

Procedure. Ref.: SVT\_OPM\_5051 (1,1) OPERATIONAL MODE FILTER WHEEL TEST

Procedure Title: Operational Mode Filter Wheel Test

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Author: Kate Adamson

#### Purpose of Procedure:

This procedure executes the Operational Mode Filter Wheel Test. The function of the OM Filter wheel as controlled by the ICU is tested in operational mode covering command search for Coarse sensor and comand search for Datum position.

This procedure is foreseen to be used during the OM initial Switch ON and Commissioning.

Initial State: OM ON in SAFE Mode.

Final State: OM ON in SAFE Mode with Filter Wheel in Datum position.

Step	Time	Activity/Remarks	Command	TM Verification
1		Confirm OM in SAFE Mode.  Check HK status and packet arrival every 10 seconds.		<u>AND: H100</u>  H5395 "OM STATE" = SAFE H5405 "ICU STATE" = OPERATIONAL
2		MOVE FILTER WHEEL TO DATUM POSITION		
2.1		Specify Filter wheel move to Datum position.	<u>H7608</u> SET FW TO DATUM	<u>AND: H100</u>  H5385 "TC PACKET COUNT" = increment by 1
2.2		Move Filter Wheel to the specified position.	<u>H5600</u> MOVE FW	
2.3	00:00:25	Wait up to 25 seconds for the TMPSU event. Confirm receipt of TM packet 92600 (PK Dump 1096 OM4)  NOTE - HK TM WILL BE SUSPENDED FOR THE DURATION OF THE FW MOVE.		<u>AND: H911</u>  H7010 "TMPSU EVENT" = FW @ REQ POS
2.4		Check FW status when new OM HK packet is received.		<u>AND: H110</u>  H5150 "FINE PICKOFF" = SEEN H5265 "FW POS COUNTER" = 0
3		MOVE FILTER AWAY FROM DATUM POSITION		
3.1		Command Filter away from the Datum position by 1000 steps.	<u>H7606</u> SET REL STEP POS **H0290 "NUM STEPS" = 1000	<u>AND: H100</u>  H5385 "TC PACKET COUNT" = increment by 1
3.2		Move Filter Wheel to the specified position.	<u>H5600</u> MOVE FW	
3.3		Wait up to 25 seconds for the TMPSU event. Confirm receipt of TM packet 92600 (PK Dump 1096 OM4)  NOTE - HK TM WILL BE SUSPENDED FOR THE DURATION OF THE FW MOVE.		<u>AND: H911</u>  H7010 "TMPSU EVENT" = FW @ REQ POS

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Step	Time	Activity/Remarks	Command	TM Verification
3.4		Check FW status when new OM HK packet is received.		<u>AND: H110</u> H5150 "FINE PICKOFF" = SEEN H5250 "CPOS SENS STAT" = NOT SEEN H5265 "FW POS COUNTER" = 1000
4		MOVE FILTER TO COARSE POSITION SENSOR		
4.1		Specify Filter wheel move to Coarse position sensor.	<u>H7609</u> SET FW TO COARSE	<u>AND: H100</u> H5385 "TC PACKET COUNT" = increment by 1
4.2		Move Filter Wheel to the specified position.	<u>H5600</u> MOVE FW	
4.3		Wait up to 25 seconds for the TMPSU event. Confirm receipt of TM packet 92600 (PK Dump 1096 OM4)  NOTE - HK TM WILL BE SUSPENDED FOR THE DURATION OF THE FW MOVE.		<u>AND: H911</u> H7010 "TMPSU EVENT" = FW @ REQ POS
4.4		Check FW status when new OM HK packet is received.		<u>AND: H110</u> H5250 "CPOS SENS STAT" = SEEN
5		RETURN FILTER WHEEL TO DATUM POSITION		
5.1		Specify Filter wheel move to Datum position.	<u>H7608</u> SET FW TO DATUM	<u>AND: H100</u> H5385 "TC PACKET COUNT" = increment by 1
5.2		Move Filter Wheel to the specified position.	<u>H5600</u> MOVE FW	
5.3		Wait up to 25 seconds for the TMPSU event. Confirm receipt of TM packet 92600 (PK Dump 1096 OM4)  NOTE - HK TM WILL BE SUSPENDED FOR THE DURATION OF THE FW MOVE.		<u>AND: H911</u> H7010 "TMPSU EVENT" = FW @ REQ POS
5.4		Check FW status when new OM HK packet is received.		<u>AND: H110</u> H5150 "FINE PICKOFF" = SEEN H5265 "FW POS COUNTER" = 0
7		END OF PROCEDURE		