

Lifeb SpireEngSmecLedLvdt Switch on SMEC LED and LVDT  
 File: H\_CRP\_SPI\_SMLN.xls  
 Author: R. Biggins



## Procedure Summary

### Objectives

This procedure will switch on the SMEC LED and the LVDT sensor power as part of a SPIRE contingency recovery.

This observation just switches on the SMEC LED and LVDT sensor. It was generated especially for some SMEC switch on specific circumstances

Execution of this procedure will achieve SMEC temperature stability before the start of spectrometer observations. No RT science will be generated.

Co-ordination with SPIRE ICC and HSC is required.

Based on procedure:SpireEngSmecLedLvdt Version 2  
 Generated:06/07/2010

### Summary of Constraints

### Spacecraft Configuration

#### Start of Procedure

SPIRE mode = REDY

#### End of Procedure

SPIRE mode = REDY

### Reference File(s)

#### Input Command Sequences

#### Output Command Sequences

HRSSMLN

### Referenced Displays

ANDs      GRDs      SLDs  
 SA\_7\_559  
 ZAZ90999

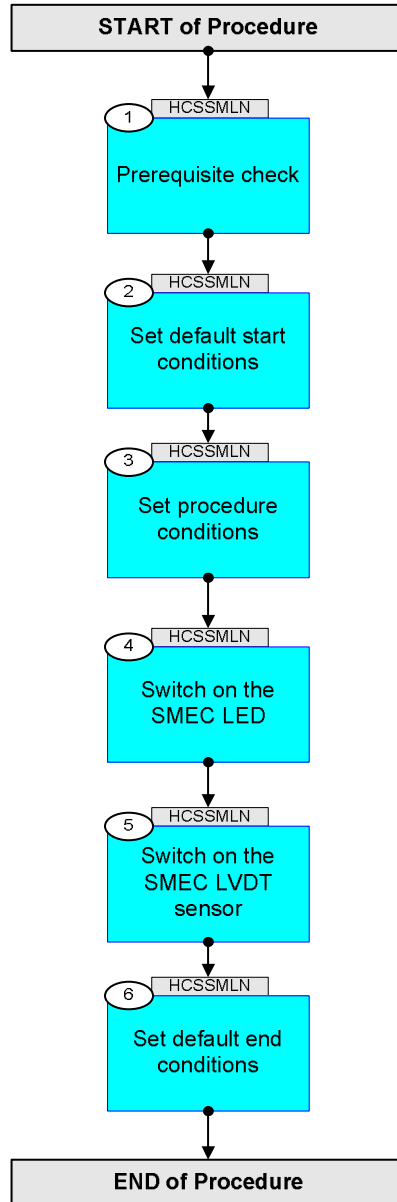
### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
25/11/2010		1	Created	L.Lucas-hp	
05/04/2011	3.1	2	Minimum delta between TCs updated to 1 second	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>				
<p><i>TC Seq. Name :HRSSMLN (LifebSMEC LVDT LEDOn)</i></p> <p><i>TimeTag Type: Y</i>  <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
1		<i>Prerequisite check</i>		Next Step: 2
1.1		<i>HSC/ICC input</i>		□
		<p>Verify that the HSC has supplied a valid OBSID value:</p> <p><b>OBS_ID = 0xnnnn nnnn</b></p>		
1.2		<i>TM Checks</i>		□
		<p>Check Telemetry, for comparison later</p> <p style="text-align: center;"><b>TM2N                    SMT1N500</b></p>		AND=SA_7_559
		<p>Check Telemetry, for comparison later</p> <p style="text-align: center;"><b>THSK                    SM00T500</b></p>		AND=SA_7_559
		<p>Check telemetry, for comparison later</p> <p style="text-align: center;"><b>MODE                    SM00M500</b></p>		AND=SA_7_559
2		<i>Set default start conditions</i>		Next Step: 3
		Note that a <b>TM(5,1)</b> packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.01	<p>SET_OBS_STEP</p> <p style="text-align: center;"><b>SET_OBS_STEP</b></p> <p><i>Command Parameter(s) :</i></p> <p style="text-align: center;"><b>OBSERVATION_STEP                    SP03N500</b></p> <p><i>TC Control Flags :</i></p> <p style="text-align: center;"><b>GBM IL DSE</b>  <b>--Y -- ---</b></p> <p><i>Subsch. ID : 370</i>  <i>Det. descr. : SET OBSERVATION STEP</i></p>	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  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID  SP01N500  8001500  80010001 <hex>	
		Verify Telemetry  BBFULLTYPE	SM2LN500  = ClearObs	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP  TC Control Flags :  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP  SP03N500  GBM IL DSE --Y -- ---  1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID  Command Parameter(s) : OBSERVATION_ID  Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SET_OBSID  SP00N500  SC000500  00000000 <hex>	
		Verify Telemetry  OBSID	SM10N500  = 00000000 <hex>	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP  TC Control Flags :  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP  SP03N500  GBM IL DSE --Y -- ---  0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID  SP01N500  SC001500  80000000 <hex>	
		Verify Telemetry  BBFULLTYPE	SM2LN500  = Null	AND=ZAZ90999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.01	SET_OBS_STEP  SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP SP03N500  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500  0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID  SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID SP01N500  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500  80020001 <hex>	
		Verify Telemetry  BBFULLTYPE SM2LN500	= SpireBbStartOb	AND=ZAZ90999
3		Set procedure conditions		Next Step: 4
	ET=+ UT=+00.00.01	RESET_DRCU_COUNTERS  RESET_DRCU_COUNTERS  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : RESET DRCU COUNTERS	SCD00505	
		Verify that the TRESET parameter has the same value as the THSK parameter  TRESET SM01T500	same as THSK	AND=ZAZ90999
		THSK SM00T500	any	AND=ZAZ90999
		Note that a <b>TM(5,1)</b> packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.01	SET_OBS_STEP  SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP SP03N500  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : SET OBSERVATION 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  Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SET_OBSID  SP00N500  OBS_ID	SC000500
		Verify Telemetry  OBSID  SM10N500	OBS_ID	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP  TC Control Flags :  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP  SP03N500  GBM IL DSE --Y -- ---	SC003500  0 <hex>
	ET=+ UT=+00.00.01	SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID  SP01N500	SC001500  8d610001 <hex>
		Verify Telemetry  BBFULLTYPE  SM2LN500	8D61 (h)	AND=ZAZ90999
4		Switch on the SMEC LED		Next Step: 5
	ET=+ UT=+00.00.01	SEND_DRCU_COMMAND_RAW  Command Parameter(s) : DRCUCOMMAND OVERRIDE  TC Control Flags :  Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SEND_DRCU_COMMAND  SPD4N505 SPD9N505  GBM IL DSE --Y -- ---	SCD06505  90400001 <hex> 0 <hex> (Def)
5		Switch on the SMEC LVDT sensor		Next Step: 6

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.04	SEND_DRCU_COMMAND_RAW  SEND_DRCU_COMMAND  Command Parameter(s) : DRCUCOMMAND                   SPD4N505 OVERRIDE                   SPD9N505  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505  90410001 <hex> 0 <hex> (Def)	
6		Set default end conditions		Next Step: END
		Note that a <b>TM(5,1)</b> packet [New_Step_Report] is generated after each of the following SET_OBS_STEP telecommands		
	ET=+ UT=+00.00.01	SET_OBS_STEP  SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP                   SP03N500  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500  0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID  SET_BBID  Command Parameter(s) : BUILDING_BLOCK_ID                   SP01N500  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500  80030001 <hex>	
		Verify Telemetry  BBFULLTYPE                   SM2LN500	= EndObs	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBS_STEP  SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP                   SP03N500  TC Control Flags :  GBM IL DSE --Y -- ---  Subsch. ID : 370 Det. descr. : SET OBSERVATION 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  Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SET_OBSID  SP00N500  00000000 <hex>	
		Verify Telemetry  OBSID SM10N500	= 00000000 <hex>	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBS_STEP  Command Parameter(s) : OBSERVATION_STEP  TC Control Flags :  Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP  SP03N500  GBM IL DSE --Y -- ---	
	ET=+ UT=+00.00.01	SET_BBID_RAW  Command Parameter(s) : BUILDING_BLOCK_ID  Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID  SP01N500  80000000 <hex>	
		Verify Telemetry  BBFULLTYPE SM2LN500	= Null	AND=ZAZ90999
	ET=+ UT=+00.00.01	SET_OBSID_RAW  Command Parameter(s) : OBSERVATION_ID  TC Control Flags :  Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SET_OBSID  SP00N500  GBM IL DSE --Y -- ---	
<b>End of Procedure</b>				