

PFR-106 Title: FM1 ESA Noisy Channel				
Assembly : ESA	SubAssembly : Analyser			
Component : MCPs	Units Affected:	Units fixed:		
Originator: Michael Ludlam	x X X X X X	x x x x x x x		
Organization: UCB	Date: 1/NOV/05			
Phone: 510 642 7732	Email : mludlam@ssl.berkeley.edu			
Failure Occurred During (Check one $\sqrt{)}$ x Functional test \Box Qualification test \Box S/C Integration \Box Launch operations \Box Other (Flight Assy)				
Environment when failure occurred:				
□ Ambient □ Vibration	□ Shock	Acoustic		
\Box Thermal \sqrt{Vacuum}	Thermal-Vacuum	D EMI/EMC		
Problem Description				

During recalibration of the FM1 ESA unit one of the channels was noisy with the MCP HV on.

Analyses Performed to Determine Cause

The ESA was removed from the chamber; the analyzer was disassembled and examined. A residue was seen on the MCP plate but was not thought be of sufficient quantity to cause the problems seen. Also while the analyzer was being disassembled, a pin used in the assembly of the analyzer fell out. The part should be captive and it is not known how it could have come loose. The analyzer was rechecked in vacuum without the ESA electronics and found to be quiet.

Corrective Action/ Resolution

The FM1 MCP plates will be swapped for FM6 plates in the FM1 unit and it will be recalibrated. This PFR will close when this work has been completed.

Per Dr Charles Carlson, the work has been completed 2/21/06

Acceptance:		
MAM: Ron Jackson	; MSE: Ellen Taylor	

PM: Peter Harvey_____; Cognizant Engineer_____

Date of Closure_____2/21/06_____