

## Application Note 3401

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### Wiring Table for a PacSci Servo Motor to the PC3400 Servo Drive

#### Introduction

This application note explains how to interface the PC3400 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 PC3400 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>.

PC3400	R, S, F (with hall/encoder)	PMA (with comcoder)	PMB (with comcoder)	All PacSci Motors with Resolvers
GND	GND	GND	GND	GND
Phase U	Phase S / V	Phase V	Phase V	Phase V
Phase V	Phase R / U	Phase U	Phase U	Phase U
Phase W	Phase T / W	Phase W	Phase W	Phase W
J3-1 (A+ / S2)	A+	A+	A+	S2
J3-2 (A- / S4)	A-	A-	A-	S4
J3-3 (B+ / S1)	B+	B+	B+	S1
J3-4 (B- / S3)	B-	B-	B-	S3
J3-5 (Z+ / R1)	Z+	Z+	Z+	R1
J3-6 (Z- / R2)	Z-	Z-	Z-	R2
J3-7 (GND)	GND	GND	GND	GND
J3-8 (HED 1)	Hall Sensor 2	Sensor U	Hall 2	
J3-9 (HED 2)	Hall Sensor 3	Sensor V	Hall 3	
J3-10 (HED 3)	Hall Sensor 1	Sensor W	Hall 1	
J3-11 (+5v Rtn)	Encoder/Hall Power Rtn	Encoder/Hall Power Rtn	Encoder/Hall Power Rtn	
J3-12 (+5v)	Encoder/Hall Power	Encoder/Hall Power	Encoder/Hall Power	
J3-13 (OT+)	PTC	PTC	PTC/Therm	PTC/Therm
J3-14 (OT-)	PTC Rtn	PTC Rtn	PTC Rtn/Therm Rtn	PTC Rtn/Therm Rtn

Note 1: These pinouts assume a Commutation Offset (COFF) value of 0 for motors with comcoders (hall/encoders). If using a resolver, then COFF is -90 for 4 pole motors, 0 for 6 pole motors, and +90 for 8 pole motors.

Note 2: Motor power cable outer braided shield should be terminated at the drive's power connector ground pin.

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Note 3: 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 4: PC3400 overtemp circuit can be software "disabled" thereby rendering the PTC connections as optional.

Note 5: This note implies motors that have serial numbers (datecodes) greater than 0136XXXXX.