AirportLightingCompany
An ISO 9001:2015 Certified Company

OWNER'S MANUAL

I-Lux LED
Style 2, 3, 5 Retrofit Instruction Booklet

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I-Lux LED
Style 2, 3, 5
Retrofit Instruction Booklet

ETL Certified to:
FAA AC 150/5345-28 and EB 67

Note: For ICAO & TP312 compliant signs reference their specific manuals available on the website.

Manufactured by:
Airport Lighting Company
108 Fairgrounds Drive
Manlius, New York 13104
(315) 682-6460

Email: info@airportlightingcompany.com
Website: www.airportlightingcompany.com

DATA SHEET

AirportLightingCompany
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I-LUX®

All FAA Sizes, FAA Types
and FAA Styles are available in LED

Compliances (Current Editions)

FAA: AC 150/5345-44; Engineering Brief No. 67, ETL Certified

ETL VERIFIED Intertek

Key Features

- The average LED life is 100,000 hours high intensity / 180,000 hours under typical operating conditions.
- Easily replace traditional L-858 signs
- Solidly & seamlessly integrate off-the-shelf parts and custom fabrication for strength & flexibility while minimizing operating costs
- Platform for cabinet machined from solid, heavy-gauge aluminum construction
- Free of gaps and joints that weaken modular signs and allow penetration of wind, rain, dirt and snow
- Inherently stronger than modular signs because it doesn't rely on the strength of hardware used to piece modular signs together
- I-Lux is as short as possible because it is made per FAA lettering specifications & not artificially lengthened over seams and gaps
- I-Lux is the only airfield sign available in half module sizing
- Quick and economical installation, with smaller excavation, less concrete, and fewer legs to bolt to the pad
- Smaller obstruction in the field than modular signs, presenting less inertial load on aircrafts should a collision occur
- Seamless panels display messages without distortion
- Highly impact resistant, up to 30 times more than other brands
- No tools required for re-lamping
- Base model brightness controls use technology that has been proven for years in the field

Specifications

General Catalog Numbers

I7-□□□□RTR

Size
1 = Size 1
2 = Size 2
3 = Size 3

Sign Style
2 = Style 2 (3 step 4.8A – 6.6A)
3 = Style 3 (5 step 2.8A – 6.6A)
5 = Style 5 (1 step 5.5A)

Modules
1.0 to 4.0 in length

Note that all kits include electronics and wires to convert existing signs to LED using existing power cord.

Replacement Parts (LED Light Option)

Part Number	Description
C7-LVCV2	Low voltage power control module
I7-LEDV2	LED board with optics
C7-DRVR	LED driver module
C7-BRG	Bridge rectifier

I-Lux Size 4 (LED Board Light Option)

Style	Modules	L-830 Transformer*	Primary Power Factor	Primary VA Load	Secondary Power Factor	Secondary VA Load
2	1.0	65W	49	.94	49	.94
3	1.0	65W	44	.94	44	.94
5	1.0	65W	44	.94	44	.94

Transformer Requirements: LED Board

Size	Style	Modules	L-830 Transformer*	Primary Power Factor	Primary VA Load	Secondary Power Factor	Secondary VA Load	# of LEDs
1	2	1.0	65W	0.94	41	0.95	27	2
1	2	1.5 & 2.0	65W	0.95	45	0.94	32	4
1	2	2.5 & 3.0	65W	0.95	49	0.94	35	6
2	2	3.5 & 4.0	65W	0.95	54	0.94	40	8
2	2	1.0	65W	0.95	45	0.95	32	4
2	2	1.5 & 2.0	65W	0.95	54	0.94	40	8

continued on next page

Specifications

Transformer Requirements: LED Board

Size	Style	Modules	L-830 Transformer*	Primary Power Factor	Primary VA Load	Secondary Power Factor	Secondary VA Load	# of LEDs
2	2	2.5 & 3.0	65W	0.94	63	0.93	50	12
3	2	3.5 & 4.0	100W	0.93	75	0.92	60	16
3	2	1.0	65W	0.94	48	0.94	36	6
3	2	1.5 & 2.0	65W	0.94	64	0.93	51	12
3	2	2.5 & 3.0	100W	0.93	78	0.92	65	18
5	2	3.5 & 4.0	100W	0.93	93	0.92	79	24
1	2	1.0	65W	0.94	41	0.95	27	2
1	3	1.5 & 2.0	65W	0.95	45	0.94	32	4
1	3	2.5 & 3.0	65W	0.95	49	0.94	36	6
1	3	3.5 & 4.0	65W	0.95	54	0.94	41	8
2	3	1.0	65W	0.95	45	0.95	31	4
2	3	1.5 & 2.0	65W	0.94	54	0.94	41	8
2	3	2.5 & 3.0	100W	0.93	64	0.93	49	12
2	3	3.5 & 4.0	200W	0.92	78	0.92	62	16
3	3	1.0	65W	0.94	48	0.94	36	6
3	3	1.5 & 2.0	100W	0.93	64	0.93	50	12
3	3	2.5 & 3.0	200W	0.92	82	0.92	65	18
3	3	3.5 & 4.0	200W	0.92	96	0.92	79	24
5	3	1.0	65W	0.95	32	0.94	23	2
1	3	1.5 & 2.0	65W	0.95	37	0.94	27	4
1	5	2.5 & 3.0	65W	0.94	41	0.93	32	6
1	5	3.5 & 4.0	65W	0.94	46	0.93	37	8
1	5	1.0	65W	0.95	37	0.94	28	4
2	5	1.5 & 2.0	65W	0.94	47	0.93	37	8
2	5	2.5 & 3.0	65W	0.93	56	0.92	46	12
2	5	3.5 & 4.0	100W	0.93	67	0.91	57	16
2	5	1.0	65W	0.93	67	0.91	57	6
3	5	1.5 & 2.0	65W	0.93	57	0.92	47	12
3	5	2.5 & 3.0	100W	0.92	71	0.91	62	18
3	5	3.5 & 4.0	100W	0.92	85	0.91	76	24

**Minimum*

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Have Questions? Contact Us:

GENERAL INQUIRY: (315) 682-6460

EMAIL: info@airportlightingcompany.com

TECHNICAL SUPPORT: (866) 212-1060

EMAIL: support@airportlightingcompany.com

WEBSITE: www.airportlightingcompany.com

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108 Fairgrounds Drive
Manlius, New York 13104

Inspection and Unpacking:

When receiving the retrofit kits, note any damage that may have occurred in shipping and document it with the carrier.

When unpacking each kit, check that the LED mounting brackets are not bent or damaged from shipping. Identify the components with different type and length wire harnesses. An inventory of each kit can be found on pages 19 to 21. Power to driver wire harnesses have **4** wires and a ferrite coil at one end, as shown on page 10. They are already plugged into the driver modules and ready to be routed back to the power supply output. LED to LED wire harnesses have **5** wires and are plugged into the bottom of the driver modules, ready to be routed to the **IN** connection of an LED board on a mounting bracket. Additional LED to LED wire harnesses may be plugged into the **OUT** connection of a LED board on one mounting bracket to connect to an **IN** connection of an LED board on an adjoining bracket. Mounting brackets are numbered from 1 to 8. Mounting bracket #1 has a 2 position terminal block with white wires and a rectifying bridge; it is to be mounted in the power end of the sign.

Useful tools to complete the retrofit are:

- ¼" hex head driver;
- Drill with 9⁄64" bit;
- Wire cutters & strippers;
- 7⁄16" open/closed end wrench & 7⁄16" socket drive;
- 5⁄32" width flat head screwdriver; and
- Panel adjustment suction cup.

Installation

1. Turn off and lock out circuit power for the sign to be changed prior to retrofit installation.

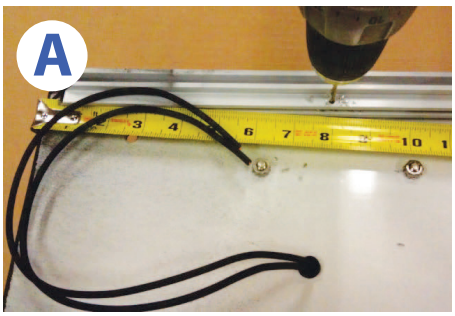
2. **Check specification chart and install the appropriate L-830 isolation transformer.**

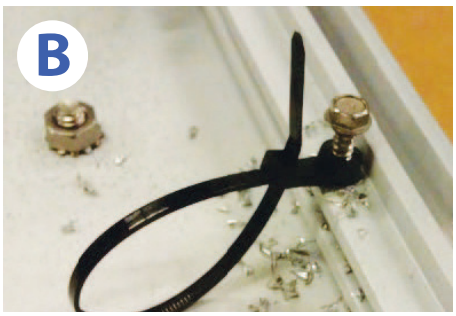
3. Open the cabinet per the instructions on page 9, and slide out one of the panels.

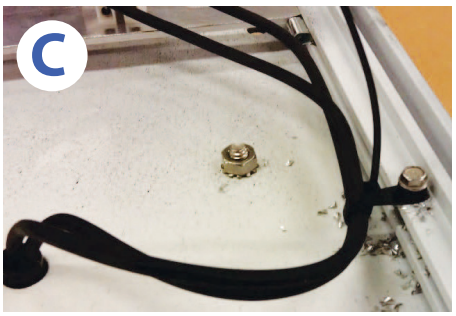
4. Disconnect the power cord from the Coil & Shunt or TapSwitch power control module (PCM). Cut off any terminals attached to the wire ends or loosen the screws on a TapSwitch plug to back the wires out.

5. Cut the lamp leads from the PCM, loosen the hex head screws on the PCM mounting plate, and slide the PCM out of the end of the sign.

6. Drill a 9/64" hole in the mounting channel in the sign bottom, 8" in from the outside edge of the sign as pictured below. Attach the new power cord restraint zip-tie with a ½" hex head screw provided. Secure the power cord with the zip-tie and cut the excess zip-tie plastic strip (as shown in [a], [b] and [c]).







7. Remove all old white lamp wiring from inside the sign.

8. Remove the lamp baffles by drilling out the rivets at the bottom of the baffle that attach the plastic to the metal cup on the bottom of the sign. Once the rivets are removed, the plastic baffle panels can be spread, lowered and removed from the sign with the top ring. The bottom cup of the assembly can remain in the sign cabinet.

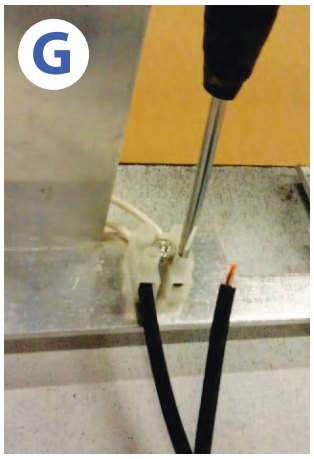
9. Remove the lamp cap closest to the power end of the sign, in order to remove the heat sink/lamp holder assembly. Loosen and remove the nuts on top of the sign that secure the long bolts holding the lamp holder/heat sink assembly. After this assembly is removed, replace only the bolts and nuts in order to reattach the lamp cap to the top of the sign. Make sure the lamp cap is securely positioned and secured on top of the gasket to prevent water entry under the cap.

10. Once the sign is clear of the old light engine, take the opportunity to clean the sign cabinet, removing any dust or dirt on the bottom extrusion.

11. At the power end, insert wire u-clips to be used as mounting bracket stop clips [d]. Slide the u-clips in between the mounting channels of the sign extrusion on the top and bottom of the sign, 3 ½" in from the open end [e].

12. Insert mounting bracket #1. Slide the mounting bracket in the mounting channels, with the LEDs facing into the sign, until it contacts the u-clips used as stops [f].

13. Strip the end of the power cord back ¼" and insert into the 2 position terminal block on the bottom of the mounting bracket. Using a 5⁄32" blade screwdriver, tighten the terminals on the terminal block [g].



14. Insert the remaining mounting brackets into the sign so the LEDs face into each light cavity. See the parts diagram on page 17 showing the orientation. Mounting brackets are easily inserted in the sign by orienting the top of the mounting bracket parallel with the length of the sign then rotating the bottom of the mounting bracket into lower mounting channels and rotating the bracket into position.

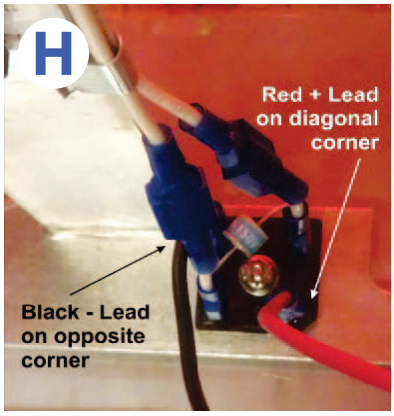
15. Slide the mounting brackets back against support posts in large signs (slide them half way between the old lamp baffle locations on size 1 signs), and secure them to the sign frame with the hex head screws provided. Insert the hex head screws through the pre-drilled holes of the mounting brackets. To prevent the bracket from sliding, the hex head screws should be tightened just enough to set the tip against the sign extrusion or support structure.

    Do not tighten the hex head screws so far as to cause the mounting bracket to bend (the head of the screw does not need to touch the metal to secure the bracket).

16. Insert the PCM mounting plate into the mounting channels on the top sign extrusion above where the power cord enters the sign. Orient the red and black wires so they are closest to the rectifying bridge and the open end of the sign. The PCM mounting plate is designed to be inserted with the PCM and driver perpendicular to the length of the sign, and then rotated 90 degrees in the mounting channels. Slide the PCM mounting plate in the mounting channels to where it is below the first lamp cap, and tighten the hex head screws just enough to prevent it from sliding. Do not over tighten. Multiple driver modules may be required; the additional drivers are attached to mounting plates that are slightly smaller than the one containing the power supply. They are inserted, rotated and secured in the same fashion.

17. The wire harnesses for the light brackets will already be attached to the driver module(s) and can be threaded over the top of the mounting brackets and into the **IN** socket of the top LED on each bracket. Depending on the size and length of the sign, the wire harnesses and number of drivers will vary. The additional driver modules 4-wire harnesses are routed back to the power supply and plugged into one of the 4 in-line sockets at the end of the supply. Note the general wiring diagram on page 10 and the size and length specific diagrams on pages 11 to 13 for each configuration.

18. The black and red wires from the LVCV2 power supply are connected to the open ¼" female tab terminals of the rectifying bridge mounted on mounting bracket #1 pictured at right [h]. **IMPORTANT: Connect the positive red (+) wire to the ¼" tab terminal that is 90 degrees different in orientation than the other three tabs.** The negative black (-) wire connects on the terminal in the opposite corner from the red (+) wire and is parallel with the incoming power tabs.



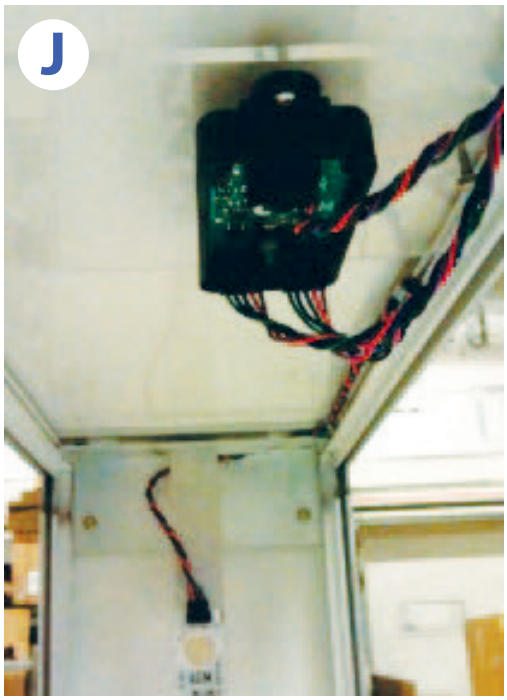
19. Once all connections have been made, power can be restored to the circuit and sign operation can be checked.

20. If operation is confirmed, turn off the circuit again. In order to prevent the wires from sagging into the sign space and causing shadows on the legend face, use the wire u-clips provided [d] to secure the wire harnesses to the mounting channel of the sign extrusion ([i] & [j]). To use the u-clips with the 5 wire LED harnesses, it is easiest to untwist the harness cable assembly at the point where the u-clip will be used. The wires will then stack up flat and go into the u-clip easier.

C7-LVCV2 power supply and C7-DRVR driver with wire harnesses secured by u-clips.

21. After the wire harnesses are secured, verify operation one more time, reinsert panel, slide end of sign back in and secure bolts. Attach the updated name plate to the end panel over the existing name plate to identify the installation of new light engine and performance data.

All Airport Lighting Company sign retrofit kits have been tested at the factory and set to function within FAA specifications.



Additional C7-DRVR driver mounted in the sign top. Wire harnesses secured with wire u-clips to prevent sagging.

I-Lux LED Maintenance

Airport Lighting Company signs are designed to provide years of trouble-free service. Prior to the performance of any work on the signs, power must be disconnected and locked out at the vault. We recommend an annual inspection and wiping down of the sign interior to maintain bright and even light output. Inspection of the signs should also include removal of any excess dirt, snow, and avian excrement to maintain proper visibility of the sign legend.

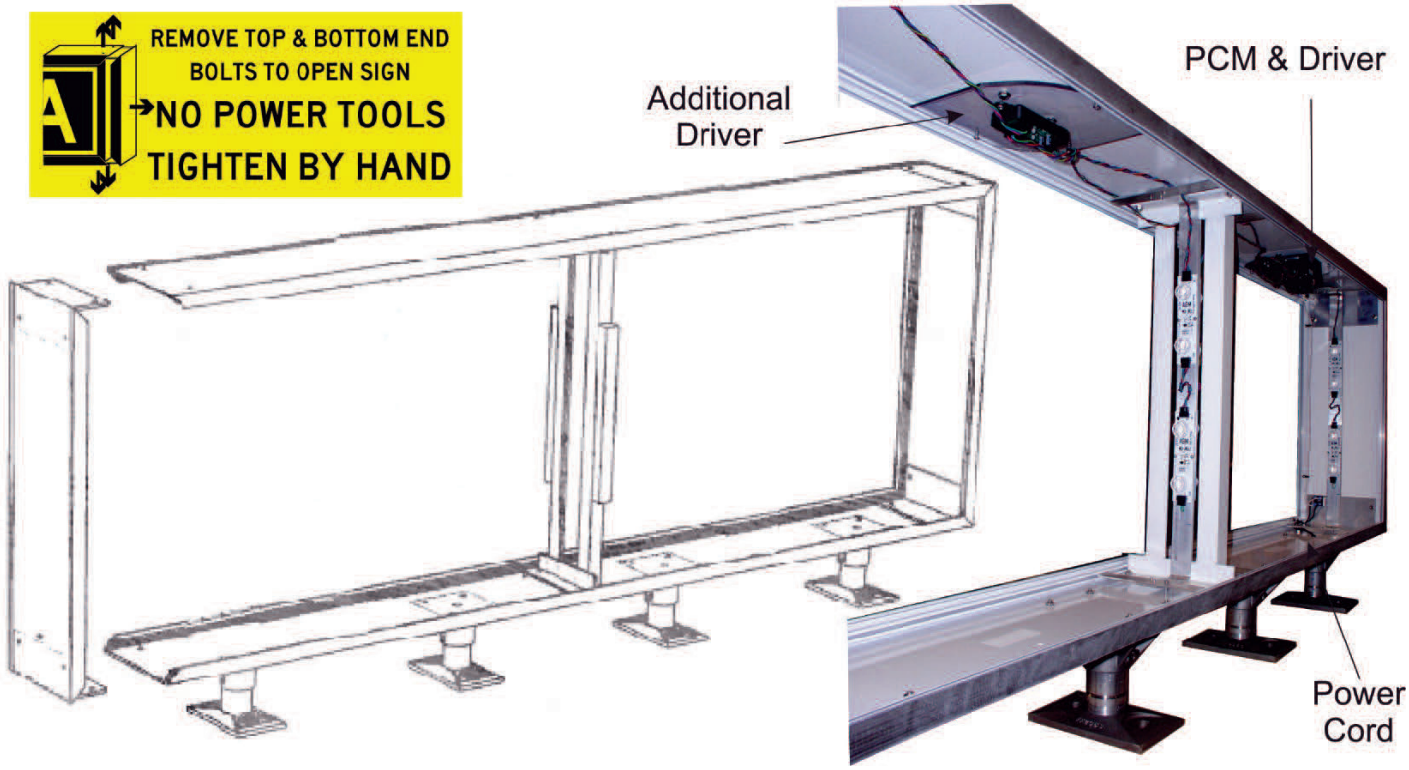
I-Lux Cabinet Access

1. Using a 7⁄16" socket, remove the bolts from the top and bottom of the sign to remove the side extrusion opposite the power end of the sign.

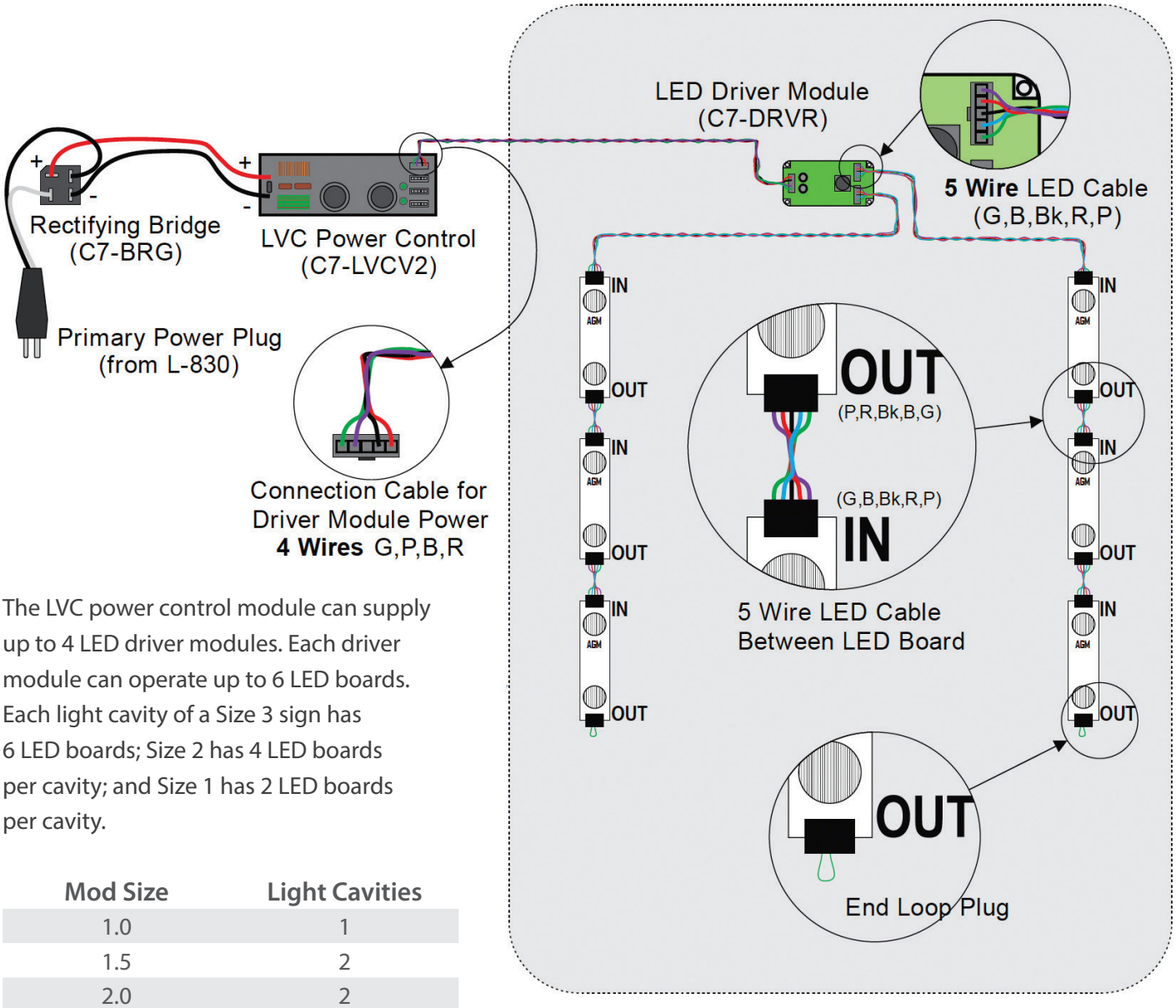
2. Slide the sign side cabinet extrusion out.

3. Remove sign panel by sliding out the open end of sign.

4. When accessing the sign cabinet, use only hand tools to tighten the bolts.



I-Lux LED Wiring Diagram



The LVC power control module can supply up to 4 LED driver modules. Each driver module can operate up to 6 LED boards. Each light cavity of a Size 3 sign has 6 LED boards; Size 2 has 4 LED boards per cavity; and Size 1 has 2 LED boards per cavity.

Mod Size	Light Cavities
1.0	1
1.5	2
2.0	2
2.5	3
3.0	3
3.5	4
4.0	4

Light Cavity Assembly

Size 1 Wiring Diagram

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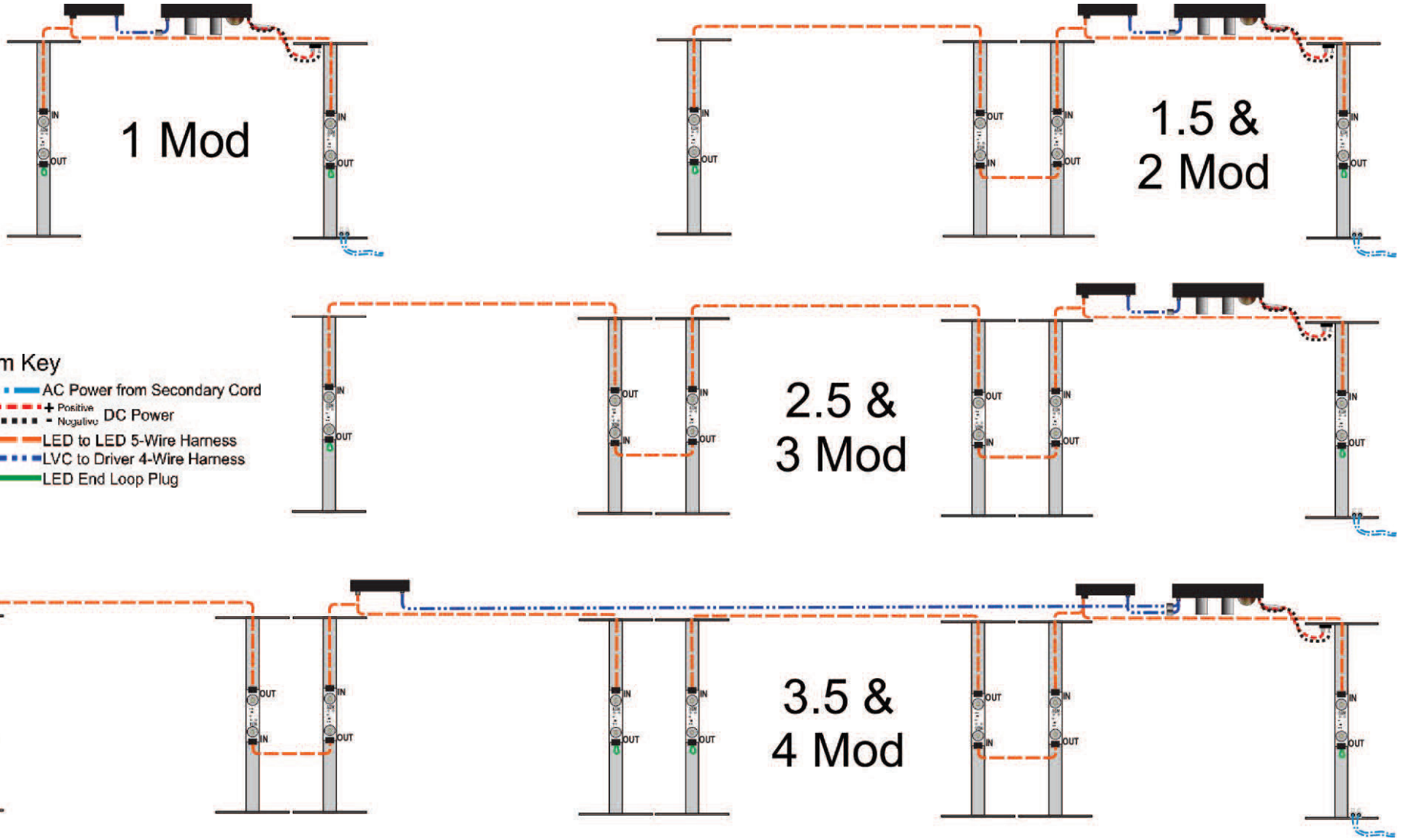

Diagram Key

- AC Power from Secondary Cord
- DC Power (+ Positive, - Negative)
- LED to LED 5-Wire Harness
- LVC to Driver 4-Wire Harness
- LED End Loop Plug

Size 2 Wiring Diagram

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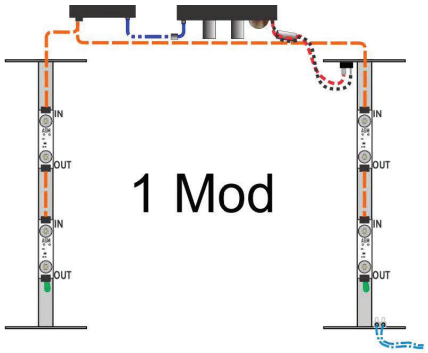
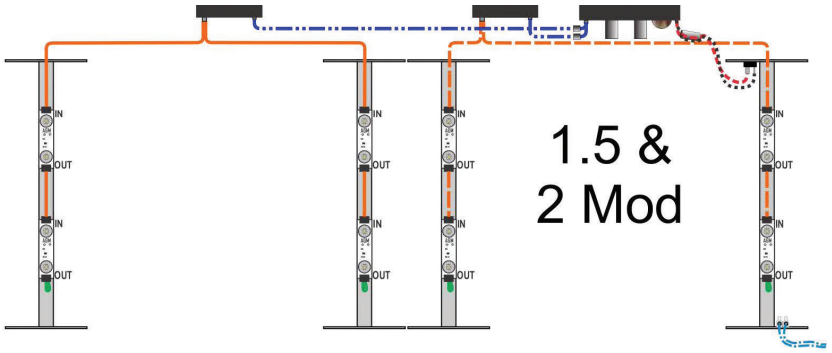


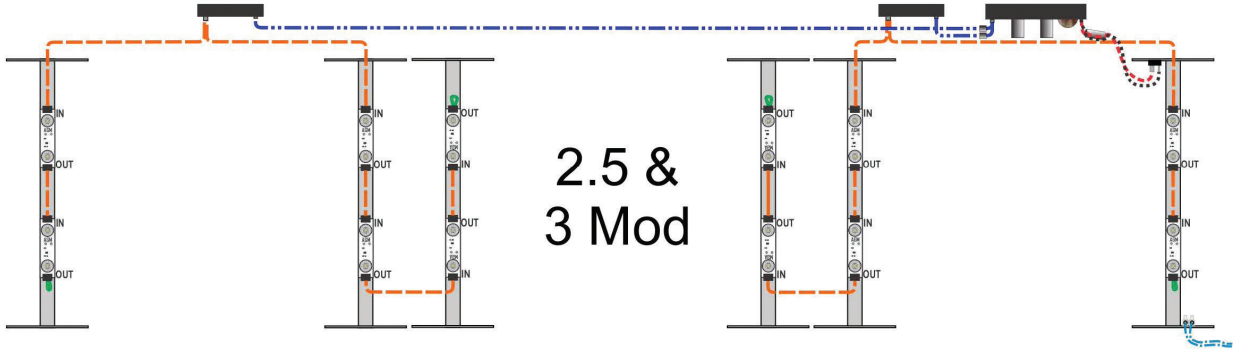
1 Mod



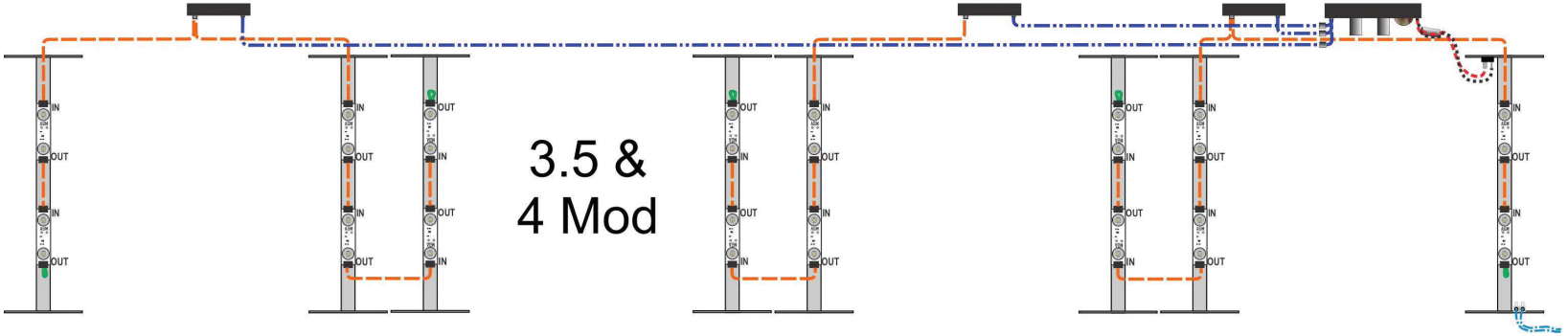
1.5 &
2 Mod

Diagram Key

- AC Power from Secondary Cord
- + Positive / - Negative DC Power
- LED to LED 5-Wire Harness
- LVC to Driver 4-Wire Harness
- LED End Loop Plug



2.5 &
3 Mod



3.5 &
4 Mod

Size 3 Wiring Diagram

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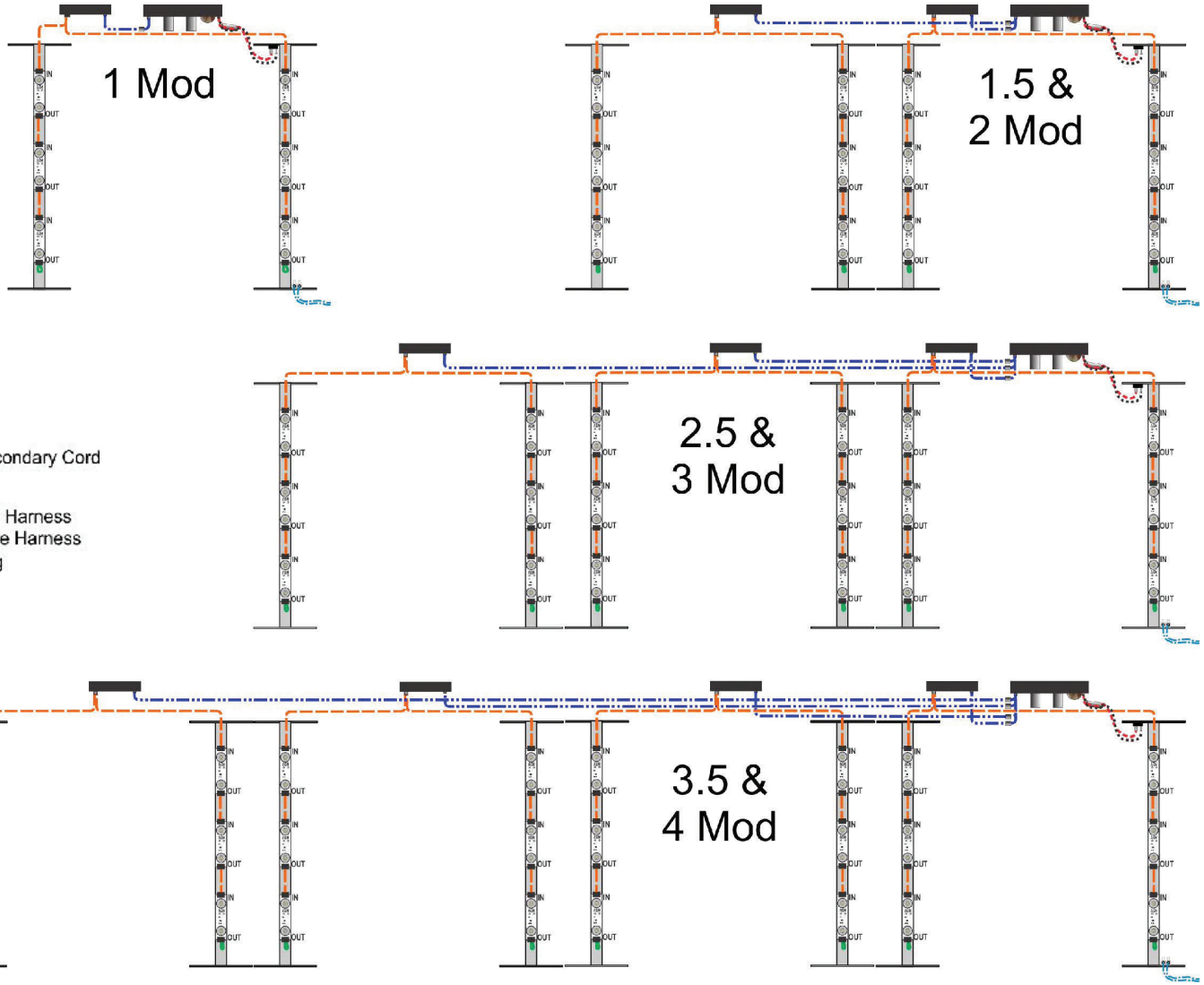


Diagram Key

- AC Power from Secondary Cord
- + Positive / - Negative DC Power
- LED to LED 5-Wire Harness
- LVC to Driver 4-Wire Harness
- LED End Loop Plug

I-Lux LED Board Operation

Airport Lighting Company's LED board light engine uses high efficiency LEDs to illuminate the guidance sign. Once the circuit is energized, there is a 4 second delay before the light engine turns on; this is normal. If there is an interruption in power, there could be another identical delay indicating the startup sequence has cycled. There are 2 high brightness LEDs on each board. Per FAA Engineering Brief #67, if more than 25% of the alternate lighting devices (LEDs) are not lit, the LED board must discontinue operation and communicate its condition within the sign, causing the whole sign to turn off. The FAA requires this to make sure an incorrect message is not displayed that could cause a safety issue to traffic on the airfield. Each LED board has a monitor circuit to verify operation. The LED board that has detected the problem will illuminate a red LED on the board indicating it has a problem and should be replaced.

I-Lux LED Board Troubleshooting

All Airport Lighting Company signs have been tested at the factory and set to function within FAA specifications. Installation and operation issues most frequently trace back to an undersized isolation transformer or to damage during shipping. Before commencing repairs, please contact Airport Lighting Company ((315) 682-6460 or via email) with the catalog number and serial number from the name plate of the malfunctioning sign to determine warranty coverage. If the LED boards and isolation transformer appear functional, and any operating issues have not been resolved after following the troubleshooting guidelines, please contact Airport Lighting Company; we will be pleased to assist you. We keep parts in stock and ship within 24 hours.

BEFORE PERFORMING MAINTENANCE ON AN AIRFIELD GUIDANCE SIGN, VERIFY THE SIGN'S CIRCUIT IS OFF AND LOCKED OUT FROM ACCIDENTAL ENERGIZATION.

1. Verify that the amp reading (taken on one of the sign input power cords) reflects the amperage of the airfield circuit. If the reading is not identical, then there could be a problem with the isolation transformer or regulator providing power to the sign. Lock out the circuit and verify the condition of the isolation transformer for the sign.

2. Ensure that power to the sign has been turned off, then access the I-Lux cabinet by following the instructions on page 6. For easier access to the sign interior, remove one of the panels by sliding it out the open end of the sign and setting it aside.

3. Inspect the LED boards that are mounted on the mounting brackets. Cycle the power to the sign remotely or by using the optional isolating safety switch on the sign. If there is a fault with an individual LED board, all the LEDs should light up and then shut down within a second. The malfunctioning LED board will have an illuminated red LED directly on the circuit board as an indication that it or the driver circuit has malfunctioned.

a. To isolate the malfunction, remove the end loop plug from the end of the LED circuit where the red light was observed. Disconnect that string of LED boards from the driver and insert the end loop plug in its place on the driver. Cycle the power again and observe whether all remaining lights in the sign illuminate normally.

   i. If all the lights remain on normally, there is a problem with a LED board on the string that was disconnected. Power off the sign, replace the bracket with the malfunctioning LED board, return the end loop to the OUT plug, and connect the LED bracket circuit to the driver again. Power on the sign, verify normal operation, and take the affected bracket back to the shop to isolate the indicated LED board for replacement. Instructions for replacing the LED board are on the following page.

   ii. If all the lights go out again and the red light appears on the remaining string plugged into the driver, then the driver needs to be checked. Power off the sign, unplug the power cable that runs from the power control module (PCM) to that driver, cycle the power to the sign, and confirm the other lights and driver circuits in the sign remain lit. If so, the disconnected driver needs to be replaced and the strings of LEDs connected to the new driver to confirm their operation.

b. If the remaining driver circuits are still not operational on restart, power off the sign, and unplug all the drivers from the PCM. With all driver circuits unplugged, power up the sign and make sure the PCM has both green LEDs. If one or both green LEDs on the PCMare not illuminated, skip the next step below.

IMPORTANT: DO NOT PLUG DRIVER CIRCUITS INTO AN ENERGIZED LVC POWER SUPPLY WHEN TROUBLESHOOTING!

   i. With the sign powered down, plug in the driver circuits individually and power on the sign to confirm their individual operation. If another driver circuit is found to be causing shut down, repeat the previous steps to isolate the cause.

c. Next, ensure the bridge rectifier is functioning properly by taking a DC voltage reading across the red and black wires exiting the bridge rectifier. With the circuit off and locked out, note the position of where the wires connect on the terminals and then remove them from the connecting posts of the bridge rectifier. The corners with red and black wires are the DC output of the bridge rectifier. The positive red (+) wire is always connected to the terminal that is 90° different in orientation than the others and is located on the small diagonal corner of the bridge rectifier.

   i. Using an RMS multi-meter, set the operation for diode testing and place the black negative lead on the positive terminal of the bridge rectifier, and the red positive lead on the negative terminal of the bridge rectifier in the corner opposite the positive terminal.

ii. If the meter reads close to 0.90VDC to 1.00VDC the bridge rectifier is good. If it reads approximately 0.40VDC to 0.60VDC the bridge rectifier is bad and needs to be replaced.

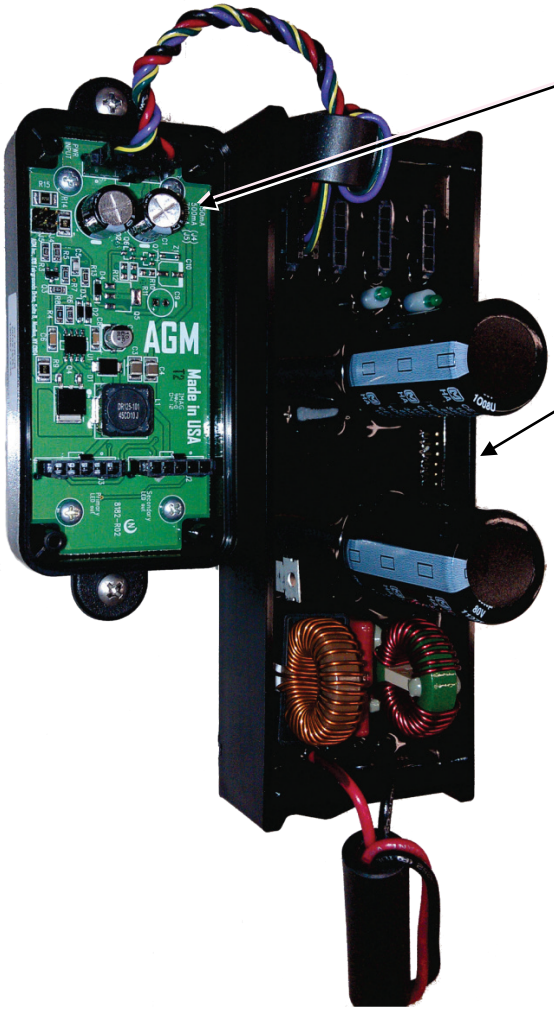
d. If the bridge rectifier is good, the next step is to check the output of the PCM. There are 2 green LEDs on the PCM near the output connections and if both of these are not illuminated when the sign is powered on and all circuits are disconnected, the PCM needs to be replaced. If both are illuminated, check the output voltage by setting a true RMS meter to DC voltage, and insert the black negative probe where the green wire connects and the red positive probe where the red wire connects. The output voltage should be approximately +50VDC. If there is no voltage here, the PCM needs to be replaced.

i. After the PCM is replaced, follow the driver circuit checking procedure from the preceding page. Take note of the green LED lights on the PCM; and if on start up, one of the LEDs is not illuminated, turn off the power promptly and replace the driver of the circuit being checked. Do not run a new PCM with a bad driver as damage to the PCM can occur.

I-Lux LED Board Replacement

Replacement of a nonfunctioning LED board is best accomplished inside the electrical shop, after swapping out mounting brackets. To replace the LED board, carefully remove the black wire harness plugs, press on the release safety catches of the plugs and pull out along the same plane that the LED is mounted on. Remove the mounting clips on either side of the LED board. Then using a sharp blade, slide under the LED board and pry the LED board off of the mounting bracket where the LED board is held with thermal transfer adhesive. Make sure to clean the area of the mounting bracket where the LED board was mounted before attaching a new one.

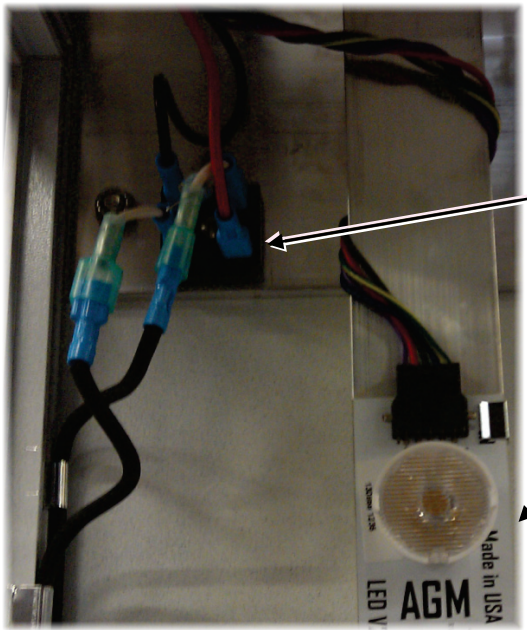
On the replacement LED board, strip the protective cover from the thermal adhesive on the back and carefully place the LED board in the same location as the previous LED board. Make sure to align the IN side and OUT side in the same orientation as the other LED boards on the mounting bracket. Replace the wire harness connections; and if the replacement LED board is at the end of the string, insert the green, end loop plug that completes the circuit.



Driver Module
(up to 6 LED boards)
Part # C7-DRVR

LED Board Power
Control Module
Part # C7-LVCV2

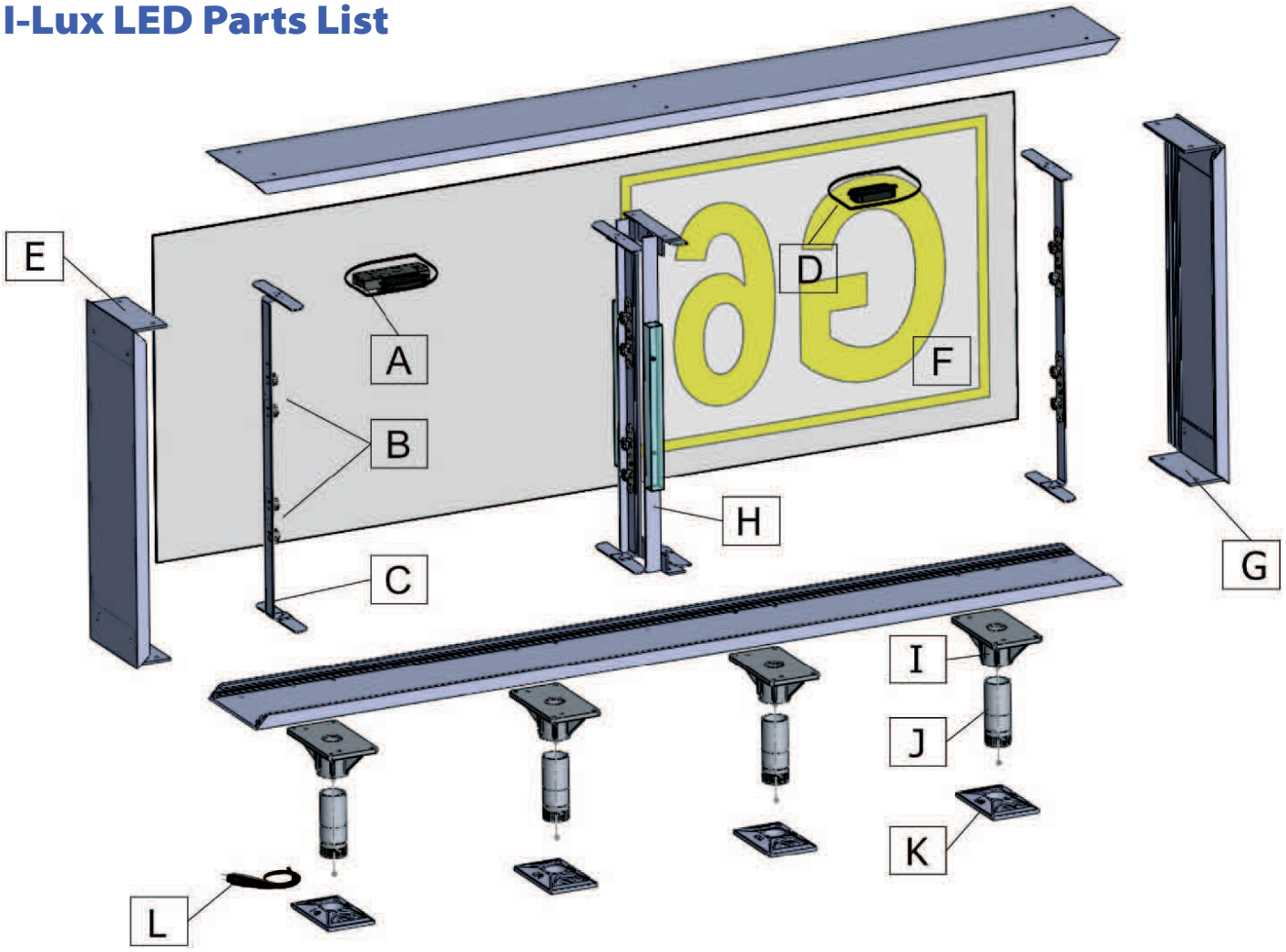
Power Cord
Part # C7-36PC



Bridge Rectifier
Part # C7-BRG

LED Board
Part # I7-LEDV2

I-Lux LED Parts List



	Part #	Description
A	C7-LVCV2	Low Voltage PCM
B	I7-LEDV2	LED Board with Optics
C	I7-LMB#	I-Lux LED Mounting Bracket
D	C7-DRVR	LED Driver Module
E	I6-CBN	Corner Bracket with Knurl Nut
F	I8-#LPXX	Panel *When ordering replace XX with sign length*
G	I6-CB	Corner Bracket
H	I6-#SP	Support Post *Size 2 or 3 only*

	Part #	Description
I	C6-SF5	Slip Flange
J	I6-FC#§	Flangible Coupling
K	C6-FF235	Floor Flange
L	C7-**PC	Power Cord *** Contact ALC for size*
	C7-BRG	Rectifying Bridge *Not pictured*
	C6-THR	Tether *Not pictured*
	C9-INP	Name Plate *Not pictured*

When ordering: § = For Mode 3 add "M3 after part number # = Sign Size XX = Sign Length X.X

I-Lux LED Retrofit Kit Parts List Size 1 Signs

The retrofit kits for size 1 signs include:

Sign Length:	1.0	1.5	2.0	2.5	3.0	3.5	4.0
LVC & Driver Mounted Assembly	1	1	1	1	1	1	1
Driver Mounted Assembly	-	-	-	-	-	1	1
Size 1 I-Lux LED Power Light Bracket *mounting bracket #1*	1	1	1	1	1	1	1
I-Lux Size 1 LED Light Bracket	1	3	3	5	5	7	7
5" LVC to Driver Wire Harness	1	1	1	1	1	1	1
62" LVC to Driver Wire Harness	-	-	-	-	-	1	1
5" LED to LED Wire Harness	-	-	1	2	2	2	2
25" LED to LED Wire Harness	2	2	2	2	2	4	4
48" LED to LED Wire Harness	-	1	1	2	2	2	2
LED End Loop	2	2	2	2	2	4	4
Wire Harness U-Clip	8	10	10	12	12	14	14
6" Wire Zip Tie	1	1	1	1	1	1	1
#8 ½" Slotted Hex Screw	1	1	1	1	1	1	1
#8 ¾" Tek Screw	2	6	6	10	10	14	14
Name Plate	1	1	1	1	1	1	1

General Catalog Numbers

I7-□□□□RTR

Size
1 = Size 1
2 = Size 2
3 = Size 3

Sign Style
2 = Style 2 (3 step 4.8A – 6.6A)
3 = Style 3 (5 step 2.8A – 6.6A)
5 = Style 5 (1 step 5.5A)

Modules
1.0 to 4.0 in length

Note that all kits include electronics and wires to convert existing signs to LED using existing power cord.

I-Lux LED Retrofit Kit Parts List Size 2 Signs

The retrofit kits for size 2 signs include:

Sign Length:	1.0	1.5	2.0	2.5	3.0	3.5	4.0
LVC & Driver Mounted Assembly	1	1	1	1	1	1	1
Driver Mounted Assembly	-	1	1	1	1	2	2
Size 2 I-Lux LED Power Light Bracket *mounting bracket #1*	1	1	1	1	1	1	1
I-Lux Size 2 LED Light Bracket	1	3	3	5	5	7	7
5" LVC to Driver Wire Harness	1	1	1	1	1	1	1
36" LVC to Driver Wire Harness	-	1	1	-	-	1	1
62" LVC to Driver Wire Harness	-	-	-	1	-	-	-
72" LVC to Driver Wire Harness	-	-	-	-	1	-	-
94" LVC to Driver Wire Harness	-	-	-	-	-	1	-
112" LVC to Driver Wire Harness	-	-	-	-	-	-	1
5" LED to LED Wire Harness	2	4	4	8	8	11	11
25" LED to LED Wire Harness	-	4	-	4	-	5	-
31" LED to LED Wire Harness	2	-	4	-	4	-	5
LED End Loop	2	4	4	4	4	6	6
Wire Harness U-Clip	8	10	10	12	12	14	14
6" Wire Zip Tie	1	1	1	1	1	1	1
#8 ½" Slotted Hex Screw	1	1	1	1	1	1	1
#8 ¾" Tek Screw	2	6	6	10	10	14	14
Name Plate	1	1	1	1	1	1	1

General Catalog Numbers

I7-□□□□RTR

Size
1 = Size 1
2 = Size 2
3 = Size 3

Sign Style
2 = Style 2 (3 step 4.8A – 6.6A)
3 = Style 3 (5 step 2.8A – 6.6A)
5 = Style 5 (1 step 5.5A)

Modules
1.0 to 4.0 in length

Note that all kits include electronics and wires to convert existing signs to LED using existing power cord.

I-Lux LED Retrofit Kit Parts List Size 3 Signs

The retrofit kits for size 3 signs include:

Sign Length:	1.0	1.5	2.0	2.5	3.0	3.5	4.0
LVC & Driver Mounted Assembly	1	1	1	1	1	1	1
Driver Mounted Assembly	-	1	1	2	2	3	3
Size 3 I-Lux LED Power Light Bracket *mounting bracket #1*	1	1	1	1	1	1	1
I-Lux Size 3 LED Light Bracket	1	2	2	5	5	7	7
5" LVC to Driver Wire Harness	1	1	1	1	1	1	1
36" LVC to Driver Wire Harness	-	1	-	1	-	1	-
50" LVC to Driver Wire Harness	-	-	1	-	1	-	1
72" LVC to Driver Wire Harness	-	-	-	1	-	1	-
86" LVC to Driver Wire Harness	-	-	-	-	1	-	1
112" LVC to Driver Wire Harness	-	-	-	-	-	1	-
129" LVC to Driver Wire Harness	-	-	-	-	-	-	1
5" LED to LED Wire Harness	4	8	8	12	12	16	16
25" LED to LED Wire Harness	-	4	-	6	-	8	-
31" LED to LED Wire Harness	2	-	2	-	4	-	6
LED End Loop	2	4	4	6	6	8	8
Wire Harness U-Clip	8	10	10	12	12	14	14
6" Wire Zip Tie	1	1	1	1	1	1	1
#8 ½" Slotted Hex Screw	1	1	1	1	1	1	1
#8 ¾" Tek Screw	2	6	6	10	10	14	14
Name Plate	1	1	1	1	1	1	1

General Catalog Numbers

I7-□□□□RTR

Size
1 = Size 1
2 = Size 2
3 = Size 3

Sign Style
2 = Style 2 (3 step 4.8A – 6.6A)
3 = Style 3 (5 step 2.8A – 6.6A)
5 = Style 5 (1 step 5.5A)

Modules
1.0 to 4.0 in length

Note that all kits include electronics and wires to convert existing signs to LED using existing power cord.

NOTES