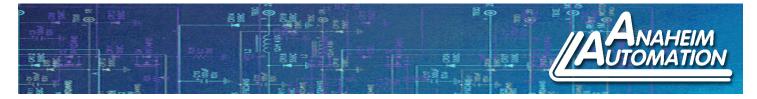


The PCL602USB is a dual-axis step motor controller containing 2 Kbytes of nonvolatile stored programming space and quadrature encoder feedback. This device provides flexible and independent control of two stepper motors from computers or any machine controller with a USB port. More specifically, the PCL602USB presents an easy way to implement motion systems requiring two axes and the precision that can be achieved on each axis through the use of encoder feedback.

The user can program the PCL602USB and then have it autostart the program on power up. This makes the device capable of standalone operation as an embedded machine controller. The easy to use Windows software, SMC62WIN, can be used to directly control motion and to program the PCL602USB. Adittionally, this device has the ability to perform real time functions. "Direct Mode" is used to directly control motion for real time movements requested via serial communication.

#L011363

FEATURES



X-Axis O Y-Axis	The Unit is NOT Analog logid and Thumbwheel Options Create and Edit Pro	T Connected	<u>File Setup Program Edit Help</u>		
eal Time Motion Encoder Options and Registration I		T Connected			
X-Axis O Y-Axis	nputs Analog Input and Thumbwheel Options Create and Edit Pr.			The Unit is NOT Connected	
		rogram	Real Time Motion Encoder Options and Registration Input	Analog Input and Thumbwheel Options Create and Edit Program	
10000			X-Axis Y-Axis		
	Switch Bas	is celeration see Speed s Spee	Enocder Auto Correct ON OFF	Output on the ON OFF	OFF
	Home Dire Mot	ection tor Current	Set Encoder Delay (m S)	Set 1st Output Position 0 Index 0	
Set Max Speed 1500	Move # of Steps Enc	ep Position coder Position ror Code X:	Set Motor Ratio	Set # of Steps Between 0 Stew Stop H	ard
Set Jog Speed 1500	0	ror Code Y:	Set Encoder Retries	Set # of Output Counts 0 Axis	
Set Position 0	Move to Position	Verify Parameters	Set Encoder Window	Encoder Delay Move # of Steps Encoder Retries Encoder Window	
Direction © CW © CCW	0		Encoder Reset	0 Step Position Encoder Position	
	Slew	1 2 3 4 5 6 nuts		Move to Position 1st Output Position Steps Between Outputs	
Motor Current © ON © OFF		1 2 3 4 5 6 7 8	Direction CW CCW	0 # of Output Counts Registration Index	
	Stop Soft Stop Hard Out	tputs		Reset Position to 0 Stop Hard Verify Parameters	
IC62WIN - Programmable Indexer Software - Setup Program Edit Help			Power Requirements:	8-24VDC, 50/60Hz (0.6W Peak Power)	
P 🗋 💆 🔚 🦛	🔟 🔟 🐠 The Unit is NOT		Nonvolatile Memory:	2KB of Stored Programming Space	
	Inputs Analog Input and Thumbwheel Options Create and Edit Pro	rogram	Baud Rate:	38.400 Baud. Fixed	
Line Addres: SMC_Command	Command Cor	omments		38,400 Baud, Fixed	
			Baud Rate: Data Format:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par	ity, 1
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Line Addres: SMC_Command 3 10 YA1000 4 16 XA1000 5 22 YM65000 6 27 XM65000	Command Cor Acceleration=1000 steps/(sec ²) Acceleration=1000 steps/(sec ²) Max speed=55000 steps/sec Max speed=55000 steps/sec	omments Send Program	Data Format:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit	ity, 1
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Line Addres: SMC_Command 3 10 YA1000 4 16 XA1000 5 22 YM65000 6 27 XM65000	Command Cor Acceleration=1000 steps/(sec ²) Acceleration=1000 steps/(sec ²) Max speed=55000 steps/sec Max speed=55000 steps/sec	Send Program to Controller View Program	Data Format: Communication Interface:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus	
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Line Addres: SMC_command 3 10 Vx1000 4 16 Xx1030 5 22 YM65000 6 27 XM5500 7 32 Xx 8 35 Y 9 38 YS 10 41 XS 11 44 XF	Command Cont Acceleration=1000 steps/(sec*) Acceleration=1000 steps/(sec*) Max speed=05000 steps/sec Max speed=05000 steps/sec Max speed=05000 steps/sec Direction CCW Direction CCW Direction CCW Stew Stew	mments Send Program Is Cettroller View Program In Cettroller Upload Program	Data Format: Communication Interface: Encoder Feedback:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com	patib
Line Addres: SMC_command 3 10 Yx1000 4 16 Xx1030 6 22 YM85000 6 27 XM85000 7 32 X. 9 35 Y. 9 36 Y8 10 41 X8 11 44 XF 12 4.7 YF	Command Corr Acceleration=1000 steps(tsec*) Acceleration=1000 steps(tsec*) Max speed=65000 steps/tsec Image: Corr Max speed=65000 steps/tsec Image: Corr Direction CCW Image: Corr Stew Stew Finish move Finish move	mments Send Program to Costroller View Program In Costroller Upbad Program from Controller	Data Format: Communication Interface:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ	patik
Line Addres: SMC_Command 3 10 Vx1000 4 16 Xx1000 5 22 YM85000 6 27 XM6500 7 32 Xr 9 35 Yr 9 36 YS 10 41 XS 11 44 XF 12 47 YF 13 50 YV1000	Command Corr Acceleration=1000 steps/(sec*) Acceleration=1000 steps/(sec*) Max speed=65000 steps/sec Max speed=65000 steps/sec Max speed=65000 steps/sec Direction CCW Direction CCW Direction CCW Stew Plash move Plash move Plash move Wait 1000 mec U	mments Send Program to Centroller Usew Program Usee Program Usee Program trem Centroller E Enable Autostart	Data Format: Communication Interface: Encoder Feedback:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com	patib
Line Addres: SMC_Command 3 10 Yx1000 4 16 Xx1000 5 22 YM65000 6 27 XM85000 7 32 X. 8 35 Y. 9 38 YS 10 41 XS 11 44 XF 12 47 YF 13 50 YW1000 14 56 Y+	Command Corr Acceleration-1000 steps/(sec*) Acceleration-1000 steps/(sec*) Max speed-de5000 steps/sec Max speed-de5000 steps/sec Max speed-de5000 steps/sec Direction CCW Direction CCW Direction CCW Stew Filals move Finish move Pinish move Direction CW Direction CW	mments Send Program to Controller View Program Unlose Program Unlose Program Unlose Program Enable	Data Format: Communication Interface: Encoder Feedback:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA	patib
Line Addres: SMC_Command 3 10 Yx1000 4 16 Xx1020 5 22 YM85000 6 27 Xia8500 7 32 X- 9 35 Y- 9 38 YS 10 41 XS 11 44 XF 12 47 YF 13 60 YW1000 14 56 Y+ 15 59 X+	Command Corr Acceleration-1000 steps(sec*) Acceleration-1000 steps(sec*) Max speed-85000 steps/sec Max speed-85000 steps/sec Direction COW Direction COW Direction COW Steps Steps Steps Steps Direction COW Direction C	mments for Sector Program to Controller Upload Program In Controller Upload Program from Controller Enable Autostant Disable	Data Format: Communication Interface: Encoder Feedback:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ	patib
Line Addres: SMC_Command 3 10 Vx1000 4 16 Xx1030 5 22 YM55000 6 27 XM85000 7 32 X 9 38 YS 10 41 XS 11 44 XF 12 47 YF 13 60 YW1000 14 56 Y* 15 59 X* 16 62 X8	Command Corr Acceleration-1000 steps/(sec*) Acceleration-1000 steps/(sec*) Max speed-de5000 steps/sec Max speed-de5000 steps/sec Max speed-de5000 steps/sec Direction COW Direction COW Direction COW Stew Filiabit move Finish move Finish move Direction COW Direction COW Stew Filiabit move Stati 100 mac Direction COW Direction COW Stew	mments for Sector Program to Controller Upload Program In Controller Upload Program from Controller Enable Autostant Disable	Data Format: Communication Interface: Encoder Feedback: Controller Outputs:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA +5VDC Output, 50mA	patib
Line Addres: SMC_Command 3 10 Vx1000 4 16 Xx1000 5 22 YMS000 6 27 XM85000 7 32 X- 9 38 Ys- 9 38 YS- 10 41 XS 11 44 XF 12 47 VF 13 50 Yw1000 14 66 Y+ 15 59 X+ 16 62 XS 17 65 YS	Command Corr Acceleration=1000 steps(sec*) Acceleration=1000 steps(sec*) Amount Max speed=65000 steps/sec Immediate Immediate Max speed=65000 steps/sec Immediate Immediate Direction CCW Immediate Immediate Stew Immediate Immediate Parish move Immediate Immediate Unation CW Direction CW Immediate Direction CW Immediate Immediate Stew Immediate Immediate	mments for Sector Program to Controller Upload Program In Controller Upload Program from Controller Enable Autostant Disable	Data Format: Communication Interface: Encoder Feedback:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA +5VDC Output, 50mA 6 Programmable Inputs	patib
Line Addres: SMC_Command 3 10 Vx1000 4 16 Xx1030 5 22 YM65000 6 27 XM5500 7 32 X 8 95 Y 9 38 YS 10 41 XS 11 44 XF 12 47 YF 13 50 YW1000 14 66 Y+ 15 62 XS 17 65 YS 18 60 YF	Command Con Acceleration=1000 steps/(sec*) Acceleration=1000 steps/(sec*) Amarge=00000 steps/(sec*) Max speed=65000 steps/sec Max speed=65000 steps/sec Max speed=65000 steps/sec Bmarge=0000 steps/sec Bmarge=0000 steps/sec Bmarge=0000 steps/sec Bmarge=00000 steps/sec Bmarge=0000 steps/sec Bmarge=00000 steps/sec Bmarge=00000 steps/sec Bmarge=00000 steps/sec Bmarge=00000 steps/sec Bmarge=0000000 steps/sec Bmarge=000000000000000000000000000000000000	mments Send Program to Centroller Usew Program In Centroller Usew Program In Centroller Enable Autostart Disable Autostart	Data Format: Communication Interface: Encoder Feedback: Controller Outputs:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA +5VDC Output, 50mA 6 Programmable Inputs Logic 0: 0 - 0.8VDC	patib
Line Addres: SMC_Command 3 10 Vx1000 4 16 Xx1000 5 22 YMS000 6 27 XM8500 7 32 X- 8 35 Y- 9 38 YS 10 41 XS 11 44 XF 12 47 YF 13 50 YV1000 14 56 Y* 15 59 X- 16 62 XS 17 65 YS 18 68 YF 19 71 XF	Command Corr Acceleration=1000 steps(sec*) Acceleration=1000 steps(sec*) Amount Max speed=de5000 steps(sec*) Imedian COV Imedian COV Imedian COV Direction COV Imedian COV </td <td>mments Send Program to Cettoller View Program in Cettoller Upload Program Upload Program In Cettoller E Enable Autostart Desable Autostart Run</td> <td>Data Format: Communication Interface: Encoder Feedback: Controller Outputs:</td> <td>Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA +5VDC Output, 50mA 6 Programmable Inputs Logic 0: 0 - 0.8VDC</td> <td>patib</td>	mments Send Program to Cettoller View Program in Cettoller Upload Program Upload Program In Cettoller E Enable Autostart Desable Autostart Run	Data Format: Communication Interface: Encoder Feedback: Controller Outputs:	Half Duplex, 1 Start Bit, 8 Data Bits, No Par Stop Bit Universal Serial Bus Quadrature, CHA, CHB, 5VDC Signal Com 16 Programmable Outputs, Open Drain Typ 100mA +5VDC Output, 50mA 6 Programmable Inputs Logic 0: 0 - 0.8VDC	patib
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Model #	Description
PSAM24V2.7A	Power Supply for PCL602USB (24V @ 2.7A).
MBC25081TB	Stepper Motor Driver with DC input and 2.5A output current
MBC12101	Stepper Motor Driver with DC input and 10A output current
TWS7	Seven decade thumbwheel switch for entering distance via external interface. (Accessory)
AAUSB-AB-6	USB cable, required to communicate to PC. 6ft long. (Accessory)