

NAME P/N QTY	CRIT	FAILURE MODE & CAUSES	FAILURE EFFECT	RATIONALE FOR ACCEPTANCE
COMMON MULTIPLE CONNECTOR, ITEM 330 ----- SV778872-26 (1)	2/2	Electrical open, battery recharge line. Loose or broken terminal or connection.	END ITEM: Unable to recharge battery. GFE INTERFACE: Unable to recharge battery. MISSION: Loss of use of one EMU. CREW/VEHICLE: None. TIME TO EFFECT /ACTIONS: Seconds. TIME AVAILABLE: N/A TIME REQUIRED: N/A REDUNDANCY SCREENS: A-N/A B-N/A C-N/A	A. Design - Potting and strain relief is provided for the cable at the points of stress. The lead wires are potted within a trough in the Multiple Connector housing. This prevents damage to the wires during Multiple Connector assembly to the Valve Module and doing dynamic environmental loading. Lead wires are strain relieved at the connector by having the wire insulation extend into the flexible rubber connector body. This prevents breakage due to handling and environmental load fatigue. The mating connector is guided into proper position before the pins are properly aligned, preventing pin damage. The connector is allowed to float and adjusts as necessary during mating to insure proper pin alignment. The Battery Recharge Line is automatically opened by a microswitch in the connector when the connector halves are separated. The electrical leads are protected from mechanical damage by a cover and are bundled together and laced. Short line lengths and bundling of the electrical lines prevent mutual chafing. B. Test - Component Acceptance Test - Electrical open of the Battery Recharge Line is tested at H.S. by performing a continuity test per AT-E-385. With the Multiple Connector mated, the resistance of the Battery Recharge Line is not to exceed 0.250 ohm. PDA Test - Electrical open of the Battery Recharge Line is tested by performing a continuity test per SEMU-60-015. The resistance of the Battery Recharge Line must be less than 1.0 ohm. Certification Test - Certified for a useful life of 15 years. C. Inspection - Air-Lock Inc. visually inspects the DCM half at final inspection. H.S. source inspection visually inspects the DCM half at final inspection. D. Failure History - None. E. Ground Turnaround - Tested for non-EET processing per FEMU-R-001, Battery Recharge Circuit Continuity Verification. FEMU-R-001 Para 8.2 EMU Preflight KSC Checkout for EET processing. F. Operational Use - Crew Response - Pre/PostEVA: Troubleshoot problem, if no success continue EVA operations. Use spare battery if available. Use other EMU to recharge batteries. Training - Standard EMU training covers this failure mode. Operational Considerations - EVA checklist procedures verify hardware integrity and systems operational status prior to EVA. Flight rules define go/no go criteria related

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330FM10

to SCU power.

EXTRAVEHICULAR MOBILITY UNIT
SYSTEMS SAFETY REVIEW PANEL REVIEW
FOR THE
I-330 COMMON MULTIPLE CONNECTOR
CRITICAL ITEM LIST (CIL)

EMU CONTRACT NO. NAS 9-97150

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