

SAA29LA01-003
REV. A

8050234A
ATTACHMENT
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DEC 20 1991
B/L: 131.80
SYS: BALL/BAR LIGHTS
(PORTABLE SYSTEM)

Critical Item: Variable Transformer (3 Items Total)
Find Number: AT1
Criticality Category: 1 (Night Landing Only)

SAA No:	29LA01-003	System/Area:	Visual Landing Aids at SLS #1
NASA Part No:		PMN/Name:	U72-1336-02 Ball/Bar Lights
Mfg/Part No:	Technipower W30	Drawing/Sheet No:	BOK51889 9

Function: Provide controlled voltage to Bar Light Assemblies 2, 4 and 6.

Critical Failure Mode/Failure Mode No: Fails short to ground/29LA01-003.021 29LA01-003.022, 29LA01-003.023.

Failure Cause: Structural Failure/Contamination/Corrosion

Failure Effect: Disconnect switch fuse S1B will open resulting in loss of power to Bar Light Assemblies 2, 4 and 6, and Ball Lights 1 and 2. Loss of ability to acquire and maintain the proper inner glideslope during landing operations. Possible loss of life/vehicle.

Time to Effect: Immediate, during inner glideslope use.

ACCEPTANCE RATIONALE

Design:	<u>Rated</u>	<u>Estimated Operating</u>
	Voltage = 120/240 max.	60.0 volts output
	Current = 25 amps	19.8 amps output

o Transformer is mounted in a NEMA 4 Hoffman enclosure.

Test: Meets requirements of MIL-STD-202, "Test Methods for Electronic and Electrical Components." Tested for vibration, shock, dielectric withstand voltage and rotational life in accordance with MIL-STD-202.

• The OMRSD, File VI will require verification of proper operation prior to each operational use.

- GEGS Technical Directives TD 1-4 and 1-5 require verification of proper operation the day before, and again the day of Shuttle training aircraft and Orbiter landing operations.

Inspection: GEGS Technical Directives will require that equipment is physically inspected for corrosion, contamination and/or physical damage annually.

Failure History:

- The PRACA database was researched and no failure data was found on this component in the critical failure mode.
- The GIDEP failure data interchange system was researched and no failure data was found on this component in the critical failure mode.

Operational Use:

- **Correcting Action:**

There is no action which can be taken to mitigate the failure effect.

- **Timeframe:**

Since no correcting action is available, timeframe does not apply.