

Redundant HPS switch OFF
 File: H_CRP_TCS_HPR0.xls
 Author: E. Picallo



Procedure Summary

Objectives

This procedure describes the steps needed to switch OFF a selected redundant Heater Protection Switches (HPSs) (from HPS10 to HPS18).

Summary of Constraints

The selected redundant HPS is switched OFF through ASW TC(8,4,112,3); thus the status of the ASW function "PCDU Management" has to be "running".

Spacecraft Configuration

Start of Procedure

CDMU in default configuration;
 Redundant HPS ON.

End of Procedure

CDMU in default configuration;
 Redundant HPS and the 6 heater control switches (HCSs) switched OFF.

Reference File(s)

Input Command Sequences

Output Command Sequences

HRTHPR01
 HRTHPR02
 HRTHPR03
 HRTHPR04
 HRTHPR05
 HRTHPR06
 HRTHPR07
 HRTHPR08
 HRTHPR09

Referenced Displays

ANDs	GRDs	SLDs
WAHT2584		
WAHT3584		

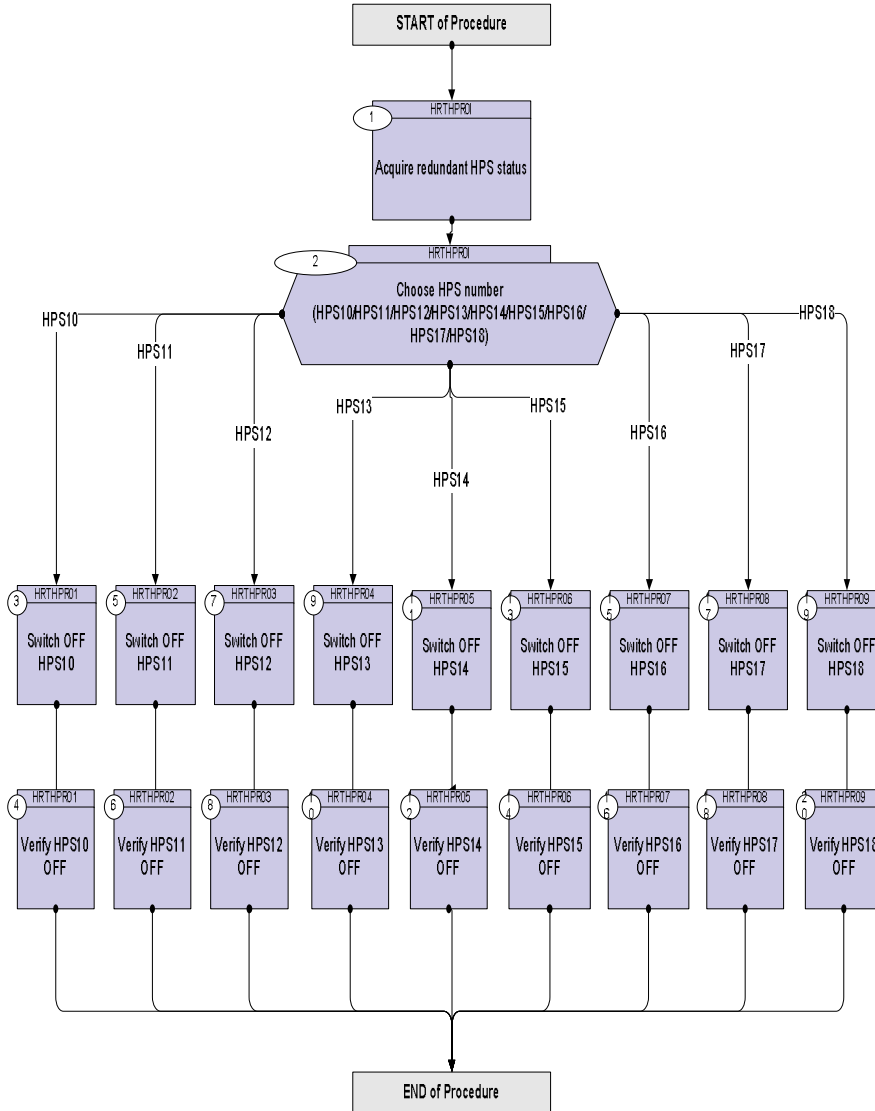
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
24/07/08	1	1	Created	E. Picallo	
08/12/08	2	2	Display mode update	E. Picallo	

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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 : HRTHPR01 (Red HPS switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Acquire redundant HPS status		Next Step: 2
		Verify Telemetry GRP10_HPS_STS WM62G565		AND=WAHT2584
		Verify Telemetry GRP11_HPS_STS WM62H565		AND=WAHT2584
		Verify Telemetry GRP12_HPS_STS WM72G565		AND=WAHT2584
		Verify Telemetry GRP13_HPS_STS WM72H565		AND=WAHT3584
		Verify Telemetry GRP14_HPS_STS WM82G565		AND=WAHT3584
		Verify Telemetry GRP15_HPS_STS WM82H565		AND=WAHT3584
		Verify Telemetry GRP16_HPS_STS WM92G565		AND=WAHT3584
		Verify Telemetry GRP17_HPS_STS WM92H565		AND=WAHT3584
		Verify Telemetry GRP18_HPS_STS WMA2G565		AND=WAHT3584
2		Choose HPS number (HPS10/HPS11/HPS12/HPS13/HPS14/HPS15/HPS16/HPS17/HPS18)		Next Step: HPS10 3 HPS11 5 HPS12 7 HPS13 9 HPS14 11 HPS15 13 HPS16 15 HPS17 17 HPS18 19
TC Seq. Name : HRTHPR01 (Red HPS10 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
3		Switch OFF HPS10		Next Step: 4
		Execute Telecommand PcduswOffHps10 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 10	DCD36170	
4		Verify HPS10 OFF		Next Step: END
		Verify Telemetry GRP10_HPS_STS WM62G565	= OFF	AND=WAHT2584
TC Seq. Name : HRTHPR02 (Red HPS11 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
5		Switch OFF HPS11		Next Step: 6
		Execute Telecommand PcduswOffHps11 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 11	DCD37170	
6		Verify HPS11 OFF		Next Step: END
		Verify Telemetry GRP11_HPS_STS WM62H565	= OFF	AND=WAHT2584
TC Seq. Name : HRTHPR03 (Red HPS12 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
7		Switch OFF HPS12		Next Step: 8

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand PcduswOffHps12 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 12	DCD38170	
8		Verify HPS12 OFF		Next Step: END
		Verify Telemetry GRP12_HPS_STS WM72G565	= OFF	AND=WAHT2584
TC Seq. Name :HRTHPR04 (Red HPS13 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
9		Switch OFF HPS13		Next Step: 10
		Execute Telecommand PcduswOffHps13 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 13	DCD39170	
10		Verify HPS13 OFF		Next Step: END
		Verify Telemetry GRP13_HPS_STS WM72H565	= OFF	AND=WAHT3584
TC Seq. Name :HRTHPR05 (Red HPS14 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
11		Switch OFF HPS14		Next Step: 12

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand PcduswOffHps14 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 14	DCD40170	
12		Verify HPS14 OFF		Next Step: END
		Verify Telemetry GRP14_HPS_STS WM82G565	= OFF	AND=WAHT3584
TC Seq. Name :HRTHPR06 (Red HPS15 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
13		Switch OFF HPS15		Next Step: 14
		Execute Telecommand PcduswOffHps15 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 15	DCD41170	
14		Verify HPS15 OFF		Next Step: END
		Verify Telemetry GRP15_HPS_STS WM82H565	= OFF	AND=WAHT3584
TC Seq. Name :HRTHPR07 (Red HPS16 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
15		Switch OFF HPS16		Next Step: 16

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand PcduswOffHps16 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 16	DCD42170	
16		Verify HPS16 OFF		Next Step: END
		Verify Telemetry GRP16_HPS_STS WM92G565	= OFF	AND=WAHT3584
TC Seq. Name :HRTHPR08 (Red HPS17 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
17		Switch OFF HPS17		Next Step: 18
		Execute Telecommand PcduswOffHps17 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 17	DCD43170	
18		Verify HPS17 OFF		Next Step: END
		Verify Telemetry GRP17_HPS_STS WM92H565	= OFF	AND=WAHT3584
TC Seq. Name :HRTHPR09 (Red HPS18 switch OFF) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
19		Switch OFF HPS18		Next Step: 20

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
		Execute Telecommand PcduswOffHps18 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- <i>Subsch. ID : 10</i> Det. descr. : PCDU:TC(8,4,112,3) switch Off HPS 18	DCD44170	
20		Verify HPS18 OFF		Next Step: END
		Verify Telemetry GRP18_HPS_STS WMA2G565	= OFF	AND=WAHT3584
End of Procedure				