



# SHERLINE HIGH-TORQUE STEPPER MOTOR SPECIFICATIONS

Sherline P/N:	67126 (w/ DIN plug and flats on shaft)
Frame size:	NEMA #23
Step angle:	1.8°
Voltage:	4.5V DC
Current:	2.0 A/Φ
Resistance:	2.25 Ω/Φ ± 10%
Inductance:	3.6 mH/Φ ± 20% mH@1kHz
Holding torque:	1.35 N.m (Newton meters) 13.756 kg-cm (kilogram centimeter) 191.17 oz/in (ounce inch) 11.948 in/lb (inch pound)
Maximum RPM:	530 RPM
Axial-Force	F <sub>a</sub> = 15 N Max., or 3.37 lbf Max.
Radial-Force	F <sub>r</sub> = 75 N Max., or 16.86 lbf Max.
Rotor inertia:	480 g-cm <sup>2</sup>
Number of wire leads:	6 (See color code diagram FIG. 1)
Weight:	2.2 lb (1 Kg.)
Length:	4.62" (117.28 mm)
Shaft:	Double ended, 1/4" diameter

### Lead Wire Connection and Color Code

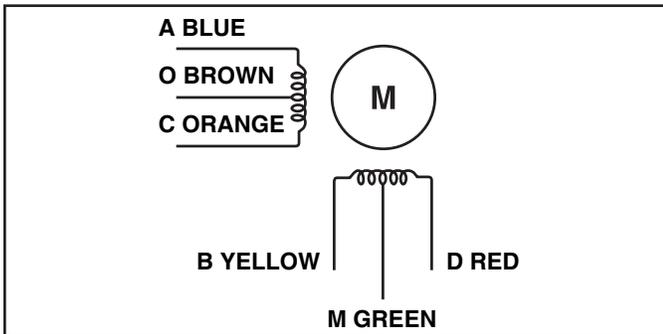


FIGURE 1— Color of internal wiring for high-torque motors

See figure 2 for the pin diagram and wire color layout of the stepper motor connector cables we supply with our high-torque stepper motors. Since there is no industry standard for wire colors in this field, if using a connector not supplied by Sherline each pin and color should be confirmed with a continuity tester before applying power.

### Connecting Your Stepper to a Different Drive or Connector

If you cut the 5 pin din connector off of our (23Y-240D-LW5-01) High-Torque Stepper Motor, you will find that there are nine wires (9) in the cable (see Figure 3).

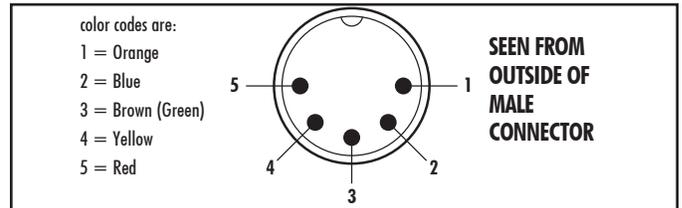


FIGURE 2: diagram shows which pin in the DIN connector is wired to which position in the motor connector.

NOTE: Motors can be wired in either unipolar or bipolar configuration depending on how the leads are connected. Sherline motors with plugs are wired for unipolar operation.

1. You are not using all nine wires to connect the stepper motor. You are only using six of the wires (6) that come out of the stepper motor (see Figure 4).
2. Using the wiring schematic in Figure 5, you can see that the stepper motor only uses the blue, brown, orange, yellow, green, and red wires. See the wiring information on the following page.

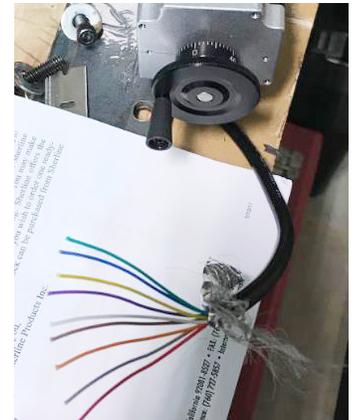


FIGURE 3

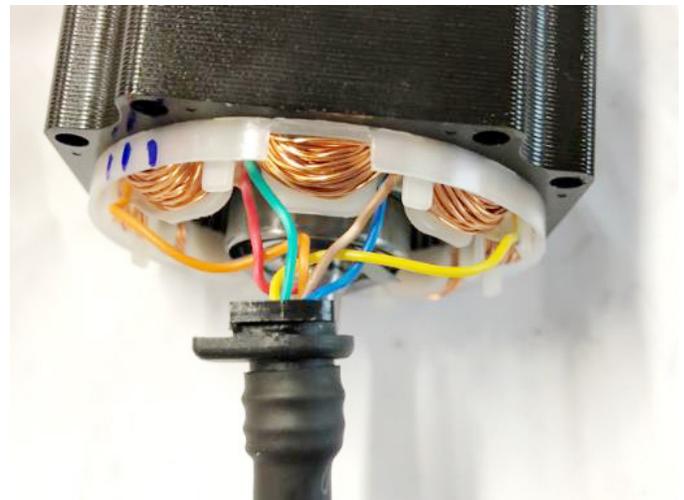


FIGURE 4

