

**FAILURE MODES EFFECTS ANALYSIS (FMEA) - CIL HARDWARE**

**NUMBER: 05-6BA-2303-IM -X**

**SUBSYSTEM NAME: EPD&C - LANDING GEAR CONTROL**

**REVISION: 4**

**02/04/91**

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**PART DATA**

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	<b>PART NAME</b>	<b>PART NUMBER</b>
	<b>VENDOR NAME</b>	<b>VENDOR NUMBER</b>
LRU	: FWD PCA 2	V070-763340
LRU	: FWD PCA 3	V070-763360
SRU	: FUSE	ME451-0009-1021

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**EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:**

FUSE, GENERAL PURPOSE, LANDING GEAR PYRO CIRCUITS (5 AMP)

**REFERENCE DESIGNATORS:** 82V76A23F24  
83V76A24F6

**QUANTITY OF LIKE ITEMS:** 2  
ONE PER FPCA 2 & 3

**FUNCTION:**

PROVIDES OVERLOAD PROTECTION BETWEEN A MAIN DC BUS AND THE LANDING GEAR SUBSYSTEM LOADS.

**FAILURE MODES EFFECTS ANALYSIS FMEA – CIL FAILURE MODE**

**NUMBER: 05-6BA-2303-4M- 01**

**REVISION#: 6 07/01/99**

**SUBSYSTEM NAME: EPD&C - LANDING GEAR CONTROL**

**LRU: FWD PCA 2**

**CRITICALITY OF THIS**

**ITEM NAME: FUSE**

**FAILURE MODE: 1R2**

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**FAILURE MODE:**

**FAILS OPEN, FAILS TO CONDUCT**

**MISSION PHASE: DO DE-ORBIT**

**VEHICLE/PAYLOAD/KIT EFFECTIVITY:**

102	COLUMBIA
103	DISCOVERY
104	ATLANTIS
105	ENDEAVOUR

**CAUSE:**

**STRUCTURAL FAILURE, CONTAMINATION, VIBRATION, MECHANICAL SHOCK,  
PROCESSING ANOMALY, THERMAL STRESS**

**CRITICALITY 1/1 DURING INTACT ABORT ONLY? NO**

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**REDUNDANCY SCREEN**

A) PASS
B) PASS
C) PASS

**PASS/FAIL RATIONALE:**

**A)**

**B)**

**C)**

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**- FAILURE EFFECTS -**

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**(A) SUBSYSTEM:**

**UNABLE TO SUPPLY POWER TO ASSOCIATED LOADS**

**(B) INTERFACING SUBSYSTEM(S):**

**FIRST FAILURE - NO EFFECT**

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**(C) MISSION:**  
FIRST FAILURE - NO EFFECT

**(D) CREW, VEHICLE, AND ELEMENT(S):**  
FIRST FAILURE - NO EFFECT

**(E) FUNCTIONAL CRITICALITY EFFECTS:**  
POSSIBLE LOSS OF CREW/VEHICLE DUE TO INABILITY TO EXTEND NOSE LANDING GEAR  
IN REQUIRED TIME AFTER SECOND FAILURE (LOSS OF REDUNDANT POWER).

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**-DISPOSITION RATIONALE-**

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**(A) DESIGN:**  
REFER TO APPENDIX D, ITEM NO. 2 - FUSE

**(B) TEST:**  
REFER TO APPENDIX D, ITEM NO. 2 - FUSE

GROUND TURNAROUND TEST  
ANY TURNAROUND CHECKOUT TESTING IS ACCOMPLISHED IN ACCORDANCE WITH  
OMRSD.

**(C) INSPECTION:**  
REFER TO APPENDIX D, ITEM NO. 2 - FUSE

**(D) FAILURE HISTORY:**  
CURRENT DATA ON TEST FAILURES, FLIGHT FAILURES, UNEXPLAINED ANOMALIES, AND  
OTHER FAILURES EXPERIENCED DURING GROUND PROCESSING ACTIVITY CAN BE  
FOUND IN THE PRACA DATA BASE.

**(E) OPERATIONAL USE:**  
NONE

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- APPROVALS -

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EDITORIALLY APPROVED

: BNA

: J. Komura 7/6/99

TECHNICAL APPROVAL

: VIA APPROVAL FORM

: 96-CIL-011\_05-6BA(2)