

# Bristol S.G. INC.

2525-6 Pioneer Avenue, Vista, CA 92081 USA

[www.BristolSG.com](http://www.BristolSG.com) Ph 760 598 7262 FAX 760 598 7264

## B6 series actuator

### Installation Instructions

The B6 is a small, powerful 12-14 Volt DC actuator featuring internal travel limiting switches. A lesser voltage can be used, but will result in less power and slower travel speed. When activated, the actuator will continue to run until the power is turned off or until it automatically shuts off at the end of its travel. It can also be stopped in any position by switching off the power. Since the thrust is generated by means of a jackscrew, the output shaft will lock in any position when the power is off.

**CAUTION:** Make sure the actuator travels to each limit switch without binding up. This includes allowing for clearance for the 10/32 leadscrew in the rear of the actuator.

The B6-7C and B6-11C actuators have a brass output shaft designed to work with our C2 series clevis. The B6-7T and B6-11T actuators have a brass, 10/32 threaded stud output shaft. Use care not to over torque whatever fitting you are threading onto this threaded output shaft. The B6 series actuator is lubricated with a special Teflon® grease and should last the lifetime of the servo. Do not apply any other lubricants.

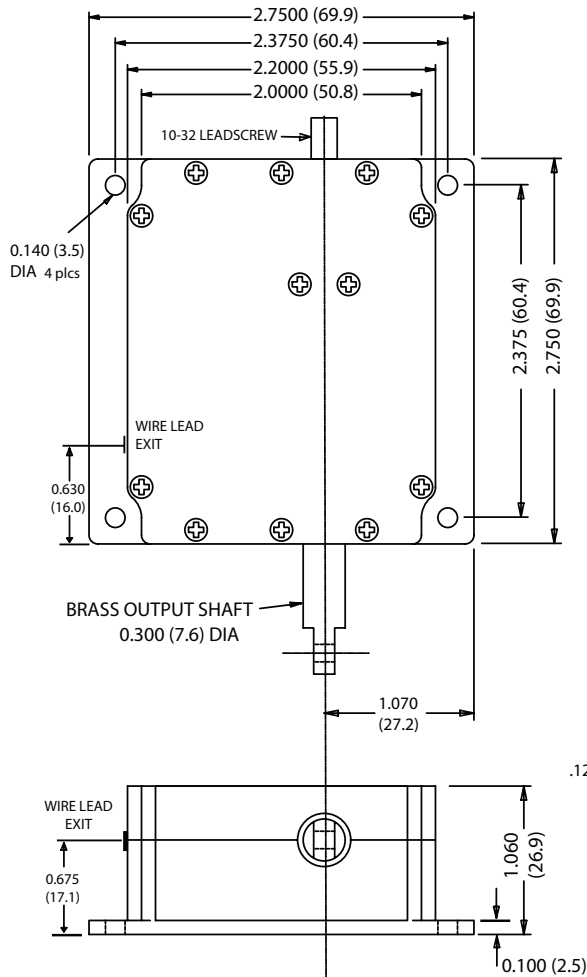
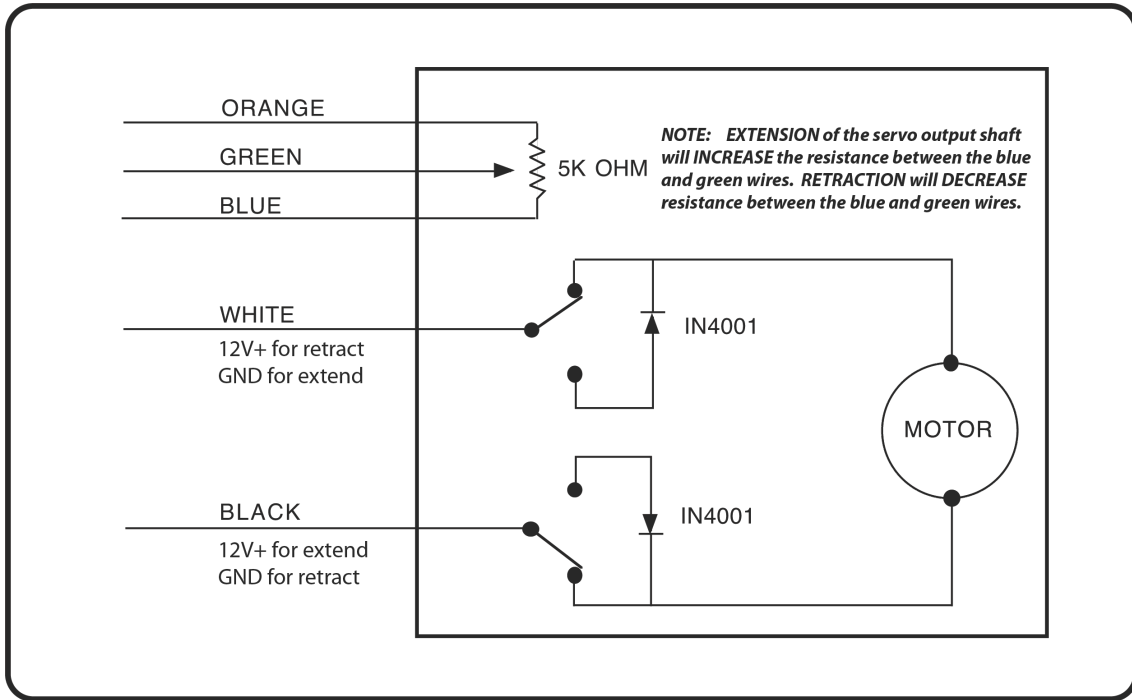
Figure 1 on page 2 describes the functions of the different wire leads. Voltage polarity determines the direction of travel. If 12 V+ is applied to the black wire, the actuator will extend. If 12 V+ is applied to the white wire, the actuator will retract. If you are using your own switching device remember that it will have to reverse the voltage polarity along with switching the power on and off.

The B6 actuator has an internal, electronically isolated, 0-5K ohm linear potentiometer to measure the position of the output shaft. The resistance between the green wire and the blue wire will increase from about 5-13Ohms to about 4.7k-5.2kOhms as the output shaft extends out of the actuator.

### B6 series actuator specifications

Model No.	Operating Voltage	Travel Inch (mm)	Travel time (@13.5 VDC)	Weight OZ (g)	Max. Operating thrust lb.(kg)	Stall thrust (@12VDC) lb.(kg)	No load current	MAX Stall current
B6-7C	12-14 VDC	.7 (18)	12 seconds	5.2 (147)	50 (23)	130 (59)	100-200 mA	900 mA
B6-7T	12-14 VDC	.7 (18)	12 seconds	5.2 (147)	50 (23)	130 (59)	100-200 mA	900 mA
B6-11C	12-14 VDC	1.1 (28)	19 seconds	5.2 (147)	50 (23)	130 (59)	100-200 mA	900 mA
B6-11T	12-14 VDC	1.1 (28)	19 seconds	5.2 (147)	50 (23)	130 (59)	100-200 mA	900 mA

Figure 1 B6 internal wiring diagram.



## B6-7C/11C ACTUATOR

All dimensions are inches (mm)

Use these specifications for  
B6-7C ACTUATOR

.750 (19.1) SHAFT EXTENDED — THEN THIS DIMENSION IS 0.130 (3.3)  
.050 (1.3) SHAFT RETRACTED — THEN THIS DIMENSION IS .830 (21.1)

Use these specifications for  
B6-11C ACTUATOR

1.155 (29.4) SHAFT EXTENDED — THEN THIS DIMENSION IS 0.0 (0.0)  
.050 (1.3) SHAFT RETRACTED — THEN THIS DIMENSION IS .830 (21.1)

