

Start/Stop TTC Management function
File: H_CRP_TTC_MANG.xls
Author: E. Picallo



Procedure Summary

Objectives

This procedure describes the steps needed to switch ON or OFF the ASW function "TTC Management".

It handles the commanding and controlling of the following units:

- Nominal and redundant XPND;
- RFDN switches;
- Nominal and redundant TWTA;

In addition the commanding of the CDMU TM encoder is handled through this functionality.

Summary of Constraints

Default status of the function: "Started".

When the function is stopped, it does not accept any other telecommands than the:

- Start Function TC(8,1,115);
- Report Function Status TC(8,5,115).

Spacecraft Configuration

Start of Procedure

- CDMU in default configuration, that is:
- PM A or B ON (nominally A)
 - TM Encoder/OBT A or B active (nominally A)
 - RM A and B enabled
 - MM A and B ON

End of Procedure

- CDMU in default configuration, that is:
- PM A or B ON (nominally A)
 - TM Encoder/OBT A or B active (nominally A)
 - RM A and B enabled
 - MM A and B ON

Reference File(s)

Input Command Sequences

Output Command Sequences

HRRMANG1
HRRMANG2

Referenced Displays

| ANDs | GRDs | SLDs |
|----------|------|------|
| ZAD08999 | | |
| ZAZ28999 | | |

Configuration Control Information

Status : Version 3 - Unchanged
Last Checkin: 06/11/08

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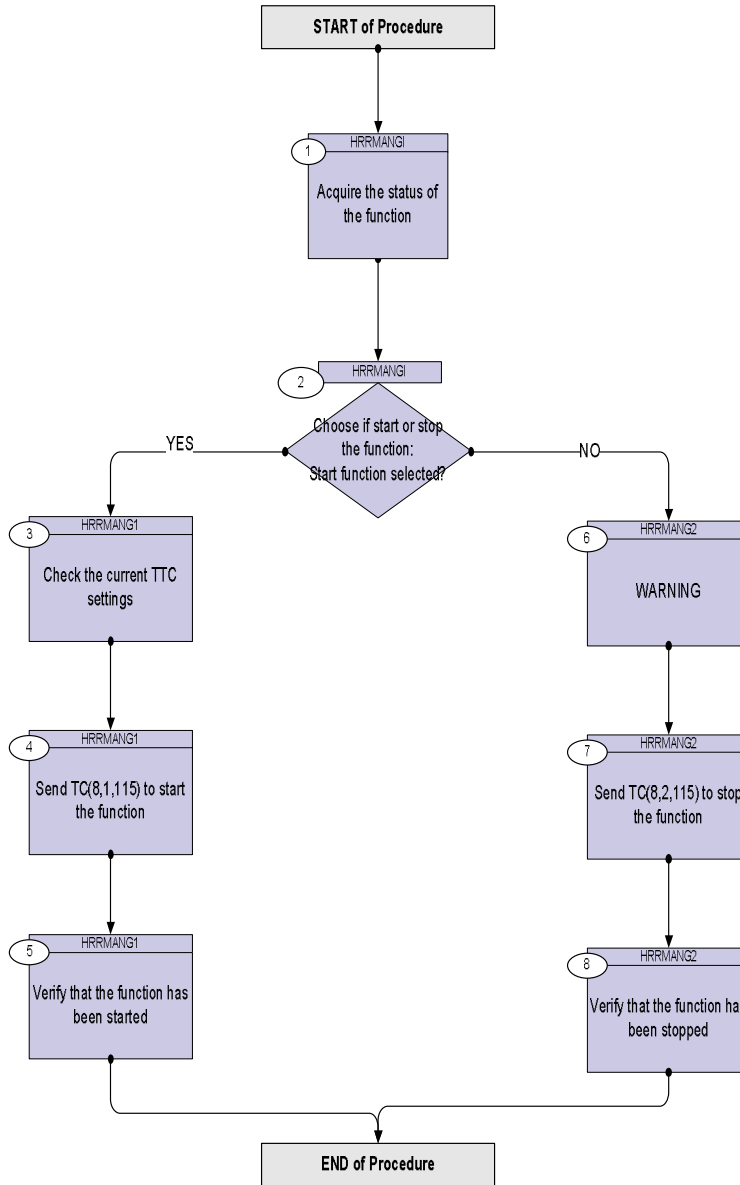


| DATE | FOP ISSUE | VERSION | MODIFICATION DESCRIPTION | AUTHOR | SPR REF |
|----------|-----------|---------|---------------------------------|---------------|---------|
| 15/07/08 | | 1 | Created | R. Miniscalco | |
| 30/07/08 | 1 | 2 | FOP procedure reference updated | E. Picallo | |
| 06/11/08 | 2 | 3 | Display mode update | E. Picallo | |

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Procedure Flowchart Overview



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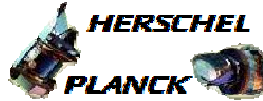
| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|---|------|--|--------|-----------------------------|
| Beginning of Procedure | | | | |
| TC Seq. Name :HRRMANG1 (Start/Stop TTC Mgmt) Start/Stop TTC Management function TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 1 | | Acquire the status of the function | | Next Step: 2 |
| | | Verify Telemetry <div style="text-align: center;">TtcSts DEL08170</div> | | AND=ZAZ28999 |
| | | Default status of the function is Started | | |
| 2 | | Choose if start or stop the function: Start function selected? | | Next Step: YES 3 NO 6 |
| | | Warning: If the function is running sending the TC "Start TTC Management" will cause a TC Acceptance failure TM(1,2) "Function Already Started". | | |
| | | Warning: If the function is Stopped sending the TC "Stop TTC Management" will cause a TC Acceptance failure TM(1,2) "Function Already Stopped". | | |
| TC Seq. Name :HRRMANG1 (Start TTC Mgmt) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 3 | | Check the current TTC settings | | Next Step: 4 |
| | | Execute Procedure: H_FCP_TTC_REPO TTC Management Status Report | | |
| 4 | | Send TC(8,1,115) to start the function | | Next Step: 5 |
| | | Start TTC Management telecommand is used for switching on the function. | | |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|---|------|--|-----------|-------------------|
| | | Execute Telecommand <div style="text-align: right;">Start_TTC_Management</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- --</div> Subsch. ID : 10 Det. descr. : Start TTC Management TC(8,1,115) | DC01E170 | |
| 5 | | Verify that the function has been started | | Next Step: END |
| | | Verify Telemetry <div style="text-align: right;">TtcSts DEL08170</div> | = Running | AND=ZAZ28999 |
| TC Seq. Name :HRRMANG2 (Stop TTC Mgmt) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/> | | | | |
| 6 | | WARNING | | Next Step: 7 |
| | | When the function is stopped, it does not accept any other telecommands than the Start Function and Report Function Status TCs. Note: to stop the TTC function has no impact on any FDIR reconfiguration. | | |
| 7 | | Send TC(8,2,115) to stop the function | | Next Step: 8 |
| | | Stop TTC Management telecommand is used for switching off the function. When the function is stopped, it does not accept any other telecommands than the Start Function and Report Function Status TCs. | | |
| | | Execute Telecommand <div style="text-align: right;">Stop_TTC_Management</div> TC Control Flags : <div style="text-align: right;">GBM IL DSE --Y -- --</div> Subsch. ID : 10 Det. descr. : Stop TTC Management TC(8,2,115) | DC02E170 | |
| 8 | | Verify that the function has been stopped | | Next Step: END |
| | | Verify Telemetry <div style="text-align: right;">TtcSts DEL08170</div> | = Stopped | AND=ZAZ28999 |

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| Step No. | Time | Activity/Remarks | TC/TLM | Display/ Branch |
|-------------------------|------|------------------|--------|-----------------|
| End of Procedure | | | | |