

LCU checksum recalculation
 File: H_FCP_HIF_CCRC.xls
 Author: R. Biggins



Procedure Summary

Objectives

The objective of this procedure is to recalculate the LCU checksum

Based on procedure:
 HIFI_recalc_LCU_checksum_flight (v3)

Summary of Constraints

The following procedures must have been successfully completed:
 H_FCP_HIF_CUPM
 H_FCP_HIF_RLUT

Spacecraft Configuration

Start of Procedure

End of Procedure

Reference File(s)

Input Command Sequences

Output Command Sequences
 HFHCCRC

Referenced Displays

ANDs **GRDs** **SLDs**
 ZAZ9C999
 HA004289

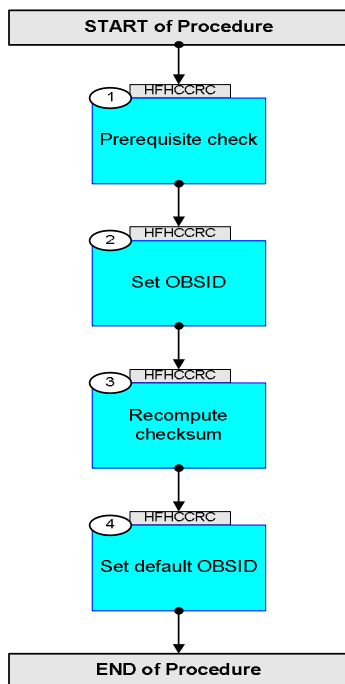
Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
17/03/09	2.2	1	Created	R. Biggins	
30/04/09	2.4	2	Update due to time tag problems in the sequence - ET times removed	R. Biggins	
26/11/09	3	3	Updates due to Prime unit failure resulting in new operation scheme - HIFI housekeeping TCs removed from step 3 - Procedure cover updated	R. Biggins	

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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 : HFHCCRC (LCU checksum)</i></p> <p><i>TimeTag Type: Y</i> <i>Sub Schedule ID:</i></p> <p style="text-align: center;">□</p>				
1		Prerequisite check		Next Step: 2
1.1		HSC/ICC input		□
		Verify that the HSC/ICC has supplied a valid OBSID value		
		OBS_ID = 0xnnnn nnnn		
		Verify that the ICSC has supplied a valid value for the following FP:		
		LCU_CRC		
2		Set OBSID		Next Step: 3
	ET=+ UT=+00.00.01	HIFI_Set_OBS_ID <div style="text-align: right; margin-right: 100px;">HIFI_Set_OBS_ID</div> Command Parameter(s) : <div style="margin-left: 100px;"> HIFI_BB_ID HP001197 HIFI_OBS_ID HP000197 </div> TC Control Flags : <div style="margin-left: 150px;"> GBM IL DSE --Y -- --- </div> Subsch. ID : 70 Det. descr. : Set Observation-ID and Building-Block-ID	HC014289	
		Verify Telemetry		
		BB_ID_per_hk HM004190	= 1EF20001 <hex>	AND=ZAZ9C999
		Verify Telemetry		
		OBS_ID_per_hk HM003190	OBS_ID	AND=ZAZ9C999
3		Recompute checksum		Next Step: 4

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Step No.	Time	Activity/Remarks	TC/TLM	Display/ Branch
	ET=+ UT=+00.00.00	HIFI_LCU_Single HIFI_LCU_Single Command Parameter(s) : HIFI_BB_ID HP001197 LCU_cmd HP234194 TC Control Flags : GBM IL DSE --Y -- --- Subsch. ID : 70 Det. descr. : Send a single command to LCU	HC101289 1EE00001 <hex> HL_DEF_SAFE	
	ET=+ UT=+00.00.01	HIFI_check_LCU_memory HIFI_check_LCU_memory Command Parameter(s) : HIFI_BB_ID HP001197 HIF_step_time_ms HP079197 HIF_check_crc HP233197 Subsch. ID : 70 Det. descr. : Compares checksum of LCU with specified value	HC168289 517996545 <dec> 3000 ms LCU_CRC	
		Verify Telemetry HL_checksum HM245194	LCU_CRC	AND=HA004289
		CONTINGENCY: If the above is not true, the upload has failed and the HIFI ICU needs to be reset. Please consult immediately with the HIFI representative.		
4		Set default OBSID		Next Step: END
	ET=+ UT=+00.00.01	HIFI_Set_OBS_ID HIFI_Set_OBS_ID Command Parameter(s) : HIFI_BB_ID HP001197 HIFI_OBS_ID HP000197 Subsch. ID : 70 Det. descr. : Set Observation-ID and Building-Block-ID	HC014289 0 <hex> (Def) 0 <hex> (Def)	
		Verify Telemetry BB_ID_per_hk HM004190	= 0 <hex>	AND=ZAZ9C999
		Verify Telemetry OBS_ID_per_hk HM003190	= 0 <hex>	AND=ZAZ9C999
End of Procedure				