

DRCU_START - Switch ON the redundant DRCU
 File: H_FCP_SPI_RDRN.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to switch ON the REDUNDANT Detector Readout and Control Unit (DRCU)

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

SPIRE is in DPU_ON mode

End of Procedure

SPIRE is in DRCU_ON mode

Reference File(s)

Input Command Sequences

Output Command Sequences

HFSRDRN

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZ95999

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 (DRCU_START: version 3) - Execution times removed - OBSID/BBID TCs added	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	

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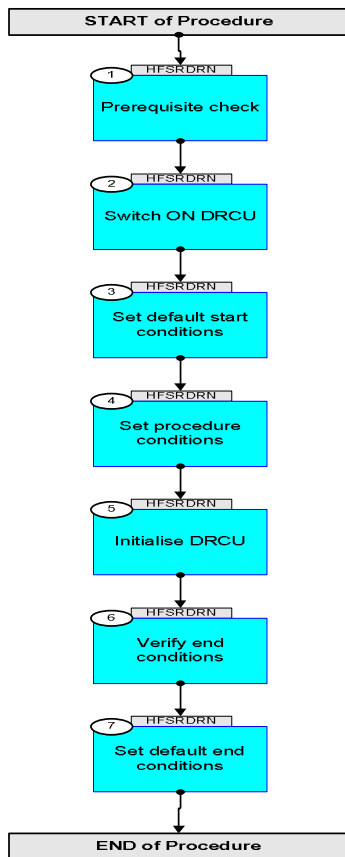


			Updates due to SVT-1 testing: <ul style="list-style-type: none"> - Step 2.1 and 2.4 removed (TCs to enable/disable SDB FDIR removed) - All DRCU commands in step 5 have been set for automatic dispatch with a 5 second frequency - DRCU command with parameter SPD4N505 = 0x8438001 to be associated with TM parameter SLWJFET1V - Default OBSID value updated to 0x0000 0000 - Flags updated - Comments added/updated - AND updated for all TM parameters 		
19/05/08	1	5		R. Biggins	
25/03/09	2.2	5.01	Validation : Automatic SPID Update	L.Lucas-hp	

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Procedure Flowchart Overview



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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
Beginning of Procedure				
TC Seq. Name : HFSRDRN (Switch ON DRCU (red))				
TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Prerequisite check		Next Step: 2
		Verify Telemetry MODE SM00M500	DPU_ON	AND=ZAZ95999
2		Switch ON DRCU		Next Step: 3
2.1		Stop HK report generation		<input type="checkbox"/>
		WARNING: The following TCs will stop production of HK packets from SPIRE. It is essential that the FCU LCL is switched ON and the HK restarted before the spacecraft FDIR time-out is reached (90 seconds) and the RT considered 'invalid', and TM declared 'sick'		
	ET=+ UT=+00.00.00	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 Subsch. ID : 370 Det. descr. : CLEAR HOUSEKEEPING PARAMETER REPORT DEFINITION	SCR01500 300 <hex>	
		Verify: Packet is not being generated R_Critical_HK_Parameter_Report Packet Details: APID: 1281 Type: 3 Subtype: 25 PI1: 768 PI2:	SCRITHK00559	
	ET=+ UT=+00.00.00	CLEAR_HK_REPORT CLEAR_HK_REPORT Command Parameter(s) : PCKTID_CLEARHK SPR6N500 Subsch. ID : 370 Det. descr. : CLEAR HOUSEKEEPING PARAMETER REPORT DEFINITION	SCR01500 301 <hex>	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify: Packet is not being generated R_Nominal_HK_Parameter_Report Packet Details: APID: 1283 Type: 3 Subtype: 25 PI1: 769 PI2:	SNOMHK000559	
2.2		Power ON DRCU and Enable HK Reports		<input type="checkbox"/>
		Upon LCL switch ON, two TM(5,1) packets [R_No_SCU_Response_Clear, R_No_DCU_Response_Clear] are expected as the units are not switched on.		
	ET=+ UT=+00.00.00	Execute Telecommand SwOn_SpireHSFCU_R_L52 Subsch. ID : 10 Det. descr. : PCDU: TC(8,4,112,5) SPIRE HSFCU Red - switch LCL_52 on	DC52D170	
		Verify: FCU LCL status SpirHsfr_L52_1S WM72C565	= ON	AND=ZAZ95999
		Verify: FCU LCL current (+/- 0.5 A) SpireHsfr_L52_I WM708565	= 0.4 A	AND=ZAZ95999
	ET=+ UT=+00.00.01	DEFINE_NEW_HK_REPORT DEFINE_NEW_HK_REPORT Command Parameter(s) : HKPCKTID_DEFINENEWHK SPR0N500 300 <hex> HKSID_DEFINENEWHK SPR1N500 300 <hex> HKINTERVAL_DEFINENEWHK SPR2N500 7d0 <hex> HKREPEAT_DEFINENEWHK SPR3N500 1 <hex> TABLEID_DEFINENEWHK SPR4N500 0 <hex> Subsch. ID : 370 Det. descr. : DEFINE NEW HOUSEKEEPING PARAMETER REPORT	SCR00500	
		Verify: Packet is being generated R_Critical_HK_Parameter_Report Packet Details: APID: 1281 Type: 3 Subtype: 25 PI1: 768 PI2:	SCRITHK00559	

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	ET=+ UT=+00.00.00	DEFINE_NEW_HK_REPORT DEFINE_NEW_HK_REPORT Command Parameter(s) : HKPCKTID_DEFINENEWHK SPR0N500 HKSID_DEFINENEWHK SPR1N500 HKINTERVAL_DEFINENEWHK SPR2N500 HKREPEAT_DEFINENEWHK SPR3N500 TABLEID_DEFINENEWHK SPR4N500 Subsch. ID : 370 Det. descr. : DEFINE NEW HOUSEKEEPING PARAMETER REPORT	SCR00500 301 <hex> 301 <hex> 3e8 <hex> 1 <hex> 1 <hex>	
		Verify: Packet is being generated R_Nominal_HK_Parameter_Report Packet Details: APID: 1283 Type: 3 Subtype: 25 PI1: 769 PI2:	SNOMHK000559 1283 3 25 769	
3		Set default start conditions		Next Step: 4
		Note that a TM(5,1) packet [R_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 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 80010001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= ClearObs	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 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=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SP03N500 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 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SP03N500 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 80020001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= StartObs	AND=ZAZ95999
4		Set procedure conditions		Next Step: 5

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	RESET_DRCU_COUNTERS 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=ZAZ95999
		THSK SM00T500	any	AND=ZAZ95999
		Note that a TM(5,1) packet [R_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 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 1 <hex>	
	ET=+ UT=+00.00.01	SET_OBSID Command Parameter(s) : OBSERVATION_ID SP00N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION IDENTIFIER	SC000500 OBS_ID	
		Verify Telemetry OBSID SM10N500	OBS_ID	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SC001500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ95999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	SET_OBS_STEP SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 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 8C010001 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	TBD	AND=ZAZ95999
	ET=+ UT=+00.00.02	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 Subsch. ID : 370 Det. descr. : SET OBSERVING MODE	SC002500 1 <hex>	
		Verify Telemetry MODE SM00M500	= DRCU_START	AND=ZAZ95999
5		Initialise DRCU		Next Step: 6
	ET=+ UT=+00.00.00	Send DRCU command to set Drain Bias Voltage Settings SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84120000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFETSTAT SM20F510	= 0000 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to set Drain Bias Voltage Settings SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84130000 <hex> 0 <hex> (Def)	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry PMLWJFETSTAT SM80F510	= 0000 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 1) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84050000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET1V SM20V510	= 0.00 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 2) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84060000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET2V SM21V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 3) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84070000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET3V SM22V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 4) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84080000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET4V SM23V510	= 0.0 V	AND=ZAZ95999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 5) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84090000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET5V SM24V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPSW JFET Source Voltage (Ch 6) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840A0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWJFET6V SM25V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPMW JFET Source Voltage (Ch 1) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840B0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PMWJFET1V SM30V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPMW JFET Source Voltage (Ch 2) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840C0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PMWJFET2V SM31V510	= 0.0 v	AND=ZAZ95999

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	ET=+ UT=+00.00.05	Send DRCU command to SetPMW JFET Source Voltage (Ch 3) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840D0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PMWJFET3V SM32V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPMW JFET Source Voltage (Ch 4) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840E0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PMWJFET4V SM33V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPLW JFET Source Voltage (Ch 1) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840F0000 <hex> 0 <hex> (Def)	
		Verify Telemetry PLWJFET1V SM50V510	= 0.0 v	AND=ZAZ95999
	ET=+ UT=+00.00.00	Send DRCU command to SetPLW JFET Source Voltage (Ch 2) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84100000 <hex> 0 <hex> (Def)	
		Verify Telemetry PLWJFET2V SM51V510	= 0.0 v	AND=ZAZ95999

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	ET=+ UT=+00.00.05	Send DRCU command to SetTC JFET Source Voltage SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84140000 <hex> 0 <hex> (Def)	
		Verify Telemetry TCJFETV SMT0V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to set Drain Bias Voltage settings SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84370000 <hex> 0 <hex> (Def)	
		Verify Telemetry SPECJFETSTAT SMF0F510	= 0 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSLW JFET Source Voltage (Ch 1) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84340000 <hex> 0 <hex> (Def)	
		Verify Telemetry SLWJFET1V SM10V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSSW JFET Source Voltage (Ch 1) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84350000 <hex> 0 <hex> (Def)	
		Verify Telemetry SSWJFET1V SM00V510	= 0.0 V	AND=ZAZ95999

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.05	Send DRCU command to SetSSW JFET Source Voltage (Ch 2) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84360000 <hex> 0 <hex> (Def)	
		Verify Telemetry SSWJFET2V SM01V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoHeaterBias SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84110000 <hex> 0 <hex> (Def)	
		Verify Telemetry PHOTHTRV SMP0V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSpectroHeaterBias SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84330000 <hex> 0 <hex> (Def)	
		Verify Telemetry SPECHTRV SMF0V510	= 0.0 V	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBias Ampl (SW Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84010000 <hex> 0 <hex> (Def)	
		Verify Telemetry PSWBIAS SMB0V510	= 0.00 mV	AND=ZAZ95999

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	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBias Ampl (MW Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84020000 <hex> 0 <hex> (Def)	
		Verify Telemetry PMWBIAS SMB1V510	= 0.0 mV	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBias Ampl (LW Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84030000 <hex> 0 <hex> (Def)	
		Verify Telemetry PLWBIAS SMB2V510	= 0.0 mV	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBias Ampl (TC Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84040000 <hex> 0 <hex> (Def)	
		Verify Telemetry TCBIAS SMB3V510	= 0.0 mV	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSpectroBiasAmpl (SW Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84310000 <hex> 0 <hex> (Def)	
		Verify Telemetry SSWBIAS SMB4V510	= 0.0 mV	AND=ZAZ95999

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	ET=+ UT=+00.00.05	Send DRCU command to SetSpectroBiasAmpl (LW Channels) SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84320000 <hex> 0 <hex> (Def)	
		Verify Telemetry SLWBIAS SMB5V510	= 0.0 mV	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSpectroBiasMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 843000FF <hex> 0 <hex> (Def)	
		Verify Telemetry SPECBIASMODE SMB1M510	= SINE	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBiasMode SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 840000FF <hex> 0 <hex> (Def)	
		Verify Telemetry PHOTBIASMODE SMB0M510	= SINE	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoMClkDiv SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84190095 <hex> 0 <hex> (Def)	
		Verify Telemetry PHOTMCLKDIV SMB0H510	= 0095 <hex>	AND=ZAZ95999

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	ET=+ UT=+00.00.05	Send DRCU command to SetPhotoBiasDiv SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84180006 <hex> 0 <hex> (Def)	
		Verify Telemetry PHOTBIASDIV SMP0H510	= 0006 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSpectromClkDiv SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 8439007A <hex> 0 <hex> (Def)	
		Verify Telemetry SPECMCLKDIV SMB2H510	= 007A <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.05	Send DRCU command to SetSpectroBiasDiv SEND_DRCU_COMMAND Command Parameter(s) : DRCUCOMMAND SPD4N505 OVERRIDE SPD9N505 Subsch. ID : 370 Det. descr. : SEND A SINGLE COMMAND TO THE DRCU	SCD06505 84380001 <hex> 0 <hex> (Def)	
		Verify Telemetry SPECBIASDIV SMF0H510	= 0001 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.01	SET_OBS_MODE SET_OBS_MODE Command Parameter(s) : OBSERVING_MODE SP02N500 Subsch. ID : 370 Det. descr. : SET OBSERVING MODE	SC002500 100 <hex>	
		Verify Telemetry MODE SM00M500	= DRCU_ON	AND=ZAZ95999
6		Verify end conditions		Next Step: 7
		Ensure that the following parameter is incrementing every second TM2N SMT1N500	incrementing	AND=ZAZ95999
		Ensure that the following parameter is incrementing every second THSK SM00T500	incrementing	AND=ZAZ95999

DRCU_START - Switch ON the redundant DRCU
 File: H_FCP_SPI_RDRN.xls
 Author: R. Biggins



Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Verify Telemetry BIASP5V SMB6V510	= 5.0 V	AND=ZAZ95999
		Verify Telemetry BIASP9V SMB7V510	= 9.0 V	AND=ZAZ95999
		Verify Telemetry BIASM9V SMB8V510	= -9.0 V	AND=ZAZ95999
		Verify Telemetry SCUP5V SM_0V520	= 5.0 V	AND=ZAZ95999
		Verify Telemetry SCUP9V SM_1V520	= 9.0 V	AND=ZAZ95999
		Verify Telemetry SCUM9V SM_2V520	= -9.0 V	AND=ZAZ95999
7		Set default end conditions		Next Step: END
		Note that a TM(5,1) packet [R_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 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SC003500 0 <hex>	
	ET=+ UT=+00.00.01	SET_BBID Command Parameter(s) : BUILDING_BLOCK_ID SP01N500 Subsch. ID : 370 Det. descr. : SET BUILDING BLOCK IDENTIFIER	SET_BBID SC001500 80000000 <hex>	
		Verify Telemetry BBFULLTYPE SM2LN500	= Null	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP SP03N500 Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SC003500 0 <hex>	

DRCU_START - Switch ON the redundant DRCU
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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 80030001 <hex>	SC001500	
		Verify Telemetry BBFULLTYPE	SM2LN500	= EndObs	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SP03N500 1 <hex>	SC003500	
	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>	SC000500	
		Verify Telemetry OBSID	SM10N500	= 00000000 <hex>	AND=ZAZ95999
	ET=+ UT=+00.00.00	SET_OBS_STEP Command Parameter(s) : OBSERVATION_STEP Subsch. ID : 370 Det. descr. : SET OBSERVATION STEP	SET_OBS_STEP SP03N500 0 <hex>	SC003500	
	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 80000000 <hex>	SC001500	
		Verify Telemetry BBFULLTYPE	SM2LN500	= Null	AND=ZAZ95999
End of Procedure					