

# POWER EQUIPMENT

## ALSC

### Airfield Lighting Safety Cutout



#### Compliance with Standards

- FAA:** AC 150/5340-30, Design and Installation Details for Airport Visual Aids.
- ICAO:** Aerodrome Design Manual Doc 9157, Part 5.
- T/C:** Aerodrome Standards and Recommended Practices, Volume 1, TP-312. Canadian Department of National Defence Standards.

#### Uses

The Airfield Lighting Safety Cutout (ALSC) is used to isolate the field circuit from the constant current regulator (CCR) for testing or maintenance. The ALSC replaces the industry standard "S1 Cutout" and provides additional features designed specifically for maintenance personnel. The ALSC consists of a base unit and a series of removable handles that provide a convenient means of testing the field circuit without disconnecting the field cables from the CCR. The ALSC can be installed next to or within a CCR, or in a separate cutout enclosure.

#### Features

- Compatible with all types of L-828/L-829 CCRs and L-847 circuit selectors operating at 6.6A or 20A output current.
- Designed to operate at 5000 Volts and withstand a hi-pot test of 23KV for 1 minute (required for a 30KW CCR operating at 6.6A output). Most series cutouts are not able to meet this requirement.
- Designed for reliable operation from -55°C to +55°C and in areas of high humidity.
- Constructed from a special flame retardant cast epoxy resin for superior insulating properties, impact strength, crack and shatter resistance, and chemical resistance.
- With its high insulation properties and the smallest footprint on the market, the ALSC can be installed within a CCR, or multiple units can be installed in close proximity in a compact cutout enclosure.
- Designed as a replacement for existing S1 cutouts, the ALSC will fit in the space available.
- The base unit comes complete with a removable "In-service" handle. When removed, the field circuit is isolated from the CCR.
- Removing the handle provides a visible means of isolation, ensuring that the field circuit is isolated from the power source (CCR).
- The ALSC can be padlocked in the open position, preventing the handle from being inserted. This is an added safety feature that can be used with the airport's lockout / tag-out procedure.

- If the "In-service" handle is rotated 90°, the output of the CCR is shorted for testing purposes. The field circuit is also shorted for maintenance continuity checks.
- Handles are ergonomically designed to make insertion and extraction effortless.
- Test Handles can be inserted into the base unit to provide the following maintenance functions:
  - Megger the field circuit cables without the need to disconnect the cables from the CCR.
  - Testing the CCR using a resistive load bank without the need to remove field cables.
  - Intentionally grounding one side of the field cable during operation, to assist in locating a ground in the field.

#### Ordering Code

ALSC

ALSC Safety Cutout comes with In-service and shorting plate.

#### Optional Test Plates

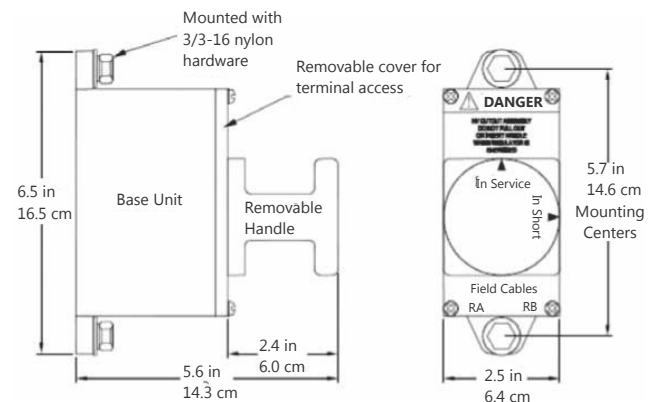
Circuit Grounded Test Plate

ALSC-02

Megger and Resistive Load Bank Test Plate

ALSC-03

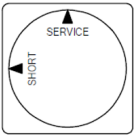
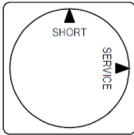
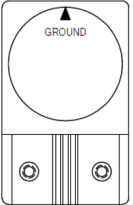
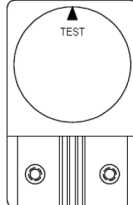
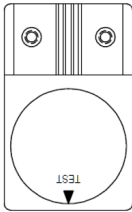
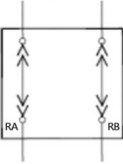
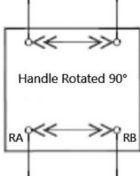
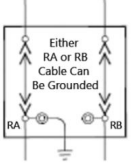
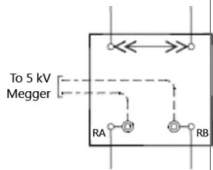
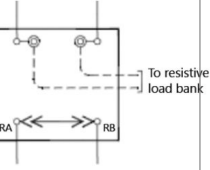
#### Outline Drawing



# POWER EQUIPMENT

## ALSC

### Handle Options

	In Service	In Short	Ground Test	Megger Test	Load Bank Test
<b>Mode of Operation</b>	Allows the regulator to deliver current to the series circuit.	Maintenance can be done safely on the series circuit.	The series circuit insulation versus ground can be measured by applying the measurement voltage, max 9000 V DC, between the measurement socket and the ground strip.	Allows the circuit to be megger tested without risk to the CCR.	Allows the regulator to be tested on a known load bank.
<b>The series circuit is</b>	Connected to the CCR.	Disconnected from the CCR and shorted.	Connected to the CCR, each side available to be shorted to ground.	Available to attach to a megger.	Disconnected from the CCR and shorted.
<b>The CCR is</b>	Delivering current to the series circuit.	Shorted.	Delivering current to the series circuit.	Shorted.	Available to output to a load bank.
<b>Handle is</b>	ALSC (Standard Handle)	ALSC (Standard Handle)	ALSC-02 (Ground Handle)	ALSC-03 (Test Handle)	ALSC-03 (Test Handle)
<b>Handle Rotation</b>	0°	90°	0°	0°	180°
<b>Handle Diagram</b>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>
<b>Wiring Diagram</b>	<p>Constant Current Regulator</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p> <p>Handle Rotated 90°</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p> <p>Either RA or RB Cable Can Be Grounded</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p> <p>To 5 kV Megger</p>  <p>Airfield Series Circuit</p>	<p>Constant Current Regulator</p> <p>To resistive load bank</p>  <p>Airfield Series Circuit</p>

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Product specifications may be subject to change, and specifications listed here are not binding. Confirm current specifications at time of order.