

Upload default housekeeping and diagnostic packets.
File: H_FCP_DHS_1001.xls
Author: S. Manganelli



Procedure Summary

Objectives

This procedure describes the steps needed to upload the default housekeeping and diagnostic packets for the Herschel S/C.

Summary of Constraints

In TCs (3,1), (3,2), (3,9) and (3,11) valid HK Packet IDs are 0 to 0xFFFE; note that these TCs will be delayed when one of these TCs is already ongoing.

It is not possible to define a HK Packet and a Diagnostic Packet with the same HK Packet ID. It is not possible to have more than one HK Packets with the same HkId even if the SIDs are different.

Using HK Packet IDs 0 to 15 in a TC(3,1) results in essential TM(3,25) packets. Other HK Packet IDs in a TC(3,1) results in non-essential TM(3,25) packets. All TC(3,2) result in TM(3,26) packets.

Maximum 64 HK/Diagnostic Packets may be defined at the same time.

It is not possible to have more than one definition of a HkId definition ongoing at the same time. I.e. the definition of one HkId has to be completed, using one or several TCs, before the next HkId can be defined.

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

HFD1001

Referenced Displays

ANDs GRDs SLDs

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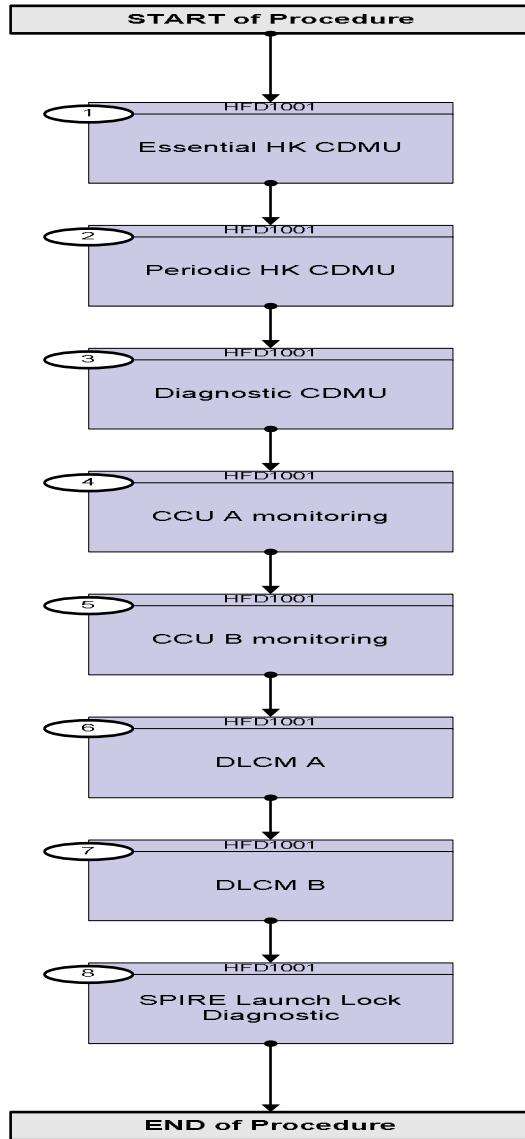
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
18/10/07		1	Created	cmevi-hp	
19/10/07		2	temporary version	cmevi-hp	
19/10/07		3	DB checked.	cmevi-hp	
07/12/07		4	DB checked.	cmevi-hp	
16/01/08	1	5	Batch update of TC flags	S. Manganelli	
09/12/08		6	Modified for OBSW 3_6_2	S. Manganelli	
08/01/09	2	7	OBSW 3_8 db update	S. Manganelli	

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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 :HFD1001 (Up1 HK DIAG Pkt) TimeTag Type: N Sub Schedule ID: <input type="checkbox"/>				
1		Essential HK CDMU		Next Step: 2
		CDMU Her HK Ess HR 1-3 <p style="text-align: center;">CDMU Her HK Ess HR 1-3</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt High Rate 1-3	ZC040999	
	ET= UT=	CDMU Her HK Ess HR 2-3 <p style="text-align: center;">CDMU Her HK Ess HR 2-3</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt High Rate 2-3	ZC041999	
	ET= UT=	CDMU Her HK Ess HR 3-3 S <p style="text-align: center;">CDMU Her HK Ess HR 3-3 S</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt High Rate 3-3 Sup	ZC042999	
	ET= UT=	CDMU Her HK Ess HR Stop <p style="text-align: center;">CDMU Her HK Ess HR Stop</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt High Rate Stop	ZC043999	
	ET= UT=	CDMU Her HK Ess LR 1-2 <p style="text-align: center;">CDMU Her HK Ess LR 1-3</p> TC Control Flags : <p style="text-align: right;">GBM IL DSE --Y -- ---</p> Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt Low Rate 1-3	ZC044999	

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	ET= UT=	CDMU Her HK Ess LR 2-2 CDMU Her HK Ess LR 2-3 TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt Low Rate 2-3 GBM IL DSE --Y -- --	ZC045999	
	ET= UT=	CDMU Her HK Ess LR Stop CDMU Her HK Ess LR Stop TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Essential HK Pkt Low Rate Stop GBM IL DSE --Y -- --	ZC046999	
2		Periodic HK CDMU		Next Step: 3
	ET= UT=	CDMU Her HK Per P1 1-2 CDMU Her HK Per P1 1-2 TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P1 1-2 GBM IL DSE --Y -- --	ZC047999	
	ET= UT=	CDMU Her HK Per P1 2-2 CDMU Her HK Per P1 2-2 TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P1 2-2 GBM IL DSE --Y -- --	ZC048999	
	ET= UT=	CDMU Her HK Per P1 Stop CDMU Her HK Per P1 Stop TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P1 Stop GBM IL DSE --Y -- --	ZC049999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CDMU Her HK Periodic P4 CDMU Her HK Periodic P4 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P4	ZC04A999	
	ET= UT=	CDMU Her HK PeriodicP64 CDMU Her HK PeriodicP64 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P64	ZC04B999	
	ET= UT=	CDMU Her HK Per P128 1-2 CDMU Her HK Per P128 1-2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P128 1-2	ZC04C999	
	ET= UT=	CDMU Her HK Per P128 2-2 CDMU Her HK Per P128 2-2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P128 2-2	ZC04D999	
	ET= UT=	CDMU Her HK Per P128 Stp CDMU Her HK Per P128 Stp TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,1) Define CDMU Herschel Periodic HK Pkt P128 Stop	ZC04E999	
3		Diagnostic CDMU		Next Step: 4

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CDMU Her HK DGN BSW 1 CDMU Her HK DGN BSW 1 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt BSW 1	ZC04F999	
	ET= UT=	CDMU Her HK DGN BSW 2 CDMU Her HK DGN BSW 2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt BSW 2	ZC04G999	
	ET= UT=	CDMU Her HK DGN BSW 3 CDMU Her HK DGN BSW 3 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt BSW 3	ZC04H999	
	ET= UT=	CDMU Her HK DGN BSW 4 CDMU Her HK DGN BSW 4 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt BSW 4	ZC04J999	
	ET= UT=	CDMU Her HK DGN ASW 1 CDMU Her HK DGN ASW 1 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt ASW 1	ZC04K999	
	ET= UT=	CDMU Her HK DGN ASW 2 CDMU Her HK DGN ASW 2 TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt ASW 2	ZC04L999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CDMU Her HK DGN TCS 1-2 <p style="text-align: right;">CDMU Her HK DGN TCS 1-2</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt TCS 1-2</i>	ZC04M999	
	ET= UT=	CDMU Her HK DGN TCS 2-2 <p style="text-align: right;">CDMU Her HK DGN TCS 2-2</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt TCS 2-2</i>	ZC04N999	
	ET= UT=	CDMU Her HK DGN TCS Stop <p style="text-align: right;">CDMU Her HK DGN TCS Stop</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : TC(3,2) Define CDMU Herschel Diagnostic HK Pkt TCS Stop</i>	ZC04P999	
4		<i>CCU A monitoring</i>		Next Step: 5
	ET= UT=	CCUA_Monit1 - 1st part <p style="text-align: right;">CCUA_Monit1 - 1st part</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : TC(3,1) for definition of CCUA Monit1 packet - 1st part</i>	ZC021999	
	ET= UT=	CCUA_Monit1 - 2st part <p style="text-align: right;">CCUA_Monit1 - 2st part</p> <i>TC Control Flags :</i> <p style="text-align: right;">GBM IL DSE --Y -- ---</p> <i>Subsch. ID : 10</i> <i>Det. descr. : TC(3,1) for definition of CCUA Monit1 packet - 2nd part</i>	ZC022999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CCUA_Monit1 - stop CCUA_Monit1 - stop TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TC(3,1) for definition of CCUA Monit1 packet - stop	ZC023999	
	ET= UT=	CCUA_Monit2 - 1st part CCUA_Monit2 - 1st part TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TC(3,2) for definition of CCUA Monit2 packet - 1st part	ZC024999	
	ET= UT=	CCUA_Monit2 - 2st part CCUA_Monit2 - 2st part TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TC(3,2) for definition of CCUA Monit2 packet - 2nd part	ZC025999	
	ET= UT=	CCUA_Monit2 - stop CCUA_Monit2 - stop TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TC(3,2) for definition of CCUA Monit2 packet - stop	ZC026999	
5		CCU B monitoring		Next Step: 6
	ET= UT=	CCUB_Monit1 - 1st part CCUB_Monit1 - 1st part TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 10 Det. descr. : TC(3,1) for definition of CCUB Monit1 packet - 1st part	ZC028999	

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CCUB_Monit1 - 2st part CCUB_Monit1 - 2st part <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> Det. descr. : TC(3,1) for definition of CCUB Monit1 packet - 2nd part	ZC029999	
	ET= UT=	CCUB_Monit1 - stop CCUB_Monit1 - stop <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> Det. descr. : TC(3,1) for definition of CCUB Monit1 packet - stop	ZC030999	
	ET= UT=	CCUB_Monit2 - 1st part CCUB_Monit2 - 1st part <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> Det. descr. : TC(3,2) for definition of CCUB Monit2 packet - 1st part	ZC031999	
	ET= UT=	CCUB_Monit2 - 2st part CCUB_Monit2 - 2st part <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> Det. descr. : TC(3,2) for definition of CCUB Monit2 packet - 2nd part	ZC032999	
	ET= UT=	CCUB_Monit2 - stop CCUB_Monit2 - stop <i>TC Control Flags :</i> GBM IL DSE --Y -- --- <i>Subsch. ID : 10</i> Det. descr. : TC(3,2) for definition of CCUB Monit2 packet - stop	ZC033999	
6		DLCM A		Next Step: 7

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET= UT=	CCUA_DLCM CCUA_DLCM TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,2) for definition of CCUA DLCM packet GBM IL DSE --Y -- --	ZC020999	
7		DLCM B		Next Step: 8
		CCUB_DLCM CCUB_DLCM TC Control Flags : Subsch. ID : 10 Det. descr. : TC(3,2) for definition of CCUB DLCM packet GBM IL DSE --Y -- --	ZC027999	
8		SPIRE Launch Lock Diagnostic		Next Step: END
		TC 32P SPIRE LL TC 32P SPIRE LL Command Parameter(s) : HK_Packet_ID ZH000999 120 <dec> (Def) SID ZH001999 25000 <dec> (Def) Sampling_Interv ZH002999 4 <dec> (Def) Parameter_ID ZH005999 WM107565 (Def) Parameter_ID ZH005999 WMA07565 (Def) TC Control Flags : GBM IL DSE --Y -- -- Subsch. ID : 10 Det. descr. : TC(3,2) Define P DTM SPIRE Launch Lock	ZCB00999	
End of Procedure				