

Switch OFF the SCU Thermometry
 File: H_FCP_SPI_SCUF.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to switch OFF the SCU Thermometry

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in SCU_ON mode

End of Procedure

SPIRE is in DRCU_ON mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSSCUF

Referenced Displays

ANDs	GRDs	SLDs
SA_7_559		
SA_1_559		

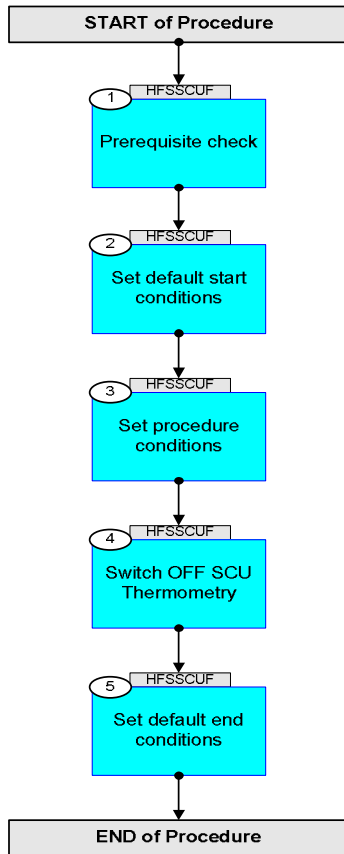
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
07/08/07		1	Created	R. Biggins	
15/01/08		2	Update due to initial testing against the simulator: - TCs updated due to new DB	R. Biggins	
24/01/08		3	Update due to changes in input file (SCU_OFF: version 3) - Execution times removed	R. Biggins	
22/02/08		4	 Update due to testing against MOC Simulator: - Time Tags updated - BBID/OBSID TM checks added - Editorial updates	R. Biggins	
03/03/08		4.01	Validation : Update due to comments by S. Sidher: - Editorial updates	R. Biggins	
19/05/08	1	5	Updates due to SVT-1 testing: - TM checks added to RESET_DRCU_COUNTERS TC - TM checks SCAL2CURR and SCAL4CURR in step 4 updated [= 0] - Default OBSID value updated to 0x0000 0000 - Flags updated - Comments added/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				
HFSSCUF Switch OFF SCU				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= SCU_ON	AND=SA_7_559
		Verify Telemetry SCUTEMPSTAT SM_1F520	= FFFF <hex>	AND=SA_7_559
		Verify Telemetry SUBKSTAT SMK0F520	= 1 <hex>	AND=SA_7_559
2		Set default start conditions		Next Step: 3
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SC001500 80010001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= ClearObs	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 SSID : 370	SC000500 00000000 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry OBSID SM10N500	= 00000000 <hex>	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SC001500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SC001500 80020001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= StartObs	AND=SA_7_559
3		Set procedure conditions		Next Step: 4
	ET=+ UT=+00.00.00	RESET_DRCU_COUNTERS RESET_DRCU_COUNTERS SSID : 370	SCD00505	
		Verify that the TRESET parameter has the same value as the THSK parameter TRESET SM01T500	same as THSK	AND=SA_1_559
		THSK SM00T500	any	AND=SA_1_559
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SSID : 370	SET_OBS_STEP SP03N500 1 <hex>	SC003500
	ET=+ UT=+00.00.01	SET_OBSID Command Parameter(s) : OBSERVATION_ID SSID : 370	SET_OBSID SP00N500 OBS_ID	SC000500
		Verify Telemetry OBSID SM10N500	OBS_ID	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SSID : 370	SET_OBS_STEP SP03N500 0 <hex>	SC003500
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SSID : 370	SET_BBID SP01N500 80000000 <hex>	SC001500
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SSID : 370	SET_OBS_STEP SP03N500 0 <hex>	SC003500
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SSID : 370	SET_BBID SP01N500 8A0C0001 <hex>	SC001500
		Verify Telemetry BBFULLTYPE SM2LN500	= SCU_Off	AND=SA_7_559

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 SSID : 370	SC002500 1ff <hex>	
		Verify Telemetry MODE SM00M500	= SCU_OFF	AND=SA_7_559
4		Switch OFF SCU Thermometry		Next Step: 5
	ET=+ UT=+00.00.01	Send DRCU command to SetTempOnOff SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0850000 <hex> 0 <hex> (Def)	
		Verify Telemetry SCUTEMPSTAT SM_1F520	= 0000 <hex>	AND=SA_7_559
	ET=+ UT=+00.00.01	Send DRCU command to SetSubKOnOff SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0860000 <hex> 0 <hex> (Def)	
		Verify Telemetry SUBKSTAT SMK0F520	= 0 <hex>	AND=SA_7_559
	ET=+ UT=+00.00.01	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0C40000 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0C50000 <hex> 0 <hex> (Def)	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0C60000 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0C70000 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	Send DRCU command SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0C80000 <hex> 0 <hex> (Def)	
	ET=+ UT=+00.00.01	Send DRCU command to SetSCal2Bias SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0CA0000 <hex> 0 <hex> (Def)	
		Verify Telemetry SCAL2CURR SMS0A520	= 0.0 mA	AND=SA_7_559
	ET=+ UT=+00.00.01	Send DRCU command to SetScal4Bias SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 A0CC0000 <hex> 0 <hex> (Def)	
		Verify Telemetry SCAL4CURR SMS1A520	= 0.0 mA	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 SSID : 370	SC002500 100 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry MODE SM00M500	= DRCU_ON	AND=SA_7_559
5		<i>Set default end conditions</i>		Next Step: END
		Note that a TM(5,1) packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SC001500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SC001500 80030001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= EndObs	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 1 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	SET_OBSID Command Parameter(s) : OBSERVATION_ID SSID : 370	SET_OBSID SP00N500 00000000 <hex>	
		Verify Telemetry OBSID	SM10N500 = 00000000 <hex>	AND=SA_7_559
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SSID : 370	SET_OBS_STEP SP03N500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SSID : 370	SET_BBID SP01N500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE	SM2LN500 = Null	AND=SA_7_559
End of Procedure				