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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	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode <b>Id Value: 3</b>	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	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode <b>Id Value: 2</b>	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 <b>Id Value: 4</b>	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	449838109	449838109	0	32	UINT	



OPCODE	COSMOS Command Opcode <b>Id Value: 6</b>	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	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode <b>Id Value: 5</b>	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 <b>Id Value: 7</b>	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 <b>Id Value: 48</b>	48	48	48	32	8	UINT	
VOLTAGE	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	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
LENGTH	Length of packet in bytes, must be 17	17		17	17	0	32	UINT
CMD_ID	ID of command, must be 0x01 <b>Id Value: 1</b>	1		1	1	32	8	UINT



## Write Conversion: ZeroPressureSensors

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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

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