

# CRITICAL ITEMS LIST

ASSY NOMENCLATURE: SILVER-ZINC BATTERY CHARGER

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Assy PIN: 528-20769

FUNCTION	FMEA		CRIT	FAILURE MODE AND CAUSE	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
	REF	REV				
Charges Silver-Zinc Battery using 28V Orbiter Power Supply	FMS	N/C	2/2 A - N/A B - N/A C - N/A	<p><b>MODE:</b> Output voltage cuts off below 21.8 v.</p> <p><b>CAUSES:</b> Failure in 21.8 v cutoff circuit Failure of Electronic Components Electrical Short or Open Circuit</p>	<p><b>End Item</b> Low output current</p> <p><b>GFE Interface</b> Will not fully charge the battery</p> <p><b>Mission</b> Loss of Mission Objectives</p> <p><b>Crew/Vehicle</b> None</p> <p><b>Time to Effect</b> Immediate</p>	<p>1. <u>DESIGN</u> Input power and output section filtering provide transient immunity on voltage sense line. C16 combination provides 20 HZ low pass filtering directly at comparator input. 21.8 V circuit employs established reliability parts. Printed wiring board fabricated to NHB 5300 4 standards. Electrical stress analysis performed to verify no component in circuit stressed above 50% of rating. Heat producing devices located at board edge, away from sensing circuitry and in contact with conduction heat sink.</p> <p>2. <u>TEST</u> 21.8 v cutoff circuit is in process tested during assembly of the SZBC. PDA in accordance with Document # P528/ATP-01001 and PIA in accordance with Document # P528/PIA-01001 quantitatively record the setting of the 21.8 v full charge cutoff to be within the 21.7 to 21.8 v specification.  <ul style="list-style-type: none"> <li>• Certified in accordance with Document # P528-CERT-01001, Para. 4.2.3.6.</li> </ul> </p> <p>3. <u>INSPECTION</u> PDA in accordance with Document # P528/ATP-01001 and PIA in accordance with Document # P528/PIA-01001 test results are verified by Quality Assurance</p> <p>4. <u>FAILURE HISTORY</u> This is a new item. There is no failure history to date</p>

DATE: 3/16/92

REVISION: BASIC

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