

# FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: RMS IFM DC KIT  
 ASSY P/N: 5ED31F03306-304

SYSTEM: REMOTE MANIPULATOR SYSTEM  
 SUBSYSTEM: RMS IN-FLIGHT MAINTENANCE DC KIT

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NAME AND DRAWING	FUNCTION	FAILURE MODE AND CAUSE	MISSION PHASE	FAILURE EFFECT ON			FAILURE DETECTION	CORRECTIVE ACTION TIME AVAILABLE/ TIME REQUIRED	CRIT. H/F	HAZARDS/REMARKS
				END ITEM	MISSION	CREW/VEHICLE				
DIRECT DRIVE COMMAND SIGNAL CIRCUIT (continued)		8030 Mode: Resistor R1 or R3 fails open  Cause: • structural failure • mechanical stress • vibration • electrical stress	Orbit	Loss of direct drive  <u>Worst Case</u> Subsequent failures may result in inability to cradle arm  Redundant Paths Remaining Backup mode. RMS jettison.		Subsequent failures may result in inability to cradle arm or jettison arm, resulting in loss of crew/vehicle	Operator detects joints do not drive	Select backup mode or jettison RMS  Immediate/Hours	3/1R	<u>Redundancy Screens:</u> A - Pass B - Pass C - Pass

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 ATTACHMENT  
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PREPARED BY J P Grisham

SUPERSEDING DATE 18/99

DBY R J Moore

DATE: 9/90