
FAILURE MODE EFFECTS ANALYSIS/CRITICAL ITEMS LIST

FMEA NUMBER: EC-PORT3-04	ORIGINATOR: ISC	PROJECT: EDFT-03
PART NAME: CABLES & FLUID LINES	LRU/ORU PART NUMBER: SED39126409-301	QUANTITY: 1EA.
PART NUMBER: 1F70287, 1F70278	LRU/ORU PART NAME: RJG UMB ASSY	SYSTEM: GFE
LSC CONTROL NO: N/A	DRAWING/REF DESIGNATOR: SEE P/N	SUBSYSTEM: EVA
ZONE/LOCATION: PORT 3, 4	EFFECTIVITY/AFFECT STAGE: STS-72	

CRITICALITY:

CRITICAL ITEM: No	SUCCESS PATHS: 3
CRITICALITY CATEGORY: 1R/3	SUCCESS PATH REMAINING: 2

END ITEM NAME: N/A
 END ITEM FUNCTIONAL: N/A
 END ITEM CAPABILITY: N/A
 END ITEM FAILURE TOLERANCE: N/A

REDUNDANCY SCREENS:

A/1. C/O PRELAUNCH: Pass
 2. C/O ON ORBIT: N/A for NSTS
 B/3. DETECTION FLIGHT CREW: Pass
 4. DETECTION GROUND CREW: N/A
 C/5. LOSS OF REDUNDANCY FROM SINGLE CAUSE: Pass

FUNCTION: The cables and fluid lines (3 electrical and 2 fluid lines) on the RU will be connected to dead face connectors (SURF panel) in STBD bay 4. Each line is restrained to the RU by two fixed line clamps on one end. The midpoint of each line goes through a gang clamp (2 clamps, one on each side of the RU) that will be released during the EVA. The line end that is to be manipulated during the EVA incorporates connectors that are attached to deadface connectors on each side of the RU. The SURF panel that the dead face connectors are attached to is bolted to the transition plate with 4 EVA removable bolts.

FAILURE MODE CODE: N/A for NSTS

FAILURE MODE: Inadvertent release of cable or fluid connectors.

CAUSE: Contamination, piece part failure, galling.

REMAINING PATHS: 2	EFFECT/ MISSION PHASE: launch
Over center design of connectors and damage to only one PLB radiator.	

CORRECTIVE ACTION: None.

-FAILURE EFFECTS-

END ITEM/LRU/ORU/ASSEMBLY: Release of connector allows one end of the line to be free (approximately 2 feet of line).

SUBSYSTEM/NEXT ASSEMBLY/INTERFACE: N/A

SYSTEM/END ITEM/MISSION: Partial loss of DTO connector released.

CREW/VEHICLE: Vehicle would be damaged by loose equipment in PLB at launch or landing. Loose line will likely strike Port side PLB radiator and may cause a leak in that cooling loop.

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HAZARD INFORMATION:

HAZARD: N/A

HAZARD ORGANIZATION CODE: N/A

HAZARD NUMBER: N/A

TIME TO EFFECT: minutes

TIME TO DETECT: Seconds

TIME TO CORRECT: N/A

FAILURE DETECTION/FLIGHT: Visual during EVA.

REMARKS:

-RATIONALE FOR ACCEPTABILITY-

(A) DESIGN: N/A

(B) TEST: N/A

(C) INSPECTION: N/A

(D) FAILURE HISTORY: N/A

(E) OPERATIONAL USE: N/A

(F) MAINTAINABILITY: N/A

PREPARED BY: G. Wright

REVISION:

DATE: 8/10/95

WAIVER NUMBER: