CCLRC Rutherford Appleton Laboratory	INCOMING / OUTGOING INSPECTION REPORT	PRODUCT ASSURANCE Space Science and Technology Department			
Spacecraft/Project	HERSCHEL	Document No	SPIRE-RAL REP-001867		
Instrument/Model	SPIRE	Issue No	1	REV	0
Subsystem	UWC PCAL-CQM-000	Date	12 Nov 03		

Report at receipt/delivery or other major movement of instrument/hardware and associated GSE.

Inspection Report	CQM PCAL Incoming inspection

FROM	TO
P Hargrave University of Wales Cardiff	Dave Smith SPIRE RAL

Inspection conducted by		*Witnessed by (Product Assurance)*	
Name	Signature / Date	Name	Signature / Date
P Hargrave	12/11/03	Eric Clark	12/11/03

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INTRODUCTION

This inspection report shall be completed for formal transfers of hardware between RAL and customers, agencies or collaborating organisations
The following must be inspected:

	SECTION	No
Documentation	**Yes**	**1**
Containers	**Yes**	**2**
Visual Inspection of Hardware	**Yes**	**3**
Connectors	**Yes**	**4**
Harnesses	**N/A**	**5**
Pre Closure Checks	**N/A**	**6**
Interface Verification	**Yes**	**7**

Each section contains a checklist that shall be completed.

Unused boxes should have N/A entered.

Deviations e.g. items not delivered or incomplete documentation must be noted in the comments column.

For previously agreed deviations refer to the Delivery Review Board (DRB) minutes of meeting (MOM) or similar.

NCR's must be raised for other deviations, damage or defects noted.

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SECTION 1: DOCUMENTATION

Documentation shall be checked for completeness, any items not received or to be delivered later should be noted.

Note 1: The delivery review board minutes should list outstanding items, e.g. open work, open NCRs and Waivers etc. A copy should accompany or form part of the EIDP. If there is no EIDP then it should be referenced on this report.

Note 2: All items dispatched from the Laboratory must have a Dispatch Note completed and signed, with a copy filed in the appropriate section of the EIDP.

No.	Procedure	Comments (Include NCR Number if applicable)	Check N/A or ✓
1.1	Is the documentation complete	**None supplied to Follow**	
1.2	Is the accompanying documentation compliant with project requirements	**None supplied to Follow**	
1.3	Note DRB/MoM Document Number, minutes and note any discrepancies with respect to agreements recorded. OR attach copy of minutes.		
1.4	Additional Remarks	**Item delivered by Hand**	

SECTION 2: INSPECTION OF CONTAINERS

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
	Transport Containers – External condition.		
2.1	Inspect the outside of the containers for obvious mechanical damage: Cracks, fasteners/locks clips, physical damage, dents or scratches etc. Handling provisions, Other damage	**Item delivered by Hand**	
2.2	Markings for description and destination	**Item delivered by Hand**	
2.3	Packing / unpacking instructions	**None supplied P Hargave unpacked item**	
2.4	Warning labels relating to handling, lifting, stacking limits		**N/A**
2.5	Additional Remarks Check security of container		**N/A**
	Transport Containers – Internal condition	**Secured in a small die-cast Metal Box**	
2.6	Check environmental monitors such as humidity indicators, shock recorders and record the location and readings on the inspection	**None fitted**	
2.7	Check mounting fixtures or brackets and screws, padding and packing.		**N/A**
2.8	Additional Remarks Check security of container		

SECTION 3: VISUAL INSPECTION OF HARDWARE

Insert one copy of the following section for each configuration item, OR Individual unit.

Note: Section 3 when used with the front sheet may be used as a complete report for small units prior to final closure, if this is done confirm unit interior check carried out before closure Interior check will be limited to visible items.

CI NUMBER		**SERIAL NUMBER**	

No.	Procedure	Remarks (Include any NCR Numbers if Applicable	Check N/A or ✓
3.1	Check contents against shipping list	**No List but only PCAL CQM delivered**	
3.2	Note external contamination		✓
3.3	Inspect the outside for physical damage, cracks, dents, scratches		✓
3.4	Degradation of painting		**N/A**
3.5	Mounting provisions		**N/A**
3.6	Fasteners correctly locked		**N/A**
3.7	Check for protective covers on all electrical and fluid connectors and on optical and sensor apertures	**None Fitted**	

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SECTION 4 CHECK ALL CONNECTORS

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.8.1	Bent pins	**Connectors are four Stand off's two prime & two redundant Impedance check performed using Un-calibrated DMM Impedance target is aprox 250 Ohms; Readings obtained are PRIME 246 Ohms. Redundant 231 ohms. Re checked on another DMM readings were 249 & 234 respectively Slightly lower with larger difference than measured at UWC Pete stated that it should be OK**	
3.8.2.	Internal / external damage		✓
3.8.3	Internal debris		✓
3.8.4	Connector covers fitted		**N/A**
3.8.5	Connector savers in position		**N/A**
3.8.6	EMC Covers Fitted		**N/A**
3.8.7	**RED** tag items/covers fitted		**N/A**
3.8.8	Any other damage		✓

SECTION 4 CHECK ANY HARNESS AND ASSOCIATED CONNECTORS ASSOCIATED WITH THE HARDWARE

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.9.1	Bent pins		N/A
3.9.2	Internal / external damage		N/A
3.9.3	Internal debris		N/A
3.9.4	Protection caps fitted		N/A
3.9.5	Connector Savers fitted		N/A
3.9.6	EMC Covers Fitted		N/A
3.9.7	**RED** tag items/covers fitted		N/A
3.9.8	Any other damage		N/A

SECTION 5 PRE CLOSURE CHECKS

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.10.1	All internal units securely fastened locked		N/A
3.10.2	All internal connector fasteners locked		N/A
3.10.3	All cabling secure		N/A
3.10.4	No internal debris		N/A
3.10.5	Check packaging is correct		N/A
3.10.6	Shock recorders reset		N/A
3.9.7	Additional remarks		N/A

SECTION 6: VERIFICATION OF INTERFACES

Confirm all required interface-checking activities have been carried out.

4.1 **Mechanical interface** dimensions specified in the interface control documents such as mass, flatness of surfaces, location of fixing holes and overall dimensions should be measured accurately and recorded. **Record Test Report Number**, or confirm that measurement result is included in delivery documentation, (EIDP).

4.2 **Electrical interfaces:** verifying the location and types of connectors against interface control document is normally carried as part of mechanical verification, confirm this has been done.
Functional testing: final functional test report number should be noted.

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
4.1	Mechanical Interfaces Verification		✓
4.2	Electrical Interfaces Verification	**Comment only Not Part of PCAL delivery.** **The PCAL is mounted on to the BSM the PCAL twisted Pairs were missing from the BSM when integration was attempted.**	✓