

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : COMMUNICATION & TRACKING FMEA NO 05-2J -21308 -2 REV: 01/05/88

ASSEMBLY : PNL A1A2 CRIT. FUNC: 2
 P/N RI : ME452-0102-7202 CRIT. HDW: 2
 P/N VENDOR: VEHICLE 102 103 104
 QUANTITY : 1 EFFECTIVITY: X X X
 : ONE, P/L INTERG #1 & #2 PHASE(S): PL LC OC X DO LS
 : REDUNDANT CONT CIRCUITS

REDUNDANCY SCREEN: A- B- C-
 PREPARED BY: APPROVED BY: APPROVED BY (NASA):
 DES *M. Zelon* M ZELON DES *M. Alvarez* 1/7/89 SSM *P.E. Shad* 2/7/88
 REL *M. Alvarez* 1-5-88M ALVAREZ REL *M. Alvarez* 1/12-88 REL *M. Alvarez* 4/12/88
 QE *D. M. Courseen* COURSENE QE *D. M. Courseen* QE *M. Alvarez*

ITEM:

SWITCH, P/L FREQ SWEEP TOGGLE SWITCH, 2P2T, MOMENTARY, PAYLOAD INTERROGATOR TRANSMITTER FREQUENCY SWEEP.

FUNCTION:

PROVIDES CAPABILITY TO COMMAND TRANSMITTER FREQUENCY SWEEP FROM THE PANEL. 36V73A1A2S8.

FAILURE MODE:

SHORT TO CASE (GROUND) WORST CASE - A CONTAMINANT OR BROKEN PART MOVES AND SEQUENTIALLY SHORTS TO GROUND SEVERAL INPUT TERMINALS.

CAUSE(S):

VIBRATION, MECHANICAL SHOCK, CONTAMINATION, MISHANDLING, PISCE-PART STRUCTURAL FAILURE.

EFFECT(S) ON:

- (A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE
- (A,B) LOSS OF ALL CONTROL CAPABILITY (BOTH PANEL AND GROUND COMMAND) FOR BOTH P/L INTERROGATORS BECAUSE THE CONTROL CIRCUIT FUSE IN BOTH LCA'S IS SHORTED TO GROUND.
- (C) POSSIBLE LOSS OF PRIME MISSION OBJECTIVE FOR THOSE MISSIONS ON WHICH RF COMM WITH A PAYLOAD IS OF PRIME IMPORTANCE.
- (D) NO EFFECT

DISPOSITION & RATIONALE:

- (A) DESIGN (B) TEST (C) INSPECTION (D) FAILURE HISTORY (E) OPERATIONAL USE
- (A,B,C,D) REFER TO APPENDIX A, ITEM #1, TOGGLE SWITCH.
- (E) TEST
- GROUND TURNAROUND TEST - VERIFY PAYLOAD INTERROGATOR POWER OUTPUT AND TRANSMITTER SWEEP RANGE; PERFORMED TO SUPPORT FLIGHT MANIFEST.

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(E) OPERATIONAL USE
NO CREW CORRECTIVE ACTION AVAILABLE.