

PACS_Spec_CRE_Setup_Cold_OBS
 File: H_COP_PAC_D202.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to set the bias values of the signal to the CRE (cryogenic readout electronics)
 - Normally only the blue detector will be heated, only for eventual detector curing after radiation hits, the red detector has also a heater. It is correct that at this point only the blue heater is commanded.

Based on procedure:
 PACS_Spec_CRE_Setup_Cold_OBS (v1)

Summary of Constraints

This procedure should be executed as part of the Short Functional Test (HeII conditions)
 This procedure may also be executed on PACS request

Spacecraft Configuration

Start of Procedure

PACS in NO_PRIME (SAFE) mode

End of Procedure

PACS in NO_PRIME (SAFE) mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HCPD202

Referenced Displays

ANDs GRDs SLDs
 ZAZ98999
 PA022420

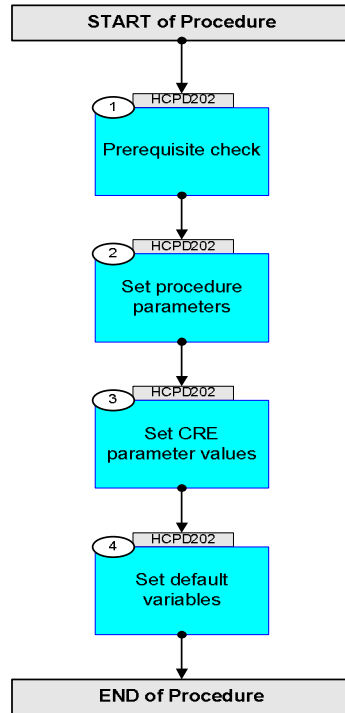
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
15/08/08		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	
15/04/09	2.3	2.01	Validation : Final updates before flight - Summary updated - TC flags updated	R. Biggins	

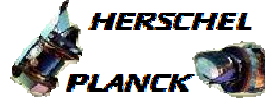
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Procedure Flowchart Overview

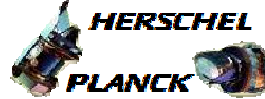


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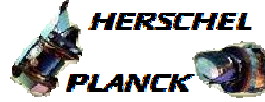
Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Subsch. ID : 90 Det. descr. : WRITE THE BLUE SPECTROMETER PARAMETERS		
	ET=+00.00.01 UT=+00.00.01	DMC_WRT_R_SPEC_PAR_RAW DMC_WRT_R_SPEC_PAR Command Parameter(s) : DMC_CLOCKS PP095420 32 <dec> DMC_READOUTS PP096420 64 <dec> DMC_CRE_CTRL_REG PP097420 387 <dec> DMC_BIAS_R PP098420 12 <dec> DMC_BIAS_D PP099420 287 <dec> DMC_SIMUL_REG PP100420 0 <dec> DMC_CHECKSUM PP066420 A42 <hex> Subsch. ID : 90 Det. descr. : WRITE THE RED SPECTROMETER PARAMETERS	PC173420	
		The following TCs will copy the parameters from the buffers into both the Red and Blue DEC		
	ET=+00.00.01 UT=+00.00.01	DMC_SET_PAR_BOTH_SPEC Subsch. ID : 90 Det. descr. : SEND COMPLETE PARAMETERS TABLE TO BOTH DECS	DMC_SET_PAR_BOTH_SPEC	PC094420
	ET=+00.00.01 UT=+00.00.01	DMC_SET_PAR_B_SPEC Subsch. ID : 90 Det. descr. : SEND COMPLETE PARAMETERS TABLE TO BLUE DEC	DMC_SET_PAR_B_SPEC	PC086420
	ET=+00.00.01 UT=+00.00.01	DMC_SET_PAR_R_SPEC Subsch. ID : 90 Det. descr. : SEND COMPLETE PARAMETERS TABLE TO RED DEC	DMC_SET_PAR_R_SPEC	PC093420
		The following TC will switch off the blue spectrometer heater		
	ET=+00.00.01 UT=+00.00.01	DMC_SET_B_SPEC_HEAT_C_RAW DMC_SET_B_SPEC_HEAT_C Command Parameter(s) : CURRENT PP073420 0 <dec> Subsch. ID : 90 Det. descr. : SET BLUE DEC HEATER CURRENT	DMC_SET_B_SPEC_HEAT_C	PC087420
3.1		Verify Blue Spectrometer parameters		☐
		Verify Telemetry DM_DECB_RO_RA_3 PM094420	= 64 <dec>	AND=PA022420

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry DM_DECB_RO_RA_4	PM128420	= 64 <dec> AND=PA022420
		Verify Telemetry DM_DECB_BR_CM_3	PM096420	= 0.003 V AND=PA022420
		Verify Telemetry DM_DECB_BR_CM_4	PM130420	= 0.003 V AND=PA022420
		Verify Telemetry DM_DECB_ZB_CM_3	PM097420	= 0.070 V AND=PA022420
		Verify Telemetry DM_DECB_ZB_CM_4	PM131420	= 0.070 V AND=PA022420
		The following parameters indicate the capacitor setting readback (bit 2-3 = 00 = 0.1pF)		
		Verify Telemetry DM_DECB_CR_ST_3	PM095420	bit 2-3 = 00 AND=PA022420
		Verify Telemetry DM_DECB_CR_ST_4	PM129420	bit 2-3 = 00 AND=PA022420
3.2		Verify Red Spectrometer parameters		□
		Verify Telemetry DM_DECR_RO_RA_1	PM162420	= 64 <dec> AND=PA022420
		Verify Telemetry DM_DECR_RO_RA_2	PM196420	= 64 <dec> AND=PA022420
		Verify Telemetry DM_DECR_BR_CM_1	PM164420	= 0.003 V AND=PA022420
		Verify Telemetry DM_DECR_BR_CM_2	PM198420	= 0.003 V AND=PA022420
		Verify Telemetry DM_DECR_ZB_CM_1	PM165420	= 0.210 V AND=PA022420
		Verify Telemetry DM_DECR_ZB_CM_2	PM199420	= 0.210 V AND=PA022420
		The following parameters indicate the capacitor setting readback (bit 2-3 = 00 = 0.1pF)		
		Verify Telemetry DM_DECR_CR_ST_1	PM163420	bit 2-3 = 00 AND=PA022420
		Verify Telemetry DM_DECR_CR_ST_2	PM197420	bit 2-3 = 00 AND=PA022420
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				