

Servo Actuator - Quick Start Guide

Required:

FA-PO Linear Actuator
LAC Circuit Board
12V Power Supply or Battery

Optional:

Potentiometer
USB Cable
Radio Controlled Receiver

Step 1:

Connect the actuator to the LAC using the green screw terminals. *See diagrams on reverse*

Wire Color	Pin Label
White	P+
Yellow	P
Red	M+
Black	M-
Blue	P-

Step 2:

Option A – Connect a potentiometer for manual control.

Potentiometer	Pin Label
Reference +	P+
Reference -	P-
Wiper	VC

Option B – Connect an RC Receiver for remote control. You can use either the receiver power or an external power supply, but not both, as it will damage the receiver. Cut the red wire from the receiver to prevent damage when using an external power supply or BEC.

RC Receiver	Pin Label
Black	-
Red	Not Connected
White	RC

Option C – Connect a USB cable for computer control. You will need to install the LAC driver from www.firgelli.com

For more control options, like PLC, PWM or DAQ control, see the LAC datasheet at www.firgelli.com.

Step 3:

Set up the default configuration by turning all four of the blue potentiometers fully **clockwise**. Turn the one labeled “Accuracy” back 1/8 of a turn for quieter operation.

Step 4:

Connect your power supply or battery, and test for basic operation. If the actuator extends to one end and then stops responding, swap the white and blue actuator wires and test again.

Polarity	Pin Label
Positive	+
Negative	-

Step 5: (Optional)

Adjust the four blue potentiometers as desired. Load the new settings by turning the power off then on.

- Accuracy – This potentiometer controls how close the actuator has to be to the commanded position before the motor is turned off. Setting this to fully clockwise may significantly increase how loud the actuator is.
- Speed – This potentiometer controls how fast the actuator moves. Rotate counter clockwise to reduce the speed. Actuator noise will increase when speed is reduced.
- Limits – These two potentiometers are digital limit switches. They control the minimum and maximum actuator positions (How far in and how far out the shaft is allowed to move).

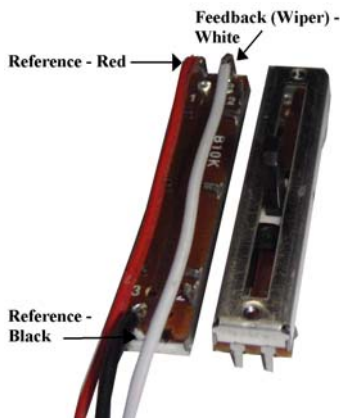
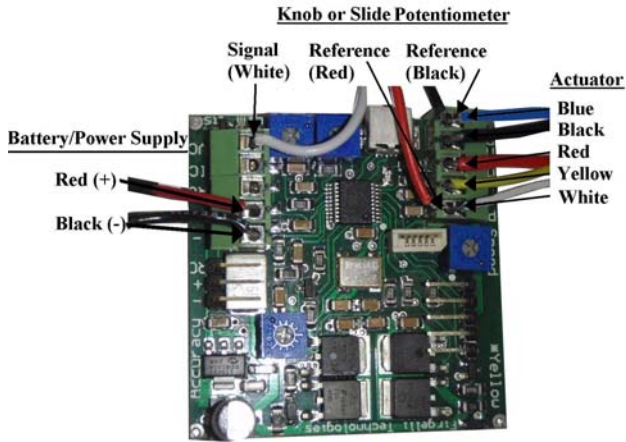
Advanced Setup, Tuning and Mounting Information:

For more information on the actuator, refer to the FA-PO documentation at www.firgelliauto.com.

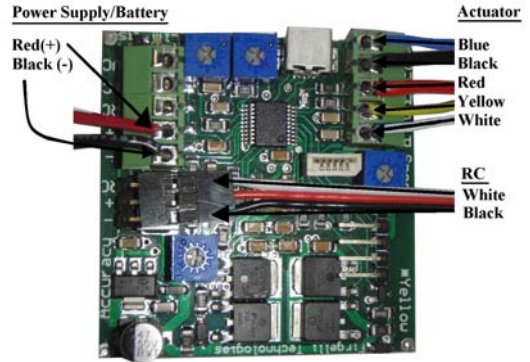
For example code and more information on the controller board, refer to the LAC board at www.firgelli.com.

Wiring Diagrams:

Option A: Potentiometer Control



Option B: RC Control

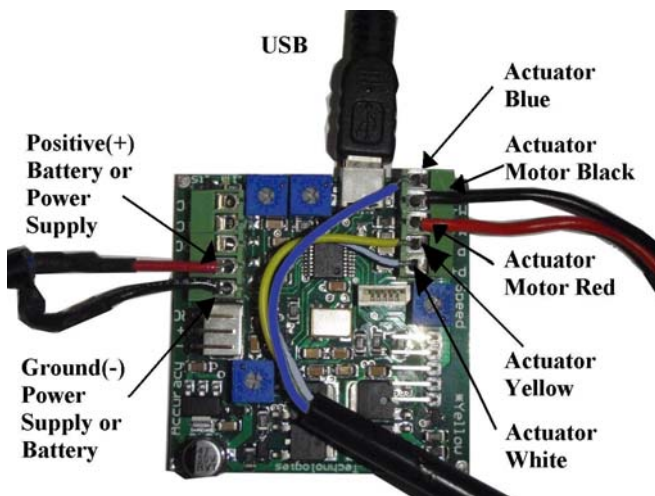


Do not connect the Red Wire

Cut the red wire before connecting your RC Receiver



Option C: USB Control



Step 5: Tuning

