NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
EMU ELECTRICAL HARNESS, ITEM 440 --- SV767090-02 (1)	2/1R	440QR05: External gas leakage. CAUSE: Seal failure or leakage through connector body.	END ITEM: Suit gas leakage to ambient. SRE INTERFACE: Excessive consumption of the primary oxygen supply. The SOP is automatically activated during EVA if the suit pressure drops to 3.33 psid. MISSION: Termination of EVA. Loss of use of one EMU. CREW/VEHICLE: None for single failure. Possible loss of crewman with loss of SOP.	A. Design - The lead wires are epoxied (EPON 815) to cover the bare wire and the entire non-metallic portion of the connector and provide an environmental seal. The rubber O-seal (silicone) on the P10 connector flange has sufficient compression to seal under all combinations of pressure and temperatures encountered during use. B. Test - Component Acceptance Test - The EEH is subjected to a P10 connector leakage test during acceptance testing to insure there is no leakage through the connector. Certification Test - This item has completed the structural vibration and shock certification requirements during 10/83. There have not been any ECO's issued since this certification which affect this failure mode. C. Inspection - The EEH J1B connector is leak tested during IPT after potting to insure minimum leakage. D. Failure History - H-EMU-440-001 (9-3-81) Excessive leakage through the P10 connector was noted during PDA leak testing. It was determined that the test was not being properly conducted since it was not in a flight configuration. The test setup was revised and the leak test was successfully repeated. E. Ground Turnaround - Tested per PEMU-R-001, Gas Structural and Leakage Test. F. Operational Use - Crew Response - PreEVA: Trouble shoot problem, if no success, discontinue use of EMU. Consider use of third EMU if available. EVA: When CWS data confirms an accelerated drop in primary O2 tank pressure, terminate EVA. Consider vacuum O2 recharge

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	2/HR	4601M05:		to recover EMU operation. Training - Standard EMU training covers this mode. Operational considerations - Flight rules define go/no go criteria related to EMU pressure integrity. EVA checklist procedures verify hardware integrity and systems operational status prior to EVA. Real time Data System allows ground monitoring of EMU systems.