

Application Note 805

Pacific Scientific, 110 Fordham Road, Wilmington, MA 01887

Wiring Table for a PacSci Servo Motor to the PC830 Servo Drive

Introduction

This application note explains how to interface the PC830 to work with a PacSci servo motor containing a resolver or a comcoder (hall/encoder). This note applies to the standard R, S, F, PMA, and PMB Servo Motor family.

Building Your Own Cable

The following table lists the respective servo motor labels for power and feedback connections to their respective PC830 pin/label location. Please build your cables accordingly. Motor connector “pinout” labeling information can be obtained from the *High Performance Servo Motors* catalog (dated after April 2001) which is located at <http://www.pacsci.com>.

PC830	R, S, F (with hall/encoder)	PMA (with comcoder)	PMB (with comcoder)	All PacSci Motors with Resolvers
TB1-10 (GND)	GND	GND	GND	GND
TB1-11 (U)	Phase R	Phase U	Phase U	Phase U
TB1-12 (V)	Phase S	Phase V	Phase V	Phase V
TB1-13 (W)	Phase T	Phase W	Phase W	Phase W
J3-1 (Hall 1/S1)	Hall Sensor 1	Sensor W	Hall 1	S1
J3-2 (Hall 2/S3)	Hall Sensor 2	Sensor U	Hall 2	S3
J3-3 (Hall 3/S2)	Hall Sensor 3	Sensor V	Hall 3	S2
J3-4 (S4)				S4
J3-6 (R1)				R1
J3-7 (R2)				R2
J3-8 (PTC)	PTC	PTC	PTC	PTC
J3-9 (PTC Rtn)	PTC Rtn	PTC Rtn	PTC Rtn	PTC Rtn
J3-10 (+5v)	Encoder/Hall Power	Encoder/Hall Power	Encoder/Hall Power	
J3-11 (+5v Rtn)	Encoder/Hall Power Rtn	Encoder/Hall Power Rtn	Encoder/Hall Power Rtn	
J3-12 (A+)	A-	A-	A-	
J3-13 (A-)	A+	A+	A+	
J3-14 (B+)	B+	B+	B+	
J3-15 (B-)	B-	B-	B-	

Note 1: Motor power cable outer braided shield should be terminated at the drive’s power connector ground pin.

Note 2: Motor feedback cable’s are individually shielded twisted pair with an overall outer braided shield. Terminate outer braided shield to motor connector case. Terminate individual foil shields at the drive’s feedback connector ground pin.

Note 3: This note implies motors that have serial numbers (datecodes) greater than 0136XXXXX.