

## Element-6 Radio Control System (Mode 2) User Manual



<b>A</b>	Hi/Lo Toggle Switch
<b>B</b>	Channel 5, 3-Position Toggle Switch
<b>C</b>	Channel 6, Proportional Dial
<b>D</b>	Power Switch
<b>E</b>	Trim Switch, Left Gimbal, Y Axis
<b>F</b>	Trim Switch, Left Gimbal, X Axis
<b>G</b>	Trim Switch, Right Gimbal, Y Axis

<b>H</b>	Trim Switch, Right Gimbal, X Axis
<b>I</b>	Mix Mode Switch
<b>J</b>	Channel Mixing Switch
<b>K</b>	Servo Reverser Switches
<b>L</b>	Left Gimbal
<b>M</b>	Right Gimbal

**Specs:**

Transmitter Power  $\leq 70\text{mW}$

Transmission Frequency: 2.401 - 2.479GHz

Range: Up to 800 Meters (2625 Feet) with direct line of sight.

**CH MIX:**

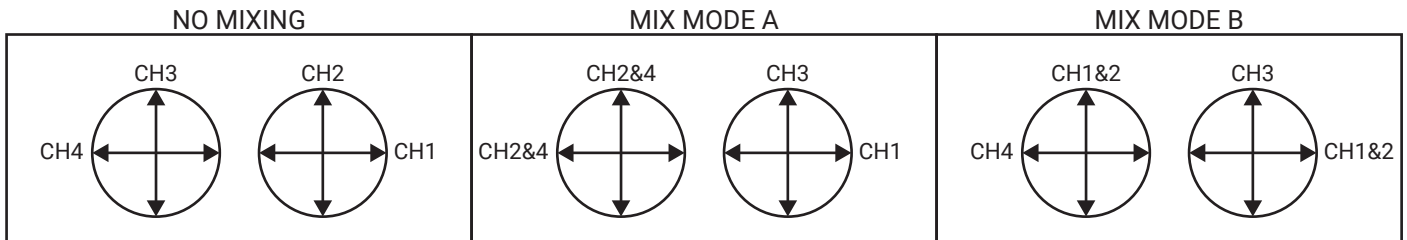
This switch enables or disables mixing. When set to "NO", MIX MODE is ignored and no mixing occurs.

**MIX MODE A:**

In MIX MODE A, the X and Y axes of the left gimbal are mixed and output to channels 2 and 4.

**MIX MODE B:**

In MIX MODE B, the Y axis of the left gimbal is mixed with the X axis of the right gimbal and output to channels 1 & 2.

**Trim Switches:**

For each axis, on each gimbal, there is a trim switch which allows you to adjust the signal that is sent when the gimbal is centered. To achieve this, the entire signal range is shifted up or down 10 $\mu$  seconds for each beep of the switch. A long beep means that the signal is either completely centered or has reached the max that it can be shifted in a particular direction.

**SERVO REVERSER Switches:**

These four switches provide a convenient way to invert the PWM signal output for the indicated channels. Regardless of mixing or PWM range limiting, the number next to each of these switches correlates to the channel number on the receiver. This allows you to change the direction a servo rotates relative to gimbal travel. It is also useful when used with motor controllers, allowing you to change the direction a motor rotates relative to gimbal travel.

**HI/LO Switch:**

When this switch is toggled down (LO) it limits the PWM Range that is output on channels 1, 2 & 4 to half that of their normal range. This can be used to limit the travel of servos, or decrease the top speed of motors (when the receiver is connected to a motor controller).

**RF Light:**

This light indicates that the transmitter is sending a signal. It does not indicate connection to a receiver or movement of the gimbals.



HI/LO Switch  
In the down position

**Transmitter Power:**

The transmitter uses four "AA" batteries.

**Receiver:**

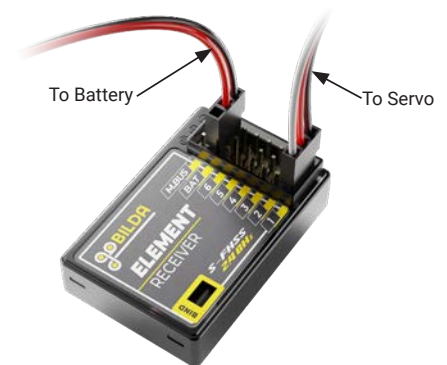
Input Voltage: 6V nominal (3.5-7.4V)

Note: Power can be supplied through any of the + - pins.

Channel: 7 PWM channels, 1 M.Bus Port

**Pairing the Receiver:**

- 1) Start with the transmitter and receiver powered off.
- 2) Connect power to the receiver. The receiver's orange LED will blink slowly.
- 3) Press and release the Bind button on the receiver with a small screwdriver or pen.  
The receiver's orange LED will blink quickly.
- 4) Ensure the left gimbal on the transmitter is all the way down.
- 5) Turn on the transmitter.
- 6) The orange LED on the receiver will stop blinking and turn on solid when paired.

**M.BUS (aka S.BUS):**

M.Bus is a communication protocol that allows you to use one physical port on the receiver to control multiple servos. Each servo must be M.Bus capable and programmed to be on a particular digital channel.