

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - COMM. & TRACK. FMEA NO 05-6PJ-213013-1 REV: 01/05/88

ASSEMBLY : PNL A1A2				CRIT. FUNC:	2
P/N RI : ME452-0102-7403				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: <u>1/7/88</u>	REDUNDANCY SCREEN:	A-	B-	C-
DES <u>M. ZELON</u>	APPROVED BY:	APPROVED BY (NASA):		
REL <u>M. Alvarez</u>	DES <u>M. Zelon</u>	SSM	<u>P.E. Sh</u>	<u>2/8/88</u>
QE <u>J. COURSEN</u>	REL <u>1-12-88</u>	REL <u>1/12/88</u>	QE <u>1/12/88</u>	
		EPDC SSM	<u>1-2-88</u>	
		EPDC REL	<u>1-2-88</u>	

ITEM:
SWITCH, PAYLOAD SYS POWER TOGGLE, SWITCH, 4P3T, S-BAND PAYLOAD SYSTEM POWER.

FUNCTION:
PROVIDES CAPABILITY TO ACTIVATE THE PAYLOAD SYSTEM FROM THE PANEL. THREE POSITIONS ARE ONE-OFF-TWO. 36V73A1A2S13.

FAILURE MODE:
SHORTS TO CASE (GROUND) CONTAMINANT OR BRCKEN PART MOVES AND SEQUENTIALLY SHORTS SEVERAL INPUTS TO GROUND.

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 CAPABILITY TO ACTIVATE EITHER P/L INTERROGATOR OR EITHER P/L SIGNAL PROCESSOR BECAUSE THE MOVING PARTICLE SHORTS THE FOUR CONTROL CIRCUIT FUSES TO GROUND.

(C) POSSIBLE LOSS OF PRIME MISSION OBJECTIVE FOR THOSE MISSIONS ON WHICH RF COMMUNICATION WITH A PAYLOAD IS OF PRIME IMPORTANCE.

(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.

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(B) TEST

GROUND TURNAROUND TEST - VERIFY SELECTION OF PI/PSP VIA PANEL SWITCHES;
PERFORMED TO SUPPORT PAYLOAD MANIFEST.

(E) OPERATIONAL USE

NO CREW CORRECTIVE ACTION AVAILABLE.