VTV COMMUNICATION COMMAND SET

File: VTV COMM CMDS REV 2.0.08
Date: 6/20/2006

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
Setpoint 1	SP1	SP1 Set	= SP1 X.X	Range = R1L - R1H C / F	= SP1 100.7	OK
		SP1 Query	? SP1	Range = R1L - R1H C / F	? SP1	100.7
Setpoint 2	SP2	SP2 Set	= SP2 X.X	Range = R2L - R2H C / F / %RH	= SP2 75	OK
		SP2 Query	? SP2	Range = R2L - R2H C / F / %RH	? SP2	75.0
Setpoint 3	SP3	SP3 Set	= SP3 X.X	Range = R3L - R3H C / F / %RP	= SP3 Off	OK
		SP3 Query	? SP3	Range = R3L - R3H C / F / %RP	? SP3	Off
Channel 1 Actual	C1	C1 Query	? C1	Range = R1L - R1H C / F	? C1	25.0
Channel 2 Actual	C2	C2 Query	? C2	Range = R2L - R2H C / F / %RH	? C2	50.0
Channel 3 Actual	C3	C3 Query	? C3	Range = R3L - R3H C / F / %RP	? C3	Channel 3 is Off
Chamber On	ON	On Set	= ON	OK	= ON	OK
		On Query	? On	1 if On, 0 if Off	? On	0
Chamber Off	OFF	OFF Set	= OFF	OK	= OFF	OK
Run Program	RUN	RUN Set	= RUN	OK	= RUN	OK
		Run Query	? RUN	Returns: 0 - Stop 1 - Run 2 - Pause 3 - Steady State	? RUN	0
Pause Program	HOLD	HOLD Set	= HOLD	OK	= HOLD	OK
Resume Program	RSUM	RSUM Set	= RSUM	OK	= RSUM	OK
Software Revision	*IDN	*IDN Query	*IDN ?	Returns Revision Info: Make, Model, Serial #, Version	*IDN?	Lunaire, VersaTenn V,Serial-02/0105,Version 1.3.8
Enable/Disable UUT Monitoring constants	UUT	UUT Set	= UUT ARG1 ARG2	ARG1 = UUT # (1 - 8) ARG2 = 0/1 (Enable / Disable)	= UUT 1 1	OK
		UUT Query	? UUT ARG1	Range: ARG1 = UUT # (1 - 8). Response: 0/1 (Enabled / Disabled)	? UUT 1	0
UUT Readings	UUTR	UUTR Query	? UUT ARG1	Range: ARG1 = UUT # (1 - 8). Response: comma delimited string with 8 UUT temperature readings If a sensor is not enabled, all values returned will be 400.0 C or 752.0 F. C / F	? UUTR 1	33.8,33.5,33.3,33.1,32.9,32.7,32.4,32.2

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Olympic Board Version	OVERSION	OVERSION Query	? OVERSION	Olympic board Version and Serial Number	? OVERSION	VersaTennV, 02/0105
Digital Input Readings	DI	DI Query	? DI	4 digit hex number for the 16 Digital Input readings	? DI	FEFF
Machine Input Readings	MI	MI Query	? MI	Comma delimited string with the 8 Machine Input Readings LP,T,HP,T,LP,T,HP,T	? MI	1.1 PSIG,2.1 C,2.9 PSIG,4.0 C,4.9 PSIG,6.0 C,6.8 PSIG,7.9 C
Ch1 Cooling Output	1LO	1LO Query	? 1LO	1 - 100 %	? 1LO	0.0
Ch1 Heating Output	1HI	1HI Query	? 1HI	1 - 100 %	? 1HI	100.0
Ch2 Cooling Output	2LO	2LO Query	? 2LO	1 - 100 %	? 2LO	0.0
Ch2 Heating Output	2HI	2HI Query	? 2HI	1 - 100 %	? 2HI	100.0
Ch3 Cooling Output	3LO	3LO Query	? 3LO	1 - 100 %	? 3LO	0.0
Ch3 Heating Output	3HI	3HI Query	? 3HI	1 - 100 %	? 3HI	100.0
Calibration Ch 1	CAL1	CAL1 Set	= CAL1 ARG1	-50 to 50 C -90 to 90 F	= CAL1 10.0	OK
		CAL1 Query	? CAL1	-50 to 50 C -90 to 90 F	? CAL1	10.00
Low Alarm, Ch 1	A1L	A1L Set	= A1L ARG1	-200 to 500 C -326 to 932 F	= A1L -200	OK
		A1L Query	? A1L	-200 to 500 C -326 to 932 F	? A1L	-200
High Alarm, Ch 1	A1H	A1H Set	= A1H ARG1	-200 to 500 C -326 to 932 F	= A1H 500	OK
		A1H Query	? A1H	-200 to 500 C -326 to 932 F	? A1H	500
Ignore Ch1 Alarm	IGNORE_CH1_ALM	IGNORE_CH1_ALM Set	= IGNORE_CH1_ALM ARG1	ARG1: 0 - Disabled 1 - Enabled	= IGNORE_CH1_ALM 1	OK
		IGNORE_CH1_ALM Query	? IGNORE_CH1_ALM	0 - Disabled 1 - Enabled	? IGNORE_CH1_ALM	1
Calibration Ch 2	CAL2	CAL2 Set	= CAL2 ARG1	-50 to 50 C -90 to 90 F -50 to 50 %RH	= CAL2 10.0	OK
		CAL2 Query	? CAL2	-50 to 50 C -90 to 90 F -50 to 50 %RH	? CAL2	10.00
Low Alarm, Ch 2	A2L	A2L Set	= A2L ARG1	- 200 to 500 C -326 to 932 F -10 to 105 %RH	= A2L -10	OK
		A2L Query	? A2L	- 200 to 500 C -326 to 932 F -10 to 105 %RH	? A2L	-10.00
High Alarm, Ch 2	A2H	A2H Set	= A2H ARG1	- 200 to 500 C -326 to 932 F -10 to 105 %RH	= A2H 104	OK
		A2H Query	? A2H	- 200 to 500 C -326 to 932 F -10 to 105 %RH	? A2H	104.00
Ignore Ch2 Alarm	IGNORE_CH2_ALM	IGNORE_CH2_ALM Set	= IGNORE_CH2_ALM ARG1	ARG1: 0 - Disabled 1 - Enabled	= IGNORE_CH2_ALM 1	OK

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
		IGNORE_CH2_ALM Query	? IGNORE_CH2_ALM	0 - Disabled 1 - Enabled	? IGNORE_CH2_ALM	1
Calibration Ch 3	CAL3	CAL3 Set	= CAL3 ARG1	-50 to 50 %RP	= CAL3 10.0	OK
		CAL3 Query	? CAL3	-50 to 50 %RP	? CAL3	10.00
Low Alarm, Ch 3	A3L	A3L Set	= A3L ARG1	0 to 1000 %RP	= A3L -10	OK
		A3L Query	? A3L	0 to 1000 %RP	? A3L	-10.00
High Alarm, Ch 3	A3H	A3H Set	= A3H ARG1	0 to 1000 %RP	= A3H 110	OK
		A3H Query	? A3H	0 to 1000 %RP	? A3H	110.00
Ignore Ch3 Alarm	IGNORE_CH3_ALM	IGNORE_CH3_ALM Set	= IGNORE_CH3_ALM ARG1	ARG1: 0 - Disabled 1 - Enabled	= IGNORE_CH3_ALM 1	OK
		IGNORE_CH3_ALM Query	? IGNORE_CH3_ALM	0 - Disabled 1 - Enabled	? IGNORE_CH3_ALM	1
Altitude Value	ALT	ALT Set	= ALT ARG1	0 to 5000 %RP	= ALT 10	OK
		ALT Query	? ALT	0 to 5000 %RP	? ALT	10.00
Guaranteed Soak	GS	GS Set	= GS ARG1	0 to 50 C 0 to 90 F	= GS 10	OK
		GS Query	? GS	0 to 50 C 0 to 90 F	? GS	10.00
Prop. Band, Ch 1 Heat	PB1H	PB1H Set	= PB1H ARG1	0 to 50 C 0 to 90 F	= PB1H 10	OK
		PB1H Query	? PB1H	0 to 50 C 0 to 90 F	? PB1H	10.00
Reset, Ch 1 Heat	RS1H	RS1H Set	= RS1H ARG1	0 - 09.999 Repeats / Minute	= RS1H .02	OK
		RS1H Query	? RS1H	0 - 09.999 Repeats / Minute	? RS1H	0.020
Rate, Ch 1 Heat	RT1H	RT1H Set	= RT1H ARG1	0 - 09.999 Minutes	= RT1H	OK
		RT1H Query	? RT1H	0 - 09.999 Minutes	? RT1H	1.000
Cycle Time, Ch 1 Heat	CT1H	CT1H Set	= CT1H ARG1	1 - 60 Seconds	= CT1H 5	OK
		CT1H Query	? CT1H	1 - 60 Seconds	? CT1H	5.00
Rate Band, Ch 1 Heat	RB1H	RB1H Set	= RB1H ARG1	0 - 7 Seconds	= RB1H 4	OK
		RB1H Query	? RB1H	0 - 7 Seconds	? RB1H	4.000
Dead Band, Ch 1	DB1	DB1 Set	= DB1 ARG1	-25 to 25 C -45 to 45 F	= DB1 5	OK
		DB1 Query	? DB1	-25 to 25 C -45 to 45 F	? DB1	5.00
Prop Band, Ch 1 Cool	PB1C	PB1C Set	= PB1C ARG1	0 to 50 C 0 to 90 F	= PB1C 10	OK
		PB1C Query	? PB1C	0 to 50 C 0 to 90 F	? PB1C	10.00
Reset, Ch 1 Cool	RS1C	RS1C Set	= RS1C ARG1	0 - 09.999 Repeats / Minute	= RS1C .700	OK
		RS1C Query	? RS1C	0 - 09.999 Repeats / Minute	? RS1C	0.070
Rate, Ch 1 Cool	RT1C	RT1C Set	= RT1C ARG1	0 - 09.999 Minutes	= RT1C 1	OK
		RT1C Query	? RT1C	0 - 09.999 Minutes	? RT1C	1.000
Cycle Time, Ch 1 Cool	CT1C	CT1C Set	= CT1C ARG1	1 - 60 Seconds	= CT1C 7	OK
		CT1C Query	? CT1C	1 - 60 Seconds	? CT1C	7.00
Rate Band, Ch 1 Cool	RB1C	RB1C Set	= RB1C ARG1	0 - 7 Seconds	= RB1C 4	OK
		RB1C Query	? RB1C	0 - 7 Seconds	? RB1C	4.000
Cascade CH1 Enabled **	CAS1_ENABLED		= CAS1_ENABLED ARG1	ARG1: 0 - Disabled 1 - Enabled	= CAS1_ENABLED 1	OK

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
			? CAS1_ENABLED	0 - Disabled 1 - Enabled	? CAS1_ENABLED	1
Channel 1 Cascade Sensor **	CSS1	CSS1 Set	= CSS1 ARG1	ARG1 - ID of the Sensor. 100 - 999.	= CSS1 120	OK
		CSS1 Query	? CSS1	See the user manual for numeric codes.	? CSS1	120
CH 1 Cascade High Limit **	C1HL	C1HL Set	= C1HL ARG1	- 200 to 500 C -326 to 932 F	= C1HL 200	OK
		C1HL Query	? C1HL	- 200 to 500 C -326 to 932 F	? C1HL	200.00
CH 1 Cascade Low Limit **	C1LL	C1LL Set	= C1LL ARG1	- 200 to 500 C -326 to 932 F	= C1LL -100	OK
		C1LL Query	? C1LL	- 200 to 500 C -326 to 932 F	? C1LL	-100.00
CH 1 High Max. Delta** (Positive Deviation Limit)	CH1HMAXDELTA	CH1HMAXDELTA Set	= CH1HMAXDELTA ARG1	0 to 50 C 0 to 90 F	= CH1HMAXDELTA 10	OK
		CH1HMAXDELTA Query	? CH1HMAXDELTA	0 to 50 C 0 to 90 F	? CH1HMAXDELTA	10
CH 1 Low Max. Delta** (Negative Deviation Limit)	CH1LMAXDELTA	CH1LMAXDELTA Set	= CH1LMAXDELTA ARG1	0 to 50 C 0 to 90 F	= CH1LMAXDELTA 10	OK
		CH1LMAXDELTA Query	? CH1LMAXDELTA	0 to 50 C 0 to 90 F	? CH1LMAXDELTA	10
CH 2 High Max. Delta** (Positive Deviation Limit)	CH2HMAXDELTA	CH2HMAXDELTA Set	= CH2HMAXDELTA ARG1	0 to 50 C 0 to 90 F	= CH2HMAXDELTA 10	OK
		CH2HMAXDELTA Query	? CH2HMAXDELTA	0 to 50 C 0 to 90 F	? CH2HMAXDELTA	10
CH 2 Low Max. Delta** (Negative Deviation Limit)	CH2LMAXDELTA	CH2LMAXDELTA Set	= CH2LMAXDELTA ARG1	0 to 50 C 0 to 90 F	= CH2LMAXDELTA 10	OK
		CH2LMAXDELTA Query	? CH2LMAXDELTA	0 to 50 C 0 to 90 F	? CH2LMAXDELTA	10
CH1 Cascade Prop. Band **	CPB1H	CPB1H Set	= CPB1H ARG1	0 to 400 C 0 to 752 F	= CPB1H 10	OK
		CPB1H Query	? CPB1H	0 to 400 C 0 to 752 F	? CPB1H	
CH1 Cascade Reset **	CRS1H	CRS1H Set	= CRS1H ARG1	0 - 09.99 Repeats / Minute	? CRS1H	OK
		CRS1H Query	? CRS1H	0 - 09.99 Repeats / Minute	? CRS1H	1.000
CH1 Cascade Rate **	CRT1H	CRT1H Set	= CRT1H ARG1	0 - 09.99 Minutes	= CRT1H 1	OK
		CRT1H Query	? CRT1H	0 - 09.99 Minutes	? CRT1H	1.000
CH1 Cascade Rate Band **	CBR1H	CRB1H Set	= CRB1H ARG1	0 - 09.99 Minutes	= CRB1H 4	OK
		CRB1H Query	? CRB1H	0 - 09.99 Minutes	? CRB1H	4.000
CH1 Cascade PID value	CPID1	CPID1 Query	? CPID1	0 - 100%	? CPID1	0.0
CH2 Cascade PID value	CPID2	CPID2 Query	? CPID2	0 - 100%	? CPID2	0.0
Raw Channel Input Data	CIRAW	CIRAW Query	? CIRAW	RTD1,RTD2,ADC1,ADC2,ADC3,ADC4	? CIRAW	115.290,110.280,1.222,2.494,2.494,2.494

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
Raw Channel Input Data	MIRAW	MIRAW Query	? MIRAW	ADC1, ADC2, ADC3, ADC4, ADC5, ADC6, ADC7, ADC8	? MIRAW	0.1,0.1,0.1,0.1, 0.1,0.1,0.1,0.1
Prop. Band, Ch 2 Heat	PB2H	PB2H Set	= PB2H ARG1	0 to 50 %RH	= PB2H 42	OK
		PB2H Query	? PB2H	0 to 50 %RH	? PB2H	42.00
Reset, Ch 2 Heat	RS2H	RS2H Set	= RS2H ARG1	0 - 09.999 Repeats / Minute	= RS2H .02	OK
		RS2H Query	? RS2H	0 - 09.999 Repeats / Minute	? RS2H	0.020
Rate, Ch 2 Heat	RT2H	RT2H Set	= RT2H ARG1	0 - 09.999 Minutes	= RT2H 1	OK
		RT2H Query	? RT2H	0 - 09.999 Minutes	? RT2H	1.000
Cycle Time, Ch 2 Heat	CT2H	CT2H Set	= CT2H ARG1	1 - 60 Seconds	= CT2H 1	OK
		CT2H Query	? CT2H	1 - 60 Seconds	? CT2H	1.00
Rate Band, Ch 2 Heat	RB2H	RB2H Set	= RB2H ARG1	0 - 7 Seconds	= RB2H 4	OK
		RB2H Query	? RB2H	0 - 7 Seconds	? RB2H	4.000
Dead Band, Ch 2	DB2	DB2 Set	= DB2 ARG1	-25 to 25 %RH	= DB2 5	OK
		DB2 Query	? DB2	-25 to 25 %RH	? DB2	5.00
Prop Band, Ch 2 Cool	PB2C	PB2C Set	= PB2C ARG1	0 to 50 %RH	= PB2C 40	OK
		PB2C Query	? PB2C	0 to 50 %RH	? PB2C	40.00
Reset, Ch 2 Cool	RS2C	RS2C Set	= RS2C ARG1	0 - 09.999 Repeats / Minute	= RS2C .1	OK
		RS2C Query	? RS2C	0 - 09.999 Repeats / Minute	? RS2C	0.100
Rate, Ch 2 Cool	RT2C	RT2C Set	= RT2C ARG1	0 - 09.999 Minutes	= RT2C 1	OK
		RT2C Query	? RT2C	0 - 09.999 Minutes	? RT2C	1.000
Cycle Time, Ch 2 Cool	CT2C	CT2C Set	= CT2C ARG1	1 - 60 Seconds	= CT2C 1	OK
		CT2C Query	? CT2C	1 - 60 Seconds	? CT2C	1.00
Rate Band, Ch 2 Cool	RB2C	RB2C Set	= RB2C ARG1	0 - 7 Seconds	= RB2C 4	OK
		RB2C Query	? RB2C	0 - 7 Seconds	? RB2C	4.000
Prop. Band, Ch 3 Heat	PB3H	PB3H Set	= PB3H ARG1	0-0999 %RP	= PB3H 10	OK
		PB3H Query	? PB3H	0-0999 %RP	? PB3H	10.00
Reset, Ch 3 Heat	RS3H	RS3H Set	= RS3H ARG1	0 - 09.999 Repeats / Minute	= RS3H .02	OK
		RS3H Query	? RS3H	0 - 09.999 Repeats / Minute	? RS3H	0.020
Rate, Ch 3 Heat	RT3H	RT3H Set	= RT3H ARG1	0 - 09.999 Minutes	= RT3H 1	OK
		RT3H Query	? RT3H	0 - 09.999 Minutes	? RT3H	1.000
Cycle Time, Ch 3 Heat	CT3H	CT3H Set	= CT3H ARG1	1 - 60 Seconds	= CT3H 5	OK
		CT3H Query	? CT3H	1 - 60 Seconds	? CT3H	5.00
Rate Band, Ch 3 Heat	RB3H	RB3H Set	= RB3H ARG1	1 - 7 Seconds	= RB3H 4	OK
		RB3H Query	? RB3H	1 - 7 Seconds	? RB3H	4.000
Dead Band, Ch 3	DB3	DB3 Set	= DB3 ARG1	-25 to 25 %RP	= DB3 5	OK
		DB3 Query	? DB3	-25 to 25 %RP	? DB3	5.00
Prop Band, Ch 3 Cool	PB3C	PB3C Set	= PB3C ARG1	0-0999 %RP	= PB3C 10	OK
		PB3C Query	? PB3C	0-0999 %RP	? PB3C	10.00
Reset, Ch 3 Cool	RS3C	RS3C Set	= RS3C ARG1	0 - 09.999 Repeats / Minute	= RS3C .07	OK
		RS3C Query	? RS3C	0 - 09.999 Repeats / Minute	? RS3C	0.070
Rate, Ch 3 Cool	RT3C	RT3C Set	= RT3C ARG1	0 - 09.999 Minutes	= RT3C 1	OK
		RT3C Query	? RT3C	0 - 09.999 Minutes	? RT3C	1.000

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Cycle Time, Ch 3 Cool	CT3C	CT3C Set	= CT3C ARG1	1 - 60 Seconds	= CT3C 7	OK
		CT3C Query	? CT3C	1 - 60 Seconds	? CT3C	7.00
Rate Band, Ch 3 Cool	RB3C	RB3C Set	= RB3C ARG1	1 - 60 Seconds	= RB3C 4	OK
		RB3C Query	? RB3C	1 - 60 Seconds	? RB3C	4.000
Celsius / Fahrenheit Temp Display	CF	CF Set	= CF ARG1	ARG1: 0 - Celsius 1 - Fahrenheit	= CF 0	OK
		CF Query	? CF	0 - Celsius 1 - Fahrenheit	? CF	0
Output 11 Control Type	OT11	OT11 Set	= OT11 ARG1	ARG1: 0 - On / Off Control Mode 1 - Time Prop. Control Mode	= OT11 0	OK
		OT11 Query	? OT11	0 - On / Off Control Mode 1 - Time Prop. Control Mode	? OT11	0
Output 17 Control Type	OT17	OT17 Set	= OT17 ARG1	ARG1: 0 - Vacuum 1 - Purge	= OT17 1	OK
		OT17 Query	? OT17	0 - Vacuum 1 - Purge	? OT17	1
Output 18 Control Type	OT18	OT18 Set	= OT18 ARG1	ARG1: 0 - Vent 1 - Boost Cool	= OT18 1	OK
		OT18 Query	? OT18	0 - Vent 1 - Boost Cool	? OT18	1
Alarm Type	ATYP	ATYP Set	= ATYP ARG1	ARG1: 0 - Process Alarm 1 - Deviate Alarm	= ATYP 1	OK
		ATYP Query	? ATYP	0 - Process Alarm 1 - Deviate Alarm	? ATYP	1
Low Limit, Ch 1	R1L	R1L Set	= R1L ARG1	- 200 to 500 C -326 to 932 F	= R1L -200	OK
		R1L Query	? R1L	- 200 to 500 C -326 to 932 F	? R1L	-200
High Limit, Ch 1	R1H	R1H Set	= R1H ARG1	- 200 to 500 C -326 to 932 F	= R1H 500	OK
		R1H Query	? R1H	- 200 to 500 C -326 to 932 F	? R1H	500
Low Limit, Ch 2	R2L	R2L Set	= R2L ARG1	- 200 to 500 %RH	= R2L -1	OK
		R2L Query	? R2L	- 200 to 500 %RH	? R2L	-1
High Limit, Ch 2	R2H	R2H Set	= R2H ARG1	- 200 to 500 %RH	= R2H 100	OK
		R2H Query	? R2H	- 200 to 500 %RH	? R2H	100
RTD Curve	RTD	RTD Set	= RTD ARG1	ARG1: 0 - JIS 1 - DIN	= RTD 0	OK
		RTD Query	? RTD	0 - JIS 1 - DIN	? RTD	0

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
Vaisala Compensation	VCMP	VCMP Set	= VCMP ARG1	ARG1: 0 - On 1 - Off	= VCMP 0	OK
		VCMP Query	? VCMP	0 - On 1 - Off	? VCMP	0
1L1	1L1	1L1 Set	= 1L1 ARG1	0 - 100 %	= 1L1 50	OK
		1L1 Query	? 1L1	0 - 100 %	? 1L1	50.00
1L2	1L2	1L2 Set	= 1L2 ARG1	0 - 100 %	= 1L2 20	OK
		1L2 Query	? 1L2	0 - 100 %	? 1L2	20.00
1L3	1L3	1L3 Set	= 1L3 ARG1	-100 to 100 C -148 to 212 F	= 1L3 10	OK
		1L3 Query	? 1L3	-100 to 100 C -148 to 212 F	? 1L3	10.00
1CTY	1CTY	1CTY Set	= 1CTY ARG1	ARG1: 0 - CAP - Tube System 1 - Agree Logic 2 - Burn In Logic 3 - Standard XV Sys Logic	= 1CTY 1	OK
		1CTY Query	? 1CTY	0 - CAP - Tube System 1 - Agree Logic 2 - Burn In Logic 3 - Standard XV Sys Logic	? 1CTY	0
2L1	2L1	2L1 Set	= 2L1 ARG1	-100 - 100 %	= 2L1 50	OK
		2L1 Query	? 2L1	-100 - 100 %	? 2L1	50.00
2L2	2L2	2L2 Set	= 2L2 ARG1	-100 - 100 %	= 2L2 20	OK
		2L2 Query	? 2L2	-100 - 100 %	? 2L2	50.00
2L3	2L3	2L3 Set	= 2L3 ARG1	-100 to 100 C -148 to 212 F	= 2L3 10	OK
		2L3 Query	? 2L3	-100 to 100 C -148 to 212 F	? 2L3	50.00
2CTY	2CTY	2CTY Set	= 2CTY ARG1	ARG1: 0 - CAP - Tube System 1 - Agree Logic 2 - Burn In Logic 3 - Standard XV Sys Logic	= 2CTY 1	OK
		2CTY Query	? 2CTY	0 - CAP - Tube System 1 - Agree Logic 2 - Burn In Logic 3 - Standard XV Sys Logic	? 2CTY	0
L3	L3	L3 Set	= L3 ARG1	0 - 100 %	= L3 20	OK
		L3 Query	? L3	0 - 100 %	? L3	20.00
L4	L4	L4 Set	= L4 ARG1	0 - 100 %	= L4 20	OK
		L4 Query	? L4	0 - 100 %	? L4	20.00
		L6 Query	? L6	-100 to 100 C -148 to 212 F	? L6	20.00
L6	L6	L6 Set	= L6 ARG1	-100 to 100 C -148 to 212 F	= L6 20	OK
L7	L7	L7 Set	= L7 ARG1	0 - 100 %	= L7 10	OK
		L7 Query	? L7	0 - 100 %	? L7	10.00

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
L8	L8	L8 Set	= L8 ARG1	0 - 100 %	= L8 80	OK
		L8 Query	? L8	0 - 100 %	? L8	80.00
L9	L9	L9 Set	= L9 ARG1	-100 to 100 C -148 to 212 F	= L9 50	OK
		L9 Query	? L9	-100 to 100 C -148 to 212 F	? L9	50.00
L11	L11	L11 Set	= L11 ARG1	0 - 100 %	= L11 20	OK
		L11 Query	? L11	0 - 100 %	? L11	20.00
L12	L12	L12 Set	= L12 ARG1	0 - 100 %	= L12 10	OK
		L12 Query	? L12	0 - 100 Seconds	? L12	10.00
L14	L14	L14 Set	= L14 ARG1	0 - 60 Seconds	= L14 10	OK
		L14 Query	? L14	0 - 60 %	? L14	10.00
L15	L15	L15 Set	= L15 ARG1	0 - 5 Minutes	= L15 2	OK
		L15 Query	? L15	0 - 5 Minutes	? L15	2
LEV1	LEV1	LEV1 Set	= LEV1	ARG1: 0 - Dehumidify Coil 1 - Drier	=LEV1 1	OK
		LEV1 Query	? LEV1	ARG1: 0 - Dehumidify Coil 1 - Drier	? LEV1	1
Enable Logging	LOGGING_ ENABLED	LOGGING_ENAB LED Set	= LOGGING_ ENABLED ARG1	ARG1: 0 - Disabled 1 - Enabled	= LOGGING_ ENABLED 1	OK
		LOGGING_ENAB LED Query	? LOGGING_ ENABLED	0 - Disabled 1 - Enabled	? LOGGING_ ENABLED	1
Logging Interval	LOGGING_ INTERVAL	LOGGING_INTER VAL Set	= LOGGING_ INTERVAL ARG1	0 to 3600 Seconds	= LOGGING_ INTERVAL 60	OK
		LOGGING_INTER VAL Query	? LOGGING_ INTERVAL	0 to 3600 Seconds	? LOGGING_ INTERVAL	60
Log File Size	LOG_FILE_ SIZE	LOG_FILE_SIZE Set	= LOG_FILE_SIZE ARG1	0.25 - 5 MB	= LOG_FILE_SIZE 1.4	OK
		LOG_FILE_SIZE Query	? LOG_FILE_SIZE	0.25 - 5 MB	? LOG_FILE_SIZE	1.40
Log Ch1 Actual	LOG_CH1_ ACT	LOG_CH1_ACT Set	= LOG_CH1_ACT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH1_ACT 1	OK
		LOG_CH1_ACT Query	? LOG_CH1_ACT	0 - Don't Log 1 - Log	? LOG_CH1_ACT	1
Log Ch2 Actual	LOG_CH2_ ACT	LOG_CH2_ACT Set	= LOG_CH2_ACT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH2_ACT 1	OK
		LOG_CH2_ACT Query	? LOG_CH2_ACT	0 - Don't Log 1 - Log	? LOG_CH2_ACT	1

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
Log Ch3 Actual	LOG_CH3_ACT	LOG_CH3_ACT Set	= LOG_CH3_ACT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH3_SP 1	OK
		LOG_CH3_ACT Query	? LOG_CH3_ACT	0 - Don't Log 1 - Log	? LOG_CH3_SP	1
Log Ch1 Setpoint	LOG_CH1_SP	LOG_CH1_SP Set	= LOG_CH1_SP ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH1_SP 1	OK
		LOG_CH1_SP Query	? LOG_CH1_SP	0 - Don't Log 1 - Log	? LOG_CH1_SP	1
Log Ch2 Setpoint	LOG_CH2_SP	LOG_CH2_SP Set	#NAME?	ARG1: 0 - Don't Log 1 - Log	= LOG_CH2_SP 1	OK
		LOG_CH2_SP Query	? LOG_CH2_SP	0 - Don't Log 1 - Log	? LOG_CH2_SP	1
Log Ch3 Setpoint	LOG_CH3_SP	LOG_CH3_SP Set	= LOG_CH3_SP ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH3_SP 1	OK
		LOG_CH3_SP Query	? LOG_CH3_SP	0 - Don't Log 1 - Log	? LOG_CH3_SP	1
Log CH1 Cascade Act **	LOG_CAS_CH1_ACT	LOG_CAS_CH1_ACT Set	= LOG_CAS_CH1_ACT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CAS_CH1_ACT 1	OK
		LOG_CAS_CH1_ACT Query	? LOG_CAS_CH1_ACT	0 - Don't Log 1 - Log	? LOG_CAS_CH1_ACT	1
Log CH1 Cascade SP **	LOG_CAS_CH1_SP	LOG_CAS_CH1_SP Set	= LOG_CAS_CH1_SP ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CAS_CH1_SP 1	OK
		LOG_CAS_CH1_SP Query	? LOG_CAS_CH1_SP	0 - Don't Log 1 - Log	? LOG_CAS_CH1_SP	1
Log CH1 Cascade PID **	LOG_CAS_CH1_PID	LOG_CAS_CH1_PID Set	= LOG_CAS_CH1_PID ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CAS_CH1_PID 1	OK
		LOG_CAS_CH1_PID Query	? LOG_CAS_CH1_PID	0 - Don't Log 1 - Log	? LOG_CAS_CH1_PID	1
Log Ch 1 Heat PID	LOG_CH1_HEAT	LOG_CH1_HEAT Set	= LOG_CH1_HEAT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH1_HEAT 1	OK
		LOG_CH1_HEAT Query	? LOG_CH1_HEAT	0 - Don't Log 1 - Log	? LOG_CH1_HEAT	1
Log Ch 1 Cool PID	LOG_CH1_Cool	LOG_CH1_Cool Set	= LOG_CH1_Cool ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH1_COOL 1	OK

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
		LOG_CH1_ Cool Query	? LOG_CH1_Cool	0 - Don't Log 1 - Log	? LOG_CH1_COOL	0
Log Ch 2 Heat PID	LOG_CH2_ HEAT	LOG_CH2_ HEAT Set	= LOG_CH2_HEAT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH2_HEAT 1	OK
		LOG_CH2_ HEAT Query	? LOG_CH2_HEAT	0 - Don't Log 1 - Log	? LOG_CH2_HEAT	0
Log Ch 2 Cool PID	LOG_CH2_ Cool	LOG_CH2_ Cool Set	= LOG_CH2_Cool ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH2_COOL 1	OK
		LOG_CH2_ Cool Query	? LOG_CH2_Cool	0 - Don't Log 1 - Log	? LOG_CH2_COOL	0
Log Ch 3 Heat PID	LOG_CH3_ HEAT	LOG_CH3_ HEAT Set	= LOG_CH3_HEAT ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH3_HEAT 1	OK
		LOG_CH3_ HEAT Query	? LOG_CH3_HEAT	0 - Don't Log 1 - Log	? LOG_CH3_HEAT	0
Log Ch 3 Cool PID	LOG_CH3_ Cool	LOG_CH3_ Cool Set	= LOG_CH3_Cool ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_CH3_COOL 1	OK
		LOG_CH3_ Cool Query	? LOG_CH3_Cool	0 - Don't Log 1 - Log	? LOG_CH3_COOL	0
Log Machine Input 1	LOG_MACH INE1	LOG_MACHINE1 Set	= LOG_MACHINE1 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE1 1	OK
		LOG_MACHINE1 Query	? LOG_MACHINE1	0 - Don't Log 1 - Log	? LOG_MACHINE1	0
Log Machine Input 2	LOG_MACH INE2	LOG_MACHINE2 Set	= LOG_MACHINE2 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE2 1	OK
		LOG_MACHINE2 Query	? LOG_MACHINE2	0 - Don't Log 1 - Log	? LOG_MACHINE2	0
Log Machine Input 3	LOG_MACH INE3	LOG_MACHINE3 Set	= LOG_MACHINE3 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE3 1	OK
		LOG_MACHINE3 Query	? LOG_MACHINE3	0 - Don't Log 1 - Log	? LOG_MACHINE3	0
Log Machine Input 4	LOG_MACH INE4	LOG_MACHINE4 Set	= LOG_MACHINE4 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE4 1	OK
		LOG_MACHINE4 Query	? LOG_MACHINE4	0 - Don't Log 1 - Log	? LOG_MACHINE4	0

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
Log Machine Input 5	LOG_MACHINE5	LOG_MACHINE5 Set	= LOG_MACHINE5 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE5 1	OK
		LOG_MACHINE5 Query	? LOG_MACHINE5	0 - Don't Log 1 - Log	? LOG_MACHINE5	0
Log Machine Input 6	LOG_MACHINE6	LOG_MACHINE6 Set	= LOG_MACHINE6 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE6 1	OK
		LOG_MACHINE6 Query	? LOG_MACHINE6	0 - Don't Log 1 - Log	? LOG_MACHINE6	0
Log Machine Input 7	LOG_MACHINE7	LOG_MACHINE7 Set	= LOG_MACHINE7 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE7 1	OK
		LOG_MACHINE7 Query	? LOG_MACHINE7	0 - Don't Log 1 - Log	? LOG_MACHINE7	0
Log Machine Input 8	LOG_MACHINE8	LOG_MACHINE8 Set	= LOG_MACHINE8 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_MACHINE8 1	OK
		LOG_MACHINE8 Query	? LOG_MACHINE8	0 - Don't Log 1 - Log	? LOG_MACHINE8	0
Log UUT1 Readings	LOG_UUT1	LOG_UUT1 Set	= LOG_UUT1 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT1 1	OK
		LOG_UUT1 Query	? LOG_UUT1	0 - Don't Log 1 - Log	? LOG_UUT1	0
Log UUT2 Readings	LOG_UUT2	LOG_UUT2 Set	= LOG_UUT2 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT2 1	OK
		LOG_UUT2 Query	? LOG_UUT2	0 - Don't Log 1 - Log	? LOG_UUT2	0
Log UUT3 Readings	LOG_UUT3	LOG_UUT3 Set	= LOG_UUT3 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT3 1	OK
		LOG_UUT3 Query	? LOG_UUT3	0 - Don't Log 1 - Log	? LOG_UUT3	0
Log UUT4 Readings	LOG_UUT4	LOG_UUT4 Set	= LOG_UUT4 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT4 1	OK
		LOG_UUT4 Query	? LOG_UUT4	0 - Don't Log 1 - Log	? LOG_UUT4	0
Log UUT5 Readings	LOG_UUT5	LOG_UUT5 Set	= LOG_UUT5 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT5 1	OK

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
		LOG_UUT5 Query	? LOG_UUT5	0 - Don't Log 1 - Log	? LOG_UUT5	0
Log UUT6 Readings	LOG_UUT6	LOG_UUT6 Set	= LOG_UUT6 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT6 1	OK
		LOG_UUT6 Query	? LOG_UUT6	0 - Don't Log 1 - Log	? LOG_UUT6	0
Log UUT7 Readings	LOG_UUT7	LOG_UUT7 Set	= LOG_UUT7 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT7 1	OK
		LOG_UUT7 Query	? LOG_UUT7	0 - Don't Log 1 - Log	? LOG_UUT7	0
Log UUT8 Readings	LOG_UUT8	LOG_UUT8 Set	= LOG_UUT8 ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_UUT8 1	OK
		LOG_UUT8 Query	? LOG_UUT8	0 - Don't Log 1 - Log	? LOG_UUT8	0
Log Outputs	LOG_OUTPUTS	LOG_OUTPUTS Set	= LOG_OUTPUTS ARG1	ARG1: 0 - Don't Log 1 - Log	= LOG_OUTPUTS 1	OK
		LOG_OUTPUTS Query	? LOG_OUTPUTS	0 - Don't Log 1 - Log	? LOG_OUTPUTS	0
PID Channel 1 Heat *	PID1H	PID1H Query	? PID1H	1 - 100 %	? PID1H	0.0
PID Channel 1 Cool *	PID1C	PID1C Query	? PID1C	1 - 100 %	? PID1C	100.0
PID Channel 2 Heat *	PID2H	PID2H Query	? PID2H	1 - 100 %	? PID2H	0.0
PID Channel 2 Cool *	PID2C	PID2C Query	? PID2C	1 - 100 %	? PID2C	100.0
PID Channel 3 Heat *	PID3H	PID3H Query	? PID3H	1 - 100 %	? PID3H	0.0
PID Channel 3 Cool *	PID3C	PID3C Query	? PID3C	1 - 100 %	? PID3C	100.0
Acknowledge All Alarms *	ACKALM	ACKALM Set	= ACKALM ARG1	ARG1 - Always 1 to reset the alarms Number of active alarms, 32 bit hex number representing types of alarms.	= ACKALM 1	0, 00000001
Show Active Alarms *	SHOWACTALM	SHOWACTALM Query	? SHOWACTALM	Shows all active alarms. Number of active alarms, 32 bit hex number representing types of alarms.	? SHOWACTALM	0, 00000001
Show Alarm Status *	ALM	ALM Query	? ALM	Shows alarm states Returns 3 values: %i, %i, %8.8X First: Number of Alarms, both active & inactive Second: Number of active alarms Third: 32 bit hex number with each bit representing a different alarm	? ALM	0, 0, 00000000

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
				Bit 1 - Comm Port / Olympic board unavailable Bit 2 - Bad Sensor connect 1 Bit 3 - Bad Sensor connect 2 Bit 4 - Bad Sensor connect 3 Bit 5 - Bad Sensor connect 4 Bit 6 - Bad Sensor connect 5 Bit 7 - Bad Sensor connect 6		
				Bit 8 - Olympic Board Reset Bit 9 - Storage Space Low Bit 10 - Program Memory Low Bit 11 - Watlow Alarm Bit 12 - CH1 High Alarm Bit 13 - CH1 Low Alarm Bit 14 - CH2 High Alarm Bit 15 - CH2 Low Alarm Bit 16 - CH3 High Alarm Bit 17 - CH3 Low Alarm		
				Bit 18 - PID Thread Crashed Bit 19 - Bad Sensor Reading		
Events	EVENTS	EVENTS Set	= EVENTS	ARG1: Event # (1-8) ARG2: 0 - Disabled 1 - Enabled	= EVENTS 1 1	OK
		EVENTS Query	? EVENTS	Returns a 32 Bit hex number. Each bit represents an event Bit 1 = Event 1 Bit 2 = Event 2 Bit 3 = Event 3 Bit 4 = Event 4 Bit 5 = Event 5 Bit 6 = Event 6 Bit 23 = Relay 1 Bit 24 = Relay 2	? EVENTS	00C00001
		EVENTS Query	? EVENTS	ARG1: Event # (1-8)	? EVENTS 1	1
Storage Card Info *	SCINFO	SCINFO Query	? SCINFO	returns storage card free	? SCINFO	Total: 8128512, Free: 1826816

Description	Command Root	Command Usages	Command Syntax	Range, Units	Command Example	Response Example
RAM Info	VTVMEMINFO	VTVMEMINFO Query	? VTVMEMINFO	Returns total system RAM and available RAM	? VTVMEMINFO	Unknown, Total Physical: 20242432, Available Physical: 14848000, RAM