

Nominal HPS switch ON
 File: H_CRP_TCS_HPNI.xls
 Author: E. Picallo



Procedure Summary

Objectives

This procedure describes the steps needed to switch ON the nominal Heater Protection Switches (HPS1 to HPS9).

Nominally all the nominal HPS (1-9) are always ON.

Summary of Constraints

The selected nominal HPS is switched ON through ASW TC(8,4,112,5); thus the status of the ASW function "PCDU Management" has to be "running".

Spacecraft Configuration

Start of Procedure

CDMU in default configuration;
 Nominal HPS OFF.

End of Procedure

CDMU in default configuration;
 Nominal HPS switched ON, but the 6 heater control switches (HCSs) are OFF.

Reference File(s)

Input Command Sequences

Output Command Sequences

HRTHPN11
 HRTHPN12
 HRTHPN13
 HRTHPN14
 HRTHPN15
 HRTHPN16
 HRTHPN17
 HRTHPN18
 HRTHPN19

Referenced Displays

| | | |
|-------------|-------------|-------------|
| ANDs | GRDs | SLDs |
| WAHT1584 | | (None) |
| WAHT2584 | | |

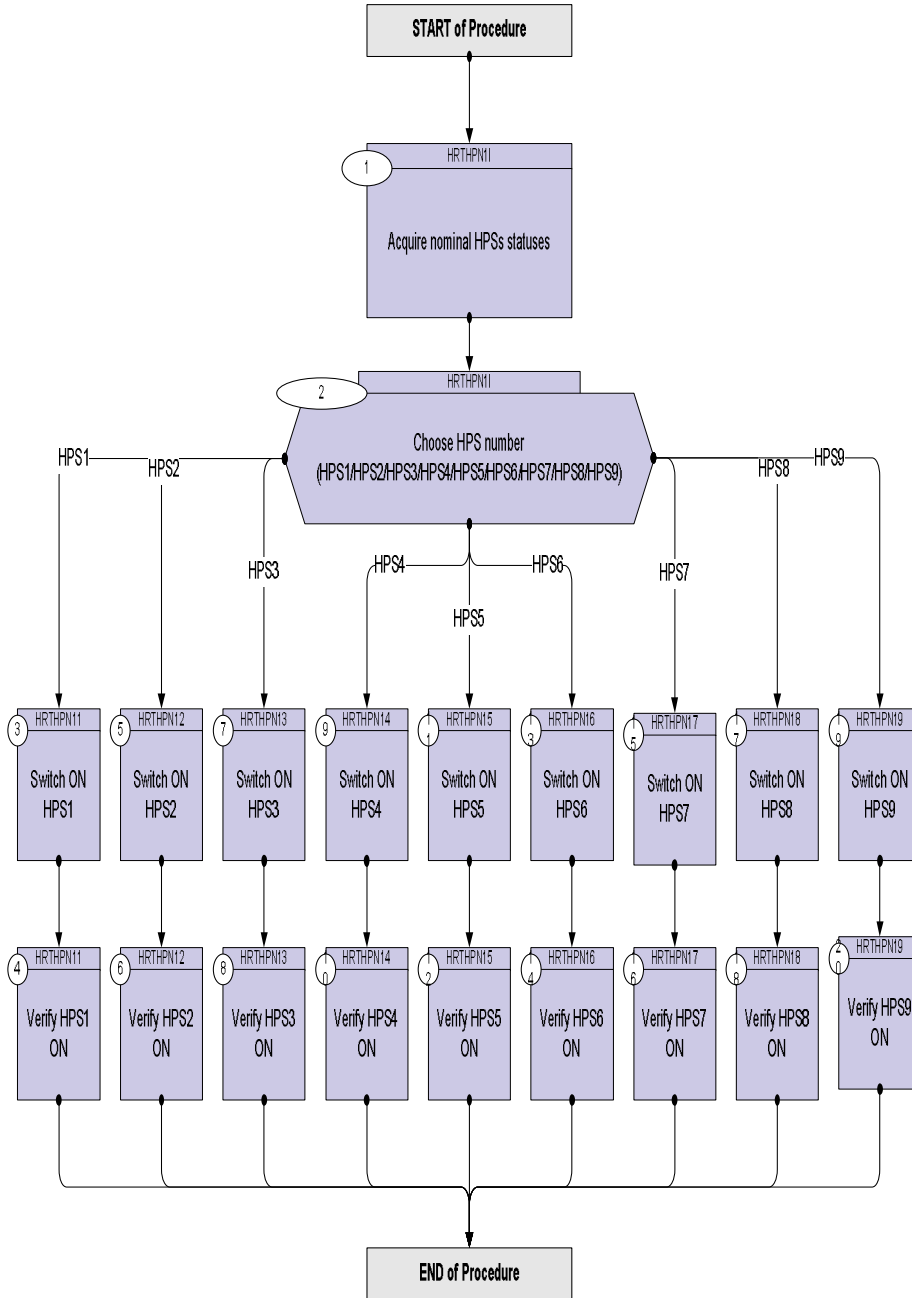
Configuration Control Information

| 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

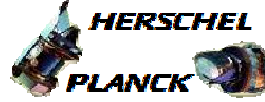


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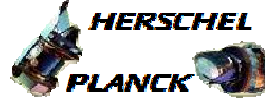
| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|--|------|---|--------|---|
| Beginning of Procedure | | | | |
| <p><i>TC Seq. Name : HRTHPN1I (Nom HPS switch ON)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p> | | | | |
| 1 | | Acquire nominal HPSs statuses | | Next Step: 2 |
| | | Verify Telemetry GRP1_HPS_STS WM12G565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP2_HPS_STS WM22G565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP3_HPS_STS WM22H565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP4_HPS_STS WM32G565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP5_HPS_STS WM32H565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP6_HPS_STS WM42G565 | | AND=WAHT1584 |
| | | Verify Telemetry GRP7_HPS_STS WM42H565 | | AND=WAHT2584 |
| | | Verify Telemetry GRP8_HPS_STS WM52G565 | | AND=WAHT2584 |
| | | Verify Telemetry GRP9_HPS_STS WM52H565 | | AND=WAHT2584 |
| 2 | | Choose HPS number (HPS1/HPS2/HPS3/HPS4/HPS5/HPS6/HPS7/HPS8/HPS9) | | Next Step: HPS1 3 HPS2 5 HPS3 7 HPS4 9 HPS5 11 HPS6 13 HPS7 15 HPS8 17 HPS9 19 |
| <p><i>TC Seq. Name : HRTHPN11 (Nom HPS1 switch ON)</i></p> <p><i>TimeTag Type: N</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p> | | | | |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|---|------|--|----------|-------------------|
| 3 | | Switch ON HPS1 | | Next Step: 4 |
| | | Execute Telecommand PcdSwOnHps1 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 1 | DCC01170 | |
| 4 | | Verify HPS1 ON | | Next Step: END |
| | | Verify Telemetry GRP1_HPS_STS WM12G565 | = ON | AND=WAHT1584 |
| TC Seq. Name : HRTHPN12 (Nom HPS2 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 5 | | Switch ON HPS2 | | Next Step: 6 |
| | | Execute Telecommand PcdSwOnHps2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 2 | DCC02170 | |
| 6 | | Verify HPS2 ON | | Next Step: END |
| | | Verify Telemetry GRP2_HPS_STS WM22G565 | = ON | AND=WAHT1584 |
| TC Seq. Name : HRTHPN13 (Nom HPS3 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 7 | | Switch ON HPS3 | | Next Step: 8 |

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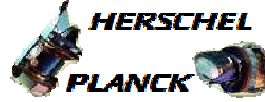
| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|--|------|---|----------|-------------------|
| | | Execute Telecommand PcdSwOnHps3 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 3 | DCC03170 | |
| 8 | | Verify HPS3 ON | | Next Step: END |
| | | Verify Telemetry GRP3_HPS_STS WM22H565 | = ON | AND=WAHT1584 |
| TC Seq. Name :HRTHPN14 (Nom HPS4 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 9 | | Switch ON HPS4 | | Next Step: 10 |
| | | Execute Telecommand PcdSwOnHps4 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 4 | DCC04170 | |
| 10 | | Verify HPS4 ON | | Next Step: END |
| | | Verify Telemetry GRP4_HPS_STS WM32G565 | = ON | AND=WAHT1584 |
| TC Seq. Name :HRTHPN15 (Nom HPS5 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 11 | | Switch ON HPS5 | | Next Step: 12 |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|--|------|---|----------|-------------------|
| | | Execute Telecommand PcdSwOnHps5 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 5 | DCC05170 | |
| 12 | | Verify HPS5 ON | | Next Step: END |
| | | Verify Telemetry GRP5_HPS_STS WM32H565 | = ON | AND=WAHT1584 |
| TC Seq. Name :HRTHPN16 (Nom HPS6 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 13 | | Switch ON HPS6 | | Next Step: 14 |
| | | Execute Telecommand PcdSwOnHps6 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 6 | DCC06170 | |
| 14 | | Verify HPS6 ON | | Next Step: END |
| | | Verify Telemetry GRP6_HPS_STS WM42G565 | = ON | AND=WAHT1584 |
| TC Seq. Name :HRTHPN17 (Nom HPS7 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 15 | | Switch ON HPS7 | | Next Step: 16 |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|--|------|---|----------|-------------------|
| | | Execute Telecommand PcdSwOnHps7 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 7 | DCC07170 | |
| 16 | | Verify HPS7 ON | | Next Step: END |
| | | Verify Telemetry GRP7_HPS_STS WM42H565 | = ON | AND=WAHT2584 |
| TC Seq. Name :HRTHPN18 (Nom HPS8 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 17 | | Switch ON HPS8 | | Next Step: 18 |
| | | Execute Telecommand PcdSwOnHps8 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 8 | DCC08170 | |
| 18 | | Verify HPS8 ON | | Next Step: END |
| | | Verify Telemetry GRP8_HPS_STS WM52G565 | = ON | (None) |
| TC Seq. Name :HRTHPN19 (Nom HPS9 switch ON) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 19 | | Switch ON HPS9 | | Next Step: 20 |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|-------------------------|------|---|----------|-------------------|
| | | Execute Telecommand PcdSwOnHps9 <i>TC Control Flags :</i> GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : PCDU:TC(8,4,112,5) switch On HPS 9 | DCC09170 | |
| 20 | | Verify HPS9 ON | | Next Step: END |
| | | Verify Telemetry GRP9_HPS_STS WM52H565 | = ON | AND=WAHT2584 |
| End of Procedure | | | | |