

SHUTTLE CRITICAL ITEMS LIST - ORBITER

SUBSYSTEM : EPD&C - COMM. & TRACK. FMEA NO 05-6PK-20103 -1 REV:12/9/87

ASSEMBLY : FNL R15				CRIT. FUNC: 15	
P/N RI : MC:54-0026-2010				CRIT. HW: 2	
P/N VENDOR:		VEHICLE	102	103	104
QUANTITY : 1		EFFECTIVITY:	X	X	X
: ONE		PHASE(S):	FL	LO	CO X DC LS

PREPARED BY:		REDUNDANCY SCREEN:	A-PASS	B-PASS	C-PASS
DES <i>M.A. Davis</i>	R DAVIS	APPROVED BY:	APPROVED BY (NASA):		
REL <i>M.A. Alvarez</i>	M ALVAREZ	DES <i>[Signature]</i>	SSM <i>[Signature]</i>		
QE	J COURSEN	REL <i>[Signature]</i>	REL <i>[Signature]</i>		
		QE <i>[Signature]</i>	QE <i>[Signature]</i>		

ITEM: CIRCUIT BREAKER CB57, PORT RMS PAN/TILT HEATER POWER.

FUNCTION: PROVIDES +28VDC OVERCURRENT PROTECTION FROM MAIN BUS B TO PORT RMS PAN/TILT UNIT HEATER 12V73A1SA2CB57.

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 OCCURS.

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.