

FMEA
EMU FAILURE MODE, EFFECT ANALYSIS

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12/24/95 SUPERSEDES 12/24/92

ANALYST:

NAME P/N QTY	FUNCTION	FAILURE MODE & CAUSE	MISSION PHASE	FAILURE EFFECT	FAILURE DETECTION FLIGHT/GROUND	TIME TO EFFECT/ ACTIONS	CRIT	REMARKS/ HAZARD	REF
SNEAR PLATE ASSEMBLY, ITEM 115 ----- SV77854D-49 (1)	Permits manual selection of one of four EMU pressure control configurations: 1. OFF SOP and PLSS shutoff valves closed; 2. IV SOP valve closed, PLSS regulator set on 0.9 psig control; 3. PRESS SOP valve closed, PLSS regulator set on 4.3 psig control; 4. EVA SOP valve open, PLSS regulator set on 4.3 psig control. Contains the primary O2 manifold.	115FMT1: Carriage lock function inoperative. CAUSE: Lock torsional spring relaxes or fractures.	PREEVA EVA	END ITEM: Loss of backup latching mechanism which prevents translation of O2 actuator and carriage out of EVA position. GFE INTERFACE: Unable to provide a backup carriage lock when the actuator is in the EVA position. MISSION: None for single failure. Carriage detent provides primary locking function. CREW/VEHICLE: None for single failure. Possible loss of crewmen with additional loss of carriage detent, translation of actuator carriage out of EVA position.	FLIGHT: Yes. 1. Facille, visual. 2. CWS Message: SET O2 EVA GROUND: None.	None. TIME AVAILABLE: N/A TIME REQUIRED: N/A	3/1R A-PASS B-N/A C-PASS	There are dual torsional springs in the lock mechanism. If the O2 actuator moves out of EVA position during EVA, the CWS issues a warning and directs the crewman to reposition actuator to EVA. Redundant path is the first carriage detent function. The carriage detent is a second spring loaded lock, preventing movement of the actuator. This is a standby redundant mechanical linkage. The "B" screen does not apply.	