



# SW-Jaguar-2N! MANUAL

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[www.extreme-fire.com](http://www.extreme-fire.com)

## Introduction

The Extreme-Fire SW-Jaguar-2N is a very high power Active Braking MOSFET switch that controls the firing of an AEG. It uses the latest Panther-II technology for the highest power and lowest heating available in a MOSFET unit.

## Features

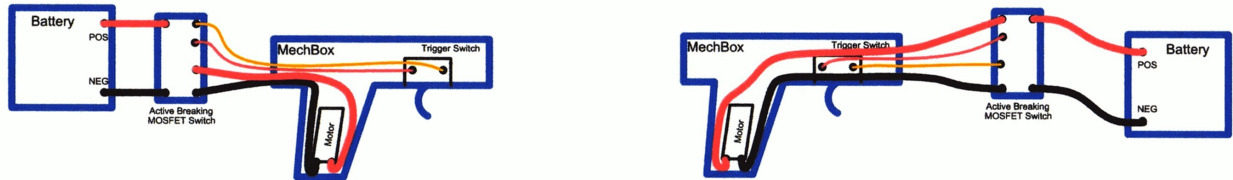
- Very powerful active braking with super low heating.
- Very low trigger switch current (~10mA).
- Adjustable low voltage cutoff protects sensitive batteries like LiPO.
- Screw clamp terminal connections eliminate many connectors and make installation far easier.
- Very low current draw (0.25mA) will not discharge battery.
- Extreme self protection for undervoltage, cross-conduction, and output shorting.
- PWM Soft Start to protect battery against severe droop and to extend motor and drive train life.
- Uses all the "best of breed" components and technology of the PANTHER-II (2N) platform in a super powerful, robust, small form factor that is easy to use.

## Specifications:

Battery Voltage	7.4 to 14.8 VDC
Current	500 amps peak 60 amps continuous
Size	2.00 x 0.65 x 0.55 inches
Weight	0.50 ounces

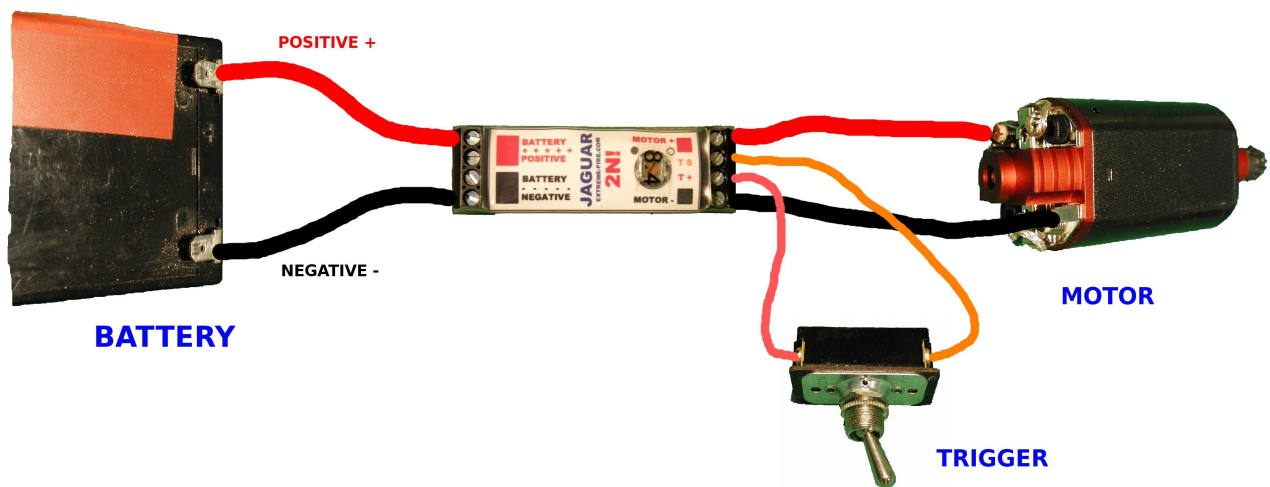
## Installation

The SW-Jaguar-2N has six wire connections. Two from the battery, two to the motor, and two to the trigger switch. The two most common installations are shown below.

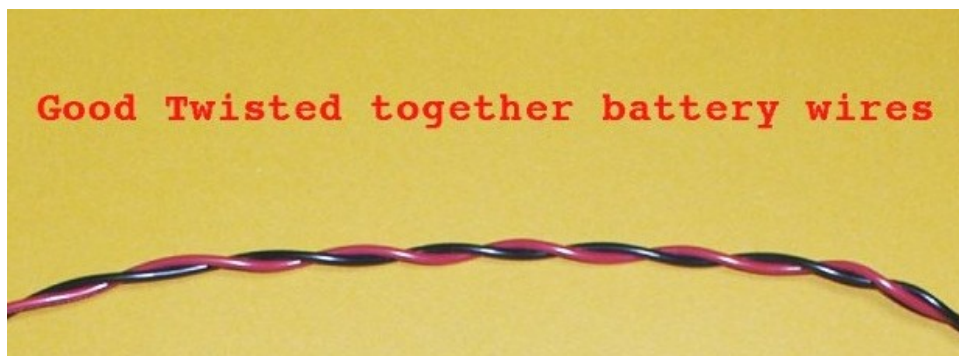


The existing, or new, wires are connected as shown below and clamped into the terminal connectors of the SW-Jaguar-2N with a 0.1 inch screwdriver.

**Be SURE to observe the proper polarity of the battery and motor wires!**



It is best to twist the battery, motor, and trigger switch wires where possible which vastly reduces electrical noise.



## Minimum Trigger Voltage Adjustment

The SW-Jaguar-2N has a minimum trigger voltage adjustment. This is the minimum battery voltage for the AEG to fire. The red column below shows this voltage for typical batteries.



### Minimum Battery Voltage Adjustment

Battery Nominal Voltage	Type	Cells	Low Cell	Nominal Cell	High Cell	Low	Nominal	High
7.40	LiPo	2.00	3.00	3.70	4.23	6.00	7.40	8.46
8.40	NiMH	7.00	1.05	1.20	1.43	7.35	8.40	10.01
9.60	NiMH	8.00	1.05	1.20	1.43	8.40	9.60	11.44
11.10	LiPo	3.00	3.00	3.70	4.23	9.00	11.10	12.69
13.60	Lead	6.00	1.98	2.11	2.12	11.88	12.63	12.72
14.80	LiPo	4.00	3.00	3.70	4.23	12.00	14.80	16.92



### Minimum Voltage Setting

To adjust the voltage, simply discharge the battery to the point where you want it to stop firing. Adjust the unit to the point where the AEG will just barely fire with the discharged battery.

Note that current limits and PWM voltage are set automatically based on the minimum voltage setting.

### Special Notes:

In all cases, be careful of where the AEG is pointed when the battery is installed.

Remove the battery when the AEG is stored.

If you pull the trigger and something does not work properly, immediately release the trigger and find the cause. If there is a short, the unit will make a tone (scream) as the PWM current limiting activates.