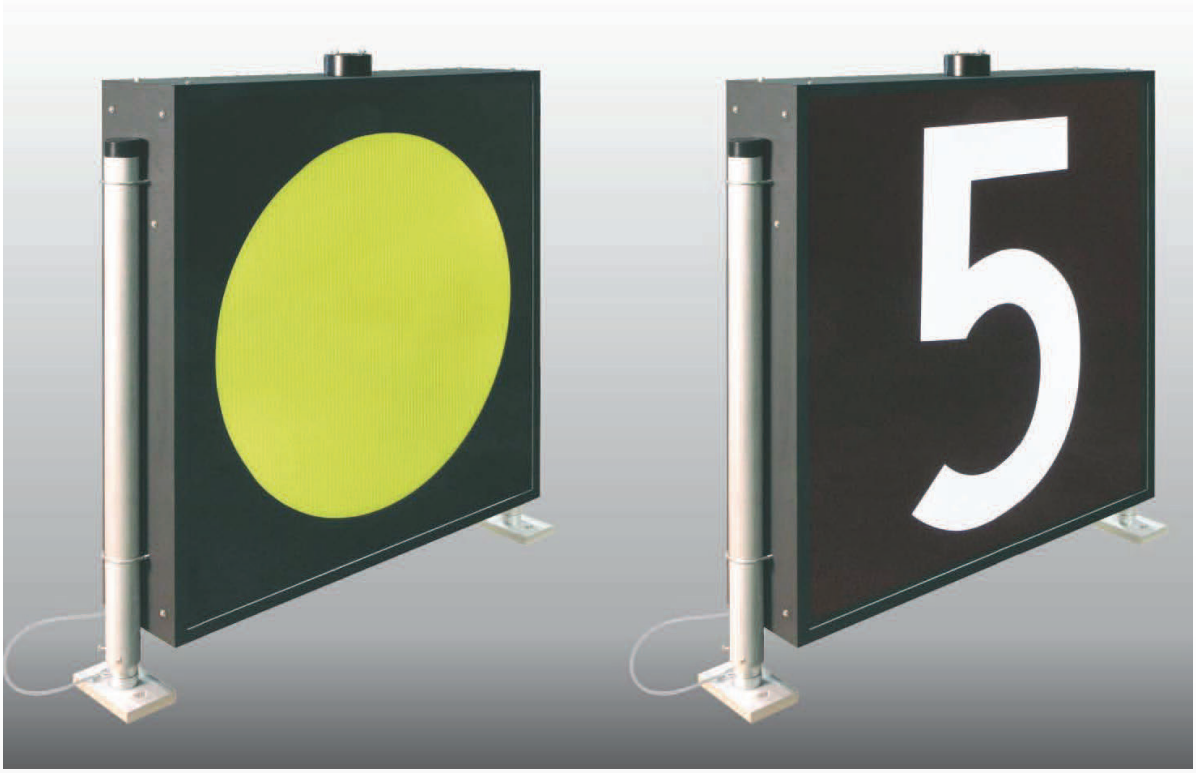
AirportLightingCompany
An ISO 9001:2015 Certified Company

OWNER'S MANUAL



TP312 I-LUX Size 4 Owners Manual
Distance Remaining Marker
Style 3

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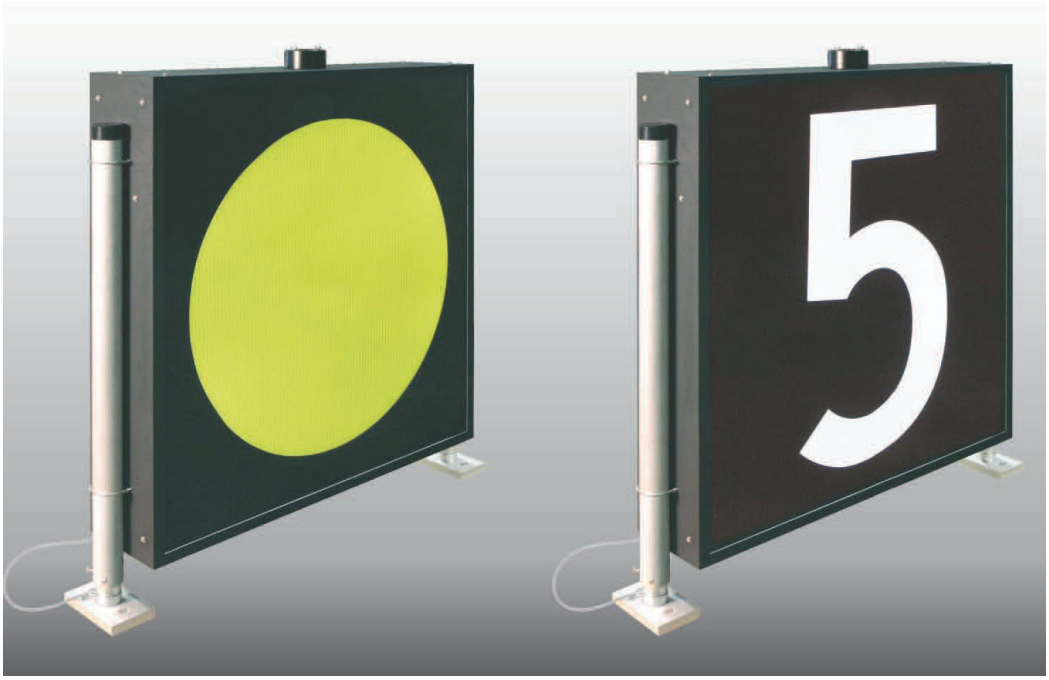
TP312 I-LUX Size 4 Owners Manual
Distance Remaining Marker Style 3

Compliant to:
Transport Canada TP312 5th Edition



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

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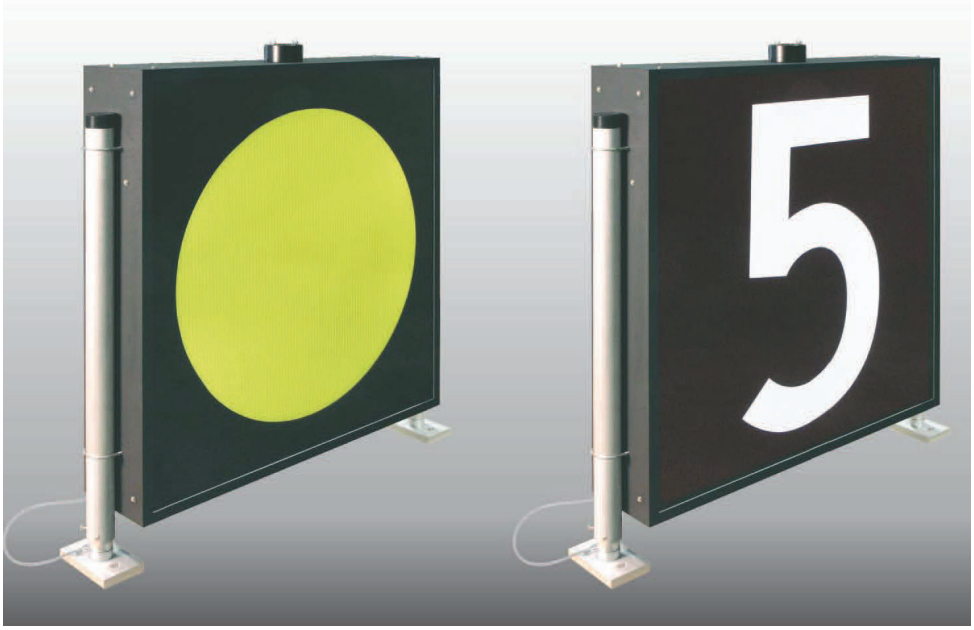
TP312 Distance Remaining Sign



Key Features

- Compliant with Transport Canada TP 312, 5th Edition
- IP68 LED Strip
- Lowest power consumption of any manufacturer
- Aluminum cabinet with stainless steel hardware
- Acrylic panels
- Operates on Style 2, 3 & 5 Airfield Circuits
- Class 2
- 65VA (max) and 0.93 Min PF with 100W isolation transformer

General Catalog Numbers

CA-I4□J1.0□F□

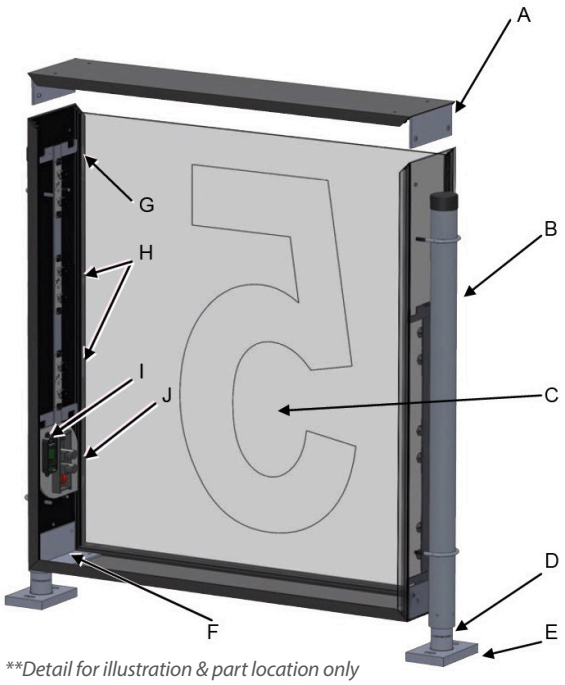
Catalog Code
Panel Height
4 = 1200mm Panel Height

Power Source
3 = 2.8-6.6A

Sign Faces
D = Double Face
S = Single Face

Options
1 = On/Off Switch (with cover)
P = View Port
E = External Power Cord
S = Lamp Out Indicator

Parts List



***Detail for illustration & part location only*

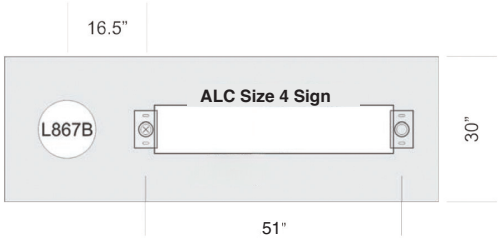
	Part #	Description
A	I6-CBN	Corner bracket w/ knurl nut
B	I6-4PT	Support post, Size 4
C	I8-4LP10	Legend panel, Size 4
D	I6-FC4	Frangible coupling, Size 4
E	I6-FF4	Floor flange, Size 4
F	I6-CBT	Corner bracket
G	I7-LB4	Mounting Bracket
H	I7-LED3V4-CA	TP312 S4 LED Rope Light
I	C7-ADAP	LEDV3 Adapter Board
J	C7-LVCV2-24V	Low voltage controller
	C7-60PC	Power cord *Not pictured*
	I9-INP	Name plate *Not pictured*
	C6-THR	Tether *Not pictured*
	C7-GDTH	Gas Discharge Tube Harness *Not pictured*
	C7-BRG	Bridge rectifier *Not pictured*

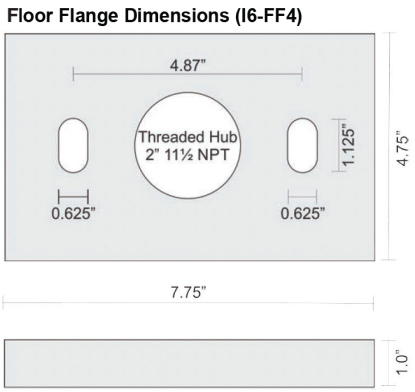
L830 Transformer Requirements, VA Loads, Power Factors

Light Option	Style	L-830 Transformer	VA*	Power Factor*
LED Board	3	100W	65	0.93

**These ratings are subject to change without notice.*

I-Lux Size 4 Suggested Concrete Pad Mounting & Floor Flange Dimensions





Weights and Dimensions
135Lb (61kg)
58"x 56"x 10" (height x width x depth)

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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

Statement of Warranty

See current ALC Warranty at:
https://www.airportlightingcompany.com/terms-conditions/

All ALC signs are tested at the factory and set to function within applicable specifications. Installation and operation issues most frequently trace back to an undersized isolation transformer or to damage during shipping. Before commencing repairs, please contact ALC (315-800-9937 or via email - support@airportlightingcompany.com) with the catalog number and serial number from the name plate of the malfunctioning sign to determine warranty coverage.

If following the troubleshooting guidelines below does not resolve the operational issues, we are pleased to assist you via telephone or email. We keep parts in stock, and ship within 24 hours.

I-Lux Size 4 Sign Handling

ALC I-Lux signs are shipped in a corrugated wrapping to protect against abrasion during shipping. The packaged signs are meant to be hand carried (sling straps are effective) or placed on dolly carts. The packaged sign is NOT designed to be handled by forklifts.

Make sure to note any damage that occurred during shipping when receiving the signs and **be sure to document it with the carrier**. When installing the sign make sure that the correct L830 isolation transformer is connected.

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

I-Lux Size 4 Sign Storage

If the signs are to be stored before installation, keep them in the original corrugated wrapping for protection, and store them upright in a dry location. If the corrugated wrapping becomes wet, it should be removed and recycled because it can cause damage as a result of aggravated humidity. If the corrugated wrapping is removed, keep the protective plastic on the legend panels until installation. This provides the last layer of protection in the absence of the corrugated wrapping. Damage resulting from improper storage is not covered by warranty.

I-Lux Size 4 Sign Installation

1. Place sign on the pad with long dimension of the floor flanges perpendicular to the length of the sign.
2. Mark anchor bolt locations.
3. Move the sign out of the way.
4. Drill mounting holes for anchor bolts.
5. Install L-830 transformer into the base can.
   - Check the name plate on the side of the sign to ensure correct wattage is used.
6. Secure cable clamp to transformer secondary lead or secondary extension cord.
7. Reposition the sign on the pad and hold at an angle.
8. Pull power cord out of sign leg and plug it into the transformer secondary lead or extension cord.
9. Rotate the sign to the upright position over the anchor holes being careful to not pinch the power cord.
10. Insert the anchor bolts and loosely clamp the floor flanges to the pad.
11. Loosen the pinch bolts in the slip flanges.
12. Tighten the anchor bolts on the floor flanges.
13. Tighten the pinch bolts in the slip flanges against the couplings.
14. Remove the protective plastic on the panels, being careful not to create foreign object debris (FOD).
15. When work is done on the circuit, verify sign operation between dusk and dawn.

I-Lux Size 4 Sign Maintenance

ALC signs are designed to provide years of trouble-free service. Prior to the performance of any work on the signs, power should be disconnected at the vault. We recommend an annual inspection and cleaning of the sign interior to maintain bright and even light output. Inspection of the signs should also include regular removal of any excess dirt, snow, and avian excrement from the sign exterior to maintain proper visibility of the sign legend.

I-Lux Size 4 Sign LEDV3 Strip Operation

ALC'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 Size 4 Sign LEDV3 Strip Troubleshooting

All ALC signs are tested at the factory and set to function within applicable specifications. Installation and operation issues most frequently trace back to an undersized isolation transformer or to damage during shipping. Before commencing repairs, please contact ALC (315-800-9937 or via email - support@airportlightingcompany.com) 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 ALC; we are pleased to assist you. We keep parts in stock and ship within 24 hours.

If the sign does not operate:

1. Ensure that power to the sign has been turned off, then access the I-Lux cabinet by following the instructions on page 8. Slide the blank panel out enough to access the power supply assembly.
2. Cycle the power to the sign remotely or by using the optional isolating safety switch on the sign.
3. Confirm the LVCV2-24 has two lighted green LEDs. If it does, skip to step 4.
    a. If it does not, use a True RMS clamp-on ammeter to verify that the current on one lead of the power cord matches desired current of the airfield circuit. If the reading is not very close to that desired, then there could be a problem with the isolation transformer or regulator providing power to the sign. If the CCR current is confirmed as accurate, lock out the circuit and verify the condition of the isolation transformer for the sign.
    b. Once correct input current is established, and if the LVCV2-24 does not have two lighted green LEDs, de-energize the sign and 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.

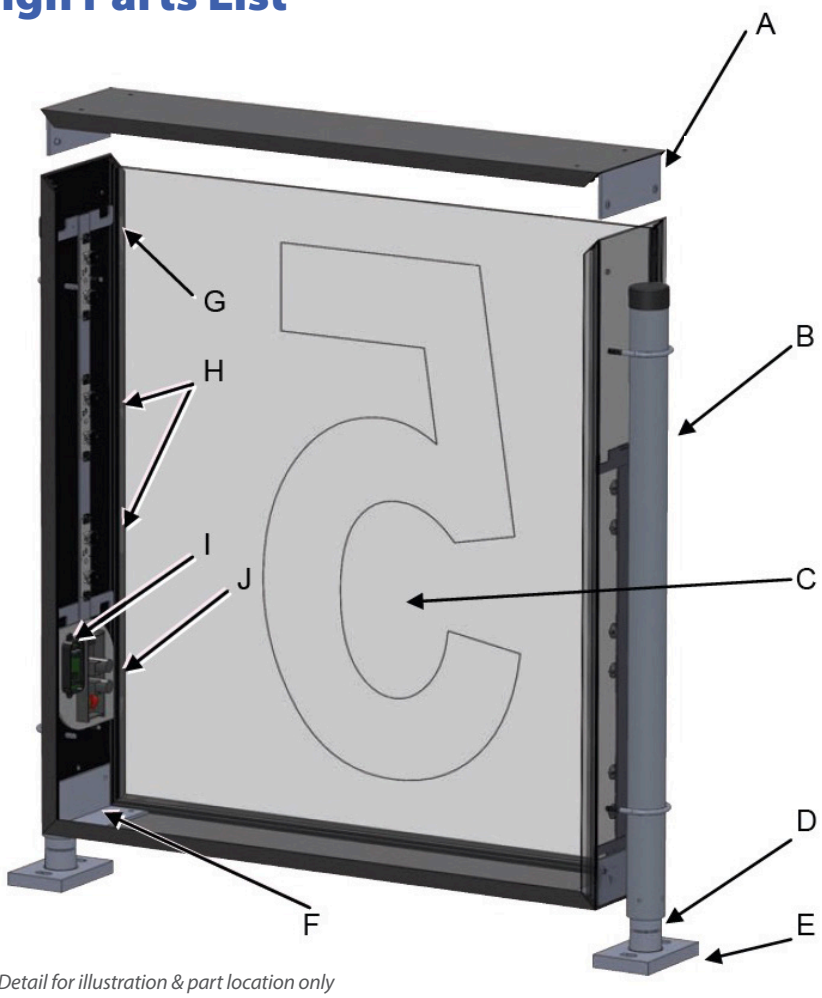
c. Using an RMS multi-meter, set the operation for diode testing and place the black negative lead on the positive terminal of the bridge rectifier, and the red positive lead on the negative terminal of the bridge rectifier in the corner opposite the positive terminal. If the meter reads close to 0.90VDC to 1.00VDC the bridge rectifier is good, and the LVCV2-24 needs to be replaced. If it reads approximately 0.40VDC to 0.60VDC the bridge rectifier is bad and needs to be replaced.

4. If the LVCV2-24 has two lighted green LEDS, confirm the Adaptive Monitoring Board has a flashing green LED. If not, replace it.

II-LUX Size 4 LEDV3 Replacement

1. De-energize power to the sign and open the cabinet per the instructions on page 8.
2. Remove the blank panel.
3. Remove the leads of the LEDV3 LED strip from the adaptive monitoring board.
4. Unbolt the LED channel from the support posts and remove from the sign cabinet.
5. Make note of the end of the extrusion that has the leads.
6. Pull on the leads of the LED strip to begin sliding the strip out of the extrusion.
7. Once some of the strip is exposed, pull on the strip instead of the leads.
8. Remove the LEDV3 LED strip from the extrusion.
9. Install the new LEDV3 LED strip by either sliding it into one end of the extrusion or pressing it down gently but firmly into the extrusion.
10. Bolt the channel back onto the support posts.
11. Install the leads into the adaptive monitoring board.
12. Energize the sign.
13. Press the Calibrate button on the adaptive monitoring board.
14. Replace the blank panel.
15. Bolt the cabinet back together.

I-Lux Size 4 Sign Parts List



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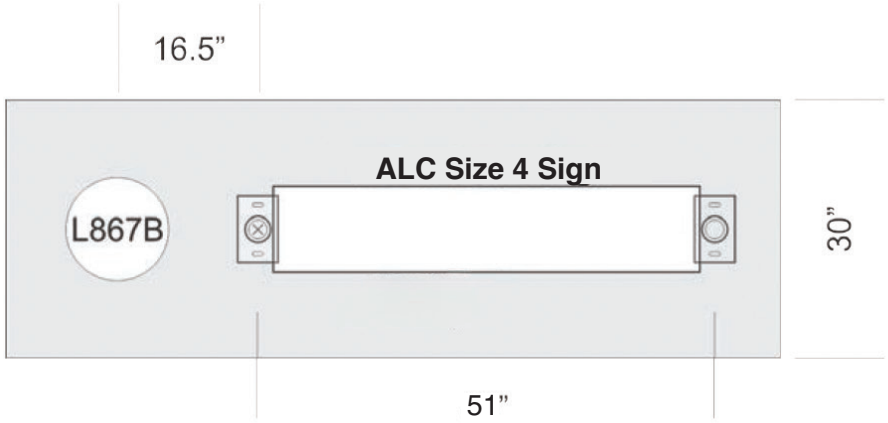

Suggested Concrete Pad Mounting Dimensions

Floor Flange Dimensions (I6-FF4)