

FAILURE MODES EFFECTS ANALYSIS (FMEA) – NON-CIL HARDWARE  
 NUMBER:05-60-200201 -X

SUBSYSTEM NAME: EPD&C-GUIDANCE, NAVIGATION, & CONTROL (05-1)  
 REVISION: 1 01/22/96

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PART DATA

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	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
LRU	:FWD PCA 1	V070-763320
LRU	:FWD PCA 2	V070-763340
LRU	:FWD PCA 3	V070-763360
SRU	:DIODE	JANTX1N1188R

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EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:  
 DIODE 35 AMPS

REFERENCE DESIGNATORS: 81V76A22CR28  
 81V76A22CR27  
 82V76A23CR20  
 82V76A23CR21  
 83V76A24CR11  
 83V76A24CR12

QUANTITY OF LIKE ITEMS: 6  
 SIX, TWO PER FORWARD PCA

FUNCTION:  
 PERMITS CONDUCTION OF ELECTRICAL CURRENT AND PROVIDES MAIN BUS  
 ISOLATION FROM MAIN BUS A, B AND C TO IMU'S NO. 1, 2 AND 3 INPUT POWER  
 SUPPLIES.



FAILURE MODES EFFECTS ANALYSIS (FMEA) - NON-CIL FAILURE MODE  
NUMBER: 05-60-200201-01

(A) SUBSYSTEM:  
LOSS OF REDUNDANT POWER TO ONE IMU.

(B) INTERFACING SUBSYSTEM(S):  
NO EFFECT - FIRST FAILURE. IMU STILL HAS REDUNDANT POWER PATH.

(C) MISSION:  
NO EFFECT - FIRST FAILURE. SECOND FAILURE MAY CAUSE EARLY FLIGHT  
TERMINATION.

(D) CREW, VEHICLE, AND ELEMENT(S):  
POSSIBLE LOSS OF CREW/VEHICLE DUE TO LOSS OF ATTITUDE AND VELOCITY INPUTS  
TO NAVIGATION SOFTWARE. REQUIRES 3 OTHER FAILURES (SECOND DIODE IN  
REDUNDANT PATH FAILS OPEN, TWO REMAINING IMU'S FAIL) BEFORE EFFECT IS  
MANIFESTED.

(E) FUNCTIONAL CRITICALITY EFFECTS:  
CRITICALITY 1R BECAUSE LOSS OF ATTITUDE AND VELOCITY INPUTS TO NAVIGATION  
SOFTWARE MAY CAUSE LOSS OF VEHICLE CONTROL.

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- APPROVALS -

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EDITORIALLY APPROVED	: RI	: <i>[Signature]</i> 1/31/96
EDITORIALLY APPROVED	: JSC	: <i>[Signature]</i> 2-12-96
TECHNICAL APPROVAL	: APPROVAL FORM	: 95-CIL-004-R1