

## COS FUV01 Detector Initial Setup Values

Date:	August 8, 2002
Document Number:	COS-11-0033
Revision:	Revision B
Contract No.:	NAS5-98043
CDRL No.:	SE-05

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## 1. OVERVIEW OF FUV DETECTOR INITIAL VALUES

Many of the flight values for various COS FUV Detector settings are determined during testing which occurs long after the final build of the FSW. Consequently, the plan for managing these detector settings has always been to set these initial values in the FUV FSW by a nominal sequence of DCE commands, which are sent during defined transitions of the FUV Detector subsystem. The CS-DCE FSW has a specific initialization task to handle many of these commandable settings – while others are set during specific HV and/or Door Operations.

## 2. FUV01 INITIAL SETUP VALUES

The following three tables summarize the initial commanded values for the COS FUV01 Detector Subsystem. Table 2-1 contains the Digitizer Settings, Table 2-2 lists the HV Ramp Settings, and Table 2-3 lists the Detector Protection Settings.

**Table 2-1: FUV01 Initial Setup Values – Digitizer Settings**

DCE	CMD	Parameters	Parameter Range	Nominal Value			
LFGBWK	SETTING		0 – 255 CNTS	96	96	100	96
	SEGMENT		0 = A 1 = B	0	0	1	1
	AXIS		0 = DISP 1 = XDISP	0	1	0	1
LFGEWK	SETTING		0 – 255 CNTS	100	96	100	96
	SEGMENT		0 = A 1 = B	0	0	1	1
	AXIS		0 = DISP 1 = XDISP	0	1	0	1
LFGSHF	SETTING		0 – 255 CNTS	136	90	174	166
	SEGMENT		0 = A 1 = B	0	0	1	1
	AXIS		0 = DISP 1 = XDISP	0	1	0	1
LFGSTR	SETTING		0 – 255 CNTS	32	128	68	120
	SEGMENT		0 = A 1 = B	0	0	1	1
	AXIS		0 = DISP 1 = XDISP	0	1	0	1
LFGTT	SETTING		0 – 255 CNTS	208	208	208	208
	SEGMENT		0 = A 1 = B	0	0	1	1
	AXIS		0 = DISP 1 = XDISP	0	1	0	1
LFGUQT	SETTING		0 – 255 CNTS	255		255	
	SEGMENT		0 = A 1 = B	0		1	
LFGLQT	SETTING		0 – 255 CNTS	11		11	
	SEGMENT		0 = A 1 = B	0		1	

**Table 2-2: FUV01 Initial Setup Values – HV Ramp Settings**

DCE CMD	Parameters	Parameter Range	Nominal Value	
LFHRAMPT	RAMP RATE	0 - 255 CNTS	HVON to HVLOW = 100 HVLOW to HVNOM = 30	
LFHVLOW	VOLTAGE	0 - 255 CNTS	100	100
	SEGMENT	0 = A, 1 = B	0	1
LFHVNOM	VOLTAGE	0 - 255 CNTS	160	160
	SEGMENT	0 = A, 1 = B	0	1
LFHVMAX	VOLTAGE	0 - 255 CNTS	160	160
	SEGMENT	0 = A, 1 = B	0	1

**Table 2-3 : FUV01 Initial Setup Values – Protection Settings**

DCE CMD	Parameters	Parameter Range	Nominal Value	
LFHVILIM	HVI LIMIT	0 - 255 CNTS	128	
		0 = DISABLE		
LFRILIM	AUXI LIMIT	0 - 255 CNTS	HV = 128	
		0 = DISABLE	DR Inhibit = 1	
			DR MTR = 20	
			DR Relatch = 20	
			DR Actuator = 140	
LFPCRP	INTERVAL	0 - 255 CNTS	10	10
		0 = DISABLE		
	SEGMENT	0 = A, 1 = B	0	1
	COUNT RATE	0 - 65535 CNTS	60000	60000