



INCOMING / OUTGOING INSPECTION REPORT

PRODUCT ASSURANCE
Space Science and Technology Department

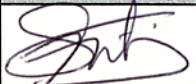

Spacecraft/Project	HERSCHEL	Document No	SPIRE-RAL REP-001801		
Instrument/Model	SPIRE / CQM	Issue No	1	REV	0
Subsystem	CEA / SAP Warm Electronics (DRCU)	Date	17 th Sep 03		

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

Inspection Report	Incoming
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Comprises of: FPU Simulator, Power Bench, DCU QM1, FCU QM1, Instrument Pack, Harness Pack and On loan EGSE rack (LTU)

CEA SAP	TO SPIRE RAL
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<i>Inspection conducted by</i>		<i>Witnessed by (Product Assurance)</i>	
Name	Signature / Date	Name	Signature / Date
inspection performed by J Fontignie SAP	 19/09/2003	Eric Clark	 <small>Digitally signed by Eric Clark Date: 2003.09.18 12:54:05 +01'00'</small>

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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:

Documentation	SECTION	1
Containers		2
Visual Inspection of Hardware		3
Interface Verification		4

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, and 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	EIDP Supplied with units, will require checking before acceptance	✓
1.2	Is the accompanying documentation compliant with project requirements	Some documents 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	SAP DRCU QM1 Acceptance Procedure SAP-SPIRE-JF-0126-03 used by SAP as part of the incoming inspection	

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SECTION 2: INSPECTION OF CONTAINERS
LTU
(Loan Item to be returned after integration of warm Electronics)

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		✓
2.3	Packing / unpacking instructions	Performed by SAp	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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		N/A
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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SECTION 2: INSPECTION OF CONTAINERS POWER BENCH

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		✓
2.3	Packing / unpacking instructions	Performed by SAp	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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		N/A
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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**SECTION 2: INSPECTION OF CONTAINERS FCU
FPU SIMULATOR.**

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		✓
2.3	Packing / unpacking instructions	Performed by SAp	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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		N/A
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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SECTION 2: INSPECTION OF CONTAINERS

DCU

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		✓
2.3	Packing / unpacking instructions	Performed by SAP	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
2.5	Additional Remarks Check security of container	FOOT Print on top of case	✓
	Transport Containers – Internal condition		
2.6	Check environmental monitors such as humidity indicators, shock recorders and record the location and readings on the inspection	Shock detectors OK, Humidity 20%-30% approaching Limit	
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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SECTION 2: INSPECTION OF CONTAINERS

FCU

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		✓
2.3	Packing / unpacking instructions	Performed by SAP	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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	Side Shock detectors Tripped Front Ok, Humidity 10%-20% Ok	
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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SECTION 2: INSPECTION OF CONTAINERS INSTRUMENTATION

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		✓
2.3	Packing / unpacking instructions	Performed by SAp	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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		N/A
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
2.8	Additional Remarks Check security of container		

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SECTION 2: INSPECTION OF CONTAINERS HARNESSES

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		✓
2.3	Packing / unpacking instructions	Performed by SAp	✓
2.4	Warning labels relating to handling, lifting, stacking limits		✓
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		N/A
2.7	Check mounting fixtures or brackets and screws, padding and packing.		✓
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	FPU Simulator	SERIAL NUMBER	
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable)	Check N/A or ✓
3.1	Check contents against shipping list	Unpacked by SAP	✓
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		✓
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		N/A

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SECTION 3: VISUAL INSPECTION OF HARDWARE

CI NUMBER	LTU EGSE Rack (To Be returned)	SERIAL NUMBER	
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable)	Check N/A or ✓
3.1	Check contents against shipping list	Unpacked by SAP	✓
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		✓
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		N/A

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SECTION 3: VISUAL INSPECTION OF HARDWARE

CI NUMBER	FCU (QM1)	SERIAL NUMBER	
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable)	Check N/A or ✓
3.1	Check contents against shipping list	Unpacked by SAP	✓
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		✓
3.6	Fasteners correctly locked	BSM Card lower Screw lock Card to Chassis fixing missing	
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 3: VISUAL INSPECTION OF HARDWARE

CI NUMBER	DCU (QM1)	SERIAL NUMBER	
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable)	Check N/A or ✓
3.1	Check contents against shipping list	Unpacked by SAP	✓
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		✓
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		N/A

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SECTION 3: VISUAL INSPECTION OF HARDWARE

CI NUMBER	Power Bench	SERIAL NUMBER	
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No.	Procedure	Remarks (Include any NCR Numbers if Applicable)	Check N/A or ✓
3.1	Check contents against shipping list	Unpacked by SAP	✓
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		✓
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		N/A

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Check All Connectors

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.8.1	Bent pins		✓
3.8.2.	Internal / external damage	LTU: HSIM J19 mark around skt at top of connector possible pen mark. FPU: Connector damaged Harness W025 MUST not be removed from this connector, this is NOT Recorded on EIDP NCR List.	✓
3.8.3	Internal debris		✓
3.8.4	Connector covers fitted		✓
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	DCU: JO3 Pin 13 Missing recorded on EIDP NCR List	✓

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Check any harness and associated connectors associated with the Hardware
The list of Harnesses supplied is included in acceptance test Procedure SAP-SPIRE-JF-0126-03 in EIDP.

No.	Procedure	Remarks (Include NCR Number if applicable)	Check N/A or ✓
3.9.1	Bent pins	All ok	✓
3.9.2	Internal / external damage		✓
3.9.3	Internal debris		✓
3.9.4	Protection caps fitted	None fitted	
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		✓

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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

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SECTION 4: 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	Some Cards on the FCU (MCU Part) have been incorrectly Positioned An NCR covering this is on the List in the EIDP. Does not effect this model and will be corrected on the Flight Model	✓
4.2	Electrical Interfaces Verification	This will be performed as part of the Acceptance Test and reported accordingly	✓