NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
		132AFM04		
PRESSURE TRANSDUCER FEEDWATER SUPPLY, ITEM 132A ---------- SV767793-7 (1) ---------- SV767793-8 (1)	2/1RB	Electrical short. Contamination on the electrical connector, faulty leads.	END ITEM: Loss of sensor output. GFE INTERFACE: Increase in battery power consumption. The current is limited in the DCM DC/DC converter to 1.8 +/- 0.25 amps. Shutdown of the DC/DC converter. Loss of CWS, tones and DCM display. MISSION: None for single failure. Terminate EVA with loss of DCM display, CWS and ability to monitor the operational integrity of the EMU. Loss of use of one EMU. CREW/VEHICLE: None for single failure. Possible loss of crewman with loss of CCC, oxygen or low vent flow. TIME TO EFFECT /ACTIONS: Minutes. TIME AVAILABLE:	A. Design - -5 Conrac and -7 Gulton: The pressure sensor wiper/coil assembly and wiring are sealed in a protective metal case and are protected from contamination and the environment by a hermetic seal. Solder joints are encased in potting for additional strain relief. B. Test - Component Acceptance Test - Conrac and Gulton: The Feedwater Supply Pressure Sensor is subjected to acceptance testing per Conrac Procedure ATP 451329-64 and Gulton Procedure ATP 30331-15202 prior to shipment by the assembly vendor. The testing includes the tests listed below to ensure there are no electrical shorts: The sensor is subjected to random vibration testing (6.1g rms) to ensure there are no workmanship or material problems that would cause a short to ground. The sensor is subjected to calibration testing at low and high temperatures (32 degrees F to 120 degrees F) to ensure there are no defects that thermal expansion/contraction would uncover. The sensor is subjected to insulation resistance tesing at 100 VDC to ensure there are no short circuits. PDA Test - The sensor is calibration checked after assembly on the PLSS shear plate to ensure proper operation. Certification Test - Certified for a useful life of 20 years (ref. EMUM1-0084). C. Inspection - The sensor is visually inspected and verified visibly clean prior to case assembly. The sensor is calibration checked at various steps in the assembly process to ensure there are no short circuits. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, Transducer and DCM Gage Calibration Check. FEMU-R-001 Para 8.2 EMU Preflight KSC Checkout for EET processing. F. Operational Use - Crew Response - PreEVA: Trouble shoot problem, if no success, consider EMU 3 if available. EMU no go for EVA. PostEVA: Not applicable. EVA: When loss of CWS displays and tones detected, terminate EVA. Training - Standard EMU training covers this failure mode effect. Operational Considerations - Flight rules define an operational CWS as at least able to monitor a valid status list. EVA checklist procedures verify hardware integrity and systems operational status prior to EVA. Real Time Data Systems allows ground monitoring of EMU systems.

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		132AFM04		
			Minutes. TIME REQUIRED: Seconds. REDUNDANCY SCREENS: A-PASS B-FAIL C-PASS	

EXTRAVEHICULAR MOBILITY UNIT

SYSTEMS SAFETY REVIEW PANEL REVIEW

FOR THE

I-132 FEEDWATER SUPPLY PRESSURE SENSOR

CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

Prepared by: _____ 3/27/02
HS - Project Engineering

_____
HS - Reliability

_____
HS - Engineering Manager

Approved by: _____ 9/30/02
NASA - SSA/SSM
ES5

_____
NASA - [redacted]

_____
NASA - S&MA

_____
NASA - MOD

_____
NASA - Crew

_____
NASA - Program Manager