

EMU FAILURE MODE, EFFECT ANALYSIS

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NAME P/N CAT	FUNCTION	FAILURE MODE & CAUSES		MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
BOR ELECTRONIC ASSEMBLY, ITEM 550 TV792291 (1)	Provides current limiting for EVA, feedwater solenoid and CLIV solenoid power. Provides optical isolation and discrete signal conditioning for OVA input discretes and EVA tone discretes. Contains battery current and voltage sense circuits, DCM display, and provides secondary power to DCM display, DSI, and sensors.	339PM16: Battery current sense circuit output drifts low.	PREEVA	END EVA:	Flight: Displayed battery current lower than actual current.	None.	3/1R	Redundant paths are the battery power circuit and the SEP. The DMS issues a fault message when battery voltage drops below 15.7 VDC.	None.	
		CHUSE: Electronic component failure or broken connection.	EVA	EVA INTERFACE:	GROUND: Battery amperes Hour accumulator read low. Falls to indicate high current draw for subsequent failure.	Yes. PERU-B-001, TIRE Para. 7.3.3.2.1.1. REQUIRED: 19. Transducer and N/A DCM and Gauge Check.	A-PASS B-PASS C-PASS N/A			

MISSION:
None for single
failure. False
indication that
additional EVA
time is available.
If a subsequent
short occurred
which increased
the current draw,
no warning message
would be issued.

CREW/VEHICLE:
None for single
(current sensor)
or double (high
current draw which
could prematurely
deplete battery)
failure. Possible
loss of crewman
with loss of SEP.

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ATTACHMENT
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