

PFR-160 Title: BAU Connector Sockets damaged				
Assembly : BAU		SubAssembly : Co	SubAssembly : Connector	
Component : Sockets		<b>Units Affected:</b>	Units fixed:	
Originator: Ellen Taylor		- X	- X	
Organization: Swales/UCB		<b>Date:</b> 3/20/2006	<b>Date:</b> 3/20/2006	
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<b>Failure Occurre</b>	ed During (Check on	<b>e</b> √)		
$\Box$ Functional test $\sqrt{\text{Qualification test}} \Box$ S/C Integration $\Box$ Launch operations $\Box$ Other (Flight Assy)				
Environment when failure occurred:				
Ambient	$\Box$ Vibration	□ Shock	Acoustic	
√ Thermal	Vacuum	Thermal-Vacuum	□ EMI/EMC	
Problem Description				

During BAU 105 testing at Swales on 3/20/06, it was observed that J301 (PCM) had an intermittent signal problem. This issue is logged as Swales PRB 270.

## Analyses Performed to Determine Cause

An inspection was performed by Swales QA and it was determined that the BAU 105 J301 connector had a pin retention problem. Further investigation at GD and Swales found a number of the BAU Connectors (specifically the High Density 22 gauge) had an issue with the female contacts due to bad and/or improper tooling. All units except BAU 101 were inspected and sent back to GD for re-work. At the time, BAU 101 was integrated to Probe F2 and at JPL for Environmental Testing.

After Environmental Testing, BAU 101 was removed from Probe 2 after an in-situ inspection showed suspect connectors. The unit was returned to GD and retention testing performed confirming the visual inspection. Results showed that one pin on J301 and all of the connections on J103, J104 and J002 were bad.

## **Corrective Action/ Resolution**

The bad pin and connectors will be replaced by GD. BAU 101 will then be returned to Swales for workmanship vibration and Thermal Cycling Re-Test.

Update 6/10/06: The BAU was returned to UCB from Swales after refurbishment at GD, and re-test at Swales. The unit was re-integrated onto Probe 2 at UCB without issue.

Acceptance: MAM: Ron Jackson\_\_\_\_\_; MSE: Ellen Taylor\_\_\_\_\_

PM: Peter Harvey\_\_\_\_\_; Cognizant Engineer\_\_\_\_\_

Date of Closure\_\_\_\_\_