



L-847 Circuit Selector Switch

Spare Parts

SP_1001, Rev. A, 2020/08/26


**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 European 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 FAA directives that have been taken into consideration in the design are available on written request to ADB SAFEGATE.

All Products Guarantee

ADB SAFEGATE will correct by repair or replacement per the applicable guarantee above, at its option, equipment or parts which fail because of mechanical, electrical or physical defects, provided that the goods have been properly handled and stored prior to installation, properly installed and properly operated after installation, and provided further that Buyer gives ADB SAFEGATE written notice of such defects after delivery of the goods to Buyer. Refer to the Safety section for more information on Material Handling Precautions and Storage precautions that must be followed.

ADB SAFEGATE reserves the right to examine goods upon which a claim is made. Said goods must be presented in the same condition as when the defect therein was discovered. ADB SAFEGATE further reserves the right to require the return of such goods to establish any claim.

ADB SAFEGATE's obligation under this guarantee is limited to making repair or replacement within a reasonable time after receipt of such written notice and does not include any other costs such as the cost of removal of defective part, installation of repaired product, labor or consequential damages of any kind, the exclusive remedy being to require such new parts to be furnished.

ADB SAFEGATE's liability under no circumstances will exceed the contract price of goods claimed to be defective. Any returns under this guarantee are to be on a transportation charges prepaid basis. For products not manufactured by, but sold by ADB SAFEGATE, warranty is limited to that extended by the original manufacturer. This is ADB SAFEGATE's sole guarantee and warranty with respect to the goods; there are no express warranties or warranties of fitness for any particular purpose or any implied warranties of fitness for any particular purpose or any implied warranties other than those made expressly herein. All such warranties being expressly disclaimed.

Standard Products Guarantee

Products of ADB SAFEGATE manufacture are guaranteed against mechanical, electrical, and physical defects (excluding lamps) which may occur during proper and normal use for a period of two years from the date of ex-works delivery, and are guaranteed to be merchantable and fit for the ordinary purposes for which such products are made.



Note

See your sales order contract for a complete warranty description.

FAA Certified product installed in the United States and purchased or funded with monies through the Airport Improvement Program (AIP) installations guarantee

ADB SAFEGATE L858 Airfield Guidance Signs are warranted against mechanical and physical defects in design or manufacture for a period of 2 years from date of installation, per FAA AC 150/5345-44 (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 from date of installation, per FAA EB67 (applicable edition).

ADB SAFEGATE LED light fixtures (with the exception of obstruction lighting) are warranted against electrical defects in design or manufacture of the LED or LED specific circuitry for a period of 4 years from date of installation, per FAA EB67 (applicable edition).



Note

See your sales order contract for a complete warranty description.

Liability



WARNING

Use of the equipment in ways other than described in the catalog leaflet and the manual may result in personal injury, death, or property and equipment damage. Use this equipment only as described in the manual.

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 Circuit Selector Switch

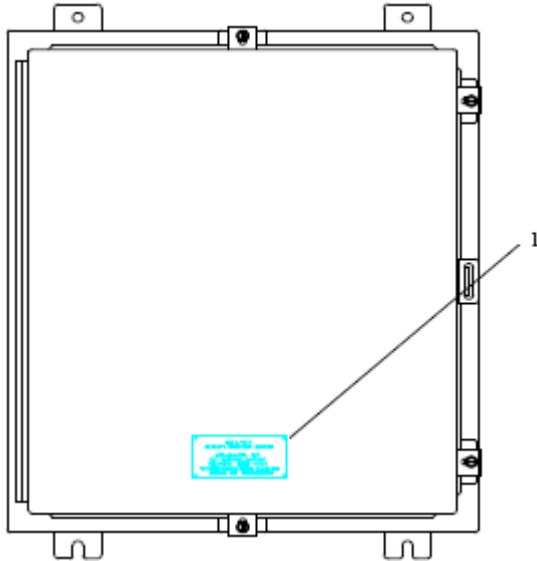
L-847 Circuit Selector Switch Installation Manual.

Uses: The circuit selector switch is used to switch the output of a constant current regulator (CCR) to one to four series lighting loops.

1.1 System Overview

This section describes the ADB Safegate L-847 circuit selector switch. The L-847 circuit selector switches are designed to switch the output of a 6.6 A or 20 A constant current regulator to one or more series runway lighting loops.

Figure 1: Standard L-847 Circuit Selector Switch with Nameplate (1)



Refer to [Table 1](#), [Table 2](#), and [Table 3](#). The L-847 circuit selector switches are classified according to FAA type, class, and rating. [Figure 1](#) shows the location of the nameplate (1) containing information about type, rating, and class. The L-847 circuit selector switches are manufactured to specification AC 150/5345-5A as follows:

Table 1: FAA Type

Type	Function
L-847-1	One-circuit control
L-847-2	Two-circuit control
L-847-3	Three-circuit control
L-847-4	Four-circuit control

Table 2: FAA Class

Class	Function
A	Designed for indoor use
B	Designed for outdoor use

Table 3: FAA Rating

Rating	Function
1	Designed for 6.6 A, 5,000 volt circuits
2	Designed for 20 A, 5,000 volt circuits

1.2 Circuit Selector Switch

Compliance with Standards

FAA:	L-847 AC 150/5345-5 (Current Edition). ETL Certified.
ICAO:	In compliance with ICAO Aerodrome Design Manual, Part 5, para. 3.2.1.3

Uses

FAA L-847 ICAO To switch the output of a constant current regulator (CCR) to one or more series lighting loops.

Reversed L-847

A special "reversed" L-847 is also available. This L-847 allows a single load to be individually powered from multiple CCRs.

A typical application would be to have a primary and a backup CCR connected to a single load. In case of primary CCR failure, the L-847 allows a backup CCR to be quickly manually switched into the circuit. Contact the ADB SAFEGATE Sales Department for details.

Input Power Requirements

Type	Average Volt Amp (VA)
L-847-1	40
L-847-2	65
L-847-3	85
L-847-4	110

Electrical

Input voltage:	120 VAC, $\pm 10\%$, 50/60 Hz
Control voltage:	120 VAC, $\pm 10\%$, 50/60 Hz
Output rating:	5,000 VAC at 6.6 A or 20 A

2.0 Parts

Ordering Code

44D4520 - X X X X X

Circuit Control

- 1 = One Circuit
- 2 = Two Circuit
- 3 = Three Circuit
- 4 = Four Circuit

Interlock Switch

- 0 = Without Interlock Switch
- 1 = With Interlock Switch¹

Monitor and Current Sensor

- 0 = Without Monitor and Current Sensor
- 1 = With Remote/Local Monitor and Current Sensor²

Type

- 0 = Standard L-847
- R = Reverse L-847⁴

Enclosure

- 0 = Standard NEMA 4 Enclosure³
- 1 = Stainless Steel NEMA 4 Enclosure⁴
- 2 = Fiberglass NEMA 4X Enclosure with Heater^{3,4}

Notes

- ¹ Used to switch CCR off when L-847 door is opened
- ² Remote/Local Monitor provides separate dry contact closures to indicate Remote or Local control status. The current sensor provides separate 120 VAC outputs indicating current is present on one of the L-847 outputs.
- ³ Enclosure painted aviation orange
- ⁴ Not ETL Certified

2.1 Parts Diagrams

Figure 4: Circuits with 1 or 2 loops

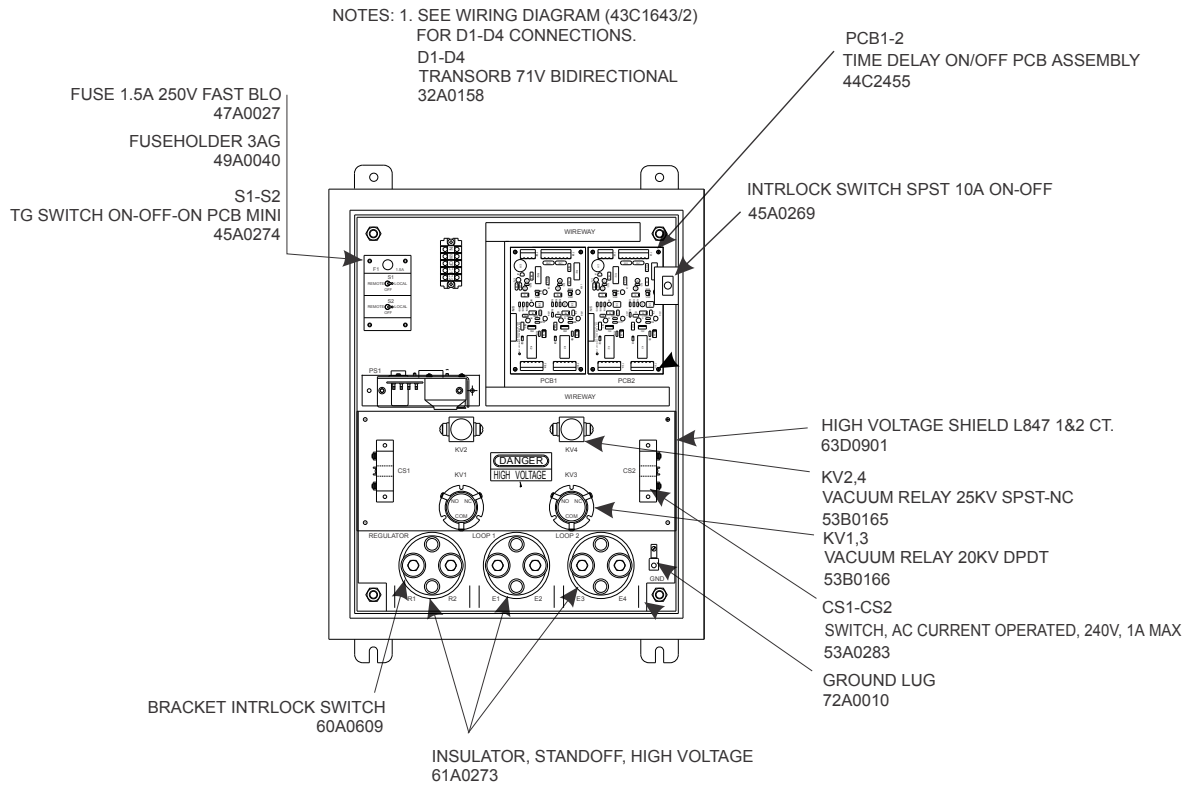
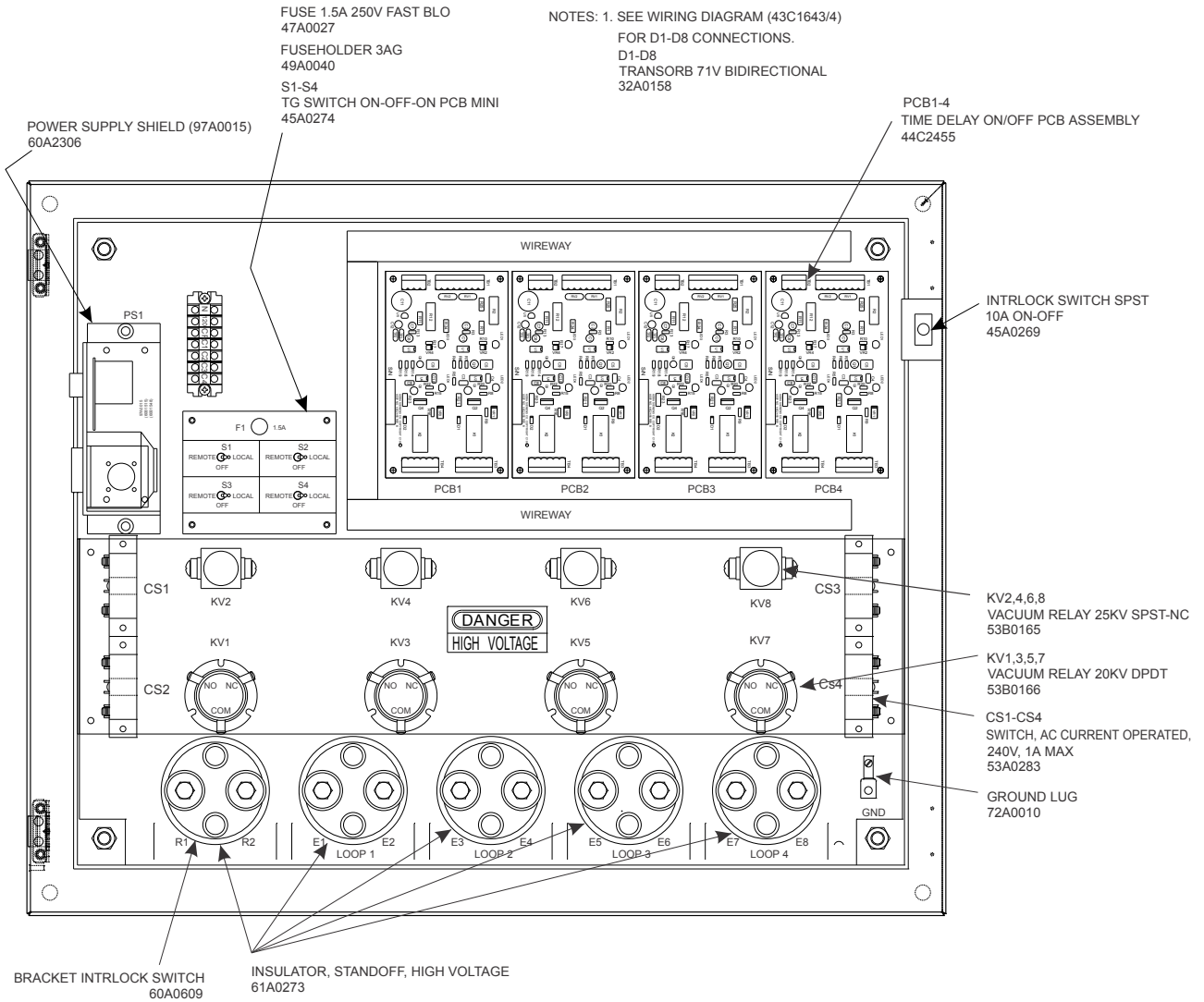


Figure 5: Circuits with 3 or 4 loops



2.2 Spare Parts

Create a sufficiently large stock of spare parts to maintain the unit and the fixtures in the field. Consider acquiring approximately 10% spare final assemblies (with a minimum quantity of 1) for the total amount of equipment in the field. This allows for repairs to be made in the shop. Components that are more likely to need replacement, such as prisms, prism gaskets and PCB subassemblies should be stocked in smaller quantities. For the unit, it is highly recommended to have at least one entire unit as a spare, or for larger installations, at least 10% of the total units installed.

See individual product manuals for recommended fixture spares.

For the unit, see the table below for spares.

- Consider acquiring 10% spares for critical components noted as (A) in the table below. If only a small number of units are installed, consider acquiring at least 1 of each of the components noted as (A) below.
- Also consider acquiring 1% spares for parts noted as (B) in the table below. If it is important to have a robust level of spare parts on hand, and only a small number of units are installed, consider acquiring 1 of each of the components noted as (B) below.

Table 4: Spare Parts

Part Number	Description	Location	Notes	Spares
47A0049	Fuse, 2A, SB	F1		A
57A0093	Circuit breaker	CB1		B
72A0010	GROUND LUG		See Figure 4 and Figure 5	
53A0283	SWITCH, AC CURRENT OPERATED, 240V, 1A MAX	CS1-CS2	See Figure 4	
		CS1-CS4	See Figure 5	
53B0166	VACUUM RELAY 20KV DPDT	KV1,3	See Figure 4	
		KV1,3,5,7	See Figure 5	
53B0165	VACUUM RELAY 25KV SPST-NC	KV2,4	See Figure 4	
		KV2,4,6,8	See Figure 5	
63D0901	HIGH VOLTAGE SHIELD L847 1&2 CT		See Figure 4 and Figure 5	
45A0269	INTERLOCK SWITCH SPST 10A ON-OFF		See Figure 4 and Figure 5	
44C2455	TIME DELAY ON/OFF PCB ASSEMBLY	PCB1-2	See Figure 4	
44C2455	TIME DELAY ON/OFF PCB ASSEMBLY	PCB1-4	See Figure 5	
47A0027	FUSE 1.5A 250V FAST BLO		See Figure 4 and Figure 5	
49A0040	FUSE HOLDER 3AG		See Figure 4 and Figure 5	
45A0274	TG SWITCH ON-OFF-ON PCB MINI	S1-S2	See Figure 4 and Figure 5	
60A0609	BRACKET INTERLOCK SWITCH		See Figure 5	
61A0273	INSULATOR, STANDOFF, HIGH VOLTAGE		See Figure 5	

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.

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**

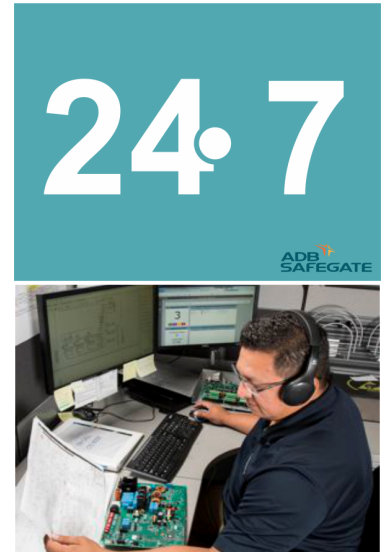
ADB SAFEGATE Americas Technical Service & Support (International): +1-614-861-1304

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



Note

For more information, see www.adbsafegate.com, or contact ADB SAFEGATE Support via email at support@adbsafegate.com or

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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, 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 labeled 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.

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