

PACS_Spec_Gra_Healthcheck_OBS
 File: H_COP_PAC_G003.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to execute a basic healthcheck of the grating (homes the grating and performs moves to Min->Max->Min positions)

Based on procedure:
 PACS_Spec_Gra_Healthcheck_OBS_09_10_2007_01

Summary of Constraints

This procedure should be executed as part of the Short Functional Test (HeII conditions)

RT Science must be enabled to receive the Diagnostic HK packets

Spacecraft Configuration

Start of Procedure

PACS is in NO_PRIME mode
 - PACS is generating Spectroscopy HK
 - PACS is generating Diagnostic HK

End of Procedure

PACS is in NO_PRIME mode
 - PACS is generating Spectroscopy HK
 - PACS is generating Diagnostic HK

Reference File(s)

Input Command Sequences

Output Command Sequences

HCPG003

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZ98999
 PA016420

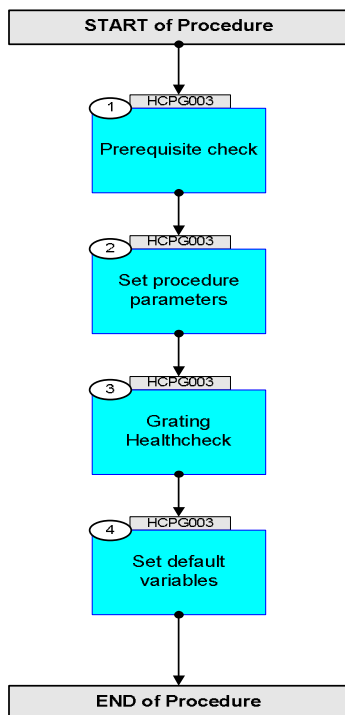
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
24/07/08	1	1	Created	R. Biggins	
13/11/08	2	2	Updates due to initial testing - New step (1) added for prerequisite check - Initial OBSID value changed to FP	R. Biggins	
02/04/09	2.3	3	Final updates before flight - Summary updated - TC flags updated	R. Biggins	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
TC Seq. Name :HCPG003 (Grating Healthcheck)				
TimeTag Type: B Sub Schedule ID: <input type="checkbox"/>				
1		Prerequisite check		Next Step: 2
1.1		HSC/ICC input		<input type="checkbox"/>
		Verify that the HSC/ICC has supplied a valid OBSID value: OBS_ID = 0xnnnn nnnn		
2		Set procedure parameters		Next Step: 3
	ET=+00.00.00 UT=+00.00.00	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	DMC_SET_OBSID PC078420 OBS_ID	
	ET=+00.00.01 UT=+00.00.01	DMC_SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID PP070420 Subsch. ID : 90 Det. descr. : SET BBID IN DMC	DMC_SET_BBID PC079420 40AF0001 <hex>	
		Verify Telemetry DM_OBSID PM028420	OBS_ID	AND=ZAZ98999
		Verify Telemetry DM_BBID PM029420	= 40AF0001 <hex>	AND=ZAZ98999
3		Grating Healthcheck		Next Step: 4
		The following TCs should be sent automatically with the defined time separation.		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	DMC_HOME_GRAT DMC_HOME_GRAT Command Parameter(s) : HOMING_MODE PP077420 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 90 Det. descr. : MOVE GRATING TO THE HOME POSITION	PC114420 NEGATIVE	
	ET=+00.01.10 UT=+00.01.10	DMC_MOVE_GRAT_ABS_RAW DMC_MOVE_GRAT_ABS Command Parameter(s) : SET_POINT PP079420 Subsch. ID : 90 Det. descr. : MOVE GRATING TO AN ABSOLUTE POSITION	PC112420 500000 <dec>	
		Verify Telemetry DM_GRAT_CUR_POS PM054420	= 500000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_SETPOIN PM055420	= 500000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_TARGET PM056420	= 500000 <dec>	AND=PA016420
	ET=+00.00.05 UT=+00.00.05	DMC_MOVE_GRAT_ABS_RAW DMC_MOVE_GRAT_ABS Command Parameter(s) : SET_POINT PP079420 Subsch. ID : 90 Det. descr. : MOVE GRATING TO AN ABSOLUTE POSITION	PC112420 115000 <dec>	
		Verify Telemetry DM_GRAT_CUR_POS PM054420	= 115000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_SETPOIN PM055420	= 115000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_TARGET PM056420	= 115000 <dec>	AND=PA016420
	ET=+00.00.25 UT=+00.00.25	DMC_MOVE_GRAT_ABS_RAW DMC_MOVE_GRAT_ABS Command Parameter(s) : SET_POINT PP079420 Subsch. ID : 90 Det. descr. : MOVE GRATING TO AN ABSOLUTE POSITION	PC112420 990000 <dec>	
		Verify Telemetry DM_GRAT_CUR_POS PM054420	= 990000 <dec>	AND=PA016420

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry DM_GRAT_SETPOIN PM055420	= 990000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_TARGET PM056420	= 990000 <dec>	AND=PA016420
	ET=+00.00.49 UT=+00.00.49	DMC_MOVE_GRAT_ABS_RAW DMC_MOVE_GRAT_ABS Command Parameter(s) : SET_POINT PP079420 Subsch. ID : 90 Det. descr. : MOVE GRATING TO AN ABSOLUTE POSITION	PC112420 115000 <dec>	
		Verify Telemetry DM_GRAT_CUR_POS PM054420	= 115000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_SETPOIN PM055420	= 115000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_TARGET PM056420	= 115000 <dec>	AND=PA016420
	ET=+00.00.49 UT=+00.00.49	DMC_MOVE_GRAT_ABS_RAW DMC_MOVE_GRAT_ABS Command Parameter(s) : SET_POINT PP079420 Subsch. ID : 90 Det. descr. : MOVE GRATING TO AN ABSOLUTE POSITION	PC112420 500000 <dec>	
		Verify Telemetry DM_GRAT_CUR_POS PM054420	= 500000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_SETPOIN PM055420	= 500000 <dec>	AND=PA016420
		Verify Telemetry DM_GRAT_TARGET PM056420	= 500000 <dec>	AND=PA016420
		Offline analysis of the grating diagnostic HK by the ICCs will provide more details on the move characteristics but is not required for the successful completion of this procedure		
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				