

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - COMM. & TRACK. FMEA NO 05-6PK-20101 -1 REV:12/9/87

ASSEMBLY : PNL R15			CRIT. FUNC: 1R
P/N RI : MC454-0026-2010			CRIT. HW: 2
P/N VENDOR:	VEHICLE	102	103 104
QUANTITY : 1	EFFECTIVITY:	X	X X
: ONE	PHASE(S):	PL LO	OO X DO LS

PREPARED BY:	REDUNDANCY SCREEN:	A-PASS	B-PASS	C-PAS:
DES <i>ADD</i> R DAVIS	APPROVED BY:	APPROVED BY (NASA):		
REL <i>MA</i> M ALVAREZ	DES <i>[Signature]</i> 12/17/87	SSM <i>[Signature]</i>		
QE J COURSEN	REL <i>[Signature]</i> 12/15/87	REL <i>[Signature]</i>		
	QE <i>[Signature]</i>	QE <i>[Signature]</i>	SSM M B Press 1-2-88	

ITEM:

CIRCUIT BREAKER CB55, PORT RMS CAMERA PAN/TILT POWER.

FUNCTION:

PROVIDES +18 VDC OVERCURRENT PROTECTION FROM MAIN BUS 3 TO PORT RMS CAMERAS AND PAN TILT UNIT. 32V73A15CB55.

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) LOSS OF POWER TO CAMERAS AND PAN/TILT UNIT, RESULTING IN LOSS OF VIDEO FROM PORT RMS AND LOSS OF CONTROL FOR ELBOW PAN/TILT UNIT.

(C) LOSS OF RMS TV COULD RESULT IN LOSS OF MISSION DUE TO INABILITY TO UTILIZE WRIST CAMERA FOR RETRIEVAL OF DETACHED PAYLOADS.

(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.

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(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.