

**FAILURE MODES EFFECTS ANALYSIS (FMEA) – CIL HARDWARE**  
**NUMBER: 05-6BA-2300 -X**

**SUBSYSTEM NAME: EPD&C - LANDING GEAR CONTROL**  
**REVISION: 5**      **06/04/91**

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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	: PANEL F6A5	V070-730257
LRU	: PANEL F8A5	V070-730265
SRU	: FUSE	ME451-0018-0100

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**EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:**  
FUSE, GENERAL PURPOSE, LANDING DOWN CIRCUIT (1 AMP)

**REFERENCE DESIGNATORS:** 34V73A6A5F5  
34V73A6A5F6  
34V73A6A5F7  
34V73A6A5F8  
34V73A8A5F5  
34V73A8A5F6  
34V73A8A5F7  
34V73A8A5F8

**QUANTITY OF LIKE ITEMS: 8**  
FOUR PER PANEL F6A5 AND F8A5

**FUNCTION:**  
PROVIDES OVERLOAD PROTECTION IN THE LANDING GEAR DOWN CONTROL CIRCUIT.

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

**NUMBER: 05-6BA-2300-01**

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

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

**LRU: PANEL F8A5**

**CRITICALITY OF THIS**

**ITEM NAME: FUSE**

**FAILURE MODE: 1R3**

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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) FAIL
C) PASS

**PASS/FAIL RATIONALE:**

**A)**

**B)**

**FAILS "B" SCREEN BECAUSE FUSE FAILURE IS MASKED BY PARALLEL INDICATION  
CIRCUIT.**

**C)**

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**- FAILURE EFFECTS -**

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**(A) SUBSYSTEM:**

**FIRST FAILURE - NO EFFECT**

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

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FIRST FAILURE - NO EFFECT

**(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 LOSS OF ELECTRICAL POWER TO GEAR  
DOWN RELAYS. REQUIRES MULTIPLE FAILURES (ONE ADDITIONAL FUSE FAILURE PLUS  
FAILURE OF REDUNDANT DOWN SWITCH) BEFORE LANDING GEAR DEPLOYMENT IS  
LOST.

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**-DISPOSITION RATIONALE-**

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**(A) DESIGN:**  
REFER TO APPENDIX D, ITEM NO. 4 - FUSE

**(B) TEST:**  
REFER TO APPENDIX D, ITEM NO. 4 - FUSE

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

**(C) INSPECTION:**  
REFER TO APPENDIX D, ITEM NO. 4 - 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. Kemura 7/6/99  
TECHNICAL APPROVAL : VIA APPROVAL FORM : 96-CIL-011\_05-6BA(2)