

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - COMM. & TRACK. FMEA NO 05-6PJ-236002-1 REV: 01/05/88

ASSEMBLY : PN A1A2		CRIT. FUNC: 2
P/N RI : ME452-0102-7201		CRIT. HDW: 2
P/N VENDOR:	VEHICLE	102 103 104
QUANTITY : 1	EFFECTIVITY: X	X X
: ONE	PHASE(S): PL LO	CO X DO LS

PREPARED BY:  
 DES *M. Zelon* 1/18/88 M ZELON  
 REL *M. Alvarez* 1/15/88 ALVAREZ  
 QE DUM 1/11/88 COURSEN

REDUNDANCY SCREEN: A- B- C-  
 APPROVED BY:  
 DES *[Signature]* 1/7/88  
 REL *[Signature]* 1-12-88  
 QE *[Signature]*

APPROVED BY (NASA):  
 SSM *[Signature]* 1/26/88  
 REL *[Signature]* 1/26/88  
 QE *[Signature]*  
 EPDC SSM *[Signature]* 1-26-88  
 EPDC REL *[Signature]*

ITEM:  
 SWITCH, P/L ANT POL TOGGLE SWITCH, DPDT. POSITIONS ARE L CIRC - R CIRC.

FUNCTION:  
 PROVIDES PANEL CAPABILITY TO SELECT RIGHT OR LEFT HAND ANTENNA CIRCULAR POLARIZATION. 36V73A1A2S2.

FAILURE MODE:  
 SHORT TO CASE (GROUND) OR SHORT ADJACENT CONTACTS.

CAUSE(S):  
 VIBRATION, MECHANICAL SHOCK, CONTAMINATION, MISHANDLING, PIECE-PART STRUCTURAL FAILURE.

EFFECT(S) ON:  
 (A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE

(A) NO EFFECT ON EPDC.

(B) LOSS OF ALL CONTROL AND FUNCTIONAL CAPABILITY (BOTH PANEL AND GROUND COMMAND) FOR BOTH PAYLOAD INTERROGATORS BECAUSE THE CONTROL CIRCUIT FUSE IN BOTH LCA'S (FLCA-2 & FLCA-3) IS SHORTED TO GROUND.

(C) POSSIBLE LOSS OF PRIME MISSION OBJECTIVE FOR THOSE MISSIONS WHICH REQUIRE RF COMMUNICATIONS WITH A PAYLOAD.

(D) NO EFFECT.

DISPOSITION & RATIONALE:  
 (A) DESIGN (B) TEST (C) INSPECTION (D) FAILURE HISTORY

(A, B, C, D) REFER TO APPENDIX A, ITEM #1, TOGGLE SWITCH.

(B) TEST  
 GROUND TURNAROUND TEST - VERIFY POLARIZATION SELECTION BY PANEL;  
 PERFORMED TO SUPPORT FLIGHT MANIFEST.

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(E) OPERATIONAL USE

NO CREW CORRECTIVE ACTION AVAILABLE.