MCAT-4CU command set 6C revision 3 10/24/2014 SH MPNL GWU NOT FOR PUBLIC DISTRIBUTION; © The George Washington University; RESTRICTED USE ONLY

Command sequence (Firing)

0 MCAT subsystem is turned on

1 Set "Control Power Management" to ON

2 Choose from "Set Run Mode" to start IPD A-F

3 Wait 5 x Pulses (min.)

4 Activate Thrusters as needed

z-ĸ

seq can be repeated

Command sequence (After a maneuver is complete)

O Complete Firing sequence, or reach waypoint

1 Deactivate thrusters "Z" / reactivate (Y-K) as needed, no delay required.

2 When all thrusters use is finished/deactivated

3 Wait 5 x Pulses (min.)

< CRITICAL

< CRITICAL

4 Deactivate IPD for the last mode

a-f

5 Set "Control Power Management" to OFF

h

Thruster Channel P18H activation table

selection word:
[Ch1Ch2Ch3Ch4]

decimal	binary	cmd (on)	cmd (off)	
0	0000	N/A	Z	DEFAULT
1	0001	Y	Z	
2	0010	Х	Z	
3	0011	W	Z	
4	0100	V	Z	
5	0101	U	Z	
6	0110	T	Z	
7	0111	S	Z	ignore for Bricsat
8	1000	R	Z	
9	1001	Q	Z	
10	1010	P	Z	
11	1011	0	Z	ignore for Bricsat
12	1100	N	Z	
13	1101	М	Z	ignore for Bricsat
14	1110	L	Z	ignore for Bricsat
15	1111	K	Z	

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Other Commands selection table

Command	action	cmd (on)	cmd (off)	
Show Menu	displays menu	J	N/A	
Control P18L	controls P18L1-4	I	i	
Control Power Management	controls PM-A	н	h	
I2C Master Send	multi-master I2C send	G	N/A	ignore for Bricsat
I2C Master Receive	multi-master I2C test	g	N/A	ignore for Bricsat
I2C Telemetry Test	telemetry msg send test	j	N/A	ignore for Bricsat
Set Run Mode to 50 Hz	Set F=50 Hz, enable P18L	F	f	
Set Run Mode to 40 Hz	Set F=40 Hz, enable P18L	E	е	
Set Run Mode to 30 Hz	Set F=30 Hz, enable P18L	D	d	
Set Run Mode to 20 Hz	Set F=20 Hz, enable P18L	C	С	
Set Run Mode to 10 Hz	Set F=10 Hz, enable P18L	В	b	
Set Run Mode to 1 Hz	Set F=1 Hz, enable P18L	A	a	