

FMEA
EMU FAILURE MODE, EFFECT ANALYSIS

01/02/90 SUPERSEDES / /

ANALYST:

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NAME P/N QTY	FUNCTION	FAILURE MODE & CAUSES	MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
LIQUID CRYSTAL DISPLAY MODULE, ITEM 351 ----- 8792526-1 (1)	Contains the BITE indicator (343) and Alphanumeric Display (349). The BITE indicator provides visual indication of a CME failure. Item 349 displays EMU instrumentation data and system fault messages. The display consists of 12 characters each in a 14 segment format. Backlighting provides display visibility in dark environments.	35)EMU3: Partial or total loss of display. CAUSE: Electronic component failure, broken connection to data, clock, or load lines.	PREVA EVA	END ITEM: Some or all segments in the display do not turn on when required. Display not readable. BFE INTERFACE: Unable to display EMU failure and warning messages or instrumentation readings to crewman. MISSION: None. Failure is not detectable until use of display is required. Terminate when tone sounds. CREW/VEHICLE: None for single failure. Possible loss of crewman with loss of CCT, oxygen or low vent flow.	FLIGHT: Yes. 1. Any subsequent failure will trigger tone and crewman will then know display is out. 2. Periodic status checks will also detect. GROUND: Yes. FEMU-R-001, EMU Vacuum Performance Matrix, DCM Display Verification Para. 7.5.3.2.4.5.	None. TIME AVAILABLE: N/A TIME REQUIRED: N/A	3/1R A-PASS B-PASS C-PASS	Redundant path is warning tone. The tones provide indication for other systems failures. Failure is detectable during IVA, during EMU status check. RTOS can alert ground personnel to record failure and warn crewman of proper corrective action as work-around.	None.