

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - INSTRUMENTATION FMEA NO 05-6R -320402-1 REV: 8/16/88

ASSEMBLY : PANEL C3A7 CRIT. FUNC: 1R
 P/N RI : ME452-0102-7303 CRIT. HDW: 2
 P/N VENDOR: VEHICLE 102 103 104
 QUANTITY : 1 EFFECTIVITY: X X X
 : (ONE) PHASE(S): PL X LO X OO X DO X LS X

REDUNDANCY SCREEN: A-PASS B-PASS C-PASS
 PREPARED BY: APPROVED BY: APPROVED BY (NASA):
 DES L MUCHOW DES *L. Muchow* SEM *L. Muchow*
 REL R GREGORIAN REL *R. Gregorian* REL *R. Gregorian*
 QE E GUTIERREZ QE *E. Gutierrez* QE *E. Gutierrez*

ITEM:
 SWITCH, TOGGLE 3PST

FUNCTION:
 PROVIDES MANUAL CONTROL TO TURN ON THE RPC'S, WHICH SUPPLY POWER TO
 TO PULSE CODE MODULATION MASTER UNIT (PCMMU) 1 OR 2, AND A LOGICAL SIGNAL
 TO ENABLE THE NETWORK SIGNAL PROCESSOR (NSP) 1 OR 2 FOR THE SELECTED
 PCMMU.
 REFERENCE DESIGNATOR: 35V73A3A7S7.

FAILURE MODE:
 SHORT TO CASE (GROUND), FAILS OPEN, PREMATURE OPEN

CAUSE(S):
 PIECE PART STRUCTURAL FAILURE, CONTAMINATION, VIBRATION,
 MECHANICAL SHOCK, PROCESSING ANOMALY.

EFFECT(S) ON:
 (A) SUBSYSTEM (B) INTERFACES (C) MISSION (D) CREW/VEHICLE
 (A) LOSS OF SWITCH FUNCTION
 (B) LOSS OF BOTH PCMMU'S AND ENABLE SELECTION OF THE UNSELECTED NSP.
 (C) FIRST FAILURE : LOSS OF MISSION, DUE TO LOSS OF BOTH PCMMU'S
 WHICH PROCESS CRITICAL SUBSYSTEM DATA WHICH RESULTS
 IN A NEXT PRIMARY LANDING SITE LANDING.
 (D) FIRST FAILURE : NO EFFECT
 SECOND FAILURE : LOSS OF PCMMU MEASUREMENT PROCESSING MAY CONCEAL A
 CRITICAL SUBSYSTEM FAILURE WHICH MAY CAUSE LOSS OF
 CREW/VEHICLE.

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DISPOSITION & RATIONALE:

(A) DESIGN (B) TEST (C) INSPECTION (D) FAILURE HISTORY (E) OPERATIONAL USE

(A-D) DISPOSITION AND RATIONALE

REFER TO APPENDIX A, ITEM NO. 1 - TOGGLE SWITCH.

(B) GROUND TURNAROUND TEST

VERIFIED EVERY TURNAROUND DURING BUS ISOLATION CHECKS.

(E) OPERATIONAL USE

NONE