

SMEC_ON - Switch ON the SMEC
 File: H_FCP_SPI_SMCN.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to switch on the spectrometer mechanism (SMEC)

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in BSM_INIT mode

End of Procedure

SPIRE is in SMEC_ON mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSSMCN

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZ94999

Configuration Control Information

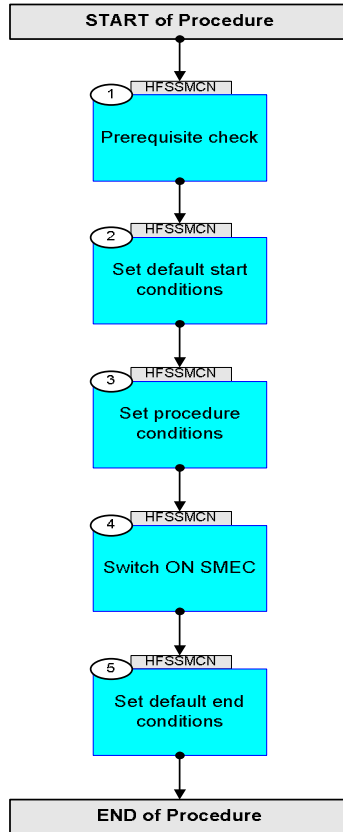
DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
07/08/07		1	Created	R. Biggins	
15/01/08		2	Update due to initial testing against the simulator: - TCs updated due to new DB	R. Biggins	
23/01/08		3	Update due to changes in input file (SMEC_ON: version 4) - OBSID/BBID TCs added - Additional DRCU Command TCs added - 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		5	Update due to comments by S. Sidher: - Missing DRCU commands and associated telemetry checks added	R. Biggins	
19/05/08	1	6	Updates due to SVT-1 testing: - TM parameters added to RESET_DRCU_COUNTERS telecommand (step 3) - radix updated for SMECENCPCR and SMECLVDTPWR telemetry parameters - Default OBSID value updated to 0x0000 0000 - flags updated - comments added - AND updated for all TM parameters	R. Biggins	

Status : Version 6 - Unchanged
 Last Checkin: 19/05/08

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
HFSSMCN Switch ON SMEC				
SSID :				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	= BSM_INIT	AND=ZAZ94999
		Verify Telemetry SMECENC PWR SMS0W515	= 0.00 uW	AND=ZAZ94999
		Verify Telemetry SMECLVDTPWR SMS1W515	= OFF	AND=ZAZ94999
		Verify Telemetry BSW_SDB_ActProf DEF5F160	= 3 <dec>	AND=ZAZ94999
2		Set default start conditions		Next Step: 3
		Note that a TM(5,1) [New_Step_Report] is generated after every SET_OBS_STEP TC		
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SET_OBS_STEP SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 SSID : 370	SET_BBID SC001500 80010001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= ClearObs	AND=ZAZ94999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SET_OBS_STEP 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 B0000000 <hex>	
		Verify Telemetry OBSID	SM10N500 = B0000000 <hex>	AND=ZAZ94999
	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=ZAZ94999
	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 80020001 <hex>	
		Verify Telemetry BBFULLTYPE	SM2LN500 = StartObs	AND=ZAZ94999
3		Set procedure conditions		Next Step: 4
	ET=+ UT=+00.00.00	RESET_DRCU_COUNTERS SSID : 370	RESET_DRCU_COUNTERS SCD00505	
		Verify that the TRESET parameter has the same value as the THSK parameter TRESET	SM01T500 same as THSK	AND=ZAZ94999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		THSK SM00T500	any	AND=ZAZ94999
		Note that a TM(5,1) [New_Step_Report] is generated after every SET_OBS_STEP TC		
	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=ZAZ94999
	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=ZAZ94999
	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 82010001 <hex>	SC001500

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BBFULLTYPE SM2LN500	= Switch_On_FTS	AND=ZAZ94999
	ET=+ UT=+00.00.00	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 SSID : 370	SC002500 204 <hex>	
		Verify Telemetry MODE SM00M500	= SMEC_ON	AND=ZAZ94999
4		Switch ON SMEC		Next Step: 5
	ET=+ UT=+00.00.01	Send DRCU command to SetSFeedFwdGain SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 90544E26 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECFFGAIN SMS5N515	= 4E26 <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetSEncoderPwr SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 90400001 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECENC PWR SMS0W515	= 1.00 uW	AND=ZAZ94999
	ET=+ UT=+00.00.06	Send DRCU command to SetEncoderSignal1Offset SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 9058D6D8 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECENC SIG1OFF SMS7A515	= D6D8 <hex>	AND=ZAZ94999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	Send DRCU command to SetEncoderSignal2Offset SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 905AB798 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECENCISIG2OFF SMS9A515	= B798 <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetSLVDTPwr SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 90410001 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECLVDTPWR SMS1W515	= ON	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetLVDTScale SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 905F161C <hex> 0 <hex> (Def)	
		Verify Telemetry SMECLVDTSKALE SMSBN515	= 0.690520 mm	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetLVDTOffset SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 905E1F40 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECLVDTOFFSET SMS2B515	= 8.0000 mm	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetSKi SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 904D0000 <hex> 0 <hex> (Def)	
		Verify Telemetry SMECKI SMG2N515	= 0 <hex>	AND=ZAZ94999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param4 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91D4006B <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM04 SMMDN515	= 6B <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param9 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91D90058 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM09 SMMJN515	= 58 <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param10 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91DA006F <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM10 SMMKN515	= 6F <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param11 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91DB0057 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM11 SMLLN515	= 57 <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param12 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91DC006E <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM12 SMMM515	= 6E <hex>	AND=ZAZ94999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param13 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91DD0069 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM13 SMMNN515	= 69 <hex>	AND=ZAZ94999
	ET=+ UT=+00.00.01	Send DRCU command to SetPack14Param14 SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 SSID : 370	SCD06505 91DE0065 <hex> 0 <hex> (Def)	
		Verify Telemetry MCUPCKT14PARAM14 SMPNP515	= 65 <hex>	AND=ZAZ94999
5		Set default end conditions		Next Step: END
		Note that a TM(5,1) [New_Step_Report] is generated after every SET_OBS_STEP TC		
	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=ZAZ94999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 SSID : 370	SC003500 0 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SSID : 370	SET_BBID SP01N500 80030001 <hex>	
		Verify Telemetry BBFULLTYPE	SM2LN500 = EndObs	AND=ZAZ94999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SSID : 370	SET_OBS_STEP SP03N500 1 <hex>	
	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=ZAZ94999
	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=ZAZ94999
End of Procedure				