Irideon WLZ
User Manual

Version 1.0.1

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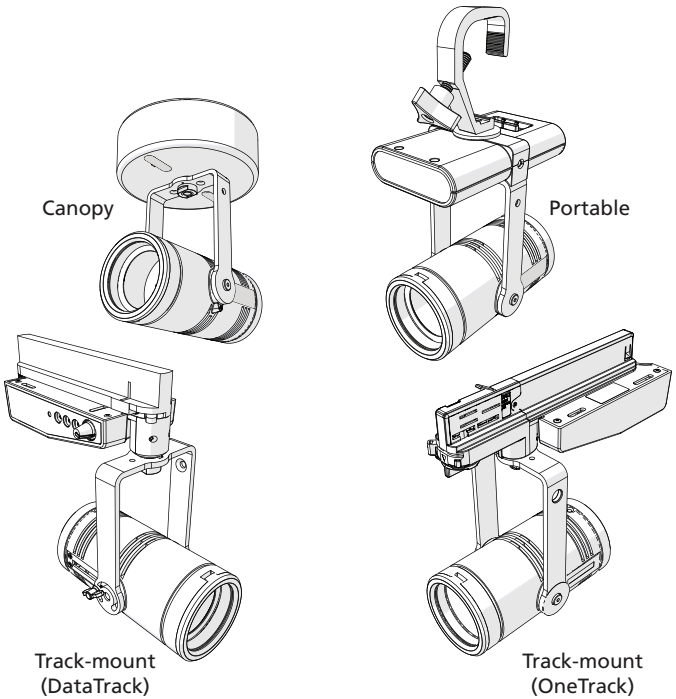
Introduction

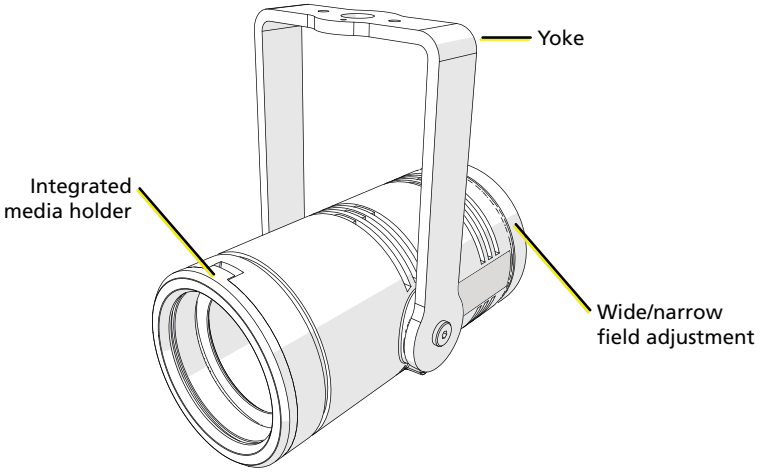
The Irideon WLZ is a compact but powerful LED wash light. It incorporates many of the great features of its companion luminaire, the Irideon FPZ, including local and DMX control, adjustable zoom, and sleek design.

The Irideon WLZ has three available mounting options:

- Track-mount: For use with the OneTrack or DataTrack track system.
- Portable: Includes a miniature C-clamp (North America only) and yoke-mounted driver, and has a permanently installed power cord with 3-prong Edison connector. Region-specific connectors are available. Contact ETC for available options. Use L5-15 plugs on branch circuits with L5-15 receptacles only.
- Canopy: Available in three different control variants:
  - 0–10 V
  - DALI
  - DMX



Note: *The miniature C-clamp for the portable luminaire is available only in North America. In the EU and UK, use an M12 bolt to secure a clamp (provided separately) to the luminaire.*



(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: 27°C (81°F).
- External temperature when steady state is achieved: 50°C (122°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.

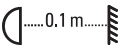
Track-Mount Luminaire

WARNING: To reduce the risk of fire and electric shock, use the track-mount luminaire only with its designated track system (for example, One Track or DataTrack).

AVERTISSEMENT : Pour éviter le risque d'incendie ou de choc électrique, utiliser le luminaire à adaptateur pour rail uniquement avec son système de rail désigné (OneTrack ou DataTrack par exemple).

WARNING: Use the DataTrack track-mount luminaire with ceiling-mounted track only.

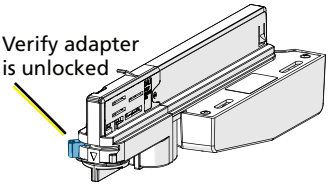
The following symbols may appear on product labeling.

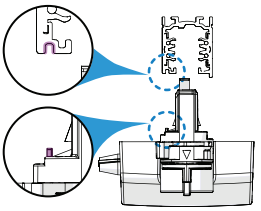
	The luminaire must be installed at least 0.1 m (4.0 in) away from all lighted objects.	Le luminaire doit être installé à au moins 0,1 m (4,0 po) de tout objet éclairé.
	This product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling.	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.

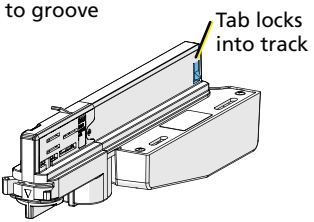
Installation

Install Track-Mounted Luminaire (OneTrack)

1. Before you begin, verify that the adapter is unlocked. (Images at right show just the OneTrack adapter.)
2. Orient the adapter so that the two tabs are aligned with the groove in the track, and then insert the adapter into the track. The tab at the end of the adapter locks into the track when the fixture is fully seated.

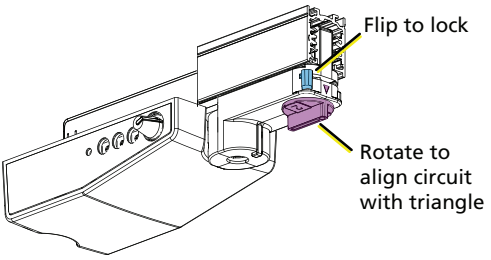






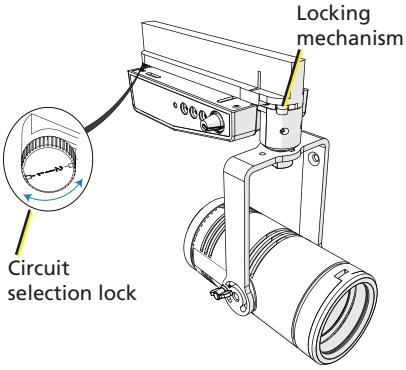
WARNING: When using the circuit selection lock, ensure that the selected circuit is a constant power circuit. Selecting a dimmable circuit may cause luminaire damage that will void the ETC warranty.

3. Flip the locking tab to the opposite side to lock the adapter, and then rotate the circuit selection knob to select the correct circuit.



Install Track-Mounted Luminaire (DataTrack)

1. Insert the DataTrack adapter into the track. The adapter only fits into the track one way with the tabs nesting into the track's groove.
2. Rotate the locking mechanism to lock the adapter into place.



WARNING: When using the circuit selection lock, ensure that the selected circuit is a constant power circuit. Selecting a dimmable circuit may cause luminaire damage that will void the ETC warranty.

3. Use the circuit selection lock to select the circuit. The desired circuit number should point toward the center of the adapter.

Install Canopy Luminaire (DMX Variant)

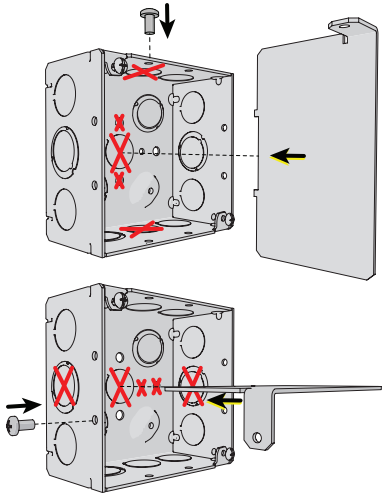
Note: *The canopy luminaire can be installed directly on 4 in and 4-11/16 in back boxes, or on back boxes with round cover plates. The canopy luminaire cannot be installed on 1-gang back boxes or trim rings.*

Install the Voltage Barrier (DMX Variant)

The DMX variant of the canopy luminaire includes a voltage barrier to separate the data network from the line voltage inside the back box. Voltage barriers are provided for both 4 in and 4-11/16 in back boxes.

CAUTION: ***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.***

Install the voltage barrier in the back box with the provided bolt (see images at right, showing a 4 in back box). 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.



Connect Canopy Wiring (DMX Variant)

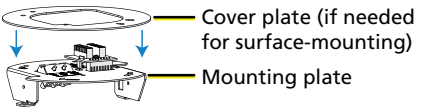
Cable preparation instructions for DMX termination are included in the termination kits, and are also available for download at etcconnect.com.

1. Remove the adhesive tape or fasteners securing the mounting plate to the luminaire to free the mounting plate from the canopy enclosure.

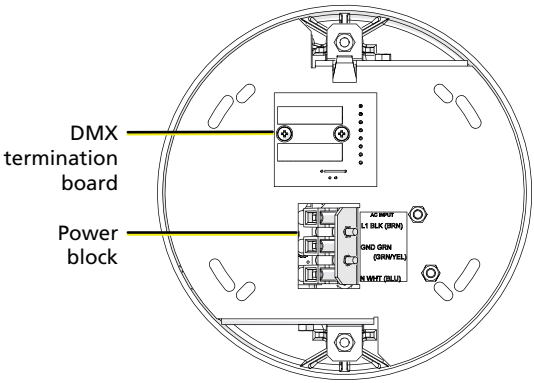
WARNING: RISK OF ELECTRIC SHOCK! Install the cover plate as directed below for installations where the interior of the canopy enclosure could be exposed after installation with only the mounting plate. For example, install the cover plate when installing to a surface-mount back box.

AVERTISSEMENT : Installez la plaque de protection comme indiqué ci-dessous pour les installations où l'intérieur de la rosace de plafond pourrait être exposé après l'installation avec uniquement la plaque de montage. Par exemple, installez la plaque de protection lors de l'installation sur un boîtier arrière à montage en surface.

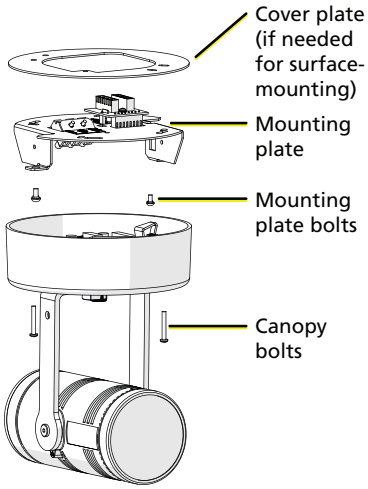
2. Are you flush-mounting the luminaire or surface-mounting the luminaire?
   - Flush-mounting: Continue to step 3.
   - Surface-mounting: Position the cover plate on top of the mounting plate before wiring the luminaire. The cover plate is required when the interior of the canopy enclosure could be exposed after installation with only the mounting plate (the mounting surface is smaller than the canopy enclosure).



3. Terminate DMX/RDM input from the control source to the back box.
    a. Follow the DMX termination kit instructions provided with the product to terminate the control wiring.
    b. Install the connector with wires terminated to the DMX/RDM Input receptacle on the termination board.
4. Optionally, terminate DMX/RDM thru to the next device in the DMX data run. Up to 32 DMX/RDM devices can be daisy-chained together per data run.
    a. Order additional termination kits separately (request ETC part number 4100A1022). Follow the DMX termination kit instructions to terminate the control wiring.
    b. Install the connector with wires terminated to the DMX/RDM Thru receptacle on the termination board.
5. Connect the building ground wire to the power block on the luminaire.
6. Following the label on the mounting plate, attach the power wires to the power block.

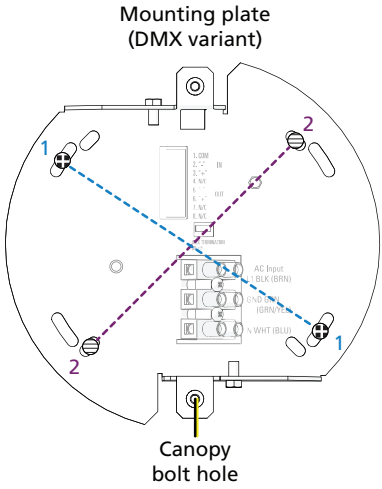


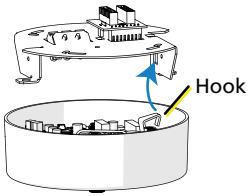
Install the Mounting Plate and Complete the Wiring (DMX Variant)



1. Secure the mounting plate (or the combination of mounting plate and cover plate for surface-mounting) to the installed back box, positioning the plate so that the power side and data side are separated by the voltage barrier in the back box. See *Install the Voltage Barrier (DMX Variant) on page 5*.

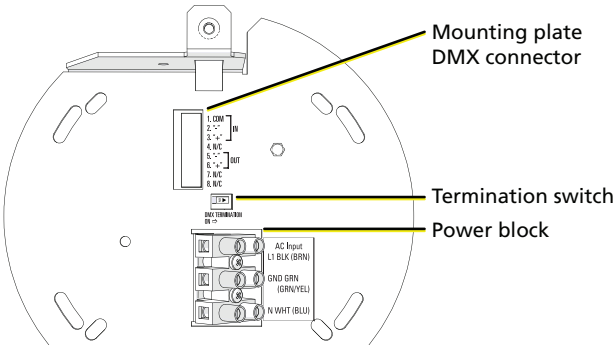
For this structure...	...secure mounting plate using:
4-11/16 in back box	Large oval slots (see 1 at right)
4 in back box	Small oval slots (see 2 at right)



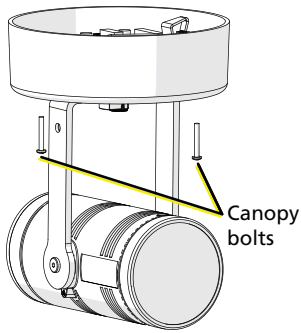


2. Use the hook in the canopy enclosure to hang the luminaire from the mounting plate while you complete the luminaire wiring.
3. If desired, manually set the DMX address on the luminaire using the three addressing dials in the canopy. See *Set the DMX Address at the Luminaire on page 15*.

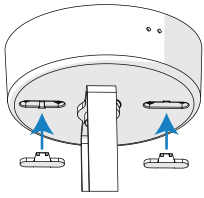
4. Connect the pre-wired DMX connector on the luminaire to the mated connector on the mounting plate (shown below).
5. Terminate DMX/RDM data signal for the last DMX/RDM device in the data run by setting the termination switch to ON (to the right, as shown below). All other devices in the data run should retain the default setting for the termination switch (OFF).
6. Following the label on the mounting plate, attach the power wires to the power block.



7. Use the canopy bolts to secure the luminaire to the mounting plate.



CAUTION: ***Make sure that the wiring is clear of the mounting plate before you secure the luminaire.***


Oval-shaped covers

8. Insert the oval-shaped covers into the canopy enclosure to cover the canopy bolt openings.
9. Restore power at the disconnect device.

Install Canopy Luminaire (0–10 V and DALI Variants)

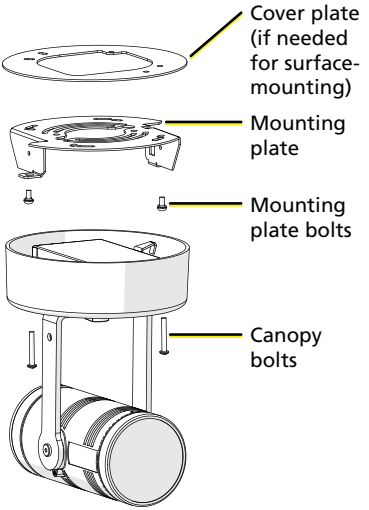
Note: *The 0–10 V driver conforms to IEC 60929 Annex E. Of the 0–10 V range, use 0–1 V to set the minimum level, and use 1–10 V for continuous dimming.*

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.*

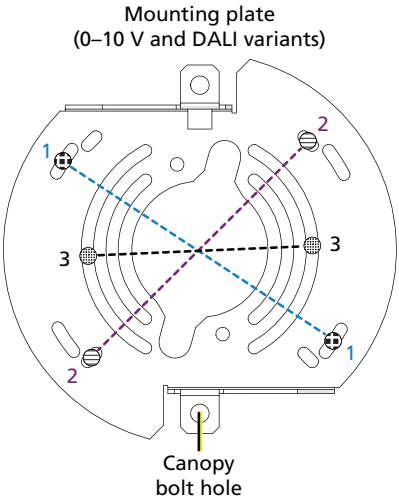
WARNING: RISK OF ELECTRIC SHOCK! Install the cover plate as directed below for installations where the interior of the canopy enclosure could be exposed after installation with only the mounting plate. For example, install the cover plate when installing to a surface-mount back box.

AVERTISSEMENT : Installez la plaque de protection comme indiqué ci-dessous pour les installations où l'intérieur de la rosace de plafond pourrait être exposé après l'installation avec uniquement la plaque de montage. Par exemple, installez la plaque de protection lors de l'installation sur un boîtier arrière à montage en surface.

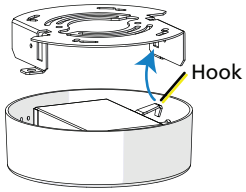
1. Remove the adhesive tape or fasteners securing the mounting plate to the luminaire to free the mounting plate from the canopy enclosure.



2. Are you flush-mounting the luminaire or surface-mounting the luminaire?
    - Flush-mounting: Using the mounting plate bolts, secure the mounting plate to the installed back box.
    - Surface-mounting: Position the cover plate on top of the mounting plate before wiring the luminaire. The cover plate is required when the interior of the canopy enclosure could be exposed after installation with only the mounting plate (the mounting surface is smaller than the canopy enclosure).



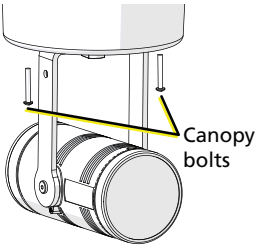
For this structure...	...secure mounting plate using:
4-11/16 in back box	Large oval slots (see 1 at left)
4 in back box	Small oval slots (see 2 at left)
Mud ring and round box	Circular slots (see 3 at left)

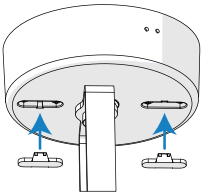


3. Use the hook in the canopy enclosure to hang the luminaire from the mounting plate while you complete the luminaire wiring.
4. Connect the building ground wire to the ground wire on the luminaire, following local electrical codes.

5. Connect the supply power wires to the luminaire wiring using the included WAGO® connectors.
    - For 120 V luminaires: Connect the black wire to line and the white wire to neutral.
    - For 230 V luminaires: Connect the brown wire to line and the blue wire to neutral.

6. Connect the data wires to the luminaire wiring using the included WAGO connectors.
    - For 0–10 V luminaires: Connect the gray wire to data - and the purple wire to data +.
    - For DALI luminaires: Connect the purple wires to data - and data +.
7. Use the canopy bolts to secure the luminaire to the mounting plate.
8. Insert the oval-shaped covers into the canopy enclosure to cover the canopy bolt openings.





Oval-shaped covers

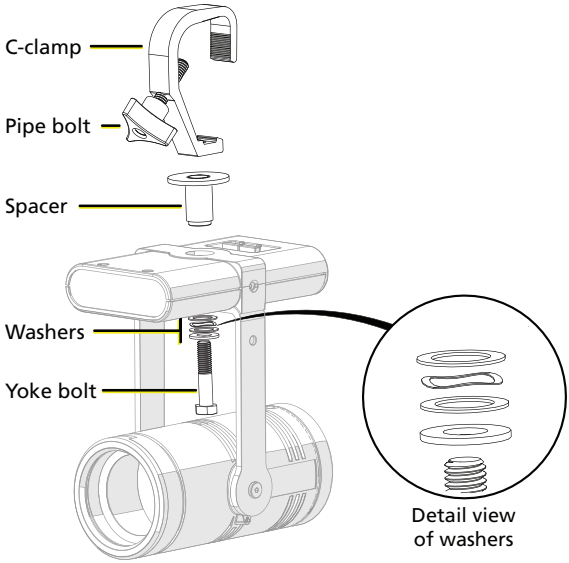
9. Restore power at the disconnect device.

Install Portable Luminaire with C-clamp

The C-clamp attaches the luminaire to the mounting pipe and allows you to adjust the position of the luminaire once it is mounted. The C-clamp will fit a 3/4 in to 2 in pipe. Two different length pipe bolts are provided to accommodate different pipe sizes.

Note: *The miniature C-clamp for the portable luminaire is available only in North America. In the EU and UK, use an M12 bolt to secure a clamp (provided separately) to the luminaire.*

1. Insert the spacer into the driver box through the hole in the top of the yoke.
2. Tightly fasten the C-clamp to the yoke with the provided yoke bolt and washers.
3. Place the C-clamp on the mounting pipe, and then tighten the pipe bolt to secure it. Use the standard pipe bolt to secure the luminaire to larger mounting pipes. If necessary, exchange the standard pipe bolt for the longer pipe bolt (included) to secure the luminaire to smaller mounting pipes.



4. Loosen the yoke bolt and rotate the yoke as needed.

CAUTION: ***Tighten the C-clamp pipe bolt to about 2 Nm (1.5 ft-lb), which is approximately finger-tight plus up to one-quarter turn. Do not use excessive force.***

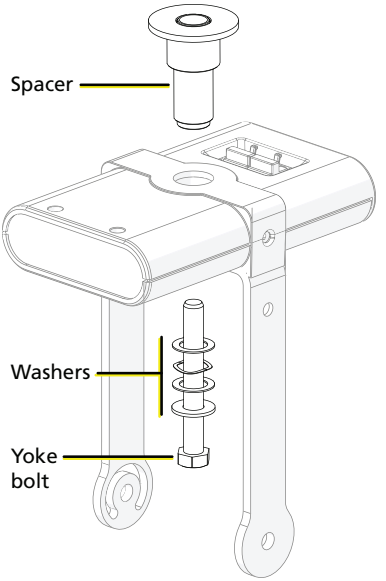
5. Tighten the bolt to lock the luminaire position.

Install Portable Luminaire on Unistrut Track

You can install the portable luminaire on Unistrut track using the Irideon FPZ Unistrut Kit (7191K1000).

1. Insert the spacer into the driver box through the hole in the top of the yoke.
2. Use the yoke bolt and washers to fasten the luminaire to the Unistrut track.

   Within the EU, use an M12 bolt and appropriate washers in place of the provided kit hardware.



Connect Cables to Portable Luminaire

1. Connect RJ45 data cables to the top of the driver box, one for data in and one for data thru (in either position), as needed.
   - To order RJ45-to-socket XLR adapter, use part number W6538.
   - To order RJ45-to-plug XLR adapter, use part number W6539.
2. Connect the luminaire to the power source.

Note:

- *The Irideon WLZ is not self-terminating. You must terminate the last luminaire in line with a 120 Ohm resistor. Please contact your ETC customer service representative to purchase part number N4086.*
- *No more than 32 DMX devices can be daisy-chained together on a single run. For runs of luminaires totaling more than 32 DMX devices, use a DMX splitter to split the DMX runs.*
- *When using DMX over Cat5, use Cat5e or better. Cable distance must not exceed 300 m (1000 ft).*
- *The Irideon WLZ cannot be controlled via network protocols and should not be connected to a system network.*

Portable Luminaire DMX Pinout

Pin	Wire Color	Description
1	White/Orange	DMX1 +
2	Orange	DMX1 -
3	White/Green	DMX2 +
4	Blue	Not Connected
5	White/Blue	Not Connected
6	Green	DMX2 -
7	White/Brown	Iso Common
8	Brown	Iso Common 2

Configuration

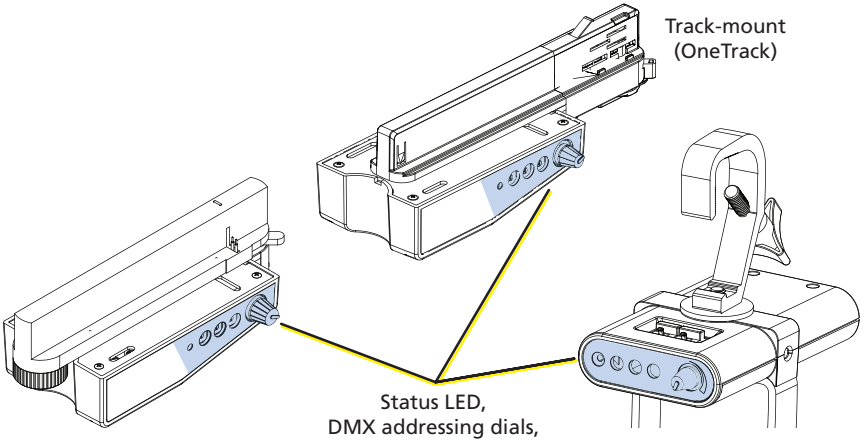
Set the DMX Address at the Luminaire

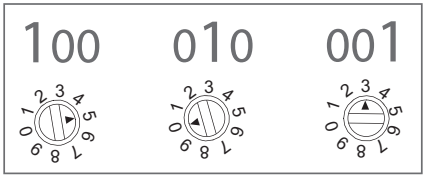
You can set the DMX address using RDM, but you can also set the DMX address on the luminaire itself, if necessary. The luminaire uses the last address that you set, regardless of whether you set it via RDM or locally on the luminaire.

There are three addressing dials on the track adapter (track-mounted luminaire), in the canopy (canopy luminaire), or on the driver box (portable luminaire). To set the DMX address, use a small flatblade screwdriver to move the arrow to the desired address number.

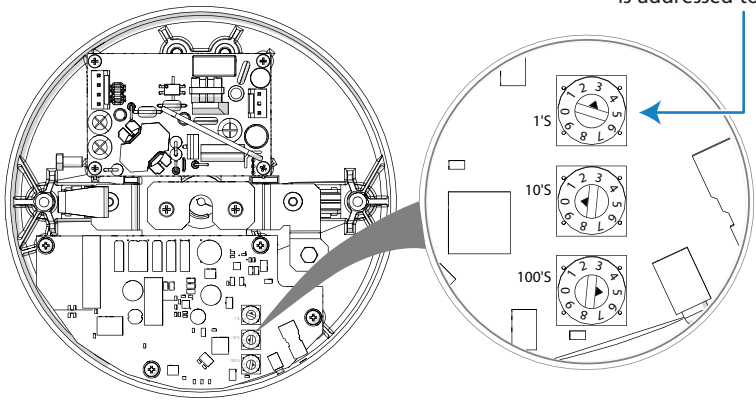
DMX addresses must be set between 1 and 512. Each luminaire must be considered a separate DMX device for the purpose of DMX line-loading calculations. The Irideon WLZ only has an intensity channel.

Note: *When using RDM with track-mounted luminaires, ETC recommends connecting no more than 20 luminaires on a single run.*





In these addressing examples, the luminaire is addressed to 503.



Canopy
(mounting plate removed)

Alternative DMX Addressing Functions

Certain DMX addresses are reserved for special functions. Addresses 700 and above can be used for setting the intensity level of the luminaire. The second and third address numbers set the intensity level. The intensity knob is ignored when using these DMX addresses. See the following table for examples.

DMX Address	Function
701	Intensity at 1%
710	Intensity at 10%
725	Intensity at 25%
799	Intensity at 99%
800	Intensity at 100%

Adjust the Local Intensity

A local intensity knob is located on the track adapter (track-mounted luminaire) or on the driver box (portable luminaire). See the illustration in *Set the DMX Address at the Luminaire on page 15*.

On the canopy luminaire (DMX variant only), the local intensity adjustment control is located on the side of the canopy (next to the status LED). To adjust the local intensity knob on the canopy luminaire, you will need a small flatblade screwdriver (jeweler's screwdriver).

You can adjust the local intensity with or without DMX being present.

- When DMX is not present, you can control the intensity.
- When DMX is present, you can set the maximum light output. Dimming will be proportional in relation to that setting. When the local intensity is set to Off, the maximum light level over DMX is 100%.
- When DMX is lost and the local intensity is set to Off, the light will go dark.
- When DMX is lost and the local intensity is set to a level greater than 0, the light goes to the level of the local intensity setting.

Initial Power Up

Track-Mount, Portable, and Canopy (DMX) Luminaires

Control and configure the luminaire over a DMX/RDM control network or directly from a connected computer running appropriate software. When controlling the luminaire directly from a PC, a Gadget II interface or DMX/RDM gateway is required.

Note: *Changing the address via RDM will override the local DMX addressing dials. However, if you change the addressing dials after you set the address via RDM, the addressing dials will override the RDM setting. See* *Set the DMX Address at the Luminaire on page 15*.

Canopy (0–10 V) Luminaire

Apply power and dim the luminaire using a 0–10 V controller.

Note: *The 0–10 V driver conforms to IEC 60929 Annex E. Of the 0–10 V range, use 0–1 V to set the minimum level, and use 1–10 V for continuous dimming.*

Canopy (DALI) Luminaire

Use a DALI configuration and commissioning tool to configure the DALI address of the luminaire.

Status LED

The status LED indicates the DMX status. When DMX is present, the LED turns on for 10 seconds, and then it turns off.

Note: *A change to the DMX start address, the local intensity, or the presence of DMX will "wake" the status LED.*

When the local intensity is set to Off, the status LED will flash when there is a loss of DMX.

With the local intensity set to any other position, the status LED will flash for 10 seconds when there is a loss of DMX. Then the LED will turn off.

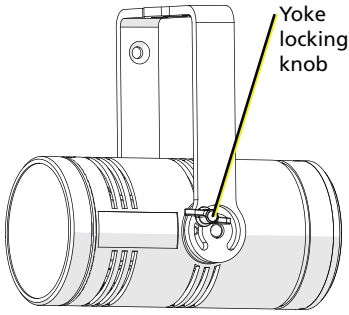
RDM Values

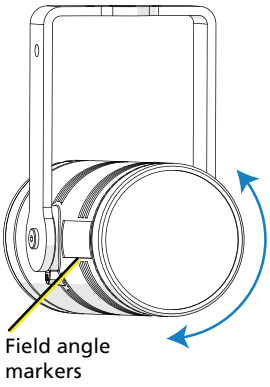
Parameter	RDM PID	Value
Manufacturer ID	0x6574	Electronic Theatre Controls
Model ID	0x901	Irideon WLZ
DMX Start Address	0x00F0	Range = 1–512
Personality ID	0x00E0	1=DMX 2=Local
Output Frequency	0x8123	0 = Standard (1.2 kHz) 1 = High (25 kHz)

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.





Adjust the Field

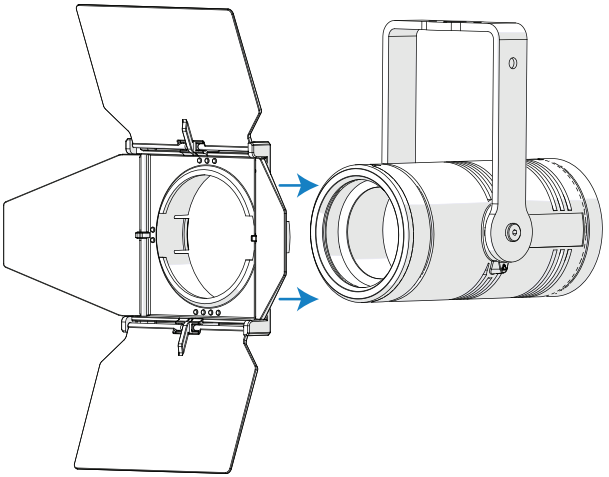
Rotate the back of the luminaire body to adjust the field between wide and narrow (see image at left). The field angle markers on the side of the luminaire indicate the field angle as you adjust within the range of 16–91 degrees.

Use the Barn Door Accessory

Snap the barn door accessory onto the front of the luminaire body as shown below. Do not remove the media holder from the front of the luminaire before installing the accessory—the barn doors snap directly on the front of the luminaire with the media holder in place.

Rotate the accessory and adjust the doors as needed.

CAUTION: ***When removing the barn door accessory, firmly hold the luminaire body in order to avoid unnecessary stress on the DataTrack adaptor, C-clamp, or canopy.***



Use the Integrated Media Holder

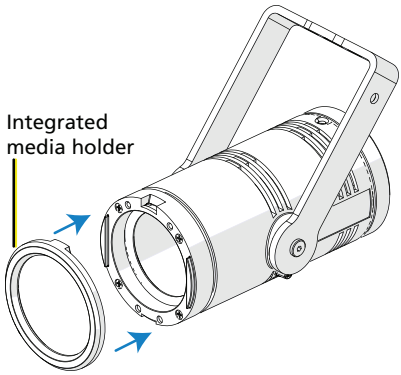
The Irideon WLZ comes equipped with an integrated media holder, which is a metal frame used to hold color media (often referred to as gel) or diffusion in front of the lens. The media holder is equipped with a magnetic retaining clip that prevents the media from falling out. The integrated media holder can take color media, diffusion, or dichroic glass with a 69 mm (2-11/16 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.

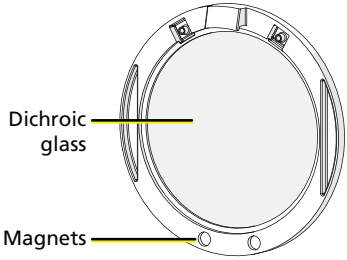
Install Color Media or Diffusion

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.

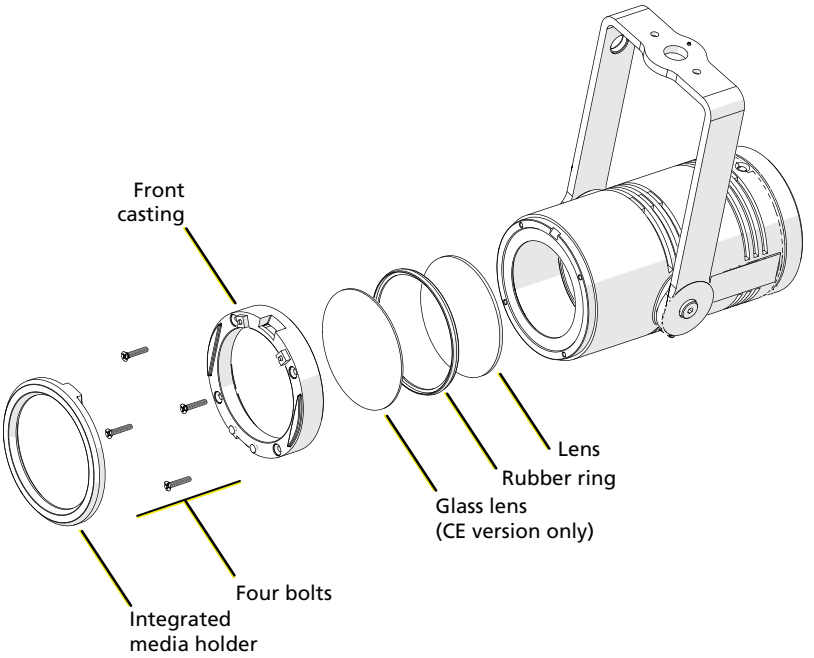


1. Release the magnetic retaining clip by gently pushing it up.
2. Place the dichroic glass into the groove.
3. Replace the media holder by aligning the tab at the top of the media holder with the inset on the front casting.

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 four bolts from the front of the luminaire.
3. Remove the front casting.
4. Remove the lens, rubber ring, and glass lens (CE version only).
5. Remove dust with a blast of oil-free air or wipe with a clean, lint-free cloth.
6. Replace the lens, rubber ring, and glass lens (CE version only). Ensure that the ridged side of the lens is facing out.
7. Replace the front casting and secure it with the bolts.
8. Replace the integrated media holder.

Specifications and Reference

For current and complete compliance and specifications, see the Irideon WLZ datasheet at etcconnect.com.

FCC Compliance

Irideon WLZ

(For any FCC matters):

Electronic Theatre Controls, Inc.
3031 Pleasant View Road
Middleton, WI 53562
+1 (608) 831-4116
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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