



FAA L-858 Kit to Replace Light Tubes with Light Bars, Leaving the  
Existing Power Supply in Place  
Size 1, 2, 3, and, 5 Internally Illuminated

## Service Bulletin

ALN166, Rev. E, 2019/11/20

  
**ADB  
SAFEGATE**



## A.0 Disclaimer / Standard Warranty

### CE certification

The equipment listed as CE certified means that the product complies with the essential requirements concerning safety and hygiene. The directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

### ETL certification

The equipment listed as ETL certified means that the product complies with the essential requirements concerning safety and FAA Airfield regulations. The directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

### LED Product Guarantee

Where applicable, per FAA EB67 (applicable edition), ADB SAFEGATE L858(L) Airfield Guidance Signs are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years. ADB SAFEGATE LED light fixtures (with the exception of obstruction lighting) are warranted against mechanical and physical defects in design or manufacture for a period of 12 months from date of installation; and are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years per FAA EB67 (applicable edition).



#### Note

See your sales order contract for a complete warranty description. In some specific cases, deviations are (to be) accepted in the contract, which will supersede the standard warranty.

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#### Note

See your sales order contract for a complete warranty description.

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## Liability



### WARNING

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ADB SAFEGATE cannot be held responsible for injuries or damages resulting from non-standard, unintended uses of its equipment. The equipment is designed and intended only for the purpose described in the manual. Uses not described in the manual are considered unintended uses and may result in serious personal injury, death or property damage.

Unintended uses includes the following actions:

- Making changes to equipment that have not been recommended or described in this manual or using parts that are not genuine ADB SAFEGATE replacement parts or accessories.
- Failing to make sure that auxiliary equipment complies with approval agency requirements, local codes, and all applicable safety standards if not in contradiction with the general rules.
- Using materials or auxiliary equipment that are inappropriate or incompatible with your ADB SAFEGATE equipment.
- Allowing unskilled personnel to perform any task on or with the equipment.

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# 1.0 Safety

## Introduction to Safety

This section contains general safety instructions for installing and using ADB SAFEGATE equipment. Some safety instructions may not apply to the equipment in this manual. Task- and equipment-specific warnings are included in other sections of this manual where appropriate.

## 1.1 Safety Messages

### HAZARD Icons used in the manual

For all HAZARD symbols in use, see the Safety section. All symbols must comply with ISO and ANSI standards.

Carefully read and observe all safety instructions in this manual, which alert you to safety hazards and conditions that may result in personal injury, death or property and equipment damage and are accompanied by the symbol shown below.



#### WARNING

Failure to observe a warning may result in personal injury, death or equipment damage.



#### DANGER - Risk of electrical shock or ARC FLASH

Disconnect equipment from line voltage. Failure to observe this warning may result in personal injury, death, or equipment damage. ARC Flash may cause blindness, severe burns or death.



#### WARNING - Wear personal protective equipment

Failure to observe may result in serious injury.



#### WARNING - Do not touch

Failure to observe this warning may result in personal injury, death, or equipment damage.



#### CAUTION

Failure to observe a caution may result in equipment damage.

### Qualified Personnel



#### Important Information

The term **qualified personnel** is defined here as individuals who thoroughly understand the equipment and its safe operation, maintenance and repair. Qualified personnel are physically capable of performing the required tasks, familiar with all relevant safety rules and regulations and have been trained to safely install, operate, maintain and repair the equipment. It is the responsibility of the company operating this equipment to ensure that its personnel meet these requirements.

Always use required personal protective equipment (PPE) and follow safe electrical work practice.

### 1.1.1 Introduction to Safety



#### CAUTION

##### Unsafe Equipment Use

This equipment may contain electrostatic devices, hazardous voltages and sharp edges on components

- Read installation instructions in their entirety before starting installation.
- Become familiar with the general safety instructions in this section of the manual before installing, operating, maintaining or repairing this equipment.
- Read and carefully follow the instructions throughout this manual for performing specific tasks and working with specific equipment.
- Make this manual available to personnel installing, operating, maintaining or repairing this equipment.
- Follow all applicable safety procedures required by your company, industry standards and government or other regulatory agencies.
- Install all electrical connections to local code.
- Use only electrical wire of sufficient gauge and insulation to handle the rated current demand. All wiring must meet local codes.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Protect components from damage, wear, and harsh environment conditions.
- Allow ample room for maintenance, panel accessibility, and cover removal.
- Protect equipment with safety devices as specified by applicable safety regulations
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning prior to returning power to the circuit.

**Failure to follow this instruction can result in serious injury or equipment damage**

### Additional Reference Materials



#### Important Information

- IEC - International Standards and Conformity Assessment for all electrical, electronic and related technologies.
- IEC 60364 - Electrical Installations in Buildings.
- FAA Advisory: AC 150/5340-26 (current edition), Maintenance of Airport Visual Aid Facilities.
- Maintenance personnel must refer to the maintenance procedure described in the ICAO Airport Services Manual, Part 9.
- ANSI/NFPA 79, Electrical Standards for Metalworking Machine Tools.
- National and local electrical codes and standards.

### 1.1.2 Intended Use



#### CAUTION

##### Use this equipment as intended by the manufacturer

This equipment is designed to perform a specific function, do not use this equipment for other purposes

- Using this equipment in ways other than described in this manual may result in personal injury, death or property and equipment damage. Use this equipment only as described in this manual.

**Failure to follow this instruction can result in serious injury or equipment damage**



### 1.1.3 Material Handling Precautions: Storage



#### CAUTION

##### Improper Storage

Store this equipment properly

- If equipment is to be stored prior to installation, it must be protected from the weather and kept free of condensation and dust.

**Failure to follow this instruction can result in equipment damage**

### 1.1.4 Operation Safety



#### CAUTION

##### Improper Operation

Do Not Operate this equipment other than as specified by the manufacturer

- Only qualified personnel, physically capable of operating the equipment and with no impairments in their judgment or reaction times, should operate this equipment.
- Read all system component manuals before operating this equipment. A thorough understanding of system components and their operation will help you operate the system safely and efficiently.
- Before starting this equipment, check all safety interlocks, fire-detection systems, and protective devices such as panels and covers. Make sure all devices are fully functional. Do not operate the system if these devices are not working properly. Do not deactivate or bypass automatic safety interlocks or locked-out electrical disconnects or pneumatic valves.
- Protect equipment with safety devices as specified by applicable safety regulations.
- If safety devices must be removed for installation, install them immediately after the work is completed and check them for proper functioning.
- Route electrical wiring along a protected path. Make sure they will not be damaged by moving equipment.
- Never operate equipment with a known malfunction.
- Do not attempt to operate or service electrical equipment if standing water is present.
- Use this equipment only in the environments for which it is rated. Do not operate this equipment in humid, flammable, or explosive environments unless it has been rated for safe operation in these environments.
- Never touch exposed electrical connections on equipment while the power is ON.

**Failure to follow these instructions can result in equipment damage**

### 1.1.5 Maintenance Safety



#### DANGER

##### Electric Shock Hazard

This equipment may contain electrostatic devices

- Do not operate a system that contains malfunctioning components. If a component malfunctions, turn the system OFF immediately.
- Disconnect and lock out electrical power.
- Allow only qualified personnel to make repairs. Repair or replace the malfunctioning component according to instructions provided in its manual.

**Failure to follow these instructions can result in death or equipment damage**

### 1.1.6 Material Handling Precautions, ESD



#### CAUTION

##### Electrostatic Sensitive Devices

This equipment may contain electrostatic devices

- Protect from electrostatic discharge.
- Electronic modules and components should be touched only when this is unavoidable e.g. soldering, replacement.
- Before touching any component of the cabinet you shall bring your body to the same potential as the cabinet by touching a conductive earthed part of the cabinet.
- Electronic modules or components must not be brought in contact with highly insulating materials such as plastic sheets, synthetic fiber clothing. They must be laid down on conductive surfaces.
- The tip of the soldering iron must be grounded.
- Electronic modules and components must be stored and transported in conductive packing.

**Failure to follow this instruction can result in equipment damage**

### 1.1.7 Arc Flash and Electric Shock Hazard



#### DANGER

##### Series Circuits have Hazardous Voltages

This equipment produces high voltages to maintain the specified current - Do NOT Disconnect while energized.

- Allow only qualified personnel to perform maintenance, troubleshooting, and repair tasks.
- Only persons who are properly trained and familiar with ADB SAFEGATE equipment are permitted to service this equipment.
- An open airfield current circuit is capable of generating >5000 Vac and may appear OFF to a meter.
- Never unplug a device from a constant current circuit while it is operating; Arc flash may result.
- Disconnect and lock out electrical power.
- Always use safety devices when working on this equipment.
- Follow the recommended maintenance procedures in the product manuals.
- Do not service or adjust any equipment unless another person trained in first aid and CPR is present.
- Connect all disconnected equipment ground cables and wires after servicing equipment. Ground all conductive equipment.
- Use only approved ADB SAFEGATE replacement parts. Using unapproved parts or making unapproved modifications to equipment may void agency approvals and create safety hazards.
- Check the interlock systems periodically to ensure their effectiveness.
- Do not attempt to service electrical equipment if standing water is present. Use caution when servicing electrical equipment in a high-humidity environment.
- Use tools with insulated handles when working with airfield electrical equipment.

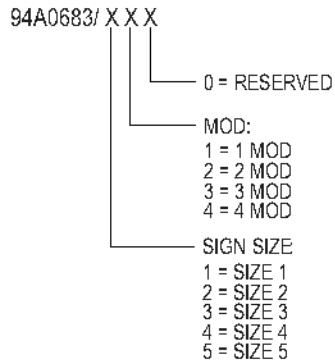
**Failure to follow these instructions can result in death or equipment damage**

## 2.0 LED Sign Upgrade Kit

LED Light Tube Sign Upgrade to LED Light Bar Sign Kits.

These kits are designed to upgrade a LED Light Tube sign to an LED Light Bar sign.

**Figure 1: LED Light Bar Kit Ordering Codes**



### Note

The existing larger wattage L-830 transformer may be reused on retrofitted LED signs.  
See [Sign Load & Transformer Requirements](#) for details.

The kit includes all the parts required to complete the upgrade.

#### Tools required but not included:

- A #2 Phillips screwdriver,
- A #2 flat blade screwdriver,
- A (.312 in) 5/16-inch socket,
- A (14 mm) (.5 in) 1/2-inch socket,
- A (.187 in) 3/16-inch drill bit,
- A (.218 in) 7/32-inch drill bit,
- Electric drill motor
- Wire cutters
- Leather gloves

## 2.1 Parts Supplied

See [Figure 3](#) for the Assembly Diagram

ITEM #	PART NUMBER	PART NAME/DESCRIPTION
1	ALN166	Service Bulletin
2	44A6921/5	LED Tube Terminator Assy. (if needed)
3	44A7470/1	LED Sign LT Tube PS-TO-LT Bar Wire Lead Adapter
4	48A0442/XX	LED Light Bar, Gen II, length as needed.
5	64A0191/4	8-32 X 1/4 Pan HD Phillips Screw
6	64A0235/6	4-24 X 3/8 Pan HD Phillips Self-tapping Screw
7	64A1011/8	10-32 X 1/2 HEX Washer Head SS Self-tapping Screw

ITEM #	PART NUMBER	PART NAME/DESCRIPTION
9	42A0577	Label, L-858 LED Taxiway/Runway Sign
10	114A0023	Sign Halogen/Tube-to-bar Retrofit Kit Box
11	104A0328	Sign Tube-to-bar Retrofit Kit Inspection Checklist

## 2.2 About this Service Bulletin

The service bulletin shows the information necessary to:

- Remove the old LED Light Tube Sign components, except the power supply and incoming power necessary to upgrade to an LED Light Bar Sign. See schematic.
- Install the Kit components necessary to make an LED Light Bar Sign.

### 2.2.1 How to work with the service bulletin

1. Become familiar with the structure and content.
2. Carry out the actions completely and in the given sequence.

## 3.0 LED Light Tube Removal

1. Remove power to the sign circuit by shutting down the CCR.
2. Remove the sign lid and legend panels.  
(Note: If lid has lamp covers on the top of the lid, leave them in place).
3. Remove all the light tubes, all the light tube support brackets, all the wiring on the output of the power supply and any remaining wires between light tubes.  
Remove the resistor in the Size 1 sign, if used.
4. Leave the incoming power wires to the power supply in place, including the earth ground wires.
5. Leave the power supply, the EMI filters (if present) and the capacitors (if present) on the sign wall.  
See [Figure 2](#).
6. Check [Table 1](#) to determine the minimum transformer wattage requirements.  
Compare this with the existing installed transformer wattage and replace if needed.

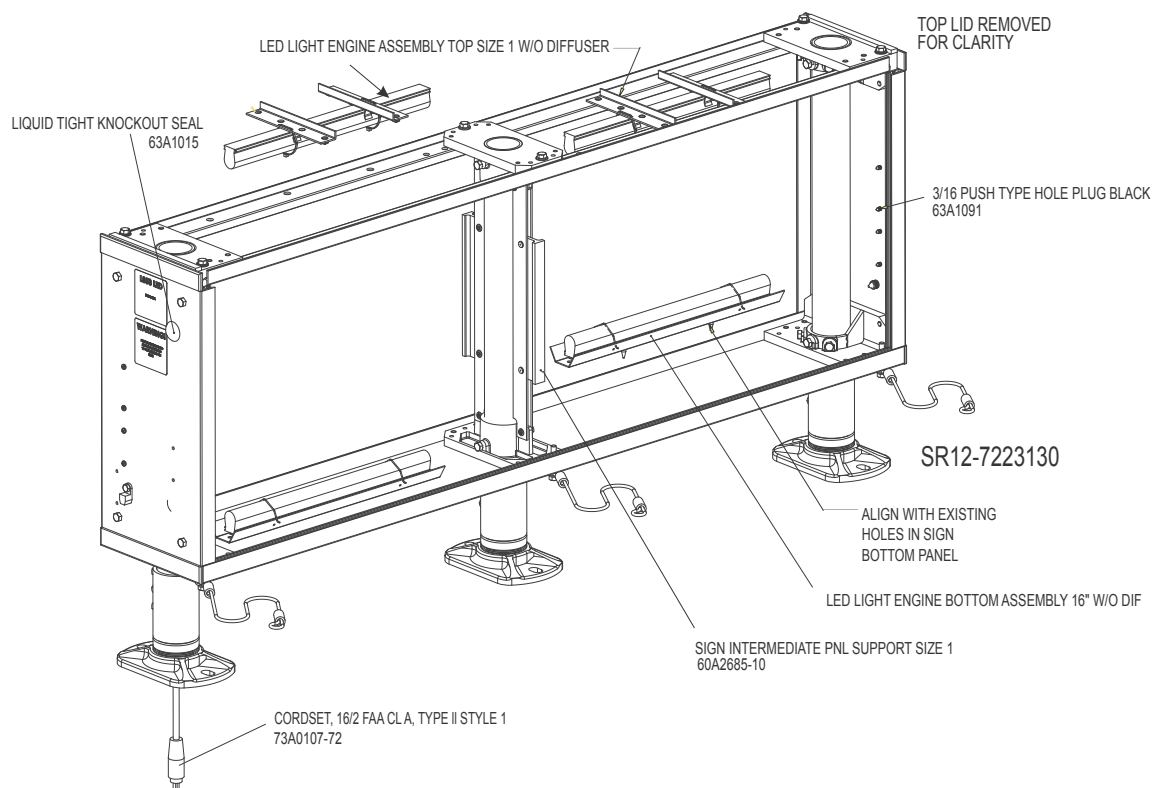


### Note

If a larger or equal required wattage transformer is present, it can remain in place.

7. Proceed to ["Kit Installation" on page 5](#).

**Figure 2: Light Tube Sign Parts Removal**



### Note

DO NOT REMOVE the power supply.

### 3.1 Sign Load & Transformer Requirements



#### Note

If your existing L-830 transformer is smaller than the recommended transformer size, it must be replaced.

If your existing L-830 transformer is larger than needed it is OK to reuse it, however this may effect the CCR Load VA.

**Table 1: Sign Load & Transformer Requirements**

Sign Size	Number of Sign Modules	Light Bar Sign Recommended Transformer	Power Factor	Total CCR VA Load
<b>Style 2, 3-Step LED Signs (4.8 - 6.6 A)</b>				
1	1	65 W	0.83	85
1	2	100 W	0.83	95
1	3	100 W	0.88	95
1	4	100 W	0.91	95
2	1	65 W	0.88	90
2	2	100 W	0.88	95
2	3	100 W	0.91	100
2	4	100 W	0.91	100
3	1	100 W	0.83	95
3	2	100 W	0.91	95
3	3	100 W	0.91	100
3	4	150 W	0.88	115
4	1	100 W	0.84	95
5	1	100 W	0.83	95
<b>Style 3, 5-Step LED Signs (2.8 - 6.6 A)</b>				
1	1	100 W	0.88	75
1	2	150 W	0.88	95
1	3	150 W	0.88	95
1	4	150 W	0.90	100
2	1	150 W	0.88	90
2	2	150 W	0.90	95
2	3	150 W	0.83	100
2	4	150 W	0.85	100
3	1	150 W	0.88	95
3	2	150 W	0.90	100
3	3	150 W	0.83	100
3	4	200 W	0.85	115
4	1	150 W	0.88	95
5	1	150 W	0.83	95
<b>Style 5, Single-Step LED Signs (5.5 A)</b>				
1	1	65 W	0.84	75

**Table 1: Sign Load & Transformer Requirements (continued)**

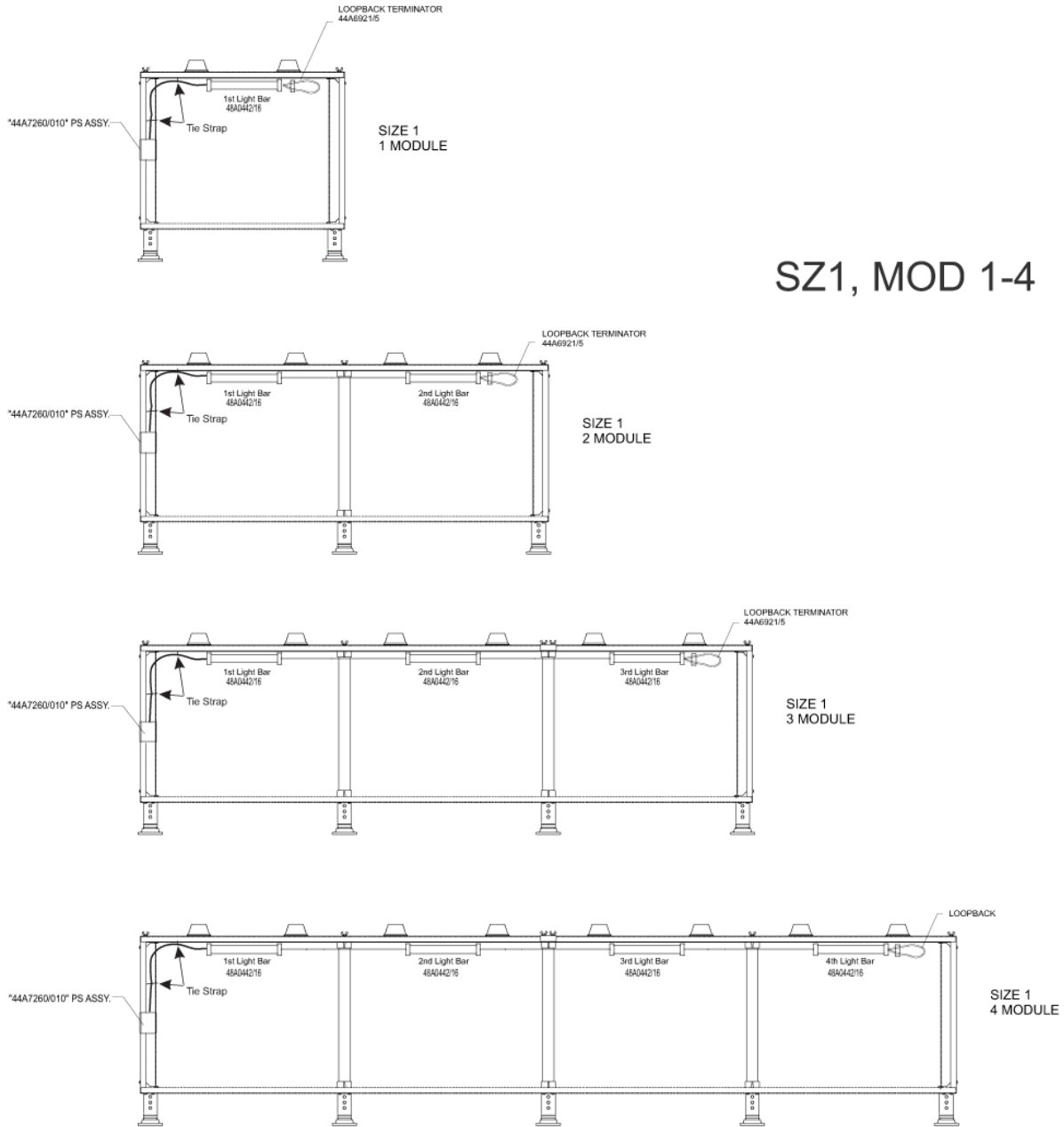
<b>Sign Size</b>	<b>Number of Sign Modules</b>	<b>Light Bar Sign Recommended Transformer</b>	<b>Power Factor</b>	<b>Total CCR VA Load</b>
1	2	65 W	0.84	85
1	3	100 W	0.88	85
1	4	100 W	0.88	95
2	1	65 W	0.92	75
2	2	100 W	0.89	85
2	3	100 W	0.90	100
2	4	100 W	0.90	100
3	1	65 W	0.84	85
3	2	100 W	0.88	95
3	3	100 W	0.92	100
3	4	100 W	0.92	110
4	1	65 W	0.83	85
5	1	65 W	0.92	85





## 4.0 LED Light Bar Kit Installation

Figure 3: Size 1 Signs



SZ1, MOD 1-4

Figure 4: Size 2 Signs

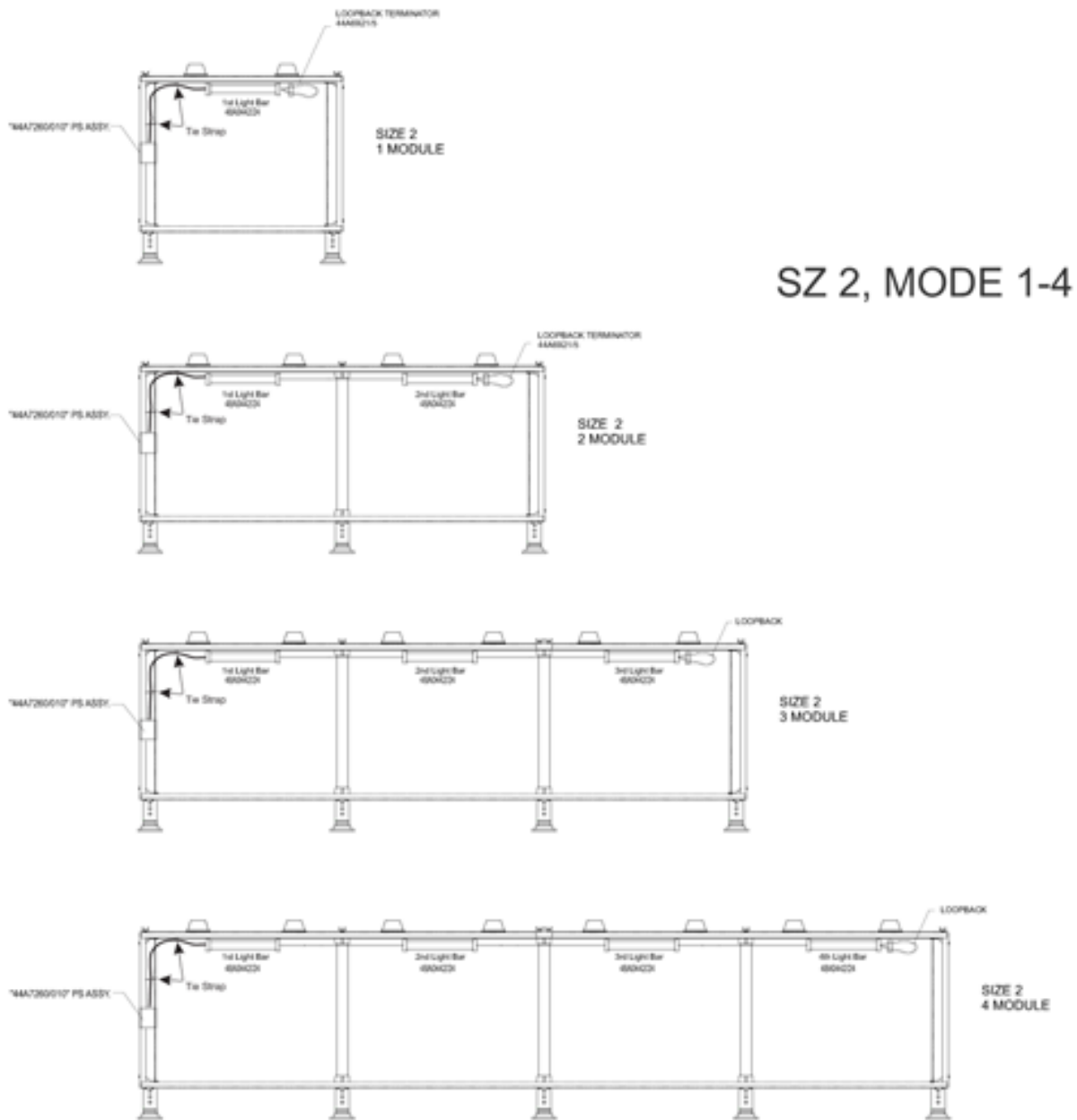
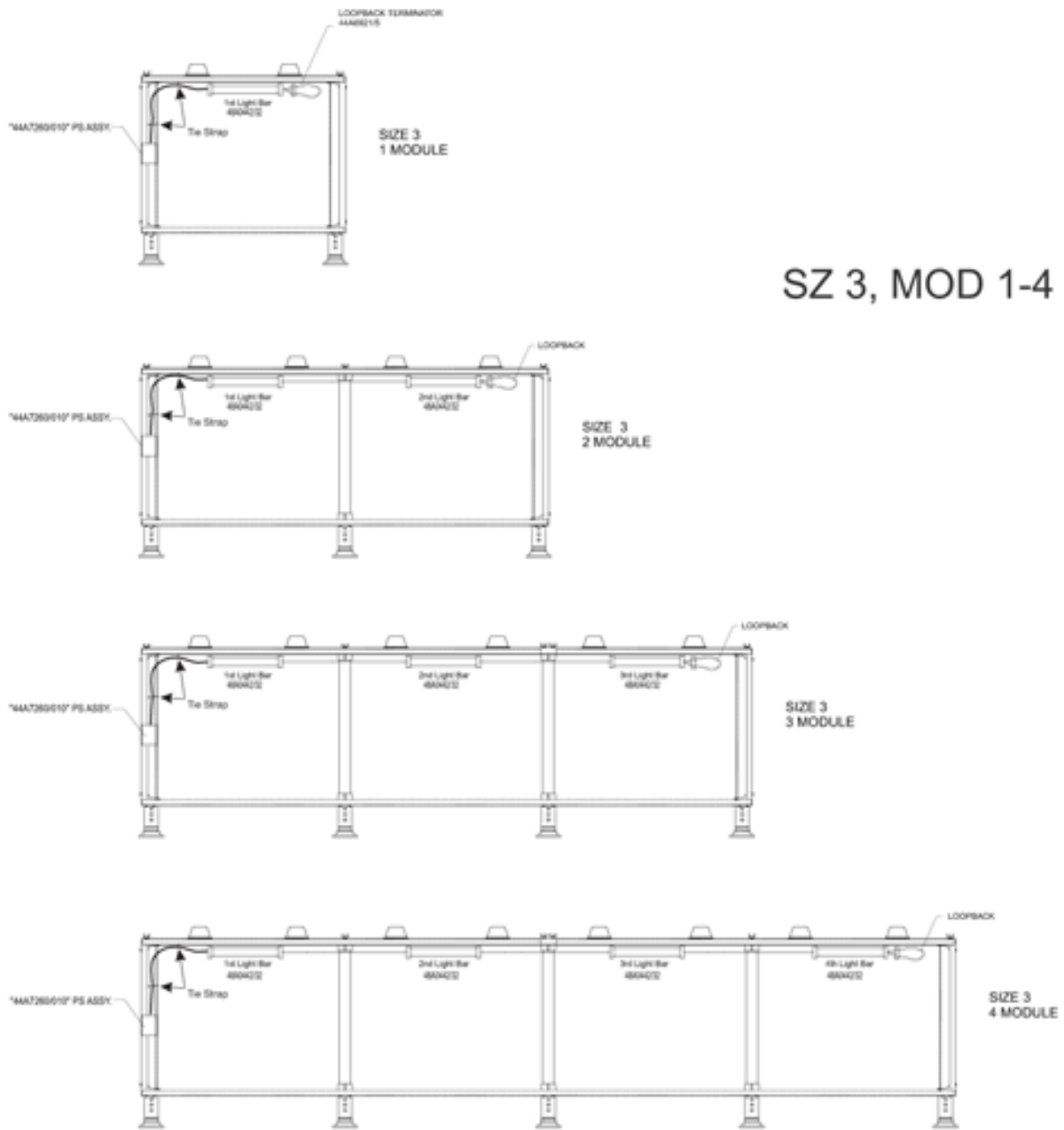
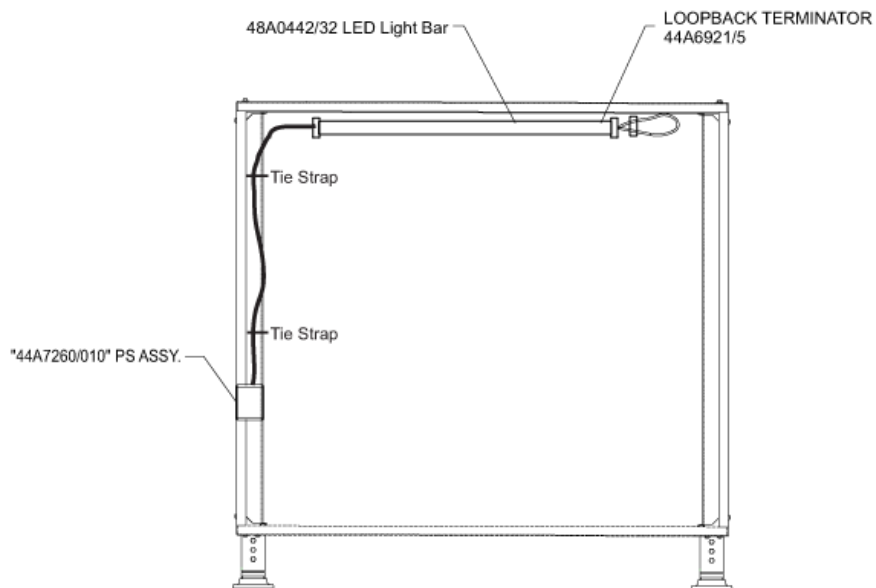
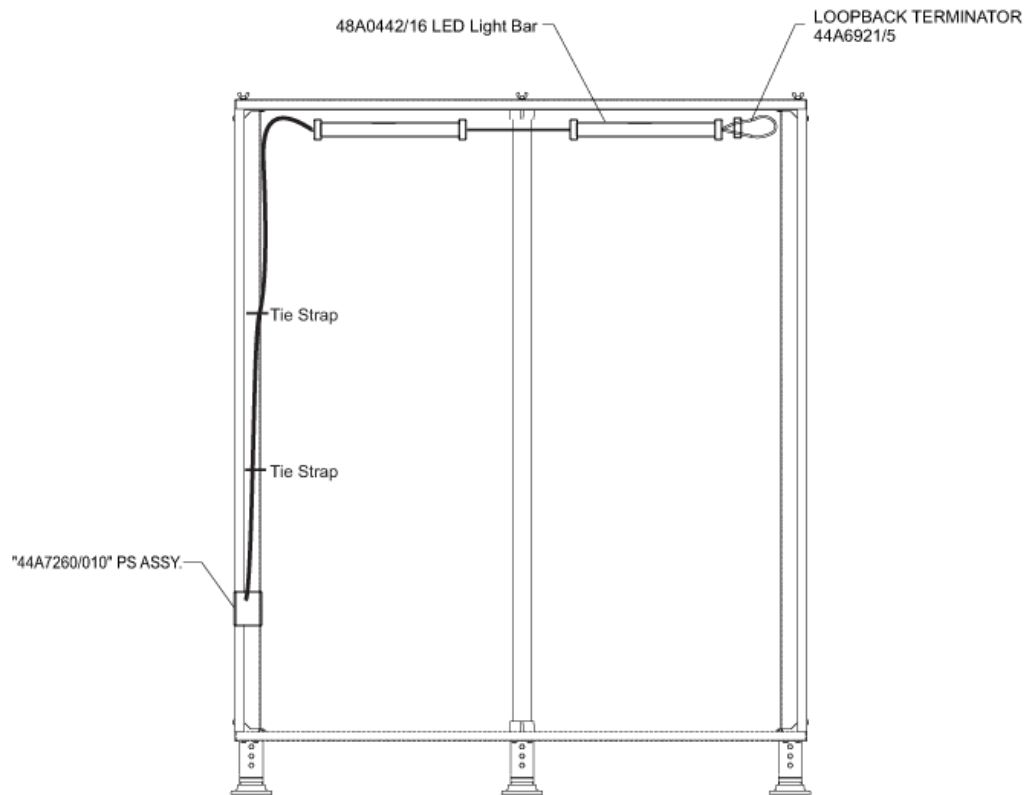


Figure 5: Size 3 Signs



**Figure 6: Size 4 and 5 Signs**



## 4.1 Sign Load & Transformer Requirements



### Note

Halogen Sign

In Table 2, the number for the Total VA Load imposed on the CCR represents the actual load imposed on the regulator and accounts for the sign power factor and load imposed by the transformer, when the recommended transformer is used.

**Table 2: Sign Load & Transformer Requirements**

Sign Size	Number of Sign Modules	Halogen/ Fluorescent Transformer	Recommended Transformer	Power Factor	Total CCR VA Load
<b>Style 2, 3-Step LED Signs (4.8 - 6.6 A)</b>					
1	1	100/200	65 W	0.83	85
1	2	200/200	100 W	0.83	95
1	3	300/200	100 W	0.88	95
1	4	300/200	100 W	0.91	95
2	1	200/200	65 W	0.88	90
2	2	300/200	100 W	0.88	95
2	3	500/300	100 W	0.91	100
2	4	2×300/300	<b>100 W</b>	0.91	100
3	1	200/200	100 W	0.83	95
3	2	300/200	100 W	0.91	95
3	3	500/300	100 W	0.91	100
3	4	2×300/300	<b>150 W</b> <sup>1</sup>	0.88	115
4	1	300/200	100 W	0.84	95
5	1	200/200	100 W	0.83	95
<b>Style 3, 5-Step LED Signs (2.8 - 6.6 A)</b>					
1	1	200/200	100 W	0.88	75
1	2	300/200	150 W	0.88	95
1	3	500/200	150 W	0.88	95
1	4	500/300	150 W	0.90	100
2	1	300/200	150 W	0.88	90
2	2	500/300	150 W	0.90	95
2	3	500+300/500	<b>150 W</b>	0.83	100
2	4	2×500/500	<b>150 W</b>	0.85	100
3	1	300/200	150 W	0.88	95
3	2	500/300	150 W	0.90	100
3	3	500+300/500	<b>150 W</b> <sup>1</sup>	0.83	100
3	4	2×500/300	<b>200 W</b> <sup>1</sup>	0.85	115
4	1	500/300	150 W	0.88	95
5	1	300/200	150 W	0.83	95

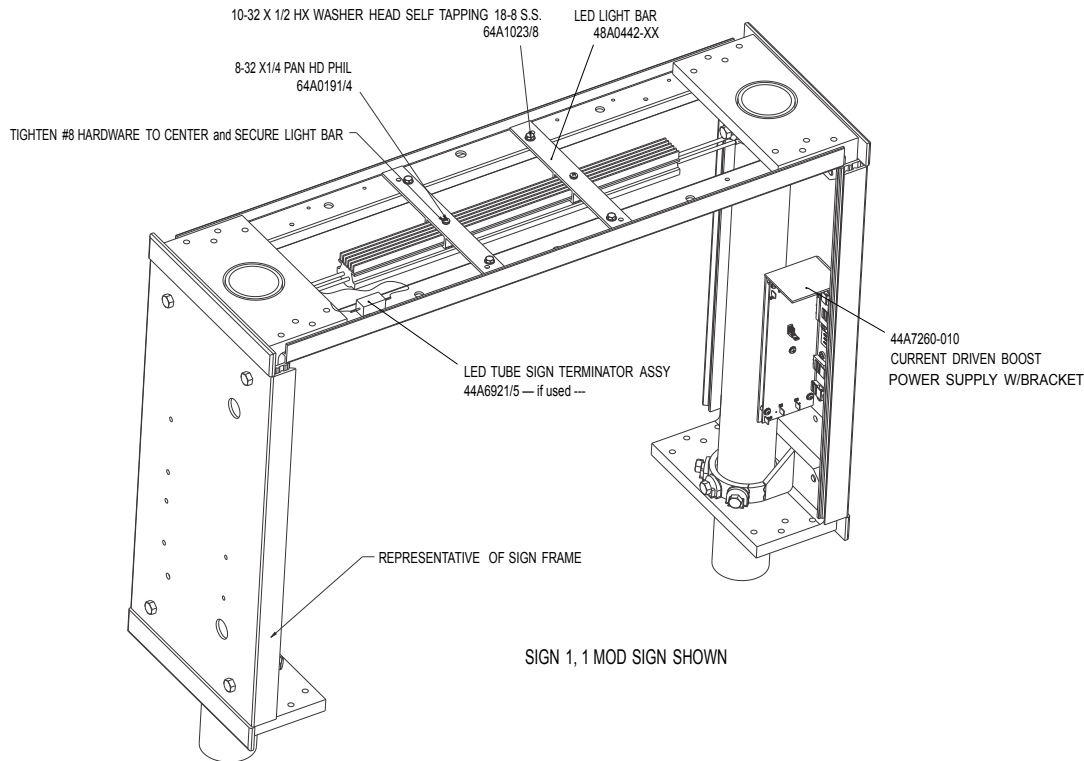
**Table 2: Sign Load & Transformer Requirements (continued)**

Sign Size	Number of Sign Modules	Halogen/Fluorescent Transformer	Recommended Transformer	Power Factor	Total CCR VA Load
<b>Style 5, Single-Step LED Signs (5.5 A)</b>					
1	1	45/100	<b>65 W</b>	0.84	75
1	2	100/100	65 W	0.84	85
1	3	200/100	100 W	0.88	85
1	4	200/200	100 W	0.88	95
2	1	100/100	65 W	0.92	75
2	2	200/200	100 W	0.89	85
2	3	300/200	100 W	0.90	100
2	4	500/300	100 W	0.90	100
3	1	100/100	65 W	0.84	85
3	2	200/200	100 W	0.88	95
3	3	300/200	100 W	0.92	100
3	4	500/300	100 W	0.92	110
4	1	200/200	65 W	0.83	85
5	1	100/100	65 W	0.92	85

**Notes**

- <sup>1</sup> The Low VA Halogen Style 2 (4.8 A - 6.6A) size 3, 4 module sign uses two 300 W transformers. One of the transformers must be removed or shorted at the secondary.
- <sup>2</sup> The Low VA Halogen Style 3 (2.8 A - 6.6A) size 2 or 3, 3 module sign uses one 500 W transformer and one 300 W transformer. The 500 W transformer may be removed.
- <sup>3</sup> The Low VA Halogen Style 3 (2.8 A - 6.6A) size 2 or 3, 4 module sign uses two 500 W transformers. One of the transformers must be removed or shorted at the secondary.
- <sup>4</sup> The Low VA Halogen Style 5 (5.5A) size 1, 1 module sign uses one 45 W transformer. Replace the 45 W transformer with a 65 W transformer.

**Figure 7: LED Light Bar Assembly into the Sign Frame**



Screw the (4) 8-32 x 3/4-inch Phillips Pan Head screws, split and lock washers into the power supply mounting bracket through the side panel. (same holes and position for a single or a dual power supply).

## 4.2 Install the New LED Light Bar Assemblies

1. Install the new LED lamp assemblies with the longer assembly lead facing as shown in [Figure 3](#) thru [Figure 6](#).
2. Center the LED assemblies in the module so the bracket holes align with the rail holes.
3. Mount the LED Light Assemblies using the four self tapping screws.

## 4.3 Installing the Terminator Assembly

If installing the terminator assembly on a sign: Attach the resistor to the bottom of the top rail.

**Figure 8: Terminating Assembly**



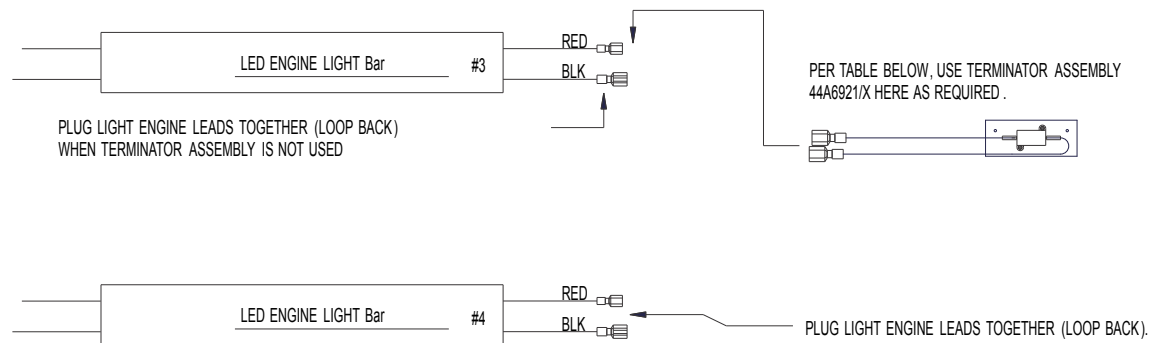
Connect the top assembly wires according to the schematic diagram.

## 4.4 Connect the LED Assemblies to the Power Supply

Connect and install the cabling from the power supply to the LED lamp assemblies by daisy chaining the LED assemblies as shown in [Figure 3](#) thru [Figure 6](#).

The end of the circuit is terminated with a terminator assembly as shown in [Figure 9](#) or signs requiring a loop back by connecting the leads together. See [Figure 3](#) thru [Figure 6](#).

**Figure 9: LED Terminator Assembly**



LIGHT ENGINE & MODULE TERMINATOR PART #'s PER SIGN SIZE					
SIGN SIZE	LIGHT ENGINE	1-MODULE TERMINATOR	2-MODULE TERMINATOR	3-MODULE TERMINATOR	4-MODULE TERMINATOR
1	48A0442/16	44A6921/5	44A6921/5	44A6921/5	LOOP BACK
2	48A0442/24	44A6921/5	44A6921/5	LOOP BACK	LOOP BACK
3	48A0442/32	44A6921/5	LOOP BACK	LOOP BACK	LOOP BACK
4	48A0442/16	44A6921/5	NA	NA	NA
5	48A0442/32	44A6921/5	NA	NA	NA

## 4.5 Wiring and Test Procedure

Turn the CCR on and verify the sign properly illuminates.

If the sign does not illuminate: carefully check all wiring connections. See manual 96A0455 for additional information on maintenance and troubleshooting your newly converted sign.

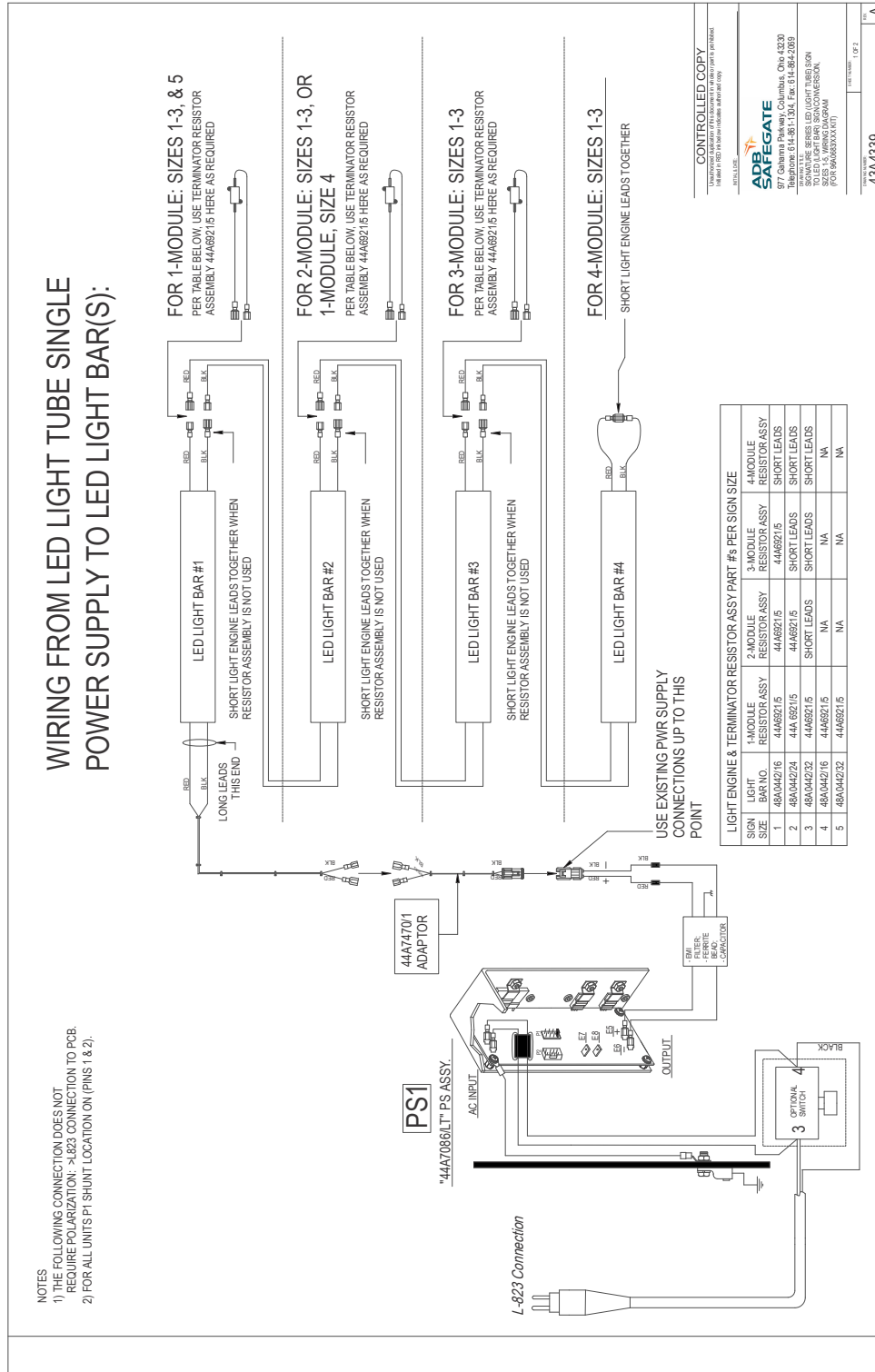
See the ADB SAFEGATE Website Product Center to download the manual.

[96A0455](#)



If you require further guidance, please contact your local ADB SAFEGATE representative.

Figure 10: Wiring for 1 to 3 Modules LED Light Bar Sign(s)





## Appendix A: SUPPORT

Our experienced engineers are available for support and service at all times, 24 hour/7 days a week. They are part of a dynamic organization making sure the entire ADB SAFEGATE is committed to minimal disturbance for airport operations.

**Table 3: ADB SAFEGATE Support**

### Live Technical Support - Americas

If at any time you have a question or concern about your product, just contact ADB SAFEGATE's technical service department. Trained in all areas of system issues, troubleshooting, quality control and technical assistance, our highly experienced Technical support specialists are available 24 hours a day, seven days a week to provide assistance over the phone.

**ADB SAFEGATE Americas Technical Service & Support (US & Canada): +1-800-545-4157**

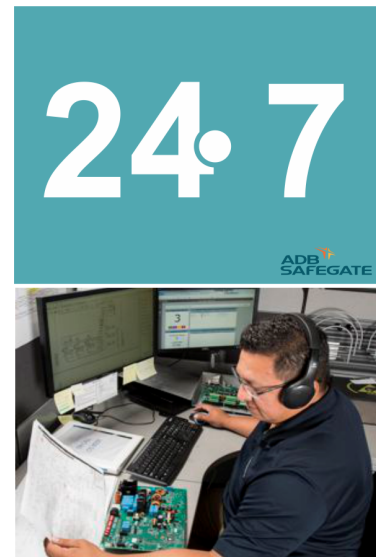
**ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304**

During regular business hours, you can also Chat with a Service Technician. We look forward to working with you!

### Before You Call

When you have an airfield lighting or system control system problem it is our goal to support airfield maintenance staff as quickly as possible. To support this effort we ask that you have the following information ready before calling.

- The airport code
- If not with an airport, then company name (prefer customer id number)
- Contact phone number and email address
- Product with part number preferable or product number
- Have you reviewed the product's manual and troubleshooting guide
- Do you have a True RMS meter available (and any other necessary tools)
- Be located with the product ready to troubleshoot



For more information, see [www.adbsafegate.com](http://www.adbsafegate.com), or contact ADB SAFEGATE Support via email at [support@adbsafegate.com](mailto:support@adbsafegate.com) or

Brussels: +32 2 722 17 11

Rest of Europe: +46 (0) 40 699 17 40

Americas: +1 614 861 1304. Press 3 for technical service or press 4 for sales support.

China: +86 (10) 8476 0106

### A.1 ADB SAFEGATE website

The ADB SAFEGATE website, [www.adbsafegate.com](http://www.adbsafegate.com), offers information regarding our airport solutions, products, company, news, links, downloads, references, contacts and more.

## A.2 Recycling

### A.2.1 Local authority recycling

The disposal of ADB SAFEGATE products is to be made at an applicable collection point for the recycling of electrical and electronic equipment. The correct disposal of equipment prevents any potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling. The recycling of materials helps to conserve natural resources. For more detailed information about recycling of products, contact your local authority city office.

### A.2.2 ADB SAFEGATE recycling

ADB SAFEGATE is fully committed to environmentally-conscious manufacturing with strict monitoring of our own processes as well as supplier components and sub-contractor operations. ADB SAFEGATE offers a recycling program for our products to all customers worldwide, whether or not the products were sold within the EU.

ADB SAFEGATE products and/or specific electrical and electronic component parts which are fully removed/separated from any customer equipment and returned will be accepted for our recycling program.

All items returned must be clearly labelled as follows:

- For ROHS/WEEE Recycling
- Sender contact information (Name, Business Address, Phone number).
- Main Unit Serial Number.

ADB SAFEGATE will continue to monitor and update according for any future requirements for EU directives as and when EU member states implement new regulations and or amendments. It is our aim to maintain our compliance plan and assist our customers.

## Company Addresses

ADB SAFEGATE	ADB SAFEGATE, Belgium: Leuvensesteenweg 585, B-1930 Zaventem Belgium
Contact: Tel.: +32 2 722 17 11, Fax: +32 2 722 17 64	Email: <a href="mailto:marketing@adbsafegate.com">marketing@adbsafegate.com</a> Internet: <a href="http://www.adbsafegate.com">www.adbsafegate.com</a>
ADB SAFEGATE Americas LLC	ADB SAFEGATE, Americas: 977 Gahanna Parkway, Columbus, OH 43230 USA
Contact: Tel.: +1 (614) 861 1304, Fax: +1 (614) 864 2069	Email: <a href="mailto:sales.us@adbsafegate.com">sales.us@adbsafegate.com</a> Internet: <a href="http://www.adbsafegate.com">www.adbsafegate.com</a>
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ADB SAFEGATE Airfield Technologies Ltd. China	ADB SAFEGATE, China: Unit 603, D Block, CAMIC International Convention Center, No 3, Hua Jia Di East road, ChaoYang district, Beijing 100102 P.R. China
Contact: Tel.: +86 (10) 8476 0106, Fax: +86 (10) 8476 0090	Email: <a href="mailto:china@safegate.com">china@safegate.com</a> Internet: <a href="http://www.adbsafegate.com">www.adbsafegate.com</a>
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