

**FAILURE MODE EFFECTS ANALYSIS/CRITICAL ITEMS LIST**

FMEA NUMBER: EC-PORT2-8

ORIGINATOR: JSC

PROJECT: EDFT-03

PART NAME: CABLE CADDY

LRU/ORU PART NUMBER: SED39126406-301

QUANTITY: 1

P/N: SED39126406-301

LRU/ORU PART NAME: CABLE CADDY ASSY.

SYSTEM: GFE

LSC CONTROL NO: N/A

DRAWING/REF DESIGNATOR: SEE P/N

SUBSYSTEM: EVA

ZONE/LOCATION: PORT 2

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:

C/5. LOSS OF REDUNDANCY FROM SINGLE CAUSE: Pass

FUNCTION: The cable caddy holds 20ft. of cable on a reel. It is mounted to an adapter plate on the ORU latch by 4 captive self locking bolts.

FAILURE MODE CODE: N/A for NSTS

FAILURE MODE: Unable to install or remove a bolt.

CAUSE: Contamination, piece part failure, galling.

REMAINING PATHS: 2

EFFECT/ MISSION PHASE: EVA

EVA fastener or ORU latch.

**CORRECTIVE ACTION:**

- a) If unable to remove a fastener, reinstall other fasteners.
- b) If unable to secure one fastener, no effect, soft dock will share redistributed loads.
- c) If two fasteners cannot engage, remove remaining fastener and jettison caddy.
- d) If two fasteners cannot engage and the third jams, actuate ORU latch and jettison cable caddy and ORU latch.

**-FAILURE EFFECTS-**

END ITEM/LRU/ORU/ASSEMBLY: Unable to remove or install the cable caddy to its FSE.

SUBSYSTEM/NEXT ASSEMBLY/INTERFACE: N/A

SYSTEM/END ITEM/MISSION: Partial loss of DTO objectives.

CREW/VEHICLE: Three fasteners must be engaged to ensure the structural integrity of the cable caddy for landing. Loose equipment in the PLB will cause significant damage to orbiter.

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PART NAME: CABLE CADDY	LRU/ORU PART NUMBER: SED39126406-301	QUANTITY: 1
P/N: SED39126406-301	LRU/ORU PART NAME: CABLE CADDY ASSY.	SYSTEM: GFE
LSC CONTROL NO: N/A	DRAWING/REF DESIGNATOR: SEE P/N	SUBSYSTEM: EVA
ZONE/LOCATION: PORT 2	EFFECTIVITY/AFFECT STAGE: STS-72	

**HAZARD INFORMATION:**

HAZARD: N/A

HAZARD ORGANIZATION CODE: N/A

HAZARD NUMBER: N/A

TIME TO EFFECT: hours  
 TIME TO DETECT: seconds  
 TIME TO CORRECT: minutes  
 FAILURE DETECTION/FLIGHT Visual

**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: