

# Aviation Lighting Equipment Electrical Components



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# Photo Control

*Automatic dusk to dawn operation of tower and obstruction lighting circuit.*



## Benefits

- Meets FAA/FCC requirements
- Two 30 ampere load contacts
- Direct replacement of older and newer types
- Stable electronic circuitry
- No chatter due to built-in time delay
- Molded plastic control housing with gasket
- Cast aluminum junction box with one inch hubs, top and bottom
- LED power indication
- Surge protected
- Manufactured by Unimar

## Specifications

Type: Light actuated electronic circuitry with high current electromechanical output contacts

Indication: LED power indicator

Operating Voltage: 120 VAC  $\pm$  20% 50/60 Hz

Output Rating: Two SPST N.O. 30 Amp contacts

Terminations: Screw terminals for up to #8 AWG wire

Mechanical: ABS plastic housing with gasket seal  
Multiple knockout holes for optional mounting to Crouse Hinds or Hughey & Phillips aluminum boxes

Light Actuation Levels (Factory Calibrated):

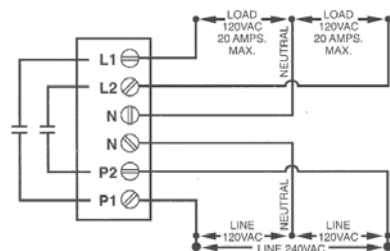
Energized: 35fc and below

De-energized: above 60fc

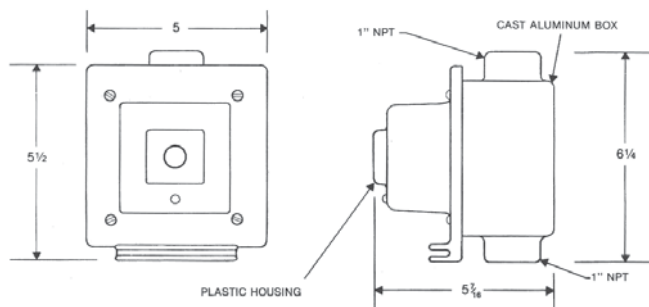


Part #PEC

Three wire service switching both hot lines.



Mechanical



Note: All dimensions in inches.

# S-1 Series Cutout

Complies with AC 150-5340-30 (Current Edition)

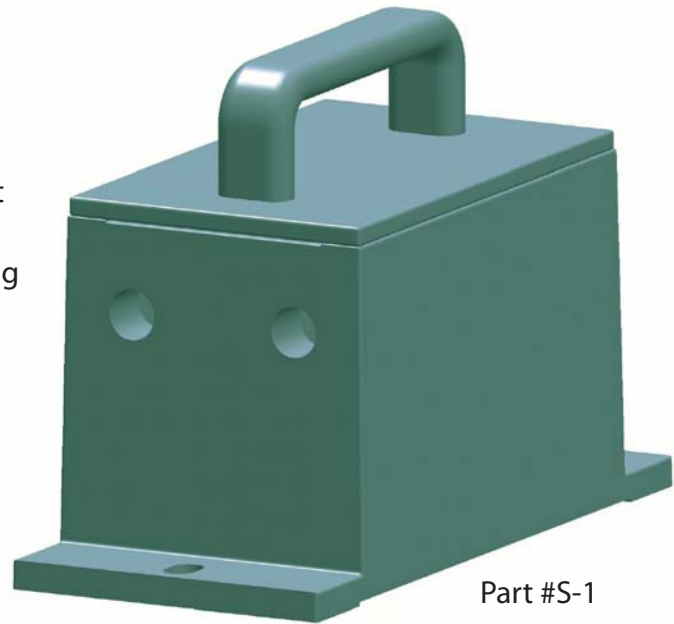
***Installed to isolate the series circuit from the constant current regulator for maintenance or testing.***

***Easy two position "handle in" and "handle out" to quickly determine cutout status.***



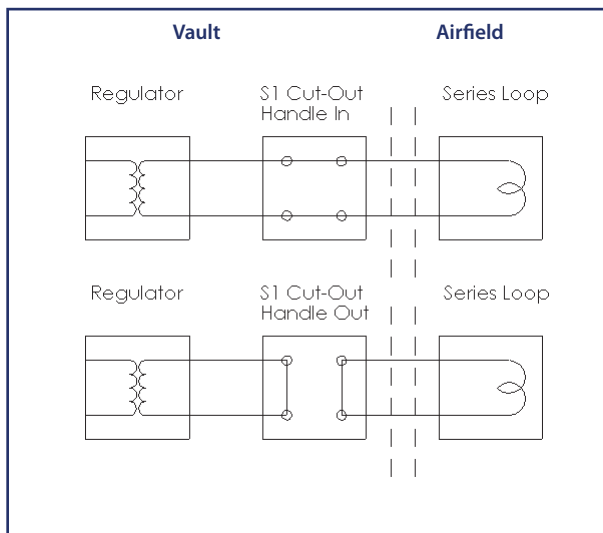
## Benefits

- Isolates the series circuit from the constant current regulator
- Shorts regulator output for troubleshooting
- Suitable for 6.6 or 20 amp circuits
- Removable handle ensures series circuit is de-energized
- Handle is designed to fit inside a tool box to add a second level of security
- Housing fabricated from durable nonconductive materials

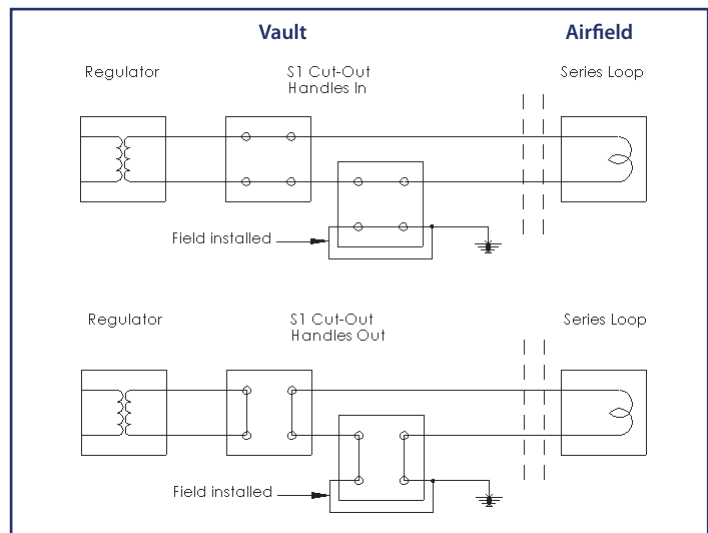


Part #S-1

## Standard



## Grounded



# L-854 Radio Receiver/Decoder

FAA Type 1, Style A AC; 150/5345-49 (Current Edition)  
Specification L-854 Radio Control Equipment  
AC 150/5345-1 Approved Airport Lighting Equipment



*Provides pilots with direct, unassisted air-to-ground control of airfield lighting systems.*

## Benefits

- Two banks of 3-5-7 control outputs independently configurable for sequential or cumulative control modes
- Two banks of 3-5-7 control outputs independently configurable for various control output voltages
- Two independent control voltage inputs
- Optical isolation from controlled equipment for electronic protection
- Low power consumption
- Reduce need for interface box
- Selectable frequency range 118-137Mhz
- Built on proven synthesized receiver technology
- Excellent sensitivity: (10db S/N) 0.2uV
- Manufactured by Rural Electric



RDL854-1A

## Available Options

- Internal or external battery backup systems
- Flexible input power options
- Internal, external or remote audio output and volume control
- External or remote control and status indicator panel

## General Catalog Numbers

<b>L854</b> -	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>	-	<input type="checkbox"/>
	Type		Voltage		Load		Options
	0=Std 6		0=120vac		0=5amp		0=None
	1=Sngl*		1=230vac		1=30amp*		1=Less Encl
	2=Spcl		2=24vdc		2=40amp*		2=Sngl TD 1 hr*
			3=Spcl		3=50amp**		3=Sngl TD 1-10hr*
					4=Spcl		4=(3) TD 1hr

Special: Description of requirement

Type	<input type="text"/>
Voltage	<input type="text"/>
Load	<input type="text"/>
Options	<input type="text"/>

\*Single only

\*\*Loads over 50amps require a separate contractor enclosure

# L-830 Isolation Transformers

Certified to FAA AC 150/5345-47 (Current Edition)

*These transformers provide reliable performance in the most demanding environments.*



## Specifications

- Manufactured by Amerace or Integro
- Injection molding ensures low current leakage
- Flat response load curves guarantee constant lamp brilliancy and long life
- Primary and Secondary leads are factory molded
- Isolates fixtures from the high voltage series circuit



FAA Designation	Part # (60Hz)*	Rated Watts	PRI/SEC Amps
L830-1	34-1	30/45	6.6/6.6
L830-2	34-2	30/45	20/6.6
L830-3	34-3	65	6.6/6.6
L830-4	34-4	100	6.6/6.6
L830-5	34-5	100	20/6.6
L830-6	34-6	200	6.6/6.6
L830-7	34-7	200	20/6.6
L830-8	34-8	300	6.6/20
L830-9	34-9	300	20/20
L830-10	34-10	300	6.6/6.6
L830-11	34-11	300	20/6.6
L830-12	34-12	500	6.6/20
L830-13	34-13	500	20/20
L830-14	34-14	500	6.6/6.6
L830-15	34-15	500	20/6.6
L830-16	34-16	10/15	6.6/6.6
L830-17	34-17	20/25	6.6/6.6
L830-18	34-18	150	6.6/6.6
L830-19	34-19	150	20/6.6

\*50Hz available upon request

# L-823 Secondary Connector Kits

Certified to FAA AC 150/5345-26 (Current Edition)

*These kits provide secure connections in critical applications.*



## Specifications

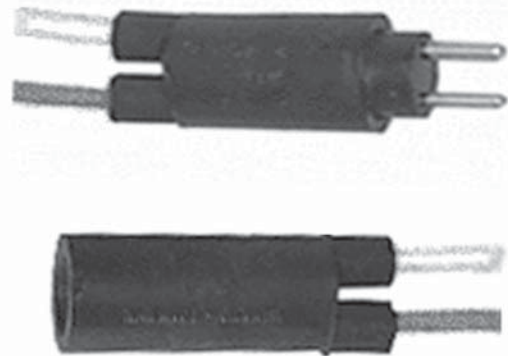
- Manufactured by Amerace
- Constructed of rugged thermoplastic rubber for long-lasting, reliable service

## How to Order

To specify the proper part:

Use a prefix and letter from **Table 1** and then a number from **Table 2**.

**Example:** A plug designed to terminate (2) single conductors with diameters of .205" and #8 stranded wire would be **90P-A4**.



**Table 1**

Cable Outside Diameter		Prefix	Size Code
Minimum	Maximum		
.120"	.160"	90P/R* (2 single conductors)	S
.155"	.205"		A
.195"	.260"		B
.250"	.330"		C
.320"	.430"	91P/R* (2 core cables)	D
.420"	.585"		E
.575"	.785"		F

**Table 2**

Wire Size (AWG) and Type		Size Code
Concentric Stranded	Solid	
14-16	12-14	8
10-12	8-10	6
8	6	4

\*P = Plug  
R = Receptacle

# L-823 Secondary Cable Assemblies

Certified to FAA AC 150/5345-26 (Current Edition)

*Provide reliable connections in the harshest conditions.*



## Specifications

- Manufactured by Amerace
- Constructed of rugged thermoplastic rubber for long-lasting, reliable service



## General Catalog Numbers

95M-□-□-□.□

Connector(s) | Cable | Available in 1/2 meter increments to any length.

- P** Style 1 Plug  
**P6** Style 6 Plug  
**R7** Style 7 Receptacle  
**R8** Style 8 Receptacle  
 For connectors on both ends use two codes, otherwise one.

- F** Two individual #12 AWG (3,3mm<sup>2</sup>) thermoplastic insulated, waterproof wires, rated 600 volts between contacts, 1500 volts to earth, 20 amp, 90°C. O.D. 4,7mm (.185")
- G** 2/12 AWG (3,3mm<sup>2</sup>) thermoplastic insulated waterproof cable with overall jacket, rated 600 volts between contacts, 1500 volts to earth, 20 amp, 90°C. O.D. 12,7mm (.5")
- H** Two individual #16 AWG (1,3mm<sup>2</sup>) thermoplastic insulated, waterproof wires, rated 600 volts between contacts, 1500 volts to earth, 20 amp, 90°C. O.D. 3,2mm (.125")
- I** 2/16 AWG (1,3mm<sup>2</sup>) thermoplastic insulated waterproof cable with overall jacket, rated 600 volts between contacts, 1500 volts to earth, 20 amp, 90°C. O.D. 9,4mm (.37")
- K** Two individual #14 AWG (2,1mm<sup>2</sup>) Teflon insulated wires, rated 600 volts between contacts, 1500 volts to earth, 20 amp, 200°C, wires certified to UL1199 and CSA1A/B
- L** As K above except #16 AWG (1,3mm<sup>2</sup>)

# L-823 Primary Connector Kits

Certified to FAA AC 150/5345-26 (Current Edition)

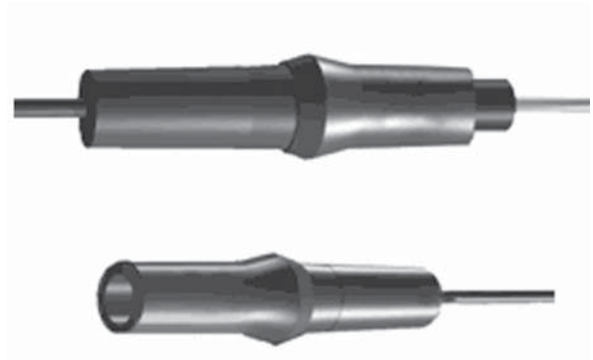
*These kits provide secure connections in critical applications.*



## Specifications

- Manufactured by Amerace or Integro
- Electrical rating - 25 Amps, 5000 Volts
- Constructed of rugged thermoplastic rubber for long-lasting, reliable service
- Every kit filled with silicone for maximum moisture protection

## How to Order



To specify the proper kit:

Using a letter from **Table 1** and then a number from **Table 2**, describe first the plug and then the receptacle.

**Example:** A kit designed for use with a cable diameter of .34" and #8 stranded wire would be **D4-D4**.

Table 1		
Cable Outside Diameter		Size Code
Minimum	Maximum	
.195"	.260"	B
.250"	.330"	C
.320"	.430"	D
.370"	.507"	Z
.420"	.585"	E
.575"	.785"	F

Table 2		
Wire Size (AWG) and Type		Size Code
Concentric Stranded	Solid	
10-12	8-10	6
8	6	4
6	4	3
4	-	2
2	-	1

# Heat Shrink

**Fast, reliable waterproof connections.**



## Benefits

- Protects against water intrusion and accidental disconnection
- Provides added strain relief for the connector/cable assembly
- Heat indicating lines
- High impact and abrasion resistance
- Installs in minutes
- Adhesive at ends only allows easy removal for connector-kit maintenance (#81)
- Continuous operating temperature -55°C to 110°C
- Shrink temperature: 120°C

## Ordering Information

#80 ..... 16" Adhesive Throughout  
 #81 ..... 16" Adhesive at Ends Only

## Technical Data

Property	Test Method	Typical Performance
Tensile strength	ASTM D412, ISO 37	2100 psi (14.5 MPa)
Elongation	ASTM D412, ISO 37	550%
Longitudinal Change	ASTM D2671	+1%, -10%
Specific Gravity	ASTM D792, ISO 37	1.1
Elongation after Heat Aging (168 hrs at 150°C)	ASTM D2671, ISO 37	500%
Heat Shock (4 hrs at 225°C)	ASTM D2671	No cracking or flowing
Low Temperature Flexibility (4 hrs at -55°C)	ASTM D2671	No cracking
Hardness (Shore D)	ASTM D2240	50D
<b>Electrical</b>		
Dielectric Strength	ASTM D149	500 V/Mil (20kV/mm)
Dielectric Voltage Withstand (2500V, 60Hz, 1 min)	UL-486D	No Breakdown
Volume Resistivity	ASTM D257	10 <sup>16</sup> ohm-cm
<b>Chemical</b>		
Fluid Resistance	MIL-DTL-23053/5, ISO 1817, ISO 37	Good to Excellent
Copper Corrosion	ASTM D2671	No Corrosion
Water Absorption	ASTM D570	0.1%
Fungus Resistance	ASTM G21	No Growth
<b>Adhesive</b>		
Adhesive Softening Point	ASTM E28	92°C +/- 5°C
Adhesive Peel Strength (300mm/min at 23°C)	ASTM D1000	
-to steel, alum, P.E.	ASTM D1000	35 pli
-to PVC	ASTM D1000	20 pli
Adhesive Lap Shear (1in/min at 23°C)	ASTM D1002 (mod)	125 psi (0.875 MPa)
Adhesive Blocking (30°C)	ASTM D1146	No blocking
Water Penetration	STM 706	No penetration after 286 hrs. (min) of continuous immersion.



### Dimensions

Expanded - Internal Dia (min) 38.1mm/1.5in  
 Recovered - Internal Dia (max) 9.53mm/0.0375in  
 Wall Thickness (nom) 2.0mm/0.08in  
 Sleeve Length - 40.6cm/16in