

FAILURE MODES EFFECTS ANALYSIS (FMEA) -- CIL HARDWARE
NUMBER: 05-6BA-2302 -X

SUBSYSTEM NAME: EPD&C - LANDING GEAR CONTROL
REVISION: 2 02/14/90

PART DATA

	PART NAME	PART NUMBER
	VENDOR NAME	VENDOR NUMBER
LRU	: FWD PCA 1	V070-763320
SRU	: FUSE	ME451-0009-1021

EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
FUSE, GENERAL PURPOSE, LANDING DOWN ARM CIRCUIT (5 AMP)

REFERENCE DESIGNATORS: 81V76A22F9

QUANTITY OF LIKE ITEMS: 1
ONE

FUNCTION:
PROVIDES OVERLOAD PROTECTION IN THE LANDING GEAR ARM CIRCUIT.

FAILURE MODES EFFECTS ANALYSIS FMEA - CIL FAILURE MODE

NUMBER: 05-6BA-2302-01

REVISION#: 3 06/28/99

SUBSYSTEM NAME: EPD&C - LANDING GEAR CONTROL

LRU: FWD PCA 1

ITEM NAME: FUSE

**CRITICALITY OF THIS
FAILURE MODE: 1R2**

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

REDUNDANCY SCREEN

A) PASS
B) FAIL
C) PASS

PASS/FAIL RATIONALE:

A)

B)

FAILS "B" SCREEN BECAUSE FUSE FAILURE IS NOT FLIGHT DETECTABLE.

C)

- FAILURE EFFECTS -

(A) SUBSYSTEM:

LOSS OF CAPABILITY TO DEPLOY LANDING GEAR HYDRAULICALLY

(B) INTERFACING SUBSYSTEM(S):

UNABLE TO HYDRAULICALLY EXTEND LANDING GEARS

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(C) MISSION:
FIRST FAILURE - NO EFFECT

(D) CREW, VEHICLE, AND ELEMENT(S):
FIRST FAILURE - NO EFFECT. SECOND FAILURE (BACKUP PYRO FAILURE) - POSSIBLE
LOSS OF CREW/VEHICLE DUE TO LOSS OF CAPABILITY TO EXTEND LANDING GEARS.

(E) FUNCTIONAL CRITICALITY EFFECTS:

-DISPOSITION RATIONALE-

(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

- APPROVALS -

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EDITORIALLY APPROVED : BNA : J. Kimura 7/6/99
TECHNICAL APPROVAL : VIA APPROVAL FORM : 96-CIL-011_05-6BA(2)