Congratulations on your purchase of a Sabertooth 2x32 regenerative dual motor driver. Sabertooth 2x32 is a highly flexible and configurable motor driver that supports a number of operating modes. Basic configuration is done with the DIP switches. Advanced setup is done using the Sabertooth 2x32’s USB port and a no cost PC program called DEScribe.

For the full product manual and DEScribe PC software [www.dimensionengineering.com/products/sabertooth2x32](http://www.dimensionengineering.com/products/sabertooth2x32)

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**DIP Switches** used to setup the Sabertooth 2x32

- **USB port** this is used for setup or control
- **0V** is internally connected to B-. It provides a ground (GND) for control circuitry
- **5V** is a regulated 5 volt supply generated by the 2x32. 1 amp current max
- **S1** is a signal input
- **S2** is a signal input
- **A1** is an auxiliary signal input
- **A2** is an auxiliary signal input
- **P1** and **P2** are power outputs. They are used to clamp regenerative voltage, operate motor brakes, or as extra power outputs. 8A max.
- **Status** and **Error LEDs** indicate conditions

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**Sabertooth 2x32 Operating Mode Reference**

Operating modes are selected with the DIP switches. More options are available using the DEScribe software

<table>
<thead>
<tr>
<th>Analog Control</th>
<th>Radio Control</th>
<th>Serial Control</th>
<th>USB Control</th>
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<tbody>
<tr>
<td><img src="image1" alt="Analog Control Diagram" /></td>
<td><img src="image2" alt="Radio Control Diagram" /></td>
<td><img src="image3" alt="Serial Control Diagram" /></td>
<td><img src="image4" alt="USB Control Diagram" /></td>
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</tbody>
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A complete description of each mode can be found in the manual [www.dimensionengineering.com/products/sabertooth2x32](http://www.dimensionengineering.com/products/sabertooth2x32)