Pegasus Astro

Ultimate Powerbox Serial Command Language

Firmware >=v.1.4 (Oct 2018)

Abbreviations used:
nnnn.. = one or more digits
b = Boolean (0 or 1 digit)

Connection Settings: 9600, 8N1
(All commands should be terminated by new line /n)

Command	Description	Response
P#	Status	UPB_OK
PE:*bbbb*	Set Power Status on boot. Every number represents 1-4 power outputs. (0=OFF, 1=ON).	*PE:1*
P1:*b*	ON/OFF Power 1, (0=OFF, 1=ON)	P1:b
P2:*b*	ON/OFF Power 2, (0=OFF, 1=ON)	P2:b
P3:*b*	ON/OFF Power 3, (0=OFF, 1=ON)	P3:b
P4:*b*	ON/OFF Power 4, (0=OFF, 1=ON)	P4:b
P5:*nnn*	PWM Duty Cycle Power 5 (DewA) X=0-255 (0-100%)	P5:nnn
P6:*nnn*	PWM Duty Cycle Power 6 (DewB) X=0-255 (0-100%)	P6:nnn
PU:*b*	ON/OFF USB Hub (0=OFF, 1=ON)	PU:b
PF	Reboot Device / Reload Firmware	RBT
PA	Print Power and Sensor Readings	[Check table below]
PC	Print Power Consumption Readings	avgAmppvs:ampHours:wattHours
PD:*b*	Enable/Disable Auto Dew Feature (X=0,1)	PD:b
PV	Firmware Version	n.n
PZ	ON/OFF All 4 Outputs	PZ:b
PL:*b*	OF/OFF Led Indicator (0=OFF, 1=ON)	PL:b
SA	Stepper Motor Information	[Chck table below]
SB:*b*	Stepper Backlash Enable/Disable (X=0,1)	-
SP	Stepper Current Motor Position	nnnn..
SH	Stepper Motor Halt	H:1
ST	Stepper Temperature	nn.nn
SI	Stepper Motor Moving Status (0 = idle, 1 = moving)	0 or 1
SM:nnnn..	Stepper Move to New Position	SM:nnnn..
SR:b	Stepper Reverse Motor Direction (0 = normal, 1 = reverse)	SR:b
SC:nnnn..	Stepper Set Current Position	-
SS:nnnn..	Stepper Set Max Speed in EEPROM	-
SG:nnnn..	Stepper Move Motor to + or - steps	SG:nnnn..
SS	Stepper Report Max Speed	nnnn..
SS:nnn..	Stepper Set Max Speed	nnn..
SB:nnn..	Stepper Backlash Steps (0 = disable, any other positive number sets backlash steps)	SB:nnn..

Transmit: PA
Receive: UPB:12.2:0.0:0:23.2:59:14.7:1111:0:0:0:0:0:0:0:0:000000:0

Meaning:

UPB:voltage:current:power:temp:humidity:dewpoint:portstatus:dew1:dew2:current_port1:current_port2:current_port3:current_port4:current_dew1:current_dew2:overcurrent_bool:autodew_bool

UPB	Device Name
Voltage	Voltage in volts (decimal) e.g 12.2
Current	Current in Amps (decimal) e.g 0.4
Power	Power in Watts (integer) e.g 10
Temp	Temp in Celsius Degrees (decimal) e.g 23.2
Humidity	Relative Humidity in % (decimal) e.g 59
Dewpoint	Dewpoint in Celsius Degrees (decimal) e.g 14.7
portstatus	Every Boolean represents one of 4x12V output ports e.g 1111 (1 means port is ON, 0 means port is OFF)
Dew1	Power dew1 duty cycle 0-254
Dew2	Power dew1 duty cycle 0-254
Current_port1	Output 1 Sens current 0-1024 (need to convert to Amps by dividing by 400
Current_port2	Output 2 Sens current 0-1024 (need to convert to Amps by dividing by 400
Current_port3	Output 3 Sens current 0-1024 (need to convert to Amps by dividing by 400
Current_port4	Output 4 Sens current 0-1024 (need to convert to Amps by dividing by 400
Current_dew1	Dew1 Sens current 0-1024 (need to convert to Amps by dividing by 400
Current_dew2	Dew2 Sens current 0-1024 (need to convert to Amps by dividing by 400
Overcurrent_bool	Every Boolean represents one of 4x12V output ports + dew ports e.g 00000 (0 is working normal, 1 is flag for short-circuit or overcurrent). When overcurrent detected UPB will shut down affected port
Autodew_bool	Boolean for autodew function: 0 is OFF, 1 is ON

Transmit: SA
Receive: 17899:0:1:0

Meaning: position: running: invert: backlash_steps

Stepper position	Long value
Motor is running	Boolean: 0 = motor idle , 1 =motor running
Motor Invert	Boolean: 0 = clockwise positive steps, 1 = anticlockwise positive steps
Backlash Steps	0= disabled, positive values only = backlash is enabled and steps are defined