

CONTROL Flight Programming Worksheet

Description Dual Deploy w/ Failed Drogue, Backup

Date 8/11/06 By Dave Flynn

".msc" Filename XRushMain1.nctr

Self Test Checks

- Show Version
- Check Battery
- Check Altimeter
- Check Accelerometer
- Confirm AUX open
- Confirm AUX continuity
- Confirm FLOOR continuity
- Confirm PEAK continuity
- Confirm AIR continuity
- Blink Peak

Flight Parameters

Acceleration threshold	2.5g	Minimum battery voltage	8.8	V
Pressure ceiling	299ft	AIRSTART delay	0	s
Pressure floor	1000ft	PEAK delay	0	s
Landing threshold	3ft/s	FLOOR delay	0	s
FALLING! threshold	195ft/s	AUXILIARY delay	1	s

Trigger Sequencing

- Fire airstart 0 s from event timer # 5 latch
- Fire peak 0 s from event timer # 3 latch
- Fire Floor 0 s from event timer # 6 latch
- Fire auxiliary 1 s from event timer # 6 latch

State Descriptions

State 0	LAUNCH DETECT
State 1	Burnout Detect
State 2	Acceleration Apogee
State 3	Pressure Apogee, Drogue Deployment (PEAK)
State 4	Drogue Deployment Delay
State 5	Backup Drogue (AIR)
State 6	Main Deployment x2 (FLOOR, AUX)
State 7	Unused

		0	1	2	3	4	5	6	7
ACC > threshold		✓	☐	☐	☐	☐	☐	☐	☐
ACC < zero		☐	✓	☐	☐	☐	☐	☐	☐
VEL > high limit		☐	☐	☐	☐	☐	✓	☐	☐
VEL < low limit		☐	☐	☐	☐	☐	☐	☐	☐
VEL < zero		☐	☐	✓	☐	☐	☐	☐	☐
ALT > ceiling		✓	☐	☐	☐	☐	☐	☐	☐
ALT < apogee		☐	☐	☐	✓	☐	☐	☐	☐
ALT < floor		☐	☐	☐	☐	✓	✓	✓	☐
AUX channel open		☐	☐	☐	☐	☐	☐	☐	☐
AUX channel closed		☐	☐	☐	☐	☐	☐	☐	☐
Timeout		0	0	0	0	4	0	0	5
LED	15	●	○	○	○	○	○	○	○
	14	○	●	●	○	○	○	○	○
	13	○	○	○	○	○	○	○	○
	12	○	●	●	○	○	○	○	○
	11	●	○	○	○	○	○	●	○
	10	○	○	○	○	○	●	●	○
	9	○	○	○	○	○	●	●	○
	8	○	○	○	○	○	●	●	○
	7	●	○	○	○	○	○	●	○
	6	○	○	●	○	●	●	●	○
	5	○	○	○	○	●	●	●	○
	4	○	○	●	○	●	●	●	○
	3	●	○	○	○	○	○	●	○
	2	○	○	○	●	●	●	●	○
	1	○	○	○	●	●	●	●	○
	0	○	○	○	●	●	●	●	○