

BRAMPTON ONTARIO L6S4J3

System: SRMS

Subsystem: ELECTRICAL SUB-SYSTEM

Assembly Desc: Servo Power Amplifier

Part Number(s): 51140F1177-3

Name	Part Number(s)	Qty	Sheet No.	Schematic No.
Item: Motor Drive Amplifier Assembly	823836-551	1		824208
Function: Motor Drive Amplifier Assembly	Provides motor voltage based on demand from tachometer electronics. Commutates the motor drive voltage. Provides hardware current limiting, brake drive, direct drive functions and enables backup drive. Provides BITE circuits and BITE verification for MDA.			

Failure Mode: Loss of Direct Drive BITE Verification.

Criticality: HW Func. Screen Failures  
3 1R

Mission Phase: Orbit

Cause(s): Motor Drive Amplifier Assembly Direct Drive BITE verification test inputs cannot be selected or corrupt test pattern.

Failure effect on unit/end item: Unable to verify operation of Direct Drive BITE circuit. Direct Drive BITE circuit continues to operate correctly. All modes remain available.

Worst Case: No effect on Crew/Vehicle or Mission.

Redundant Paths: Not Applicable

Warning Detection: With Brakes ON:  
"CHECK CRT" Caution with Master Alarm.  
SM Message "S96 PDRS TEST SPA".  
SPEC 96 "CKCRT - SPA: BITE TEST SY (SP, EP,WP,WY,WR) D/D".

Corrective Action: Not Applicable.

Time to Effect: Immediate

Time to Correct: Immediate

Hazard/Remarks: Cannot be distinguished from a real loss of Direct Drive BITE.

Approvals:

Functional Group	Name	Position	Telephone	Date Signed	Status
Engineer	Jorgensen, Glen	SPAR DEC	(713) 285 9101	14Mar97	Signed
Reliability	Hautot, Rodney	Product Assurance Manager SRMS	4879	17Mar97	Signed
Program Management Office	Rice, Craig	Technical Program Manager	4892	13Mar97	Signed
Technical Manager	Peck, John	Technical Manager (JSC)	713-483-1284	25Mar97	Signed
SRM Assurance Coord, David		SRM SRM Engineer	(214) 403-7499	17Mar97	Signed