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# **Command Handbook**

For the COSMOS Demo Project



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# Commands

# **COSMOS STARTCMDLOG**

Starts logging commands for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	44983810	9 44983810	9 449838109	9 0	32	UINT	
OPCODE	COSMOS Command Opcode  Id Value: 3	3	3	3	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

### **COSMOS STARTLOGGING**

Starts logging both commands and telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	44983810	9 44983810	9 449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode Id Value: 2	2	2	2	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

#### **COSMOS STARTTLMLOG**

Starts logging telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode  Id Value: 4	4	4	4	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

#### **COSMOS STOPCMDLOG**

Stops logging commands for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109 4	49838109	449838109	0	32	UINT	



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OPCODE	COSMOS Command Opcode Id Value: 6	6	6	6	32	32	UINT
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING
LABEL	Optional label to place on log files				352	0	STRING

### **COSMOS STOPLOGGING**

Stops logging both commands and telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	44983810	9 449838109	9 449838109	9 0	32	UINT	
OPCODE	COSMOS Command Opcode  Id Value: 5	5	5	5	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

#### **COSMOS STOPTLMLOG**

Stops logging telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode Id Value: 7	7	7	7	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

### PI PUMP

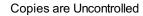
Set pump voltage

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type Units
LENGTH	Length of packet in bytes, must be 9	9	9	9	0	32	UINT
CMD_ID	ID of command, must be 0x30 Id Value: 48	48	48	48	32	8	UINT
	Voltage given to pump, between 0 and 12V $$	0.0	12.0	0.0	40	32	FLOAT

# PI ZERO\_PRESSURE\_SENSORS

Set pump voltage

Item Name	•	Min	Max	Defa	ult Bit Offs	set Bit Si	ze Data Type Units	
LENGTH	Length of packet in bytes, must be 17 ID of command, must be 0x01	17	17	17	0	32	UINT	
CMD_ID	ld Value: 1	1	1	1	32	8	UINT	





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Write Conversion: ZeroPressureSensors

V_ZERO	Zero value for Venturi Pressure	-3.402823e+38 3.402823e+38 0.0	40	32	FLOAT
P_ZERO	Zero value for Pump Pressure	-3.402823e+38 3.402823e+38 0.0	72	32	FLOAT
S_ZERO	Zero value for Static Pressure	-3.402823e+38 3.402823e+38 0.0	104	32	FLOAT