

SWA Safe PAS HVs File: IA-FCP-065.xls Author: daniel lakey	 
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Procedure Summary

Objectives

PAS pre-thruster-firing safing

Summary of Constraints

n/a

Spacecraft Configuration

Start of Procedure

PAS on, HVs up

End of Procedure

PAS on, HVs down

Reference File(s)

Input Command Sequences

Output Command Sequences

AIAF065A

Referenced Displays

ANDs GRDs SLDs

Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
14/01/2020		1	SOL_FCR-60 : Update SWA procedures for CSW 3.0.3 & latest FSW	dlakey	M7
20/01/2020		3			M7
08/05/2020		2	SOL_FCR-310 - SWA Procedure Overhaul	dlakey	M7

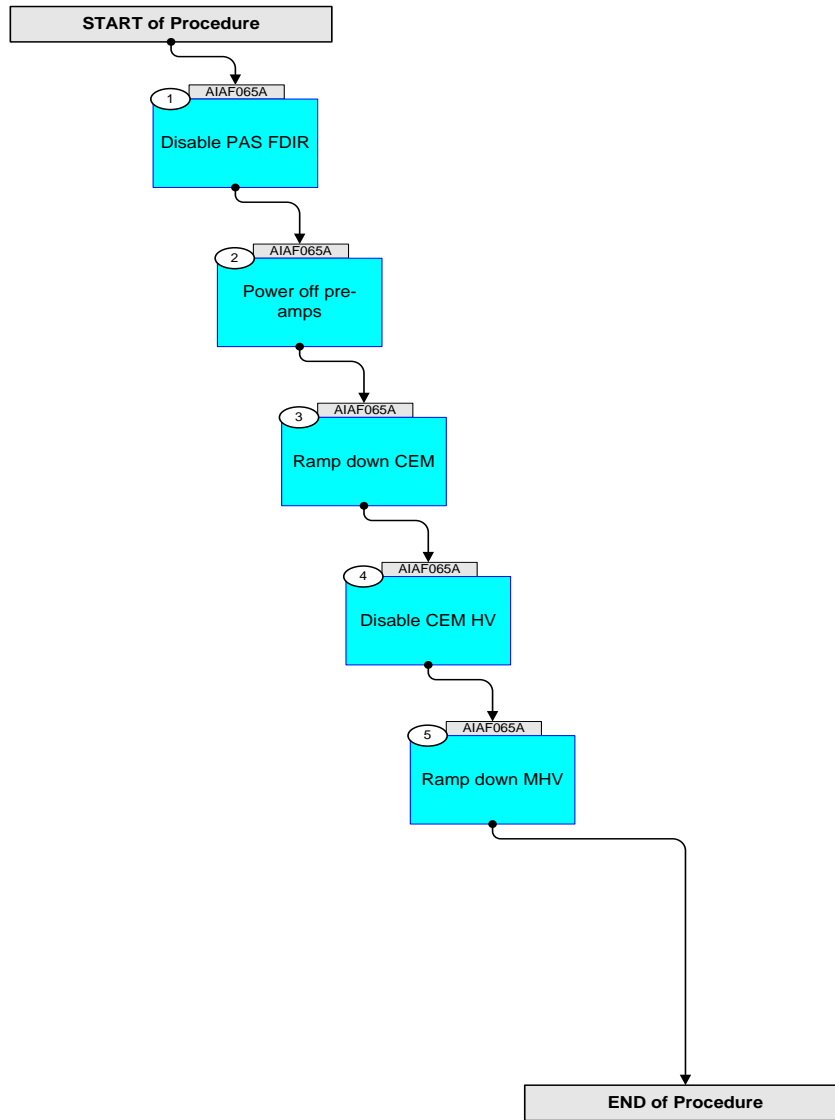
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Procedure Flowchart Overview



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Step	Label/Time	Activity/Remarks/Branch	CK	Display
Beginning of Procedure				
Beginning of Sequence				
AIAF065A		SWA PAS Safe HVs SeqFlags [Crit/Plan/Stdalone/Sched] : NSYN Forced Subschedule : SWA (109) TimeTag type : B <u>Formal Parameter List</u> {FP} XF065A01 DefVal = 570 (INIT_VALUE) <hex>		
1		Disable PAS FDIR Next step(s): -> 2		
		Disable all PAS FDIR		
	+00.00.00	Send SWA_TC_PARS_MON_DIS ZIA58064 SWA_TC_PARS_MON_DIS TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60452 NUM_OF_MON_ID = 28 <dec> PIA60449 MON_ID = V_MON_C_MI <hex> PIA60449 MON_ID = V_MON_L_MI <hex> PIA60449 MON_ID = I_MON_C_MI <hex> PIA60449 MON_ID = I_MON_L_MI <hex> PIA60449 MON_ID = T_MON_C_MI <hex> PIA60449 MON_ID = T_MON_L_MI <hex> PIA60449 MON_ID = P24_VCEMOUT_MI <hex> PIA60449 MON_ID = P5_VCEMOUT_MI <hex> PIA60449 MON_ID = P12_VHTOUT_MI <hex> PIA60449 MON_ID = M12_VHTOUT_MI <hex> PIA60449 MON_ID = P3V_3_FPGA_OMI <hex> PIA60449 MON_ID = P1V_5_FPGA_OMI <hex> PIA60449 MON_ID = TEMP_DCDC_MI <hex> PIA60449 MON_ID = TEMP_FPGA_MI <hex> PIA60449 MON_ID = HK_IP24V_CEMMI <hex> PIA60449 MON_ID = HK_IP5V_CEMMI <hex> PIA60449 MON_ID = HK_IP12V_HTMI <hex> PIA60449 MON_ID = HK_IM12V_HTMI <hex> PIA60449 MON_ID = HK_I3V3_FPGAMI <hex> PIA60449 MON_ID = HK_IP28V_PRIMI <hex> PIA60449 MON_ID = HK_I1V5_FPGAMI <hex> PIA60449 MON_ID = HK_MHV_POSMI <hex> PIA60449 MON_ID = HK_MHV_NEGMI <hex> PIA60449 MON_ID = TEMP_HVPS_MI <hex> PIA60449 MON_ID = HK_IP28V_PRSCI <hex> PIA60449 MON_ID = PASampOverCurr <hex> PIA60449 MON_ID = PASSPWHB_MI <hex> PIA60449 MON_ID = PASMISACK_MI <hex>		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
2		<p>Power off pre-amps</p> <p><i>Next step(s):</i> -> 3</p>		
		Power off pre-amps		
	+00.00.01	<p>Send SWA_TC_PAS_WR_PREAMP_CTRL_REG ZIA58862 SWA_TC_PAS_WR_PREAMP_CTRL_REG</p> <p>TC Control Flags: GBM IL DSE --Y NC ---</p> <p>Command Parameters : PIA58062 PRE_AMP1 = OFF PIA58063 PRE_AMP2 = OFF</p>		
3		<p>Ramp down CEM</p> <p><i>Next step(s):</i> -> 4</p>		
		Ramp down CEM HV to zero		
	+00.00.05	<p>Send SWA_TC_PAS_HV_RAMP_DOWN ZIA58857 SWA_TC_PAS_HV_RAMP_DOWN</p> <p>TC Control Flags: GBM IL DSE --Y NC ---</p> <p>Command Parameters : PIA60790 NOMINAL_VAL = 0 <hex> PIA60791 INIT_VALUE = XF065A01 PIA60792 STEP_VALUE = A4 <hex> PIA60793 HV_WAIT = A <hex></p>		
4		<p>Disable CEM HV</p> <p><i>Next step(s):</i> -> 5</p>		
		Set the MCR (Disable CEMs HV)		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
	+00.03.00	Send SWA_TC_PAS_WR_MASTER_CTRL_REG ZIA58863 SWA_TC_PAS_WR_MASTER_CTRL_REG TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60343 REG_VAL = 1E <hex>		
5		Ramp down MHV Next step(s): -> END		
		Ramp down MHV		
		MHV to 5000V		
	+00.00.01	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = C4E <hex>		
		MHV to 4000V		
	+00.00.15	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = 9D8 <hex>		
		MHV to 3000V		
	+00.00.15	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = 762 <hex>		
		MHV to 2000V		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
	+00.00.15	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = 4EC <hex>		
		MHV to 1000V		
	+00.00.15	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = 276 <hex>		
		MHV to 0xCC V		
	+00.00.15	Send SWA_TC_PAS_SET_MAIN_HV ZIA58869 SWA_TC_PAS_SET_MAIN_HV TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : PIA60344 HV_VAL = CC <hex>		
AIAF065A		End of Sequence		
End of Procedure				