

PRODUCT ASSURANCE

Space Science and	Technology	Department
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Spacecraft/Project	HERSCHEL	Document No	SPIRE-	RAL REP-001856
Instrument/Model	SPIRE	Issue No	1	REV 0
Subsystem	CEA/SBT- CQM Sorption Cooler	Date	30 <sup>th</sup> Oc	tober 2003

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

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

Inspection Report outgoing

	FROM	ТО	
organisations The following mus	SPIRE SSTD RAL	Lionel Duband Services des Basses Temperatures (SBT) 17 av. des Martyrs 38054 Grenoble Cedex 9 FRANCE	

Insp	ection conducted by	Witnessed by (Product Assurance)			
Name	Signature / Date	Name	Signature / Date		
Alan Pearce	all	Eric Clark	h		
The name of the second	BUILE	l'Issue do	J BEA D		
Ref Spap PA002	ISO9: Form PA 036 Incoming / Outgoing	Inspection Report	Issue 04		



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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	Yes	6
Interface Verification	N/A	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		$\checkmark$
1.2	Is the accompanying documentation compliant with project requirements		$\checkmark$
1.3	Note DRB/MoM Document Number, minutes and note any discrepancies with respect to agreements recorded. OR attach copy of minutes.		N/A
1.4	Additional Remarks	Delivered By Hand	



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### **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		~
2.2	Markings for description and destination	Hand Carried	$\checkmark$
2.3	Packing / unpacking instructions	IN EIDP Returned With Item	$\checkmark$
2.4	Warning labels relating to handling, lifting, stacking limits		N/A
2.5	Additional Remarks Check security of container		
	Transport Containers – Internal condition		
2.6	Check environmental monitors such as humidity indicators, shock recorders and record the location and readings on the inspection	Sever Shock Monitors mounted 1 on top of External case. One on internal Transit container.	
2.7	Check mounting fixtures or brackets and screws, padding and packing.		$\checkmark$
2.8	Additional Remarks Check security of container		



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### 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 NUME	ER
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable	Check N/A or ✓
3.1	Check contents against shipping list		✓
3.2	Note external contamination		✓
3.3	Inspect the outside for physical damage, cracks, dents, scratches	Some discoloration on top face as mounted in Transit container.	✓
3.4	Degradation of painting		N/A
3.5	Mounting provisions		✓
3.6	Fasteners correctly locked		✓
3.7	Check for protective covers on all electrical and fluid connectors and on optical and sensor apertures		N/A



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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		$\checkmark$
3.8.2.	Internal / external damage		✓
3.8.3	Internal debris		✓
3.8.4	Connector covers fitted	None Fitted	
3.8.5	Connector savers in position	None Fitted	
3.8.6	EMC Covers Fitted	None Fitted	
3.8.7	RED tag items/covers fitted	None Fitted	
3.8.8	Any other damage		✓



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### SECTION 5: 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



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## **SECTION 6: Pre Closure Checks**

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.10.1	All internal units securely fastened locked		$\checkmark$
3.10.2	All internal connector fasteners locked		N/A
3.10.3	All cabling secure		N/A
3.10.4	No internal debris		✓
3.10.5	Check packaging is correct		✓
3.10.6	Shock recorders reset	None reset able type Fitted	✓
3.9.7	Additional remarks		



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### **SECTION 7: 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		N/A
4.2	Electrical Interfaces Verification		N/A