Manuals+ — User Manuals Simplified.

GE current HORT158 Arize Element L1000 Gen2 Horticulture LED Lighting System Instruction Manual

Contents

GE current HORT158 Arize Element L1000 Gen2 Horticulture LED Lighting System

For the latest European install guides and safety information: **https://www.gecurrent.com/eu-en/indoor-lighting/horticulture-led-grow-lights**

BEFORE YOU BEGIN

Read these instructions completely and carefully.
For Commercial or Industrial use only.

WARNING
RISK OF ELECTRIC SHOCK

- Turn power off before installation, inspection, cleaning or removal. And follow appropriate lock out/tag out safety procedure.
- Properly ground electrical enclosure.
- Follow all National Electric Codes (NEC) and local codes.
- This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.
- The installation and associated structures are subject to approval by the authority having jurisdiction.
- Use only with components identified in this document.
- Suitable for dry, damp, and wet locations; Do not immerse any component.
- Wear suitable Personal Protective Equipment (PPE) during installation/maintenance. Highly recommend safety glasses, helmet and leather glove for luminaire mounting.
- Luminaire design for Greenhouse only.

RISK OF FIRE

- Minimum 12 inch distance from light module & driver to any combustible material.
- Minimum 6 inch clearance between, light module & driver, light module & light module, driver & driver.
- The light module shall be installed lens down with a minimum 5 inch distance to anything below.
- All cables including connectors shall not be concealed or extended through a wall, floor, ceiling, or other parts of the building structure; located above a suspended ceiling or dropped ceiling; permanently affixed to the building structure.
- Cables shall be routed so that they are not subject to strain and are protected from physical damage; visible over their entire length; and used within their rated ampacity as determined for the maximum temperature of the installed environment specified in the instructions.
- For safe operation, and to maximize the longevity of the luminaire; ensure that the light module and driver are clean and free of dirt, dust, oil, or any other debris. Do not apply any kind of film on the lens or otherwise cover the driver or light engine in any way.

Components Supplied
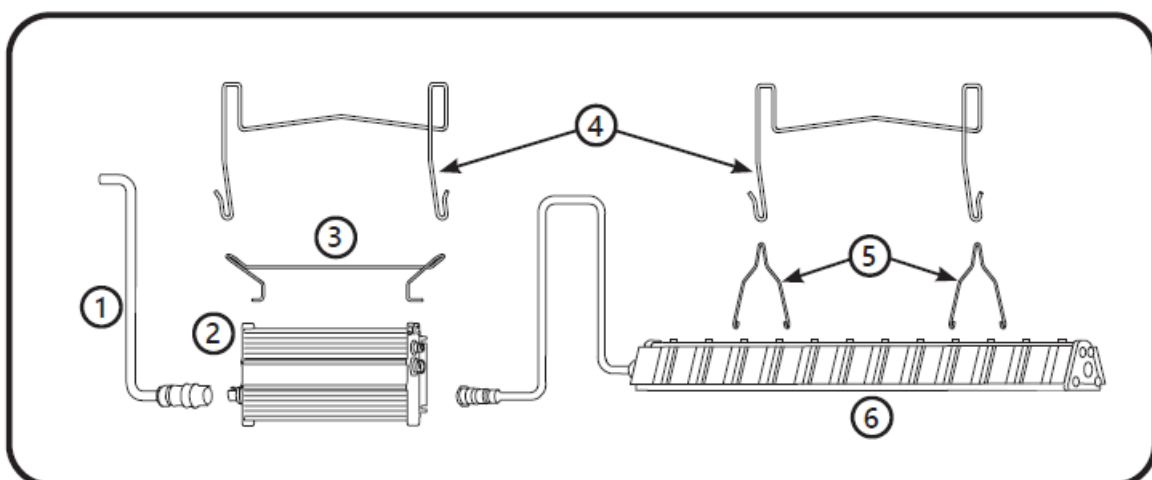
1. AC cable
2. Driver
3. Driver Bracket
4. Hanger (2x)
5. Light Module Brackets (2x)
6. Light Module

Light Module Specifications

Product Code	Detailed Description	Weight	System Input Current [A] Low Voltage Driver @ 120/208/240/277VAC	System Input Current [A] High Voltage Driver @ 277/347/480VAC
GEHE-HPPR B2A	Arize Element, L1000, PPR, XW Optic	4.5 kg (10 lbs)	4.9/2.9/2.5/2.2	2.2/1.8/1.3
GEHE-HPPB B2A	Arize Element, L1000, PPB, XW Optic	4.5 kg (10 lbs)	5.2/3.1/2.7/2.3	2.3/1.9/1.4
GEHE-HPKT B2A	Arize Element, L1000, PKT, XW Optic	4.5 kg (10 lbs)	5.1/3.0/2.6/2.3	2.3/1.8/1.4
GEHE-HPKR B2A	Arize Element, L1000, PKR, XW Optic	4.5 kg (10 lbs)	5.3/3.1/2.7/2.4	2.3/1.9/1.4
GEHE-HPKB B2A	Arize Element, L1000, PKB, XW Optic	4.5 kg (10 lbs)	5.4/3.2/2.8/2.4	2.4/1.9/1.4
GEHE-HPKF B2A	Arize Element, L1000, PKF, XW Optic	4.5 kg (10 lbs)	5.4/3.3/2.8/2.4	2.4/1.9/1.4
GEHE-HBRI B2A	Arize Element, L1000, BRI, XW Optic	4.5 kg (10 lbs)	5.5/3.2/2.8/2.5	2.4/2.0/1.5
GEHE-HBRV B2A	Arize Element, L1000, BRV, XW Optic	4.5 kg (10 lbs)	5.8/3.4/2.9/2.6	2.5/2.1/1.5
GEHE-VPPR B2A	Arize Element, L1000 HE, PPR, XW Optic	4.5 kg (10 lbs)	4.5/2.6/2.3/2.0	2.0/1.6/1.2
GEHE-VPPB B2A	Arize Element, L1000 HE, PPB, XW Optic	4.5 kg (10 lbs)	4.8/2.8/2.4/2.1	2.1/1.7/1.3
GEHE-VPKT B2A	Arize Element, L1000 HE, PKT, XW Optic	4.5 kg (10 lbs)	4.6/2.7/2.4/2.1	2.0/1.7/1.2
GEHE-VPKR B2A	Arize Element, L1000 HE, PKR, XW Optic	4.5 kg (10 lbs)	5.0/2.9/2.5/2.2	2.2/1.8/1.3
GEHE-VPKB B2A	Arize Element, L1000 HE, PKB, XW Optic	4.5 kg (10 lbs)	5.1/3.0/2.6/2.3	2.2/1.8/1.4
GEHE-VPKF B2A	Arize Element, L1000 HE, PKF, XW Optic	4.5 kg (10 lbs)	4.8/2.8/2.5/2.2	2.1/1.7/1.3

Driver Specifications

Description	Weight	Input Voltage
GEPSC240-680D-BDGGL-D1	3.2 kg (7 lbs)	120-277 VAC
GEPSC240-680D-BGJGL-D1	3.2 kg (7 lbs)	277-480 VAC

Interconnection Cable Specifications

Description	Detailed Description
GECA60C16-OL04B	AC Leader Cable, 4ft, UL
GECA60C16-8L04B	AC Leader Cable, 4ft, 16AWG, NEMA L8-20, UL
GECA60C16-7L04B	AC Leader Cable, 4ft, 16AWG, NEMA L7-15, UL
GECA60C16-5L04B	AC Leader Cable, 4ft, NEMA 5-15, UL
GECA60FNA-NL00B	AC Field Installable Connector, UL and CE (Wieland P.N. 34.254.0590.0)
GECA30G14-EN03B	DC Inter-Connection Cable, 3ft (914mm), UL and CE
GECA30G14-EN06B	DC Inter-Connection Cable, 6ft (1828mm), UL and CE
GECA30H20-OO03B	Dimming cable, 3ft (914mm), UL and CE

Mounting Accessories Specifications

Description	Detailed Description	Weight
GEMB-WAS1	Wire bracket mounting kit, square 1-5/8″ (41mm)	0.4 kg (0.9 lbs)
GEMB-WAA1	Wire bracket offset mounting kit, square 1-5/8″ (41mm)	0.6 kg (1.3 lbs)
GEMB-WAS2	Wire bracket mounting kit, square 2-3/4″ (70mm)	0.4 kg (0.9 lbs)
GEMB-CBH1	18″ (457mm) cable universal mounting kit	0.1 kg (0.2 lbs)
GEMB-CBH2	60″ (1524mm) cable universal mounting kit	0.1 kg (0.2 lbs)
GEMB-PAU1	Perpendicular (90°) universal mounting kit	0.5 kg (1.1 lbs)

CAUTION

Installation instructions and specifications for accessories can be found in the accessory package.

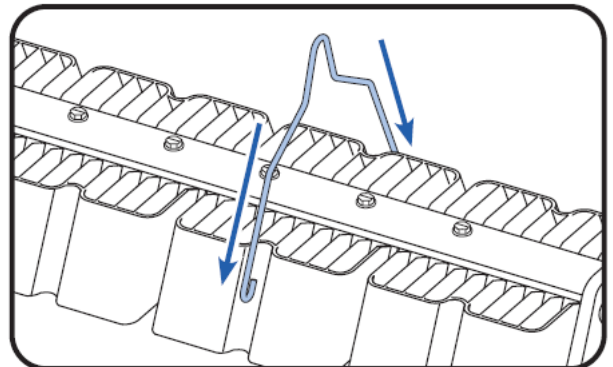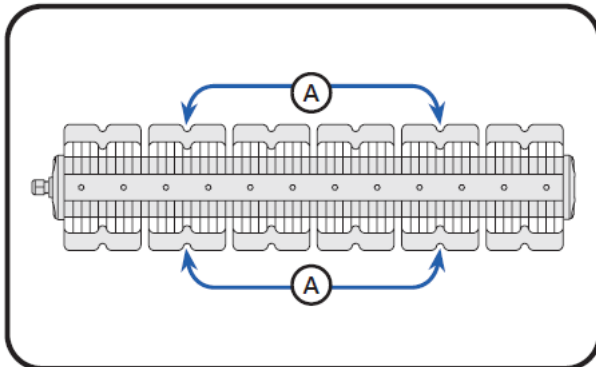## Sample Base Installation Diagram
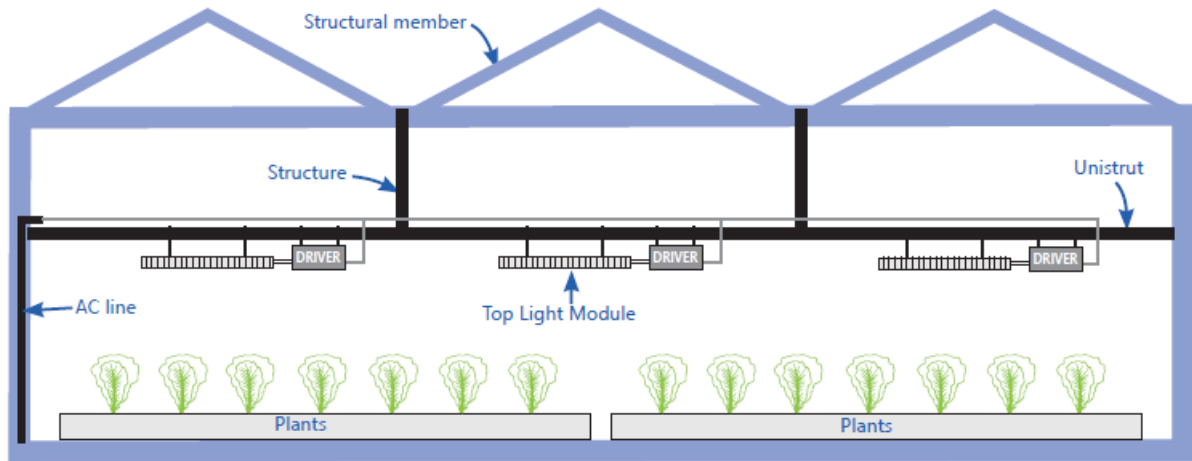
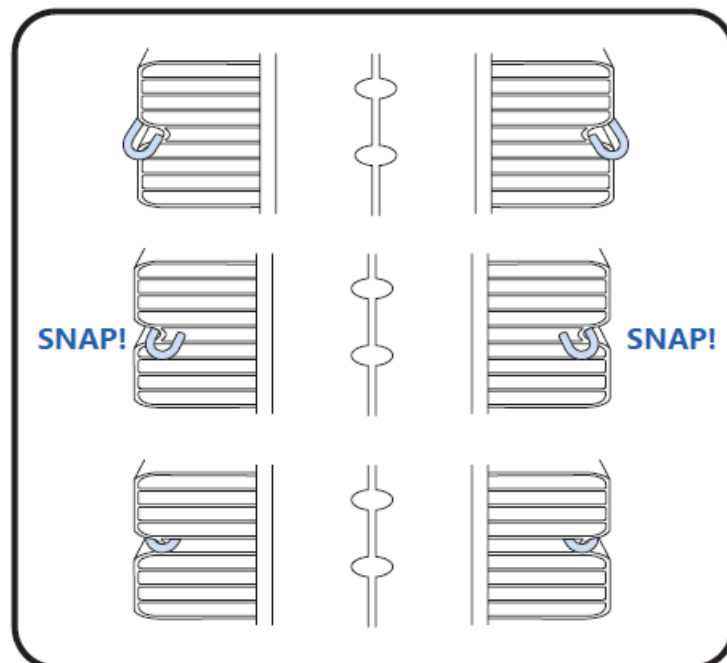## Installation of the Light Module

Installation of Module Brackets

If not preassembled, install light module brackets on light module.

1. Install brackets at location A.
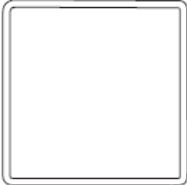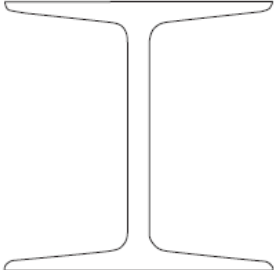2. Slide down bracket along channels.

3. Press down on bracket until hooks snap into place. Ensure bracket hooks catch bottom edge of heatsink.

Selection of Mounting Hardware

Based on the cross section of the structural member select the correct hanger or mounting cable.

Unistrut 1-5/8" (41mm)

Use standard hanger 1-5/8" (41mm)
OR
Offset hanger 1-5/8" (41mm)
to clear the bottom of the Unistrut

Square 2-3/4" (70mm)

Use standard hanger
2-3/4" (70mm)

Other Structural Members

Use 18" (0.5m) or 60" (1.5m)
universal cable
OR
Perpendicular (90°)
universal mounting kit

**Installation with Standard and Offset Hangers**
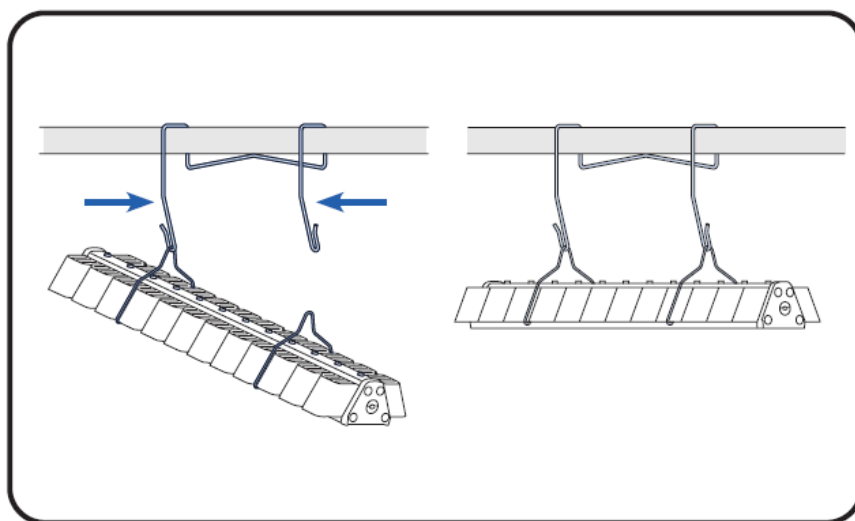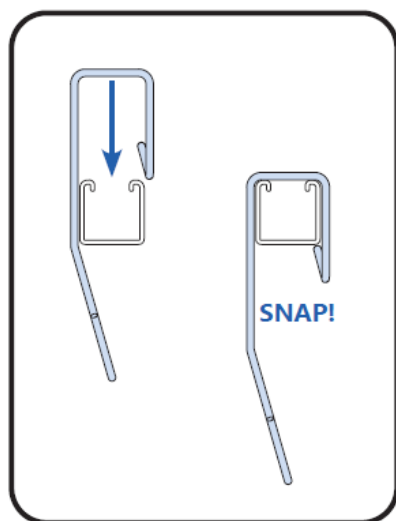
SNAP!

1. Place light module hanger over structural member and snap hanger in place.
2. Hang one fixture bracket on one hook, hang opposite fixture bracket onto other hook by pressing hanger arms together.
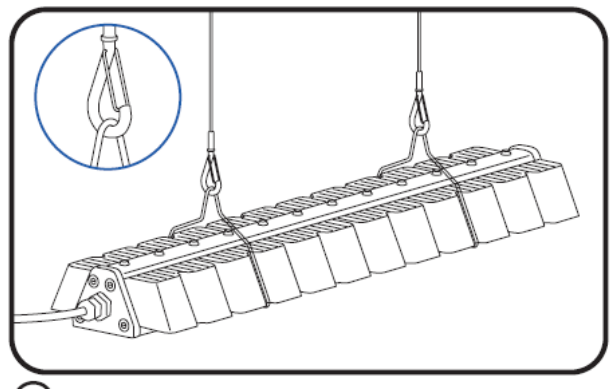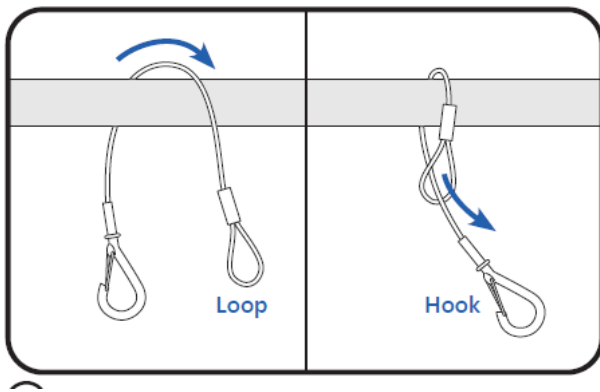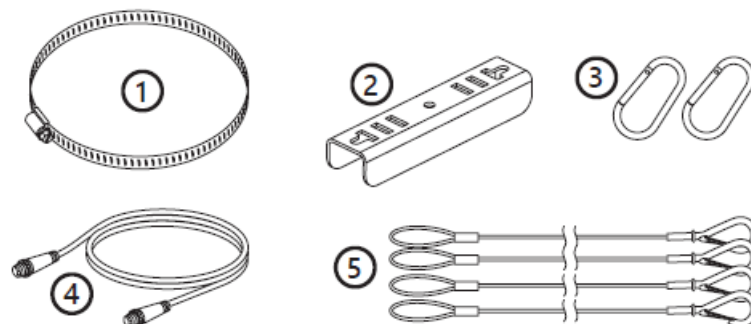
Installation with Universal Cables

1. Wrap loop end of cable over structural member. Insert hook through loop end.
2. Attach hooks to light module brackets. Ensure hook gate is closed.

Installation with Perpendicular 90° Universal Mounting Kit
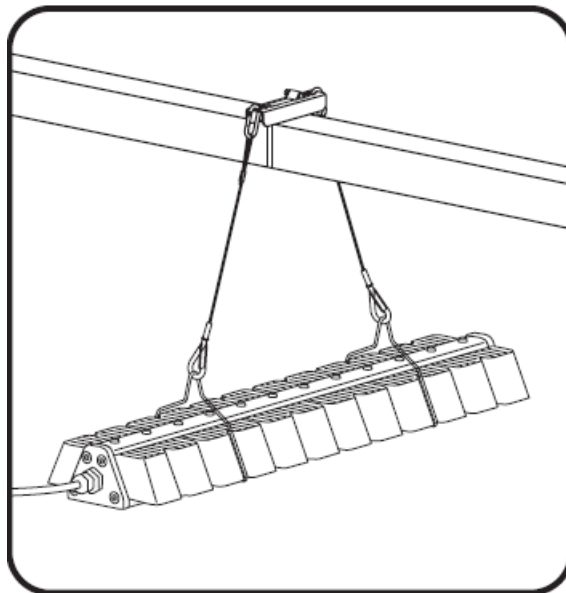
Kits Contents (SKU: 93139057)

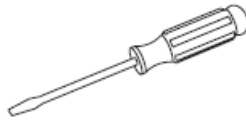- 1x Worm Drive Clamp
- 1x Metal Bracket
- 2x Carabiners
- 6 ft. Inter-connection
- 4x 18 in. Universal Cables

**Tools Required**
5/16" hex socket or flat-blade screwdriver

Installation Steps for Perpendicular 90° Universal Mounting Kit

1. First determine which 2 slots on the metal bracket most closely correspond to the structural member width. Insert strap of the worm drive clamp through the first slot of the metal bracket from the top.
2. Place the metal bracket on top of the structural member and wrap the strap around the bottom of the structural member and back up through the second slot.
3. Secure the metal bracket on to the top of the structural member by inserting the strap into the open end of the clamp and tightening down the screw.
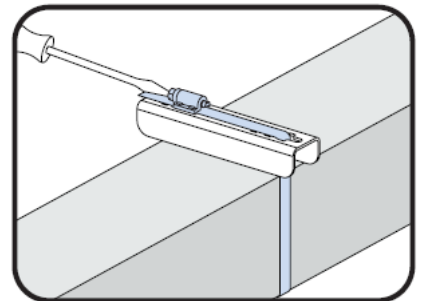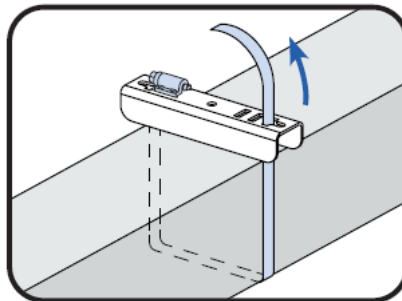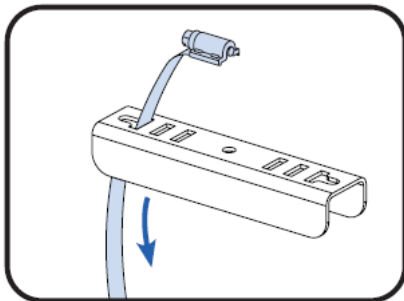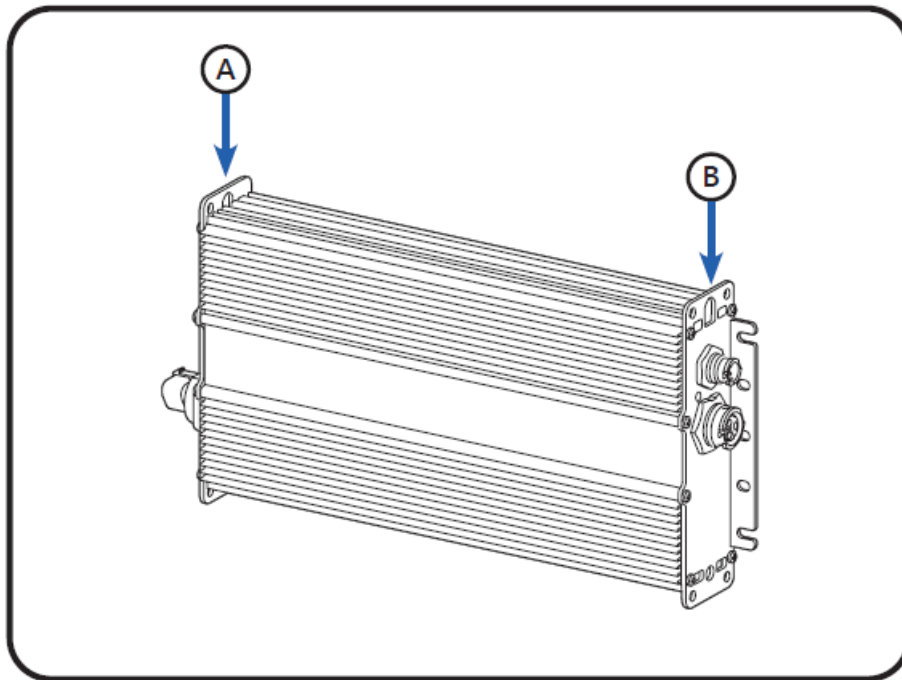

4. Attach a carabiner to each side of the metal bracket.
5. Attach a support cable to each carabiner and ensure the gates are closed.
6. Attach other end of cables to light module. Ensure hook gates are closed.
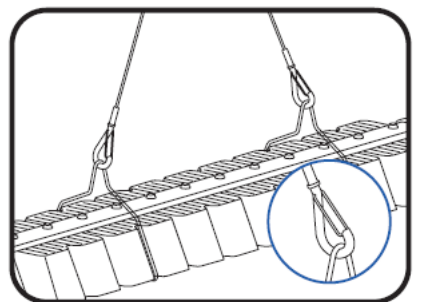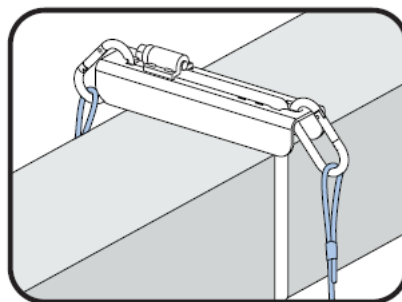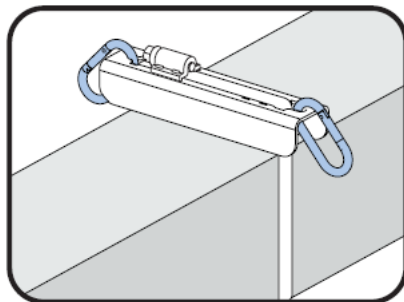
Installation with Custom Brackets

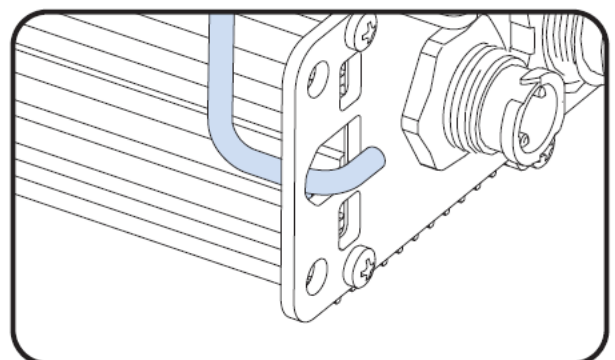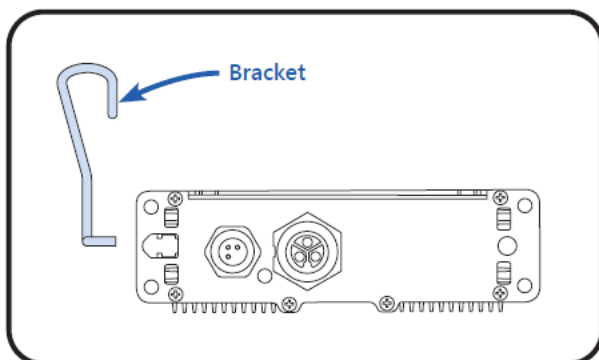If you choose to use your own custom mounting method, attach to points A.
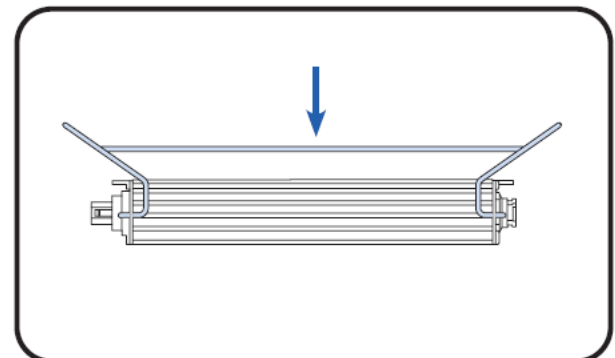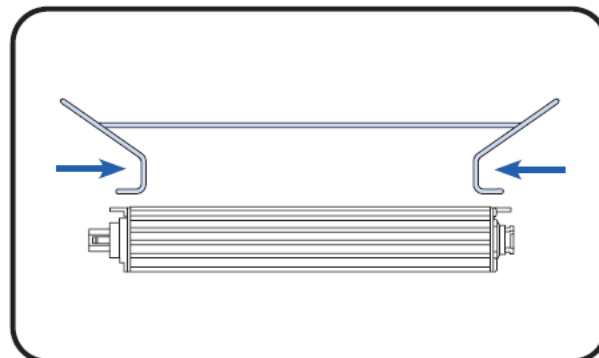
Installation of the Driver

Installation of Driver Bracket

If not preassembled, install driver bracket onto driver.

1. Orient driver perpendicular to the bracket.
2. Ensure first end of bracket hook is lined up with oval mounting hole of driver.

3. Squeeze bracket arms together & slide hook into first driver mounting hole.
4. Repeat on opposite driver mounting hole.

5. Let driver swing free upright & ensure hooks on both sides are correctly engaged.
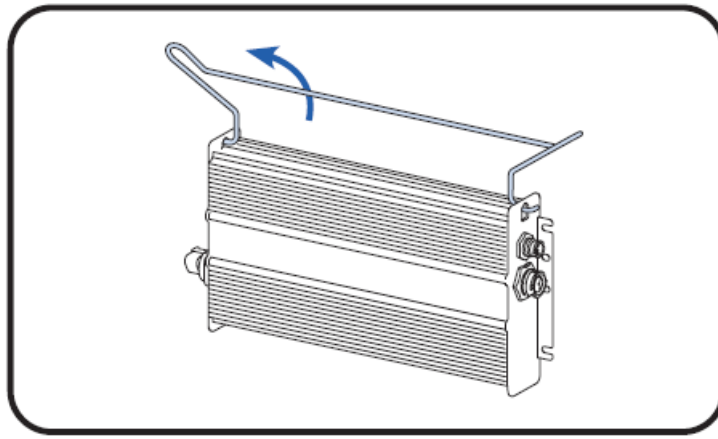
Selection of Mounting Hardware

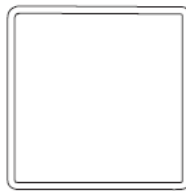Based on the cross section of the structural member select the correct hanger or mounting cable.

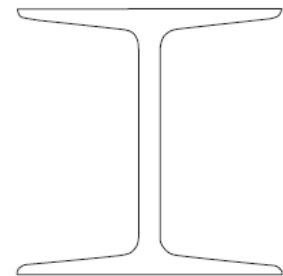**Unistrut 1-5/8" (41mm)**

Use standard hanger 1-5/8" (41mm)
OR
Offset hanger 1-5/8" (41mm)
to clear the bottom of the Unistrut

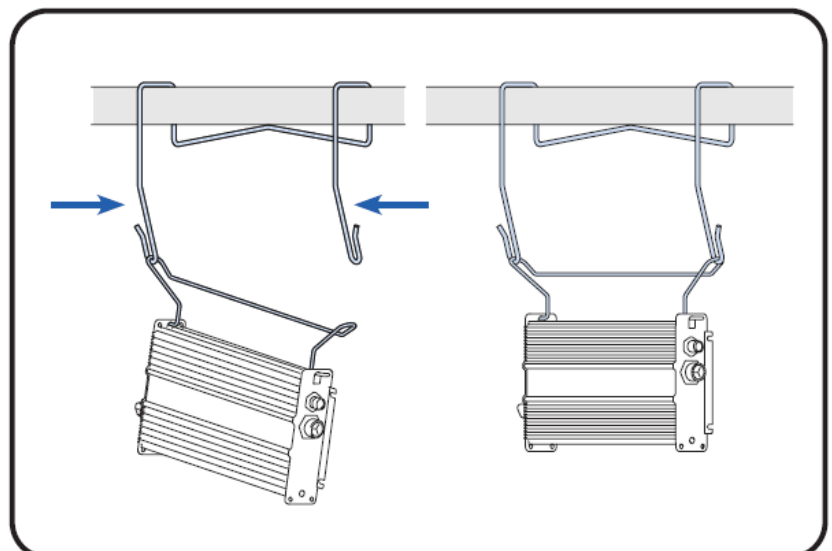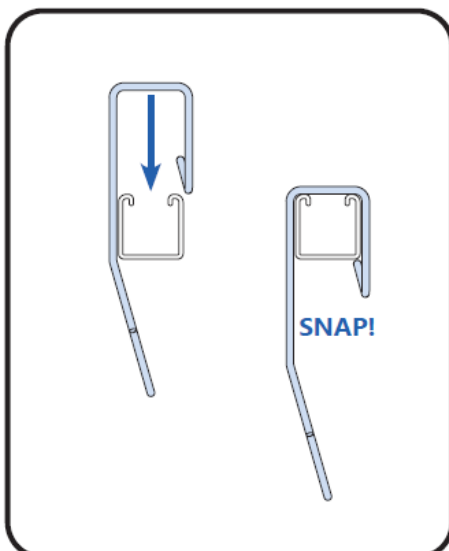**Square 2-3/4" (70mm)**

Use standard hanger
2-3/4" (70mm)

Other Structural Members

Use 18" (0.5m) universal cable

Installation with Hangers

SNAP!

1. Hang brackets of driver module onto hanger and push down until brackets snap into place.

2. Hang driver bracket from one hook, then hang other driver bracket end by pressing hanger arms together.
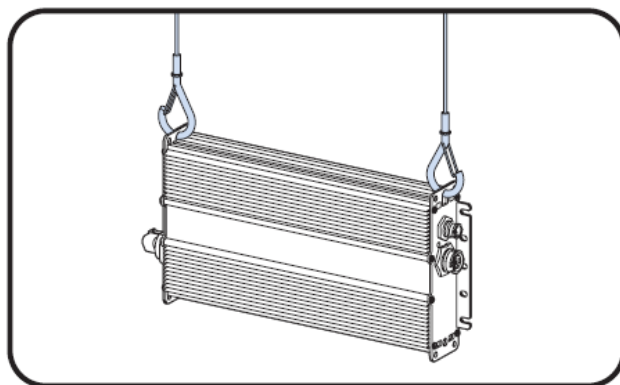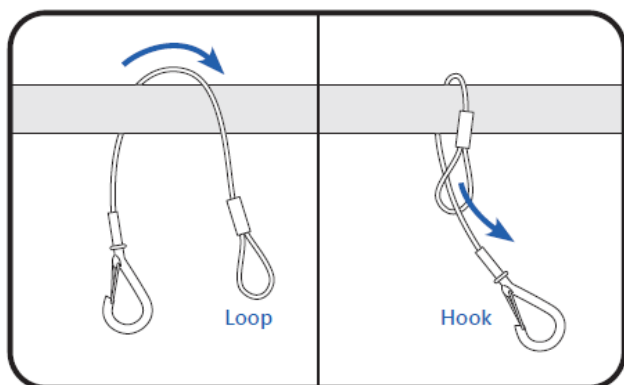
Installation with Universal Cables

1. Wrap loop end of cable over structural member. Insert hook through loop end.
2. Attach hooks to oval driver mounting holes. Ensure hook gate is closed.

Installation with Custom Brackets
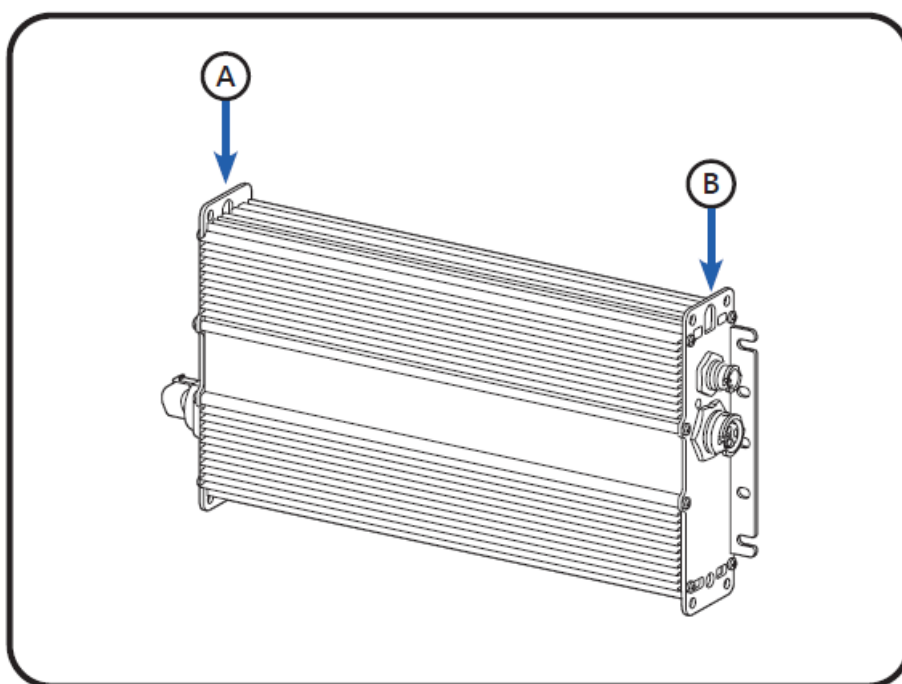
If you choose to use your own custom mounting method, attach to oval driver mounting holes A and B for hanging. No side forces should be applied to mounting holes A and B.

Electrical Connections

Connect the Driver Output to Light Module

1. Align keying features of larger output connector on driver with connector on light module cable.
2. Push connectors together until the lock ring has snapped into place and a click is heard.
3. Recommended: secure light module cable.

NOTE 1: Use 3 ft. or 6 ft. extension cables if driver and light module are more than 2 ft. apart.
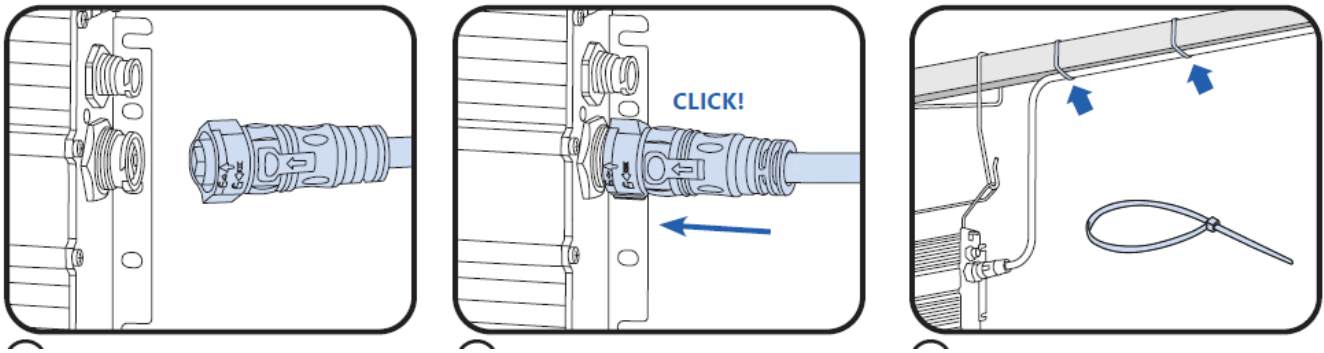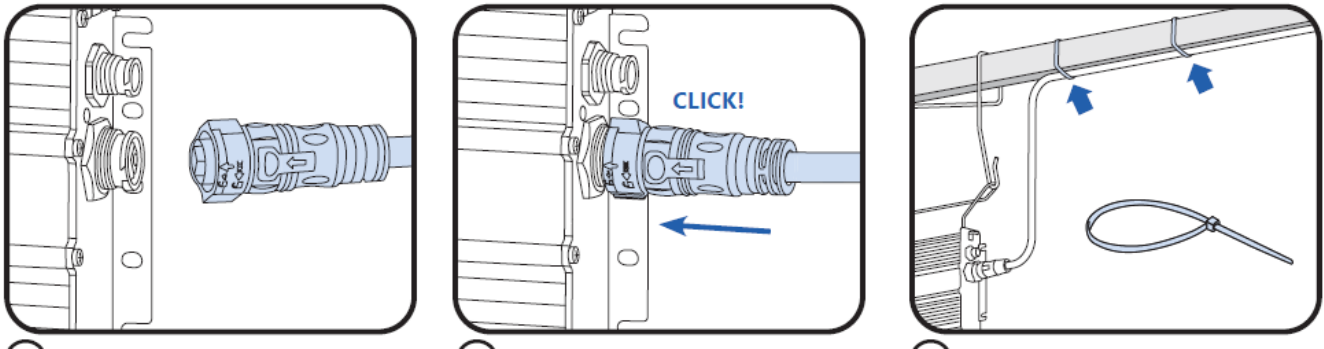**NOTE 2:** To disassemble connectors, turn locking ring 1/8 of a turn counter-clockwise and separate connectors.

Connect the AC Input

Select the correct AC input leader cable.

Leader cable to 4 ft. open lead UL or CE

Leader cable with Nema L7-15P plug

Leader cable with Nema 5-15P plug

Leader cable with Nema L8-20P plug
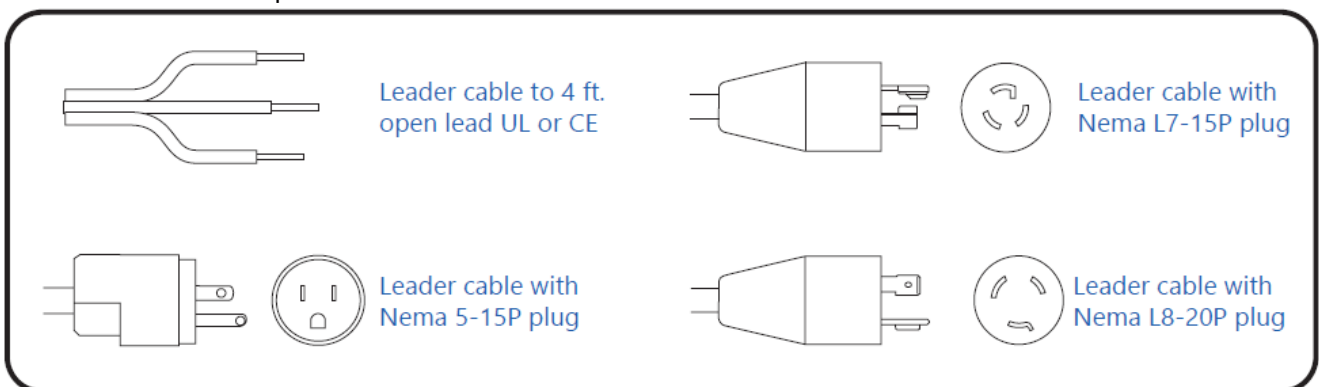
WARNING
RISK OF ELECTRIC SHOCK
Turn power OFF before inspection, installation or removal.

Connect the Driver Input
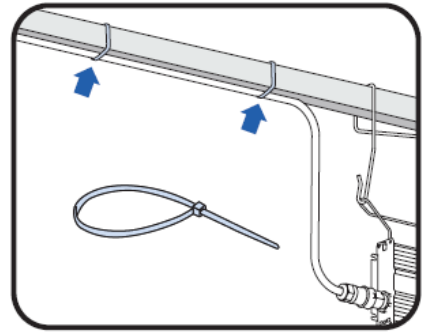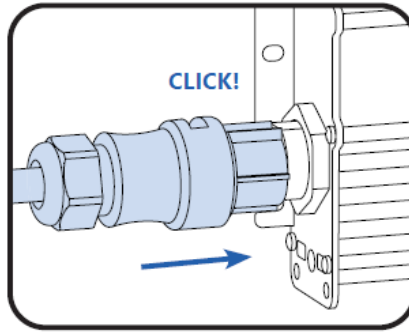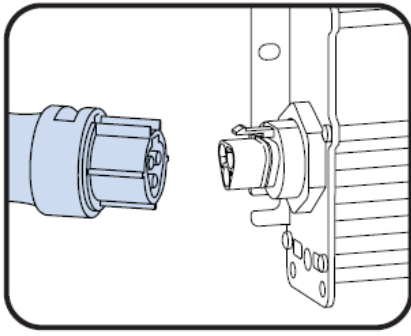
1. Align keying features on driver with connector on the selected leader cable.
2. Push connectors together until a click is heard.
3. Recommended: secure AC input leader cable.
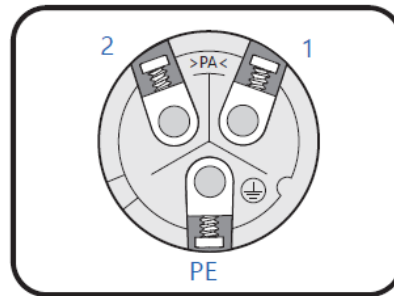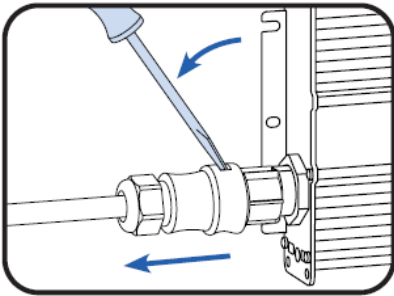
Pin	Line-to-Line Voltage			Line-to-Neutral Voltage		
1	L2	L1	L1	L1	L2	L3
2	L3	L2	L3	N	N	N
PE	PE	PE	PE	PE	PE	PE

L=Line / N=Neutral / PE=Protective Earth

NOTE: To disassemble connectors, insert and twist a small blade screwdriver and then separate connectors.

Using Custom AC Inputs
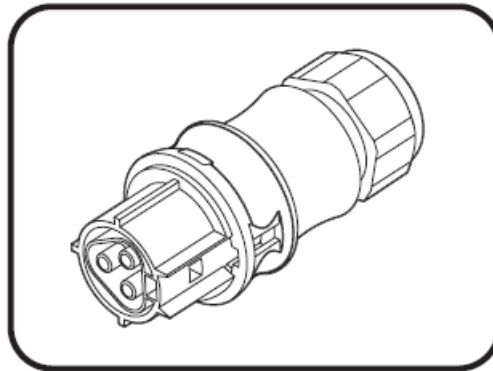
If you choose to use your own custom AC input connection, use a Wieland RST20i3 green connector and plug into the male AC connector of the driver.

Connecting Driver to AC Line
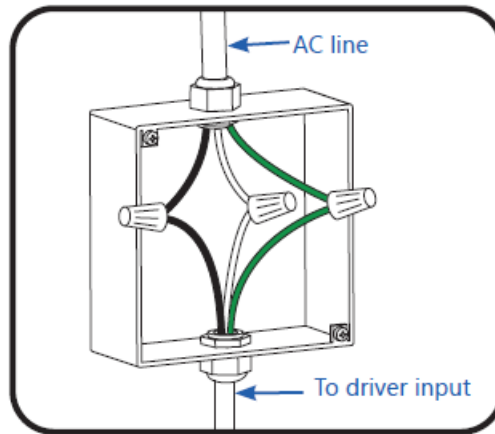
Connect the green wire to the incoming ground conductor. Connect the black wire to Line 1 and white wires to Neutral or Line 2 of the incoming AC line.

Connection Schematic
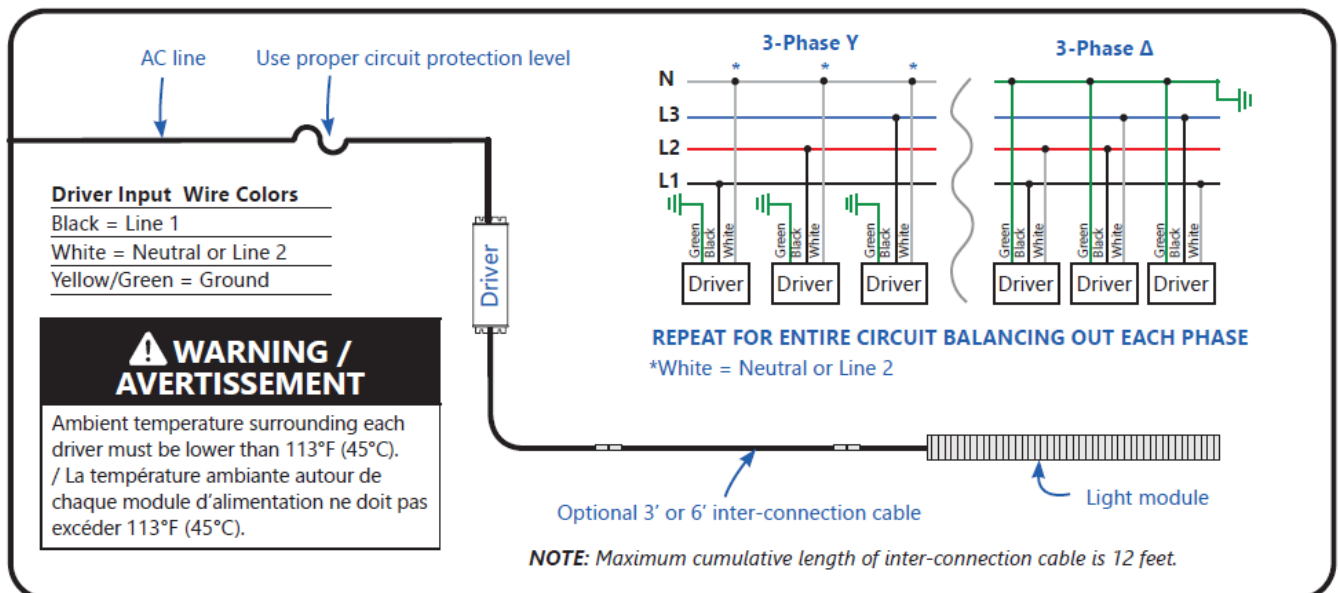
Connecting Wired Dimming (Optional)

WARNING
RISK OF ELECTRIC SHOCK

- Turn power off before installation, inspection, cleaning or removal. And follow appropriate lock out/tag out safety procedure.
- This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved.

NOTE: Arize L1000 dimming allows user to adjust the light output from 0%/10-100%. When set to 0%, the system will enter standby mode, consuming 0.5-1.5W and LEDs may remain very faintly lit. If 0 light is preferred, switch off the unit via the mains (AC line).
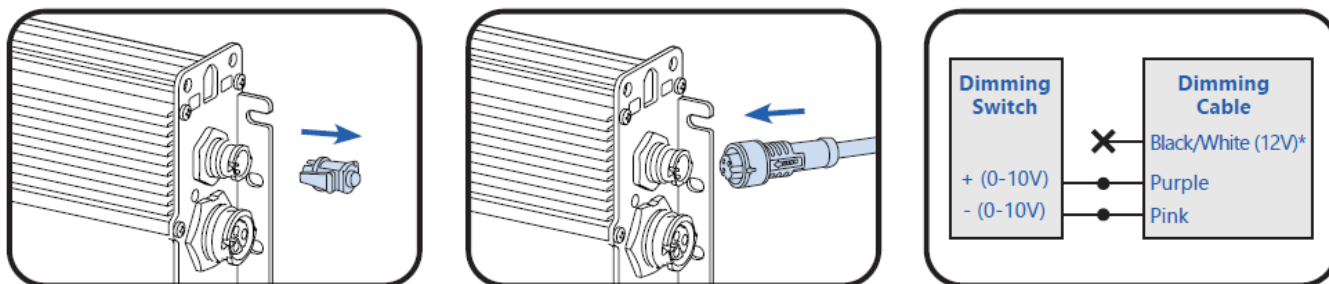
1. Remove cap from dimming connector.
2. Plug dimming cable: align keying features and push connectors together until lock ring has snapped into place and a click is heard. To remove dimming cable, turn locking ring 1/8 of a turn counter-clockwise and separate connectors.
3. Connect the appropriate wiring to Dim + (0-10V) and Dim – (0-10V) from driver. Insulate the black wire. Follow dimming switch instructions for rest of connection.

   *The black/white wire is a 12V auxiliary output that can support up to 250mA of current.

RISK GROUP 1 – CAUTION**
Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

- These photobiological safety markings are based on testing of the light output characteristic of a single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.
- It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on, are aware of these risks and that appropriate safeguards are in place.

Save These Instructions
Use only in the manner intended by the manufacturer. If you have any questions, contact the manufacturer.
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.

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 instruction manual, may cause harmful interference to radio communications. 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 his own expense. This Class [A] RFLD complies with the Canadian standard ICES-005. /CeDEFR de la classe [A] est conforme à la NMB-005 du Canada.


Electrical products must not be thrown out with domestic waste. They must be taken to a communal collecting point for environmentally friendly disposal in accordance with local regulations. Contact your local authorities or stockist for advice on recycling. The packaging material is recyclable. Dispose of the packaging in an environmentally friendly manner and make it available for the recyclable material collection-service.
For the latest install guides for your product go to: **https://www.gecurrent.com/horticulture**

Documents / Resources
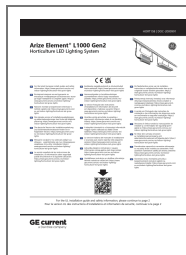
	GE current HORT158 Arize Element L1000 Gen2 Horticulture LED Lighting System [pdf] Instruction Manual HORT158, Arize Element L1000 Gen2 Horticulture LED Lighting System, HORT158 Arize Element L1000 Gen2 Horticulture LED Lighting System, L1000 Gen2 Horticulture LED Lighting System, Gen2 Horticulture LED Lighting System, Horticulture LED Lighting System, LED Lighting System, Lighting System

References

- **Indoor Lighting | Current - GLI Brands**
- **Commercial Lighting and Lighting Controls | Current - GLI Brands**
- **Indoor Lighting | Current - GLI Brands**
- **Commercial Lighting and Lighting Controls | Current - GLI Brands**
- **Commercial Lighting and Lighting Controls | Current - GLI Brands**
- **Homepage | Current - GLI Brands**
- **Grow Lighting | Current - GLI Brands**

Manuals+,