

PACS\_Phot\_SPU\_Setup\_OBS  
 File: H\_COP\_PAC\_D304.xls  
 Author: R. Biggins



## Procedure Summary

### Objectives

The objective of this procedure is to setup the SPU for the bolometer detector chain tests

Based on procedure:  
 PACS\_Phot\_SPU\_Setup\_OBS (v1)

### 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 Science HK packets

### Spacecraft Configuration

#### Start of Procedure

PACS in NO\_PRIME (SAFE) mode  
 - PACS is generating Photometry HK  
 - PACS is generating Science HK

#### End of Procedure

PACS in NO\_PRIME (SAFE) mode  
 - PACS is generating Photometry HK  
 - PACS is generating Science HK

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HCPD304

### Referenced Displays

ANDs      GRDs      SLDs  
 ZAZ98999

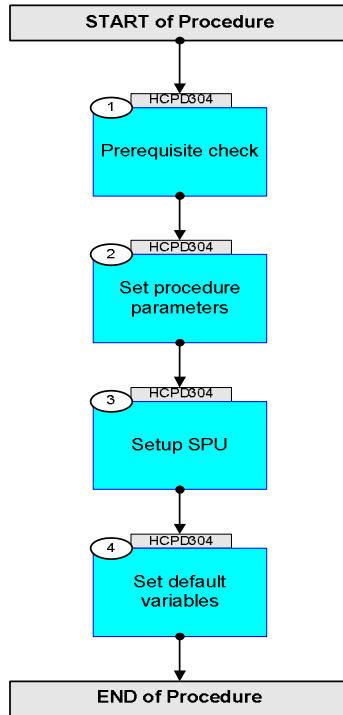
### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
26/08/08		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
<b>Beginning of Procedure</b>				
TC Seq. Name : HCPD304 (Setup SPU)				
TimeTag Type: B Sub Schedule ID:  □				
1		Prerequisite check		Next Step: 2
1.1		HSC/ICC input		□
		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	PC078420  OBS_ID	
		Verify Telemetry  DM_OBSID                   PM028420	OBS_ID	AND=ZAZ98999
3		Setup SPU		Next Step: 4
		The following TCs stop the SPU ASW		
	ET=+00.00.01 UT=+00.00.01	SPUS_STOP_REDUCT_COMPR  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 90 Det. descr. : STOP THE APPLICATION PROGRAM IN SPU_SWL	PC037400	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+00.00.01 UT=+00.00.01	SPUL_STOP_REDUCT_COMPR  Subsch. ID : 90 Det. descr. : STOP THE APPLICATION PROGRAM IN SPU_LWL	PC038390	
		The following TC inserts the defined words into the packet sent to the DPU and indicates the SPU transmission mode		
	ET=+00.00.01 UT=+00.00.01	Execute Telecommand  DMC_WRT_SPU_TRAN_MODE  Command Parameter(s) : DMC_4_BYTES_WORDS_DATA      PP067420 DMC_4_BYTES_WORDS_DATA      PP067420 DMC_CHECKSUM      PP066420  Subsch. ID : 90 Det. descr. : WRITE THE SPU TRASMISSION MODE	PC175420  0 <hex> 0 <hex> 313E <hex>	
		The following TCs selects the number and index of raw channel for the Red and Blue SPU channels		
	ET=+00.00.01 UT=+00.00.01	SPUS_RAW_CHAN_TRAN_MODE  Subsch. ID : 90 Det. descr. : RAW CHANNEL TRANSMISSION MODE FOR SPUS	PC035400  PHOT 0 <dec> 1 <dec>	
	ET=+00.00.01 UT=+00.00.01	SPUL_RAW_CHAN_TRAN_MODE  Subsch. ID : 90 Det. descr. : RAW CHANNEL TRANSMISSION MODE FOR SPUL	PC036390  PHOT 0 <dec> 1 <dec>	
		The following TCs are used to write the table of the photoconductors constants, which are relevant for the pre-processing step.		



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_4_BYTES_WORDS_DATA PP037390 SPUL_CHECKSUM PP036390	0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 0 <hex> 5F01 <hex>	
		<i>Subsch. ID : 90</i> Det. descr. : WRITE DETECTOR CONSTANTS FOR THE RED PHOTOMETER ARRAY		
	ET=+00.00.01 UT=+00.00.01	DPU_SEND_TIME  <i>Subsch. ID : 90</i> Det. descr. : DPU SENDS THE TIME TO DEC/MEC	DPU_SEND_TIME  PC007380	
	ET=+00.00.01 UT=+00.00.01	DMC_SET_TIME  <i>Subsch. ID : 90</i> Det. descr. : SET THE TIME PREVIOUSLY WRITTEN BY THE WRITE TIME COMMAND	DMC_SET_TIME  PC077420	
		The following TCs start the SPU ASW		
	ET=+00.00.01 UT=+00.00.01	SPUS_START_REDUCT_COMPR  <i>Subsch. ID : 90</i> Det. descr. : START THE APPLICATION PROGRAM IN SPU_SWL	SPUS_START_REDUCT_COMPR  PC039400	
	ET=+00.00.01 UT=+00.00.01	SPUL_START_REDUCT_COMPR  <i>Subsch. ID : 90</i> Det. descr. : START THE APPLICATION PROGRAM IN SPU_LWL	SPUL_START_REDUCT_COMPR  PC040390	
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
<b>End of Procedure</b>				