

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPDEC - COMM. & TRACK. FMEA NO 05-6PK-20102 -1 REV: 12/9/87

ASSEMBLY : PNL R15  
 P/N RI : MC4S4-0026-2030  
 P/N VENDOR:  
 QUANTITY : 1  
 : CNE

VEHICLE	102	103	104
EFFECTIVITY:	X	X	X
PHASE(S):	PL LO	OO X DC	LS

CRIT. FUNC: 1R  
 CRIT. HOW: 2

PREPARED BY: *[Signature]*  
 DES R DAVIS  
 REL M ALVAREZ  
 QE J COURSEN

REDUNDANCY SCREEN: A-PASS B-PASS C-PASS  
 APPROVED BY: *[Signature]* 12/17/87  
 DES SSM *[Signature]*  
 REL *[Signature]* 12-18-87  
 QE *[Signature]*

APPROVED BY (NASA):  
 SSM *[Signature]*  
 REL *[Signature]*  
 QE *[Signature]*

SSM *[Signature]* 1-21-88

ITEM:  
 CIRCUIT BREAKER CB56, PORT RMS CAMERA HEATER POWER.

FUNCTION:  
 PROVIDES +28VDC OVERCURRENT PROTECTION FROM MAIN BUS B TO PORT RMS CAMERAS (ELBOW & WRIST) HEATER 32V73A1SA2C356.

FAILURE MODE:  
 FAILS OPEN, FAILS TO CONDUCT, FAILS TO CLOSE.

CAUSE(S):  
 VIBRATION, THERMAL STRESS, MECHANICAL SHOCK, CONTAMINATION, PROCESSING ANOMALY, STRUCTURAL FAILURE.

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

(A, B) WORST CASE - PAN/TILT HEATER LOSS CAUSES INABILITY TO PROVIDE CONTROL FOR PAN AND TILT FUNCTION.

(C, D) AFTER THIS FAILURE AND FAILURE OF THE RMS JETTISON SYSTEM, POSSIBLE LOSS OF CREW/VEHICLE DUE TO INABILITY TO PROPERLY POSITION THE ELBOW CAMERA FOR ENTRY WHICH WOULD PREVENT CLOSURE OF PAYLOAD BAY DOORS.

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

(A, B, C, D) REFER TO APPENDIX D, ITEM #1, CIRCUIT BREAKER.

(B) TEST  
 GROUND TURNAROUND TEST - CCTV ELBOW CAMERA VERIFICATION; PERFORMED WHEN ELBOW CAMERA IS INSTALLED PER FLIGHT MANIFEST.

(E) OPERATIONAL USE  
 FOR MISSIONS WHERE THE PAYLOAD INTERFERES WITH THE ELBOW TV CAMERA, THE ELBOW CAMERA WILL NOT BE MOVED FROM THE STOWED POSITION UNTIL THE PAYLOAD IS DEPLOYED.