

PACS_Phot_SFT_Cooler_OBS
 File: H_COP_PAC_SX01.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to execute a short functional test (SFT) on the sorption cooler.

Based on procedure:
 PACS_Phot_SFT_Cooler_OBS (v1)

Summary of Constraints

This procedure should be executed on PACS request only

Spacecraft Configuration

Start of Procedure

n/a

End of Procedure

n/a

Reference File(s)

Input Command Sequences

Output Command Sequences

HCPSX01

Referenced Displays

ANDs	GRDs	SLDs
ZAZ98999		
PA011410		

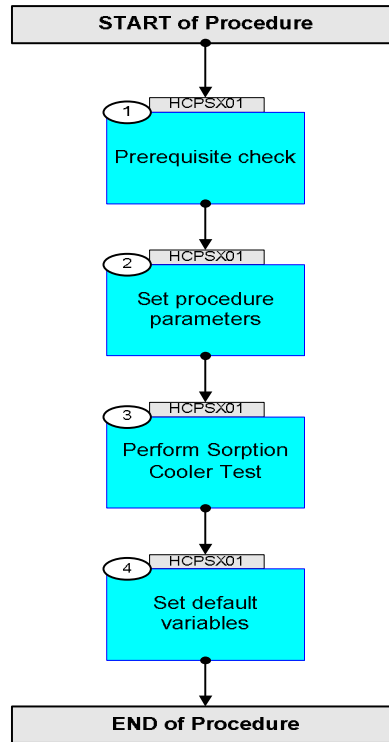
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
22/10/08		1	Created	R. Biggins	
14/11/08	2	2	Updates due to initial testing - New step (1) added for prerequisite check - Initial OBSID value changed to FP	R. Biggins	
23/03/09	2.2	3	Final updates before flight - TC flags updated - Step 3.1 and 3.4 updated due to AR HP-993	R. Biggins	
26/05/09	2.5	4	TC to set HK list moved from step 3.4 to 3.1	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DPU_SET_FUNCT DPU_SET_FUNCT Command Parameter(s) : DPU_INT_FUNC_ID PP007380 ENABLE_DISABLE PP006380 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : ENABLE OR DISABLE A DPU INTERNAL FUNCTION	PC005380 EVENT_BOL_I_SP1 DISABLE	
	ET=+00.00.00 UT=+00.00.00	Execute Telecommand DPU_SET_FUNCT Command Parameter(s) : DPU_INT_FUNC_ID PP007380 ENABLE_DISABLE PP006380 Subsch. ID : 90 Det. descr. : ENABLE OR DISABLE A DPU INTERNAL FUNCTION	PC005380 EVENT_BOL_I_SP2 ENABLE	
	ET=+00.00.01 UT=+00.00.01	DPU_SET_HK_LIST DPU_SET_HK_LIST Command Parameter(s) : HK_PACKET_ID PP005380 SPU_ARRAY PP025380 Subsch. ID : 90 Det. descr. : SET THE PREDIFINED LIST OF HK VALUES FOR THE HK PACKET	PC003380 PHOT BOTH Array	
3.2		Set heater currents		□
		NOTE: The following TCs should be sent automatically with the defined time separation		
		The following TCs will set the following thermal control parameters (in order): - Sorption cooler heater current - Evaporator heater current - Sorption cooler heater switch current		
	ET=+00.00.00 UT=+00.00.00	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 70100AE <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BOL_TEMP_SP PM406410	increasing	AND=PA011410
		Verify Telemetry BOL_TEMP_EV PM411410	small change	AND=PA011410
	ET=+00.02.00 UT=+00.02.00	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 70304FB <hex>	
		Verify Telemetry BOL_HEAT_EV_SWT PM416410	increasing	AND=PA011410
	ET=+00.02.00 UT=+00.02.00	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 70204FB <hex>	
		Verify Telemetry BOL_HEAT_SP_SWT PM415410	increasing	AND=PA011410
3.3		Reset heater currents		□
		The following TCs will reset the following thermal control parameters (in order): - Sorption cooler heater current - Evaporator heater current - Sorption cooler heater switch current		
	ET=+00.02.00 UT=+00.02.00	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 7010000 <hex>	
		Verify Telemetry BOL_TEMP_SP PM406410	decreasing	AND=PA011410
		Verify Telemetry BOL_TEMP_EV PM411410	small change	AND=PA011410

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 7030000 <hex>	
		Verify Telemetry BOL_HEAT_EV_SWT PM416410	decreasing	AND=PA011410
	ET=+00.00.01 UT=+00.00.01	DMC_SEND_COMMAND_BOLC DMC_SEND_COMMAND_BOLC Command Parameter(s) : BOLOMETER_COMMAND PP071420 Subsch. ID : 90 Det. descr. : SEND COMMAND TO BOL CONTROLLER	PC103420 7020000 <hex>	
		Verify Telemetry BOL_HEAT_SP_SWT PM415410	decreasing	AND=PA011410
3.4		Reset default monitoring functions		<input type="checkbox"/>
		The following TCs set the monitoring functions of the current running in the sorption pump heater.		
	ET=+00.00.01 UT=+00.00.01	DPU_SET_FUNCT DPU_SET_FUNCT Command Parameter(s) : DPU_INT_FUNCT_ID PP007380 ENABLE_DISABLE PP006380 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : ENABLE OR DISABLE A DPU INTERNAL FUNCTION	PC005380 EVENT_BOL_I_SP2 DISABLE	
	ET=+00.00.00 UT=+00.00.00	DPU_SET_FUNCT DPU_SET_FUNCT Command Parameter(s) : DPU_INT_FUNCT_ID PP007380 ENABLE_DISABLE PP006380 Subsch. ID : 90 Det. descr. : ENABLE OR DISABLE A DPU INTERNAL FUNCTION	PC005380 EVENT_BOL_I_SP1 ENABLE	
4		Set default variables		Next Step: END

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DMC_SET_OBSID Command Parameter(s) : OBSERVATION_ID PP069420 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : SET OBSID IN DMC	PC078420 00000000 <hex>	
	ET=+00.00.00 UT=+00.00.00	DMC_SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID PP070420 Subsch. ID : 90 Det. descr. : SET BBID IN DMC	PC079420 40000000 <hex>	
		Verify Telemetry DM_OBSID PM028420	= 00000000 <hex>	AND=ZAZ98999
		Verify Telemetry DM_BBID PM029420	= 40000000 <hex>	AND=ZAZ98999
End of Procedure				