Irideon FPZ (F-Drive)

User Manual

Part Number: 7191M2100 Rev C

Released: 2023-12

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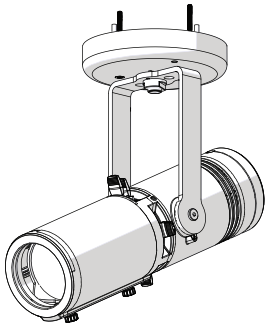
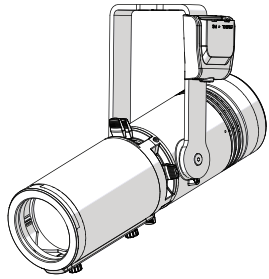
Overview

This guide provides installation instructions for Irideon FPZ (F-Drive) luminaires. They are intended for use with the ETC F-Drive family of drivers and accessories (including R12, W1, and B-Box) or other Class 2 or Low Voltage Limited Energy (LVLE) power supplies (48 VDC maximum). Consult the specifications and installation manual for your driver to ensure compatibility.

This release of the Irideon FPZ (F-Drive) luminaire is compatible with the R12 CC-150 output card or the W1 CC driver. Set the output channel for the luminaire to 450 mA.



Canopy



Portable

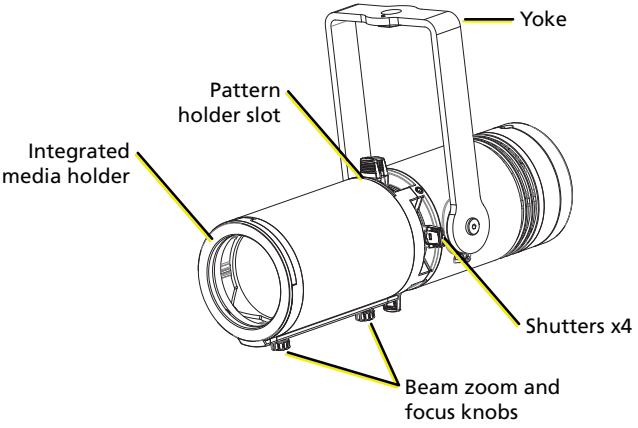
Note: *For the portable luminaire, use an M12 bolt to secure a clamp (provided separately) to the luminaire.*

For more information about compatible products, see the resources below, which are available for download at etcconnect.com/Products/Power-Controls/LED-Drivers/F-Drive/Documentation.aspx:

- *F-Drive Series R12 Installation Manual*
- *F-Drive Series W1 Installation Manual*
- *F-Drive R12 and W1 Wiring Reference Guide*
- *F-Drive B-Box4 Installation Guide*

The F-Drive System Design Tool is available at etcconnect.com/FDriveSysDesignTool.

There are also canopy, track, and portable versions of the luminaire that are not compatible with the F-Drive family of drivers and accessories. See the luminaire datasheets at etcconnect.com for more information on Irideon product options.



(Illustration shows luminaire body only)

Safety

WARNING: Note the following safety warnings before use:

- **Use the luminaire in dry locations only, where humidity does not exceed 90 percent (non-condensing).**
- **Do not mount the luminaire on or near a flammable surface.**
- **Check that the accessory holder is locked before mounting the luminaire.**
- **Do not operate the luminaire without a lens installed.**
- **Do not use this luminaire if a lens is deeply scratched or cracked. You must replace a lens when it is damaged.**

AVERTISSEMENT : Prendre connaissance des avertissements de sécurité suivants avant toute utilisation :

- **Ne pas installer le projecteur sur ou à côté d'une surface inflammable.**
- **Vérifiez que le porte-accessoires est verrouillé avant de monter le projecteur.**
- **N'utilisez pas le projecteur sans que la lentille soit installée.**

IMPORTANT SAFEGUARDS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

- Keep lamp away from materials that may burn.
- External temperature after 5 minutes of full-brightness operation: 34°C (93°F).
- External temperature when steady state is achieved: 54°C (129°F).

SAVE THESE INSTRUCTIONS

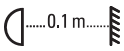
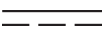
Canopy Luminaire

WARNING: RISK OF ELECTRIC SHOCK! Power must be off when you perform this procedure.

The luminaire must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.

AVERTISSEMENT : RISQUE DE DÉCHARGE ÉLÉCTRIQUE! L'alimentation doit étre éteinte avant d'exécuter cette procédure.

The following symbols may appear on product labeling.

	The luminaire must be installed at least 0.1 m (4.0 in) away from all lighted objects.	Le luminaire doit être installé à au moins 0,1 m (4,0 po) de tout objet éclairé.
	General warning	Avertissement général
	This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.	Ce produit ne doit pas être jeté avec les déchets ménagers mais doit être déposé dans une collecte de déchets électroniques ou dans un point de collecte.
	This product meets the safety requirements specified for Class III according to IEC 60536.	Produit à Protection Classe III Très basse tension conforme à la norme IEC 60536.
	The product input or output is suitable for direct current only.	L'entrée et la sortie de ce produit convient uniquement au courant continu.

Installation

Luminaire Wiring

Luminaire power and data in and out cables terminate to RJ45 connectors. Please note the following requirements for wiring:

- Use 0.25 mm^2 (23 AWG) or larger gauge conductors in Category-type cable terminated to the T568B standard. Not all Cat5 or Cat6 cables meet this gauge requirement.
- You can connect up to four luminaires along one run of cable when using RJ45 output from a compatible output card or driver. The total cable distance for each wiring run should not exceed 100 m (328 ft). See the *F-Drive R12 and W1 Wiring Reference Guide* for more details.

Select the Driver

CAUTION: ***You must configure the channel on the driver to 450 mA. Connecting the luminaire to a channel that is configured for more than 450 mA will shorten the life of the luminaire LEDs and may void the luminaire warranty.***

This release of the Irideon FPZ (F-Drive) luminaire is compatible with the R12 CC-150 output card or the W1 CC driver. Set the output channel for the luminaire to 450 mA.

For more information about compatible products, see the resources below, which are available for download at etcconnect.com/Products/Power-Controls/LED-Drivers/F-Drive/Documentation.aspx:

- *F-Drive Series R12 Installation Manual*
- *F-Drive Series W1 Installation Manual*
- *F-Drive R12 and W1 Wiring Reference Guide*
- *F-Drive B-Box4 Installation Guide*

The F-Drive System Design Tool is available at etcconnect.com/FDriveSysDesignTool.

RJ45 Pinout Information

In Port

Pin	Description
1	- *
2,6	THRU 1**
3,7	THRU 2**
4,8	THRU 3**
5	+ *

*Pins 1 and 5 receive power from the source or the previous luminaire in line.
**These pins pass through power to the next luminaires in line.

Out Port

Pin	Description
1,5	THRU 1
2,6	THRU 2
3,7	THRU 3
4,8	No Connection

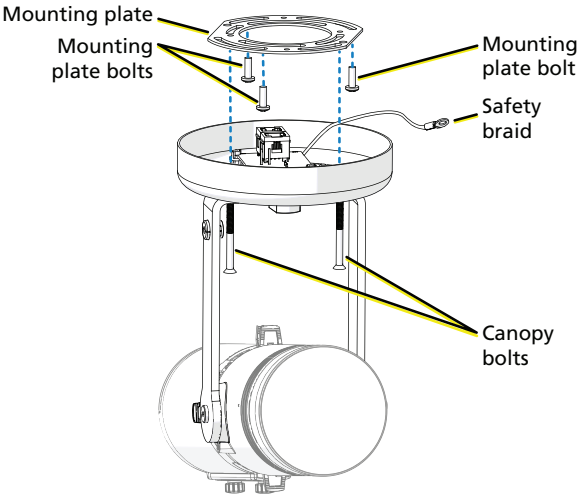
Use of Third-Party Drivers with Daisy-Chained Luminaires

Irideon FPZ (F-Drive) luminaires can be controlled by third-party Class 2 or Low Voltage Limited Energy (LVLE) drivers that provide a maximum of 48 VDC. To daisy-chain luminaires and still have independent channel functionality, you must wire the first luminaire in the chain as described below. (The RJ45 outputs on F-Drive natively support this wiring configuration.) Configure the third-party drivers to a maximum of 450 mA.

Channel	Input Pins for First Luminaire in Daisy-Chain	Description
1 (First luminaire)	1	Channel 1 -
	5	Channel 1 +
2 (Second luminaire)	2	Channel 2 -
	6	Channel 2 +
3 (Third luminaire)	3	Channel 3 -
	7	Channel 3 +
4 (Fourth luminaire)	4	Channel 4 -
	8	Channel 4 +

Install Canopy Luminaire

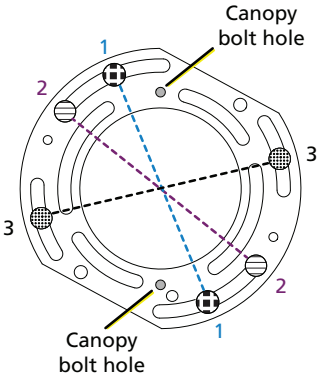
Note: *The canopy luminaire can be installed directly on 4 in and 4-11/16 in back boxes, or on back boxes with round cover plates. The canopy luminaire cannot be installed on 1-gang back boxes or trim rings.*



1. Remove the mounting plate from the luminaire by removing the two canopy bolts.
2. Using two of the mounting plate bolts, secure the mounting plate to the installed back box (not included).

Mounting plate installation detail

Install the mounting plate screws in one of the three position-pairings shown.



3. Place the copper safety braid loop over the third mounting plate bolt, and then attach the mounting plate bolt to the back box to help secure the fixture during installation.

4. Connect a power and data in cable from the driver or ETC breakout box to the "IN" port on the luminaire. If you are daisy-chaining luminaires, be careful to connect the cables to the correct "IN" and "OUT" ports. (The cable from the "OUT" port on one luminaire connects to the "IN" port of the next luminaire.) Incorrect connections will result in improper operation of the luminaires.
5. Use the canopy bolts to secure the luminaire to the mounting plate.
6. Open all four shutter blades by sliding them outward until they stop.
7. Focus the luminaire as needed. See *Focus and Setup on the next page*.

Connect Portable Luminaire

Note: *For the portable luminaire, use an M12 bolt to secure a clamp (provided separately) to the luminaire.*

1. Connect a power and data in cable from the driver or ETC breakout box to the "IN" port on the luminaire. If you are daisy-chaining luminaires, be careful to connect the cables to the correct "IN" and "THRU" ports. (The cable from the "THRU" port on one luminaire connects to the "IN" port of the next luminaire.) Incorrect connections will result in improper operation of the luminaires.
2. Open all four shutter blades by sliding them outward until they stop.
3. Focus the luminaire as needed. See *Focus and Setup on the next page*.

Power Up Procedure

1. Verify that each luminaire is connected to a Constant Current (CC) driver or output card before you power up the luminaires. See the installation manual for your F-Drive for more compatibility information.
2. Use Concert to verify that each CC channel is set to output 450 mA.
3. Refer to the installation manual for your F-Drive for information about the power up procedure for the driver.

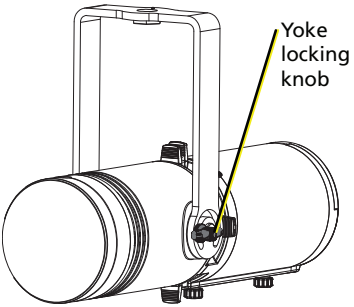
Identify

You can send an identify command to individual channels of an R12 output card or W1 driver using ETC Concert or a third-party RDM controller. Luminaires connected to an F-Drive will respond to an RDM identify command by blinking on and off: 500 ms on, 500 ms off, until the identify command is ended. See the F-Drive Device Package Help in Concert or the installation manual for your F-Drive for information about this RDM command.

Focus and Setup

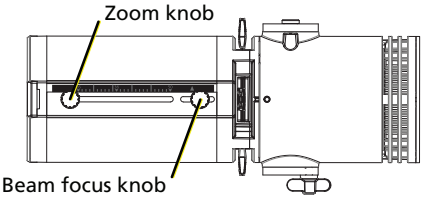
Adjust the Tilt

1. Loosen, but do not remove the yoke locking knob.
2. Tilt the luminaire as needed.
3. Tighten the yoke locking knob.



Zoom and Focus the Beam

1. Loosen the beam focus or zoom knob located under the barrel. Do not remove either knob.
2. Slide the lens forward or backward to achieve the desired beam edge or angle.
3. Once the luminaire is focused, tighten the knobs.



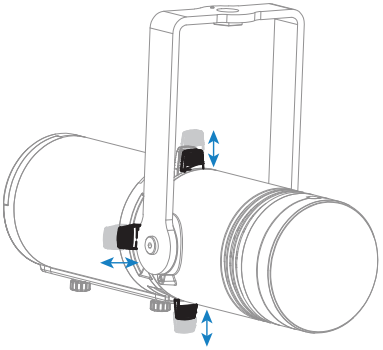
Shape the Beam

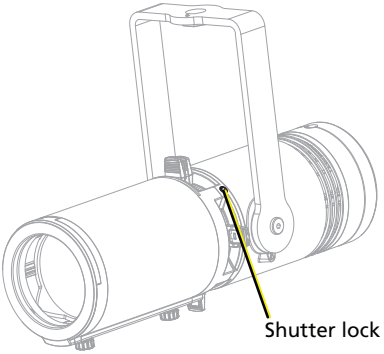
You can shape the beam using the four shutters or with a pattern.

Shape the Beam with Shutters

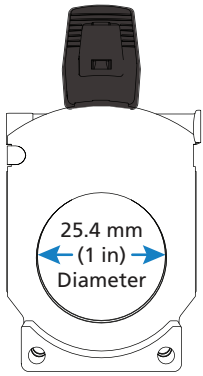
The luminaire has four shutters: left, right, top, and bottom. Each shutter can be pulled out or pushed in to create the desired beam shape.

Once the shutters are set, you can lock the shutters in place by using a 3 mm hex key (provided).





Shape the Beam with a Pattern



The luminaire has a pattern-holder slot on the top side of the shutter barrel, in front of the shutter. It accommodates a glass or stainless steel E-size (37.5 mm with a 25.4 mm image area) pattern. The maximum pattern thickness that can be accommodated is 4 mm (0.16 in).

When the slot is not in use, a small plastic cover prevents light leakage.

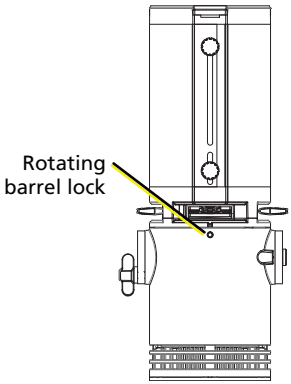
1. Slide the cover knob on the luminaire completely to the side to expose the slot.
2. Insert the pattern holder.

Note:

- *When not using a pattern, remove the pattern holder and close the cover to prevent distortion of the beam shape.*
- *Ensure that the pattern-holder slot is on the top side of the shutter barrel. If necessary, rotate the shutter barrel to position the pattern-holder slot on the top side.*

Rotate the Lens Barrel

1. Unlock the rotating barrel lock using the 2 mm hex key (provided).
2. Rotate the barrel to the desired location.
3. Lock the rotating barrel lock using the 2 mm hex key (provided).



Use the Integrated Media Holder

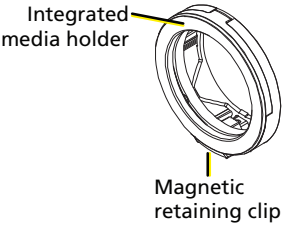
The Irideon FPZ (F-Drive) comes equipped with an integrated media holder, which is a metal frame used to hold color media (often referred to as gel) or diffusion in front of the lens. The media holder is equipped with a magnetic retaining clip that prevents the media from falling out. The integrated media holder can take color media, diffusion, or dichroic glass with a 66 mm (2.6 in) diameter.

WARNING: Check that the accessory holder is locked before mounting the luminaire.

AVERTISSEMENT : Vérifiez que le porte-accessoires est verrouillé avant de monter le projecteur.

Install Color Media or Diffusion

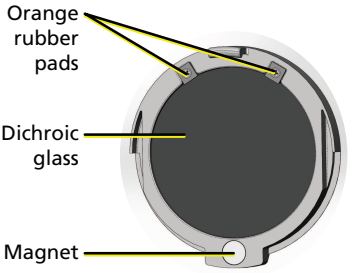
1. Release the magnetic retaining clip by gently pushing it up.
2. Insert the media.
3. Replace the media holder by aligning the tab at the top of the media holder with the inset on the front casting.



Install Dichroic Glass

The integrated media holder accommodates 1.75 mm-thickness dichroic glass.

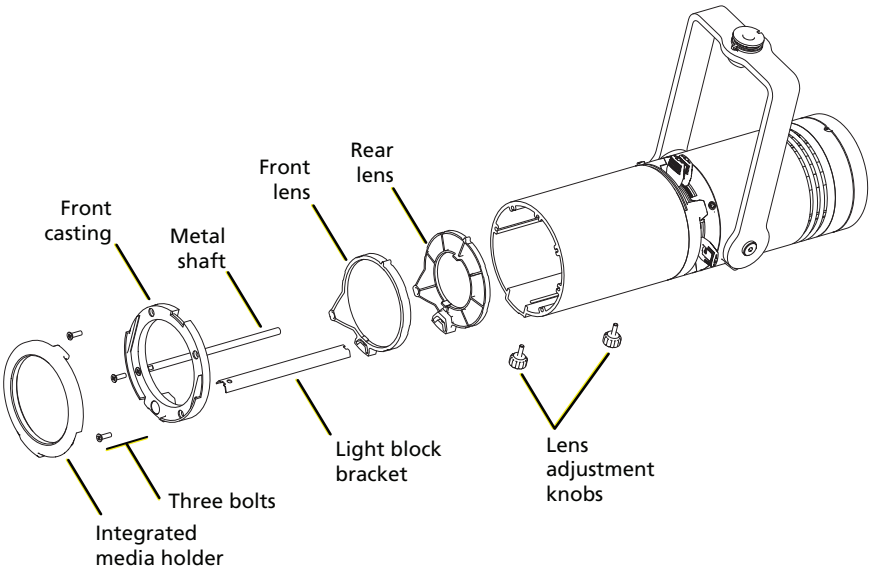
1. Release the magnetic retaining clip by gently pushing it up.
2. Place the dichroic glass into the groove.
3. Replace the media holder by aligning the tab at the top of the media holder with the inset on the front casting.



Cleaning

WARNING: Do not use ammonia-based cleaners or other harsh commercial cleaners. Clean lens only as directed.

Commercially available glass cleaning agents should be avoided as they may contain ammonia, other harsh chemical detergents, or abrasive agents. These cleaners may damage the lens surface. Do not immerse or soak the lens in any cleaning solution.



1. Remove the integrated media holder.
2. Use a Phillips screwdriver to remove the three bolts from the front of the luminaire.
3. Remove the front casting and the metal shaft.
4. Remove the light block bracket.
5. Remove the lens adjustment knobs.
6. Remove the front and rear lens holders.
7. Remove dust with a blast of oil-free air or wipe with a clean, lint-free cloth. Isopropyl alcohol, distilled water, or a 50%-50% mixture of each can be used to clean the glass surface.
8. Replace the lenses.

Note: *You may find it easier to insert the metal shaft into its pocket on each lens before replacing the lenses.*

9. Replace the lens adjustment knobs.
10. Replace the light block bracket. Make sure that it fits into its pocket on each lens.
11. Replace the metal shaft if you have not previously done so.
12. Replace the front casting and secure it with the bolts.
13. Replace the integrated media holder.

Specifications and Reference

For current and complete compliance and specifications, see the Irideon FPZ (F-Drive) datasheet at etcconnect.com.

FCC Compliance

Irideon FPZ (F-Drive)

(For any FCC matters):

Electronic Theatre Controls, Inc.
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Middleton, WI 53562
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etcconnect.com

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation. Visit etcconnect.com/products for current and complete compliance information including FCC compliance.

Note: *This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Any modifications or changes to this product not expressly approved by Electronic Theatre Controls, Inc. could void the user's authority to operate the product. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.*

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