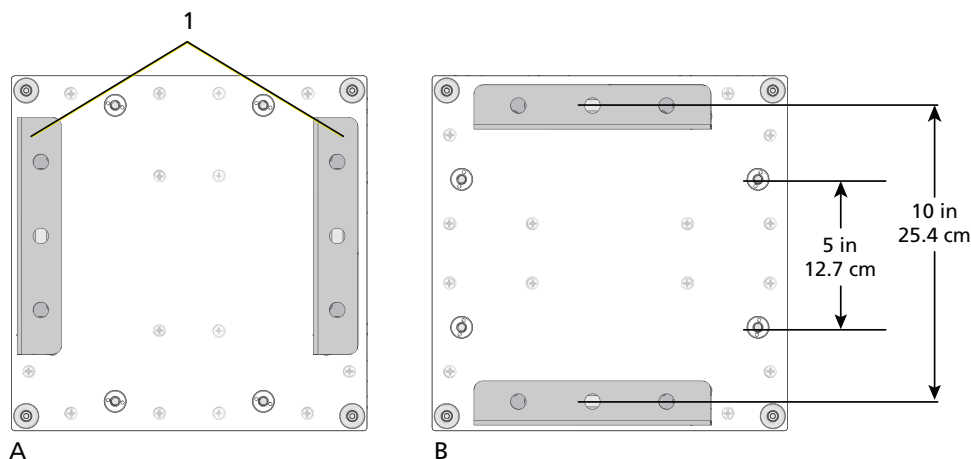
**Note:** Relevé Spot requires power from a non-dimmable source. Consult the upstream breaker trip curve specification for compatibility information with the required input power.

### Environment

- The Relevé Spot luminaire operates in ambient temperatures of 0-40°C (32-104°F), and relative humidity range 5-95%, non condensing
- The Relevé Spot is IP20, rated for indoor use only
  - IP2x indicates protected against intrusion by fingers or similar objects
  - IPx0 indicates no protection against liquid contact and ingress of liquid objects

### Attach Clamp Mounting Rails

For installation convenience, four hanging points are provided on the enclosure, two each in planes 90 degrees from each other.



Item#	Name	Part Number	Notes
1	Clamp Mounting Rails	2510A2017	Securely install on the provided attachment points on the base of the enclosure.

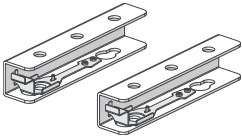
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**CAUTION:** Risk of Personal Injury! Overhead mounting requires extensive experience, including amongst others, calculating the working load limit (WLL) of the truss system, a specialized knowledge of the installation material being used, and a periodic safety inspection of all installation materials and the fixture. Improper installation can result in bodily injury. This luminaire must be installed by qualified personnel only.

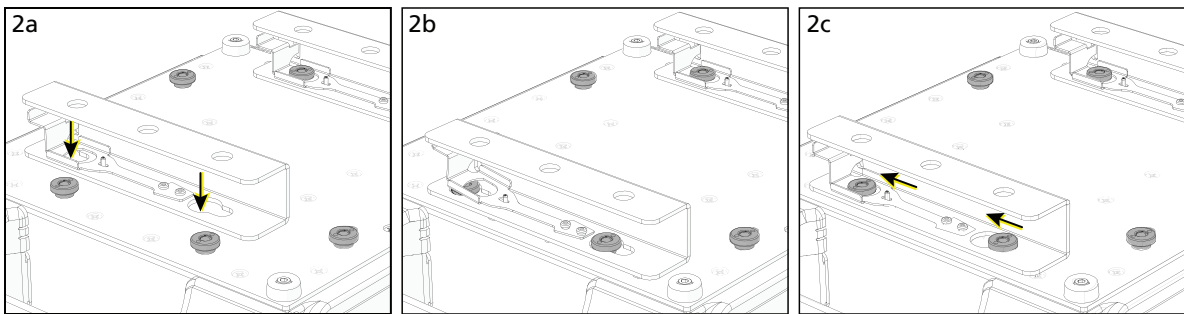
**ATTENTION:** Risque de Blessures Corporelles ! L'installation en hauteur nécessite une vaste expérience, qui inclut notamment le calcul de la charge nominale du système de pont, une connaissance spécialisée du matériel utilisé pour l'installation et l'inspection régulière de tout l'équipement de l'installation et du luminaire. Une installation incorrecte peut entraîner des blessures corporelles. Ce luminaire doit uniquement être installé par du personnel qualifié.



Two clamp mounting rails are provided with the Relevé Spot luminaire for attachment to truss clamps (not provided) or other compatible hardware for installation.

The clamp mounting rails feature a safe-latching system for secure fit to the hanging points on the enclosure.

1. Install the truss clamps (not provided) to the clamp mounting rails.



2. Attach the clamp mounting rails to the enclosure.
  - a. Align the keyed holes of the clamp mounting rail to the attachment points on the enclosure.
  - b. Each clamp mounting rail should be installed on the same plane and facing the same direction.
  - c. Slide the clamp mounting rail in place until the locking mechanism is seated and captures the attachment point. The mounting rail will be locked in place and flush to the enclosure when installed properly.

## Spacing Requirements

For full pan and tilt operation, install the Relevé Spot with a minimum of 24.4 in (62 cm) between centers. The luminaire features Whisper Home technology, which provides instant pan and tilt homing at power on with minimal movement. You can install the luminaires closer together if you restrict the pan and/or tilt movement using the features provided for pan and tilt in the **Options** menu.



**Note:** Add additional spacing between luminaires when using accessories such as a top hat. Refer to the accessory datasheet for dimensions.

## Floor Mounting

Relevé Spot can be installed on the floor or a suitable level, horizontal, and flat surface. Rubber feet are provided on the base of the enclosure.

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### Rigging



**WARNING: RISK OF INJURY!** Check each clamp mounting rail and truss clamp for proper and secure installation before hanging the luminaire.

**AVERTISSEMENT: DANGER DE BLESSURE !** Avant d'accrocher le luminaire, vérifiez chaque crochet et chaque porteuse pour une installation correcte et en sécurité.

1. Lift the luminaire to the installation location. We recommend that two people lift the luminaire.
2. Secure the luminaire in place using the previously installed truss clamps or other installation hardware.



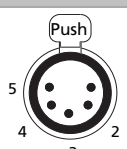

**Note:** The installation must follow local codes and standard practices for overhead rigging. When the luminaire is mounted in an overhead rigged position, you must also secure it in place using a safety cable.

3. Attach a safety cable to the luminaire.
  - a. Loop one end of the safety cable around the enclosure handle and attach the clip onto the cable.
  - b. Loop the other end of the cable around the truss or pipe structure, then secure the clip onto the cable.

### Connect Data and Power

#### Connect DMX-512

ETC recommends using the following standard pinout when preparing DMX cable (Belden 9729 or equivalent) with an XLR connector. The second data pair in the recommended cable type is not used by the Relevé Spot luminaire and should be capped off and tied back for future service.

DMX-512 Pinout for 5-pin XLR (EIA-485)			
DMX Thru Receptacle	Pin #	Use	DMX Input Receptacle
	1	Common (shield)	
	2	Data - (typically black wire)	
	3	Data + (typically white wire)	
	4	unused	
	5	unused	

#### Connect DMX

1. Connect the prepared DMX cable with the 5-pin XLR connector from the console or routed lighting network to the luminaire DMX Input receptacle.
2. If required, connect the prepared DMX cable with the 5-pin XLR connector from the DMX Thru connector on the luminaire to the next device in the control run.
3. Dress all cables so they will not interfere with the luminaire movements during normal operation.

#### Terminate DMX-512

The last luminaire in the DMX control run must be terminated to prevent signal reflections. Signal reflections cause noise on the data line, resulting in corrupted data between the control source and the luminaire. Use a DMX termination plug 5-pin XLR male (available from ETC; order part number SGE1507).

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### Power Receptacle/Connector Specification

Power input and power feed through connections are made to powerCON<sup>®</sup> type NAC3MPA-1 and NAC3MCB-1 receptacles on the Power Module.

The luminaire ships with a 1.5 m powerCON power-input cable with a connector of choice. See the Relevé Spot datasheet for ordering information. Use only compatible power cords with mating connectors for the specified receptacles.

Power In (blue) and Power Thru (gray) receptacles are keyed differently to prevent intermating.



**WARNING:** The powerCON is a connector without breaking capacity, i.e., the powerCON should not be connected or disconnected under load or while live!

**AVERTISSEMENT:** Le powerCON est un connecteur sans capacité de coupure, c'est-à-dire que le powerCON ne doit pas être connecté ou déconnecté lorsqu'il est sous tension!

See the following wire color code chart:

Wire Color Code (International Standard)	Wire Color Code (US Standard)	Connection Type	Terminal
Green/Yellow	Green	Earth/Ground	
Blue	White	Neutral	N
Brown	Black	Line (Live)	L

## User Interface

The Relevé Spot user interface (UI) consists of a display and button controls for local configuration, and a USB (type A) port for firmware update. Use the display and button controls to configure the luminaire for your specific application and installation needs.

### Status Screen

When the Relevé Spot is powered up initially, the luminaire runs self tests to check the status of the features of the luminaire and performs a homing routine. The user interface display shows the current DMX address, DMX mode, and installed version of software. The DMX address will flash when no DMX is present.



**Note:** ETC recommends running the most current version of software in your luminaire. Relevé Spot software is available for download from the ETC website [etconnect.com/ReleveSpot](http://etconnect.com/ReleveSpot). USB firmware update instructions are provided in the Relevé Spot User Operations Manual.

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### DMX Channel Mode

Relevé Spot has two modes of operation, which are accessible in the **Control Settings** menu from the user interface. A full listing of control channels and timing data for the selected mode of operation is available on the ETC website [etconnect.com/ReleveSpot/DMX-Channel-Map](http://etconnect.com/ReleveSpot/DMX-Channel-Map).

- Standard Mode utilizes 20 channels of control. This is the default setting.
- Direct Mode utilizes 25 channels of control.



**Note:** *The color output of all Relevé Spot luminaires is calibrated at the factory.*

*When operating in Standard Mode, each luminaire makes accommodations for the specific LEDs in its array and produces output that is consistent with other luminaires, whether or not they utilize LEDs from the same production batch.*

*Operating in Direct Mode bypasses this calibration, and multiple luminaires may produce slightly different outputs when controlled as a group.*

Standard Mode		Direct Mode	
Channel	Parameter	Channel	Parameter
1	Intensity	1	Intensity
2	Red	2	Red
3	Green	3	Green
4	Blue	4	Blue
5	Strobe	5	Lime
6	Pan Coarse	6	Strobe
7	Pan Fine	7	Pan Coarse
8	Tilt Coarse	8	Pan Fine
9	Tilt Fine	9	Tilt Coarse
10	Gobo Mode	10	Tilt Fine
11	16-bit Gobo Index Coarse	11	Gobo Mode
12	16-bit Gobo Index Fine	12	16-bit Gobo Index Coarse
13	Ani-gobo Mode	13	16-bit Gobo Index Fine
14	Ani-gobo Index	14	Ani-gobo Mode
15	Focus Coarse	15	Ani-gobo Index
16	Focus Fine	16	Focus Coarse
17	Zoom	17	Focus Fine
18	Iris	18	Zoom
19	Frost	19	Iris
20	Configuration	20	Frost
		21	Configuration
		22	Pan/Tilt Speed
		23	Zoom/Focus Speed
		24	Reserved
		25	Beam Speed

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### DMX Start Address

The user interface allows configuration of the DMX Start Address to any value between 001 and 488. By default, the address is set to 001. The DMX Start Address information is stored in the luminaire even when power is removed.



**Note:** The luminaire features an **auxiliary battery** in the Main Control Module which enables menu access to set the luminaire DMX Start Address as well as other luminaire configuration data, even when mains power is removed.

1. With the status screen shown, press the navigate right button > on the user interface. DMX address "001" is shown by default.
2. Press Enter □. The ones value is selected for edit.
3. Change the value.
  - Press the navigate left button < to move the selection to the tens or hundreds value.
  - Press the navigate up button ▲ or the navigate down button ▼ to change a selected value.
4. Press Enter □ to set the value and exit **DMX Start Address** menu.

### Maintenance

Regular maintenance of the Relevé Spot luminaire is recommended to ensure optimal performance for the life of the luminaire.



**Note:** Any service or maintenance that you perform on your Relevé Spot luminaire is at your own risk.



**WARNING: RISK OF DEATH BY ELECTRIC SHOCK!** Failure to disconnect all power to the luminaire before working inside could result in serious injury or death.

Disconnect power from the luminaire and follow appropriate Lockout/Tagout procedures as mandated by NFPA 70E. Any work must comply with OSHA Safe Working Practices and follow requirements by local code.

**AVERTISSEMENT: RISQUE DE MORT PAR ÉLECTROCUTION!** Travailler à l'intérieur du luminaire sans avoir déconnecté le courant peut entraîner des blessures graves, voire mortelles.

Déconnectez l'alimentation du luminaire et suivez les procédures de Consignation/Déconsignation appropriées prescrites par la norme NFPA 70E. Tout travail doit être conforme aux consignes de sécurité du travail de l'OSHA et respecter les codes locaux.



**CAUTION:** Allow the luminaire to cool completely before servicing or performing routine maintenance.

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See the *Relevé Spot User Operations Manual* for maintenance procedures. ETC manuals are available for download from our website [etconnect.com](http://etconnect.com).