

MARK ARCHITECTURAL LIGHTING SL1LP 1 Recessed Patterns Instruction Manual

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Important Safety Instructions

READ AND FOLLOW ALL SAFETY INSTRUCTIONS! SAVE THESE INSTRUCTIONS AND DELIVER TO OWNER AFTER INSTALLATION

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts. cuts/abrasions. and other hazards please read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, follow these general

precautions.

- Installation and service of luminaires should be performed by a qualified licensed electrician.
- Maintenance of the luminaires should be perfomied by person(s) familiar with the luminaires' construction and operation and any hazards involved. Regular fixture maintenance programs are recommended.
- It will occasionally be necessary to clean the outside of the refractor/lens. Frequency of cleaning will depend on
 ambient dirt level and minimum light output which is acceptable to user. Refractor/lens should be washed in a
 solution of warm water and any mild. non-abrasive household detergent, rinsed with clean water and wiped
 dry. Should optical assembly become dirty on the inside, wipe refractor/lens and clean in above manner,
 replacing damaged gaskets as necessary.
- DO NOT INSTALL DAMAGED PRODUCT! This luminaire has been property packed so that no parts should have been damaged during transit. Inspect to confirm. Any part damaged or broken during or after assembly should be replaced.
- Recycle: For information on how to recycle LED electronic products, please visit www.epagov.
- These instructions do not purport to cover all details or variations in equipment nor to provide every possible
 contingency to meet in connection with installation, operation, or maintenance. Should further infomiation be
 desired or should particular problems arise which are not covered sufficiently for the purchaser's or owners
 purposes, this matter should be referred to Acuity Brands Lighting, Inc.



WARNING RISK OF ELECTRIC SHOCK

- Disconnect or turn off power before installation or servicing.
- ✓ Verify that supply voltage is correct by comparing it with the luminaire label information.
- ✓ Make all electrical and grounded connections in accordance with the National Electrical Code (NEC) and any applicable local code requirements.
- ✓ All wiring connections should be capped with UL approved recognized wire connectors.



WARNING RISK OF BURN

- Allow lamplfixture to cool before handling.
- Do not touch enclosure or light source. Do not exceed maximum wattage marked on luminaire label.
- ✓ Follow all manufacturer's warnings. recommendations and restrictions for: driver type, burning position, mounting locations/methods, locations/methods, replacement and recycling.



CAUTION RISK OF INJURY

- ✓ Wear gloves and safety glasses at all times when removing luminaire from carton. installing. servicing or performing maintenance.
- ✓ Avoid direct eye exposure to the light source while it is on.



CAUTION RISK OF FIRE

- ✓ Keep combustible and other materials that can burn. away from lamp/lens.
- ✓ Do not operate in close proximity to persons, combustible materials or substances affected by heat or drying.



CAUTION: RISK OF PRODUCT DAMAGE

- Never connect components under load.
- Do not mount or support these fixtures in a manner that can cut the outer jacket or damage wire insulation.
- ✓ Controls for dimming, auto-sensing, or remote control of a luminaire that are not factory-wired to the luminaire must be checked for compatibility with the luminaire prior to installation. LED fixtures must be powered directly off a switched circuit.
- ✓ Unless individual product specifications deem otherwise: Do not restrict fixture ventilation. Allow for some volume of airspace around fixture. Avoid covering LED fixtures with insulation, foam, or other material that will

prevent convection or conduction cooling.

- ✓Unless individual product specifications deem otherwise: Do not exceed fixtures maximum ambient temperature.
- Only use fixture in its intended location.
- ✓ LED products are Polarity Sensitive. Ensure proper Polarity before installation.
- ✓ Electrostatic Discharge (ESD): ESD can damage LED fixtures. Personal grounding equipment must be worn during all installation or servicing of the unit.
- ✓ Do not touch individual electrical components as this can cause ESD, shorten lamp life. or alter performance.
- ✓ Some components inside the fixture may not be serviceable. In the unlikely event your unit may require service, stop using the unit immediately and contact an ABL representative for assistance.
- √ Always read the fixtures complete installation instructions prior to installation for any additional fixture specific warnings.
- √ Always ensure that the electrical distribution system is up to NEC (and any applicable local code) requirements.
- ✓ Verify that power distribution system has proper grounding. Lack of proper earth ground can lead to fixture failure and may void warranty.

Choose either Part 15 OR Part 18 and move b Page 3 instated') Instructions WKS' Dathiary. anonia Outdoor will always use Pad 15. All lumin at res that contain electronic devices that generate frequencies above Clk Hz from any component within the luminaire comply with Part 15 of the FCC Rules. Operation is subject to The following two conditions:

- 1. This device may not cause harmful interference
- 2. This device must accept any interference received, including interference that may cause undesired operation

This device complies with Part 18 of the FCC Rules but may cause interference with cordless and cell phones, radios, televisions, and other electronic devices To correct the problem, move the device away from the luminaire or plug into a different outlet. This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment or other critical navigation or communications equipment operating between 0A5-30MHz

Failure to follow ay of these instructions could void product warrantas.

For a complite listing of product Terms and Condition& please visit www.acuitybrands.com.

Acuity Brands Lighting, Inc. assumes no responsibility for claims arising out of improper or careless installation or handing of its product&

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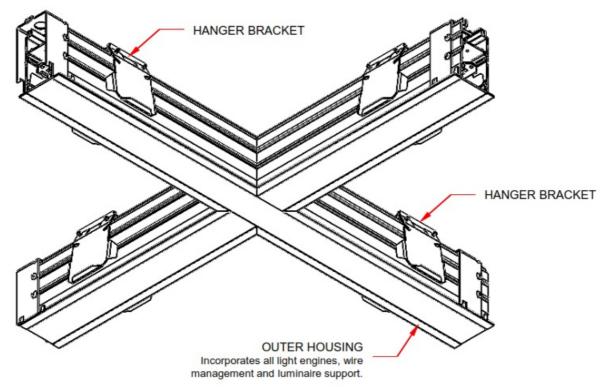
- ✓ Do not stretch or use cable sets that are to short or are of insufficient length.
- ✓ Do not tamper with contacts.
- ✓ Do not modify the product.
- ✓ Do not change or after internal wiring or installation circuitry
- ✓ Do not use product for anything other than its intended use.
- ✓ If installing latching springs: ensure that the springs are fully engaged prior to moving to next connection.
- ✓ If installing wiring systems: Materials and component parts of a manufacturing wiring system as described in Article 604 of the National Electric Code and Underwriters Laboratories Standard for Safety #183 MUST BE installed.

Please see product specific installation instructions for additional warnings or any applicable FCC or other regulatory statements,

Failure to follow any of these instructions could void product warranties-, For a complete listing of product Terms and Conditions, please visit www.acuitybrands.com.

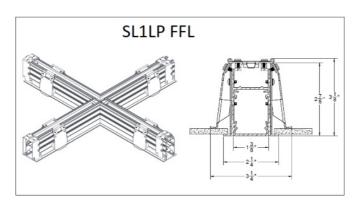
Our Brands Ind ciaoOutd o or	Indoor Lighting	Outdoor Lighting	Controls	Day fig hting
Lithonia Lighting Carandini Halo bane RELOC Light Concepts	Gotham Mark Architectural Lig hting Peerless Renaissance Lighting Winona Lighting	American Electric Lig hting Antique Street Lamps Hydrel Terser	DARE TO LIGHT LC&D ROAM Sensor Switch S ynergy	SunOptics

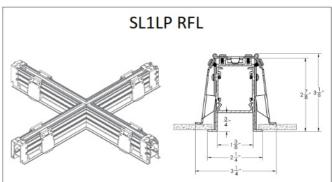
A. Overview - Fixture

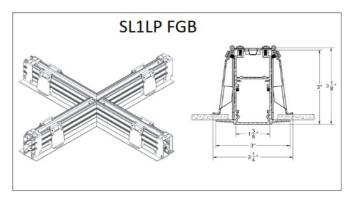


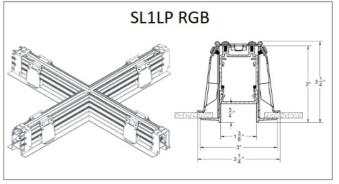
NOTE: Illustrations are used for reference only and can differ slightly from the actual lighting system installed. However, key components addressed in this information are represented as accurately as possible.

B. Types of Fixtures – 90X

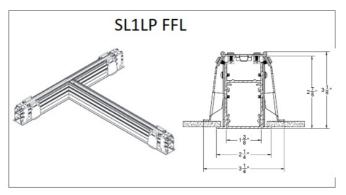


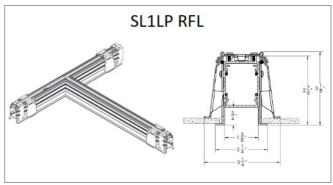


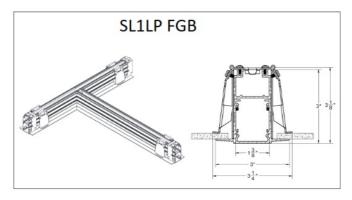


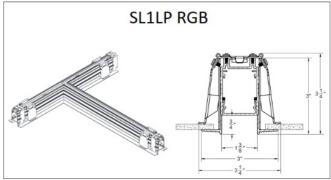


B. Types of Fixtures - 90T

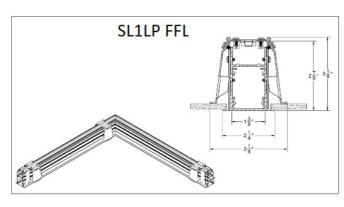


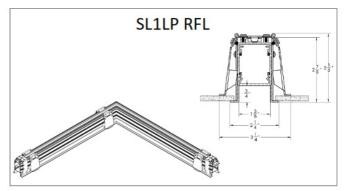


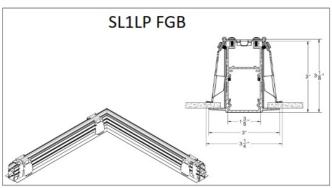


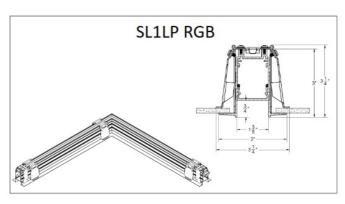


B. Types of Fixtures – 90C

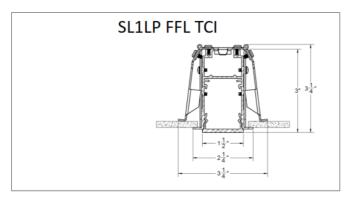


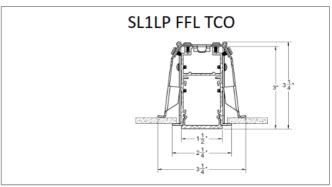


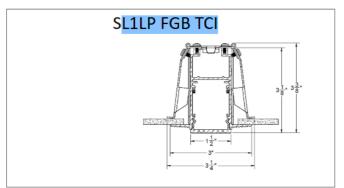


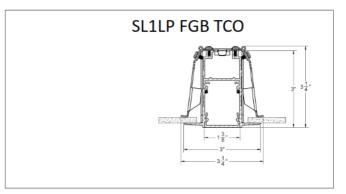


B. Types of Fixtures — EDGE GLOW LENSES (EGLD)

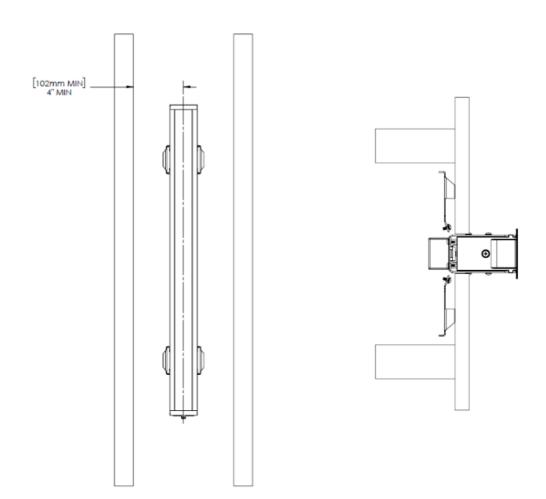








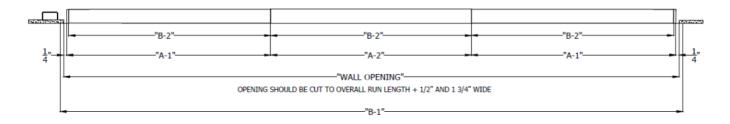
C. Overview – Mounting – Blocking Recommendations



Blocking by others. Minimum of 3" of clearance on either side of the fixture (4" from centerline) must be maintained for the hanger brackets to properly operate during installation. Maximum blocking centerline distance to centerline of fixture is 9".

Set upwall

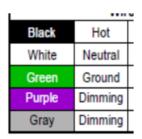
D. Mounting - Wall Cutout Recommendations



INDIVIDUAL FIXTURES								
	A-1	A-2	B-1		B-2			
ORDERED L ENGTH	HOUSING O. A.L.	HOUSING O. A.L.	FL O.A.L	GB O.A.L	FL/GB O.A.L	APPROX. WE		
4FT	4'- 3/16"	4'- 0"	4'- 3/8"	4'- 13/16"	41-0"	5LB		
5FT	5'- 3/16"	5'- 0"	5'- 3/8"	5'-13/16"	51-0"	6LB		
6FT	6'-3/16"	6'- 0"	6'- 3/8"	6'- 13/16"	6'-0"	8LB		
7FT	7'- 3/16"	7'- 0"	7'- 3/8"	7'- 13/16"	7′-O"	9LB		
8FT	8'- 3/16" _	8'- 0"	8'- 3/8"	8'- 13/16"	8'-O"	10LB		

E. Set Up Wall J-Box Locations



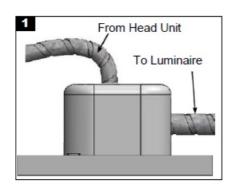


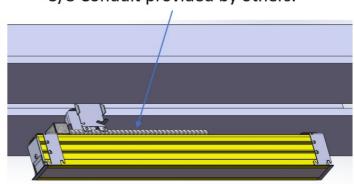
Feed Locations:

- a. J-Box must be within 6' of feed fixture.
- b. J-Box must be within 50' of head unit. See instructions on page 14-19.

Feed can only enter box at provided connection point. Conduit will run parallel to fixture.

3/8 Conduit provided by others.





E. Set Up Wall Modulus Distances





Feed Locations:

- a. J-Box must be within 6' of feed fixture.
- b. J-Box must be within 50' of head unit. See instructions on page 14-19.

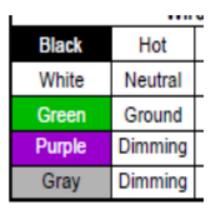
SLOT 1 D	IC320M Head	d Unit Maxim	um Run Leng	th						
	Indirect									
	LMF	0	400	600	800	1000	1200			
	0	NIA	32	32	32	32	32			
	200	32	32	32	32	32	28			
0 irect	400	32	32	32	32	28	24			
	600	32	32	32	28	24	24			
	800	32	32	28	24	24	20			
	1000	32	28	24	24	20	18			

SLOT 1 N	IOW Head Ur	nit Maximum	Run Length (al	so with E35	INV or ESOI N	IV)				
	Indirect									
	LMF	0	41:::i 0	600	800	1000	1200			
		NIA	?:–,	15	11	8	7			
	200	32	14	10	S	6	5			
Direct	400	20	11	8	7	6	5			
	600	12	8	7	6	5	4			
	800	9	6	5	5	4	3			
	1000	6	5	4	4	3	3			

These tables indicate 'I Head Unit required for the identified run length in feet. Each Modulus remote driver kit can power up to 32 linear feet of luminaires. Use tables to calculate the number of remote driver units needed in a run or pattern by finding the intersection between your direct and indirect lumen outputs Of Indirect or Direct only, use the zero to represent the direction not applicable.) Modu-lus units can be a maximum of 50 feet from the mounting junction box.

E. Set Up Wall Modulus Distances





Feed Locations:

- a. J-Box must be within 6' of feed fixture.
- b. J-Box must be within 50' of head unit. See instructions on page 14-19.

SLOT 1 DK32OM with ESOINV Head Unit Maximum Rim Length									
	Indirect								
	LMF	0	400	600	800	1000	1200		
	0	N/A	23	21	18	16	14		
	200	31	21	18	16	15	13		
Direct	400	21	17	16	14	13	12		
	600	18	15	14	13	12	11		
	800	16	13	12	11	11	10		
	1000	13	12	11	10	10	9		

SLOT 1 E	K320M with	ESOINV Head	d Unit Maximi	um Run Leng	th					
	Indirect									
	LMF	0	400	600	800	1000	1200			
	0	N/A	32	32	29	26	23			
	200	32	32	30	27	24	21			
Direct	400	32	28	25	23	21	19			
	600	30	24	22	21	19	18			
	800	25	21	20	19	17	16			
	1000	22	19	18	17	16	15			

These tables indicate 1 Head Unit required for the identified run length in feet. Each Modulus remote driver kit can power up to 32 linear feet of luminaires. Use tables to calculate the number of remote driver units needed in a run or pattern by finding the intersection between your direct and indirect lumen outputs (If Indirect or Direct only, use the zero to represent the direction not applicable.) Modu-lus units can be a maximum of 50 feet from the mounting junction box.

Prep Fixtures

F. Identification and Preparation (All Trims)

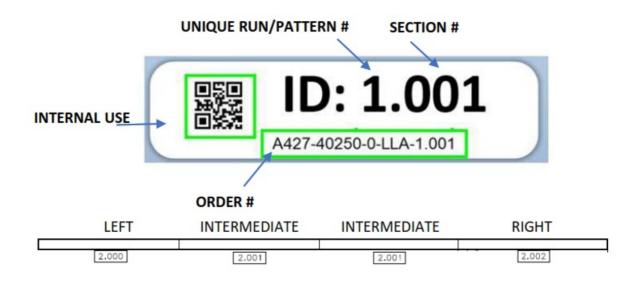
1. Locate Material



- All components required to install the fixture run/pattern are on one pallet.
- Fixture Sections
- Joining Hardware
- Lens removal tool and spring clamp(s) included to aid assembly.

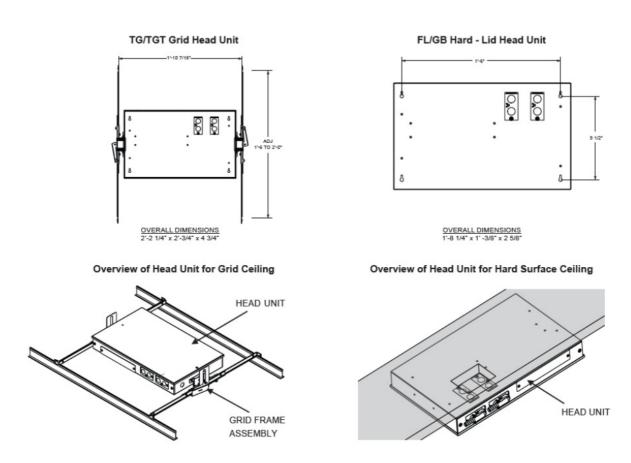
2. Fixture Identification

FIXTURES MUST BE INSTALLED IN ORDER AS SHOWN ON RECORD DRAWINGS LOCATED IN THE RED DOCUMENTATION BOX.



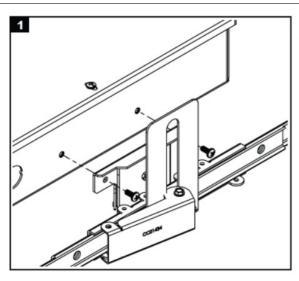
- Labels are located on the carton, on the fixture, and on the lens.
- Each section is identified by an ID#.
- Section position starting with X.000 for the first fixture.
- Same fixture configuration can carry identical ID# and are interchangeable.
- Individual fixtures have whole number Y
- · MATCH LUMINAIRES WITH HEAD UNIT TEXT
- * To order any replacement parts, provide what you're looking for and indicate the order # and ID#.

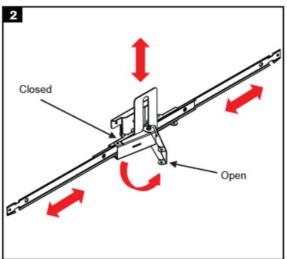
G. Install Head Unit - Overview

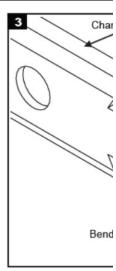


NOTE: 50ft Max distance between head unit and JBOX for the fixture.

ALL HEAD UNIT MOUNTINGS SHOWN. MATCH WITH HEAD UNIT FOR YOUR PARTICULAR RUN. **J. Mount Modulus Head Unit**

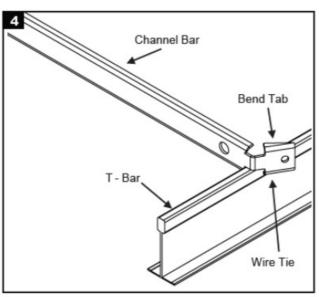


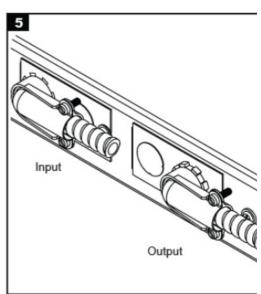




- a. Align the two holes of the frame assembly (provide d in the kit) with the holes provided in the sides of he ad unit and fasten them using 2X (PHW067204) scre ws.
- b. Assemble the second set of frame assembly using 2X (PHW067204) screws on other side of the head u nit.
- a. Release the clamping latch arms (CC01434) on either side of the head unit and adjust channel bars to the correct spacing between T-bars as shown.
- a. Once , bend the s based rs.

J. Mount Modulus Head Unit

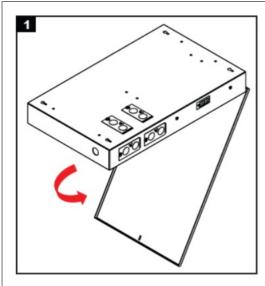


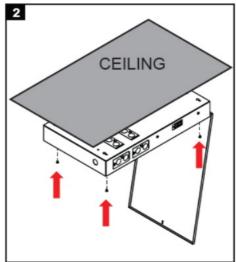


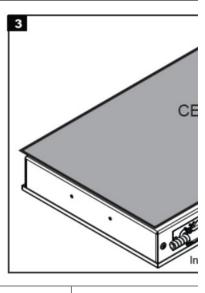
- a. Fix the channel bars (on either sides of head unit) with T-bars by means o f wire ties or screws (provided in the kit) onto T-bars as shown.
- b. Secure the head unit in position by closing the clamping latch arm.
- a. Remove either one of the knock-ou d connect the input and output metal.

NOTE: CONTRACTOR TO RUN MIN. 12GA WIRE FROM HEAD UNIT TO SUPPLY CLASS 1 DC POWER TO LUMINAIRE THROUGH CODE COMPLIANT METAL CONDUIT, MAX. SO. FT.

K. Mount Modulus Head Unit



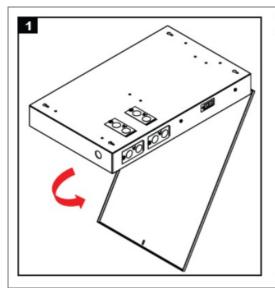


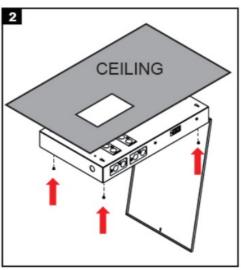


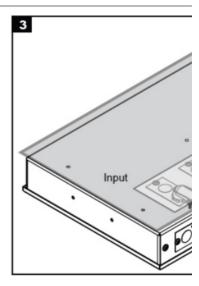
- a. Loosen the screw from the lid on the He ad Unit and swing it to open.
- a. Flush the head unit onto the ceiling and secure it to the ceiling using 4X screws.
 b. Complete the wire harnesses inside the He
- b. Complete the wire harnesses inside the Head Unit.
- a. Use knock-outs oect input and outputb. Close the lid and

L. Mount Modulus Head Unit

For Surface Mount, Side Entry



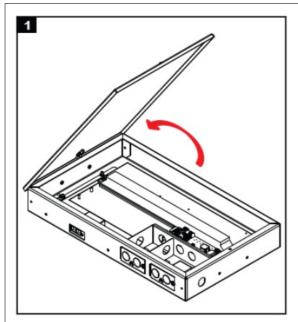


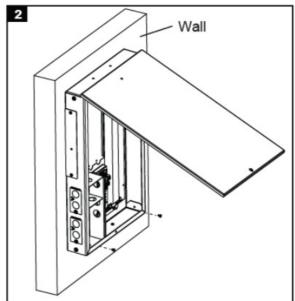


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- b. Complete the wire harnesses inside the Head Unit.
- a. Use knock-outsct input and outpub. Close the lid an

M. Mount Modulus Head Unit

For Surface Mount, Side Entry



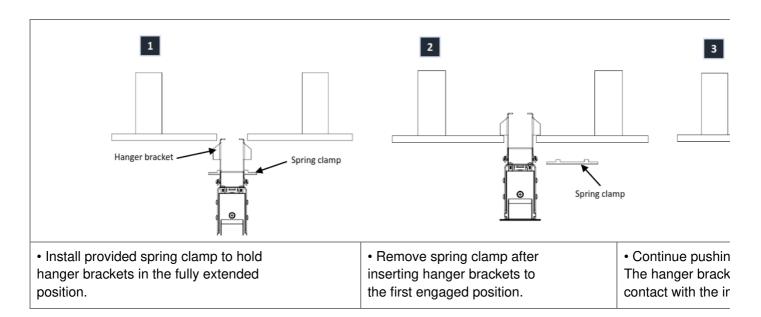




- a. Loosen the screw from the lid on the He ad Unit and swing it to open.
- a. Flush the head unit onto the ceiling and secure i t to the ceiling using 4X screws.
- b. Complete the wire harnesses inside the Head Unit.
- a. Use knock-outs ct input and outpu
- b. Close the lid ar

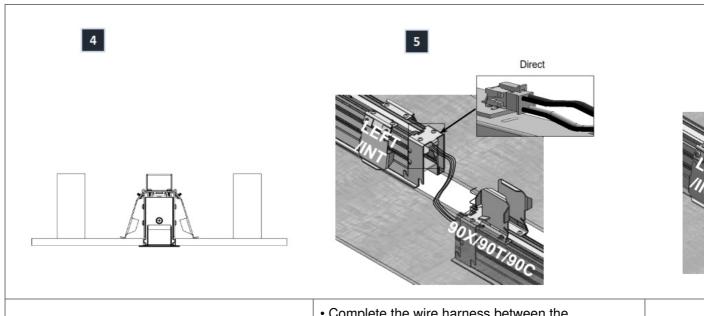
Mount First Fixture

N. Install First Fixture Section (Sheetrock Wall)



Joining Sections

P. Join Sections (Sheetrock Wall)

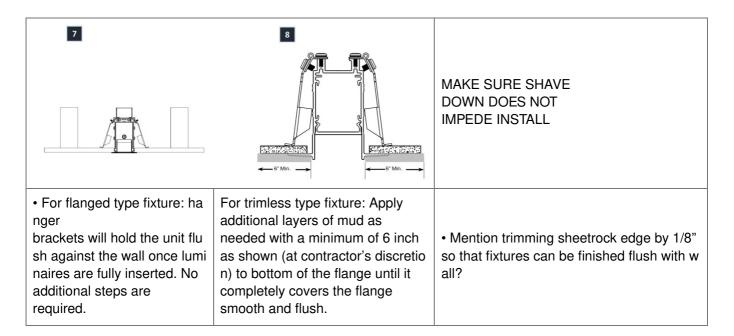


- The hanger brackets will brace against the inner surface to hold the fixture flush against the outer surface of the wall.
- Complete the wire harness between the luminaires before inserting the luminaire.
- Align the edge of L/INT luminaire with the joiner bracket of corner luminaire.
- Insert corner luminaire into the ceiling and wall as shown in steps 1-4.

Before mates wi brackets interlockets

Securing Fixture

Q. Securing Fixture (Sheetrock wall)



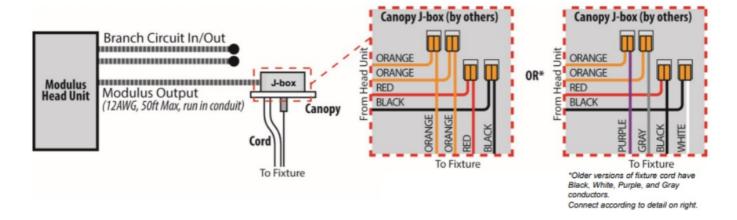
Electrical Connections

R. Electrical and Controls Connections (All Trims)



All power connections should be installed according to local/national codes by a Certified Electrician. All 4 WIRES FROM THE HARNESS MUST BE CONNECTED; ALL FIXTURES REQUIRE POWER AND CONTROL SIGNAL WIRES.





Electrical Connections:

- a. Secure electrical connections to the fixture per wiring chart on this page. and in accordance with local/national code.
- b. Secure wiring access plate back to fixture when completed.

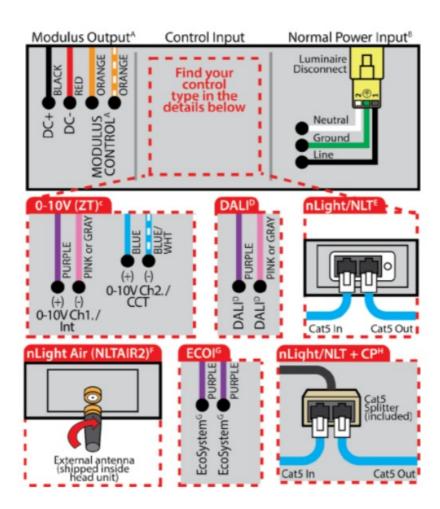
NOTE: Provided flex cord is not plenum rated, cord will need to be ran with flexible or rigid conduit at time of install.

R. Electrical and Controls Connections (All Trims)

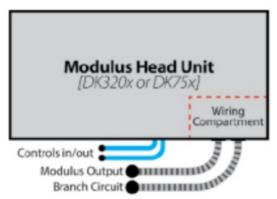


All power connections should be installed according to local/national codes by a Certified Electrician.

Wiring Compartment Detail



NOTE: Provided Flex cord is not plenum rated. cord will need to be ran with Flexible or Rigid conduit at time of install.



A Must connect to luminaires for all input control types! Modulus control lines are polarity-insensitive. Use 12AWG solid wire in grounded conduit for remote placement of head unit up to 50ft away from fixture canopy.

B Line voltage should match ordered voltage option (120/277/MVOLT or 347V). See next pages for emergency power input wiring diagrams. Separate the luminaire disconnect before servicing. Luminaire disconnects may not be present on units build before Fall 2021.

C Purple/gray will control direct lights, first zone or intensity (for tunable white). blue/blue-white will control indirect light, second zone, or CCT (for tunable white). Cap blue/blue-white if second channel is unused.

D DALI lines are polarity insensitive. Customer to supply DALI power supply external to head unit.

E Connect Cat5 to integral nI0 on outside wall of head unit.

F Screw external antenna onto coax connector on outside wall of head unit after installation.

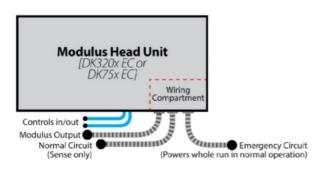
G Eco System lines are polarity-insensitive.

H For Chicago Plenum (CP) applications. a cat5 splitter is located inside the Modulus outputs connection area. Installer should pull the splitter through the access plate opening, make cats connections, then push the connector back into the wiring compartment before replacing access plates. All connections should be made through the gasketed side access plates for CP head units – do not remove the top cover, which is factory sealed with aluminum tape. Replace tape if removed.

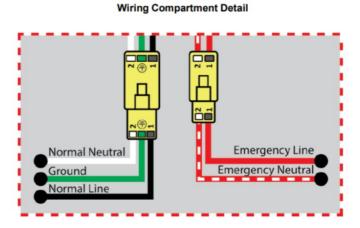
R. Electrical and Controls Connections (All Trims)



All power connections should be installed according to local/national codes by a Certified Electrician.



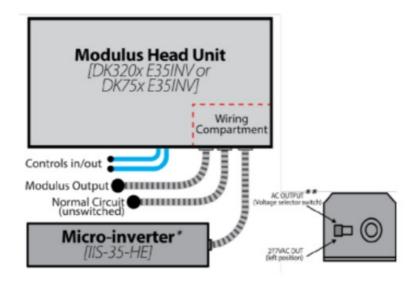
EC System Wiring Diagram



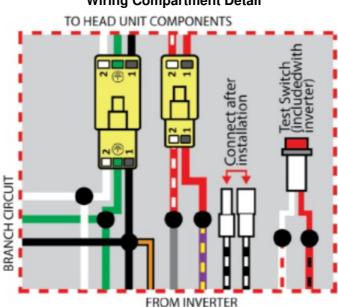
a. Luminaire disconnects will be added to all head unit power input wires beginning Fall 2021 — head units produced prior to then may not have disconnects.

R. Electrical and Controls Connections (All Trim

E35INV System Wiring Diagram



- a. Ships with E35INV head unit for field installation. Includes 3ft whip but can be installed up to 250ft away with Class 1 wires run through additional conduit (not included) in accordance with local code.
- b. Ensure that Inverter Output Voltage Selector Switch always set to 277VAC Out (the left-most switch position) before connecting normal power. regardless of normal power voltage.



Wiring Compartment Detail

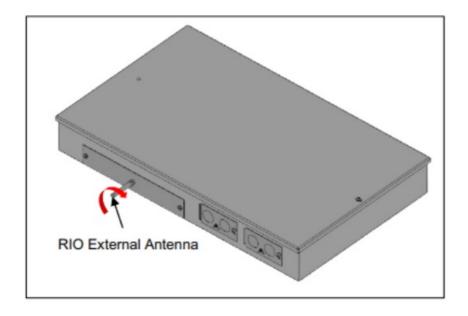
- a. 120-277V. unswitched. Make normal power connections to 18AWG solid copper flying leads in accordance with local code.
- b. Luminaire disconnects will be added to all head unit power input wires beginning Fall 2021 head units produced prior to then may not have disconnects.
- c. Mount test switch remotely (optional) or cap red/black and whitelred wires if not in use.

NOTE: Short unit connector lines after installation is complete.

NOTE: Ensure that voltage selector switch on output side of IIS-35-HE is set to 277V REGARDLESS of input voltage.

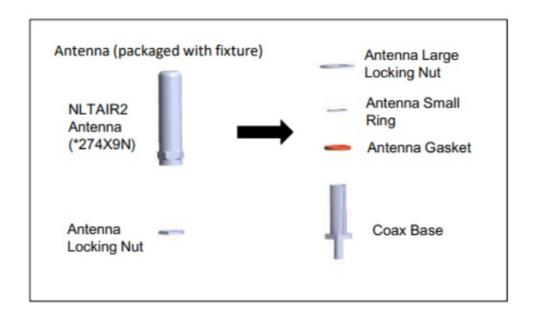
Supplemental

S. Supplemental



Head Unit With RIO External Antenna Installed

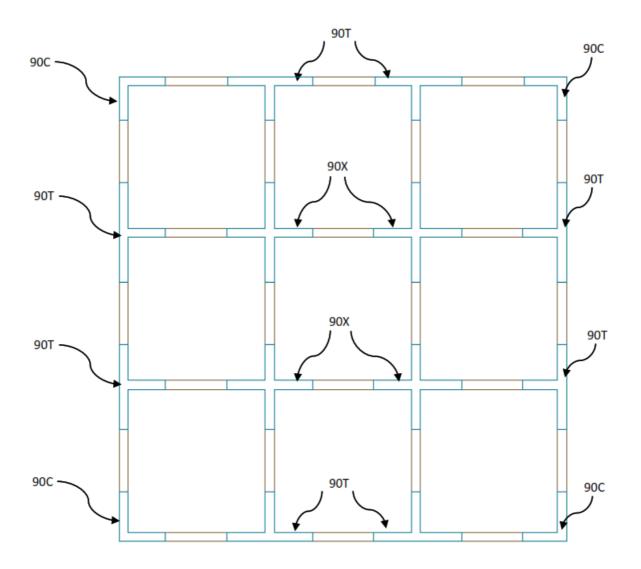
a. Open the top cover of the head unit. b. Find antenna taped inside the enclosure. c. Attach RIO external antenna to the brass SMA connector.



Antenna

NOTE: If antenna is lost. replacement part # for it is '274X9N.

S. Supplemental – Fixture Run Diagram





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We reserve the right to change design, materials and finish in any way that will not alter installed appearance or reduce function and performance.

Documents / Resources



MARK ARCHITECTURAL LIGHTING SL1LP 1 Recessed Patterns [pdf] Instruction Manual SL1LP 1 Recessed Patterns, SL1LP, 1 Recessed Patterns, Patterns

References

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Manuals+,