

Overview:

The Wike RC Products 15 Amp regulator (or more accurately DC to DC converter) brings a new level of high current and high power regulation and efficiency to the RC hobby and UAV applications. This regulator is designed for 25-50% scale and large models and UAVs applications with several high speed and high torque servos. Today's high performance servos can pull from 1-5 Amps each. Most flyers do not realize how much current their fast high torque servos are pulling and the limitations of their power system is one of the biggest risks in flight. The standard connectors we use are only rated for 3 amps and many servos on the market can draw more than this each. Larger models need a high current capable power system supplying all of the servos not limited by small gauge wire and connectors. The WRC 15 amp switch regulator can serve well at the center of this power system.

This regulator is adjustable from about 4.5Volts to about 7.0 Volts so you can set it to your desired voltage for higher servo speed and torque based on your servo's limitations. Additionally, It is basically an industrial rated high frequency (300Khz which is outside the mixer stages of RC receivers stages and will not cause interference) DC to DC converter and not what is typically thought of as a regulator in the RC hobby. What this means is that it does not waste power rather it converts a higher voltage into a lower voltage without generating heat or wasting battery power. Due to its high efficiency, no heat sink or fan is required. Additionally, weight is saved and power that is normally converted to heat with linear regulators is reused for additionally capacity saving battery power. This regulator operates at between 80-95% efficiency compared with <50-75% efficiency for linear regulators. This regulator for example will give you about 4500MaH at 5.0Volts from a 3500MaH 2-cell lipo.

This regulator will deliver 15Amps continuously as well as a 15Amp peak. It is current limited at 15Amps. The regulator has high temperature and short circuit protection. Additionally, This regulator will output the programmed voltage (5.00V factory preset) or battery voltage whichever is lower. It basically acts like a switch if the battery voltage is less than the regulated voltage setting. Additionally, the power switch is a "safety switch" so if the switch fails or is unplugged the regulator stays ON. The current from the regulator does not flow through the switch. So, there is no risk of power failure due to switch failure or being unplugged.

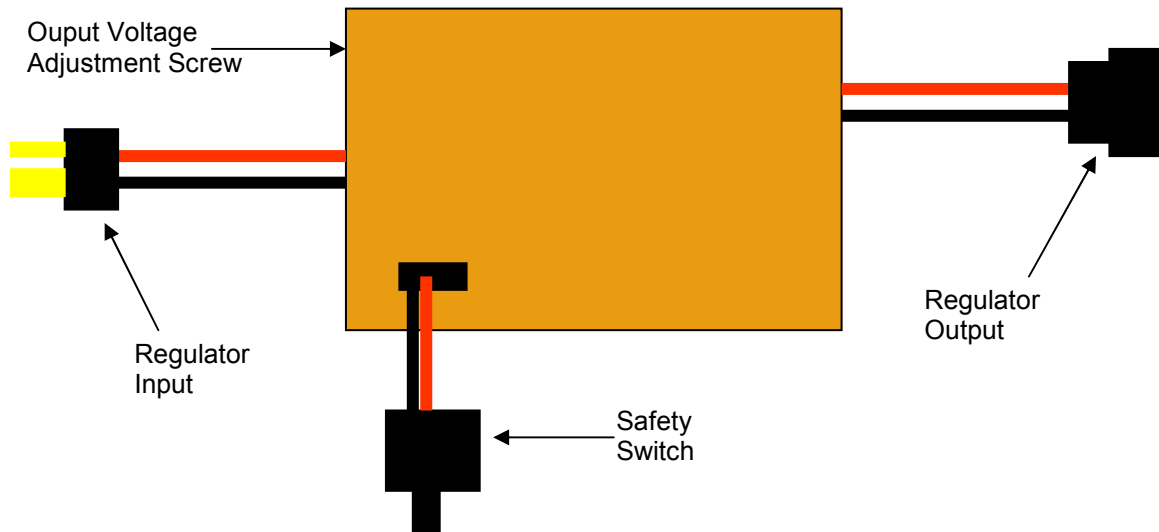
Specifications:

Input Voltage Range:	3.0-16 Volts
Output Voltage Range:	4.5-7.5 Volts (adjustable)
Output Current:	15 Amps (peak and continuous)
Short Circuit protection:	Yes, Current Limited to 15 Amps (hi-cup mode)
Temperature Range:	-40 to 125 deg. C

Thermal Protection: Yes @ 140 deg. C

Installation:

Below is a diagram of the regulator showing all connections.



The male plug is the battery input to the regulator. Just inside the shrink wrap on the input side of the regulator is an adjustment screw that with a small flat screw driver the output voltage can be set from less than 5.0V to over 7.0 volts. The on/off switch plugs into the regulator through the hole in the shrink wrap on the input side of the regulator. The output side of the regulator has a female plug on the wires.

Connectors are supplied for the battery and connections to the receivers and servos that can deliver high current to the servos.

Warranty and Support:

The WRC 15Amp Regulator comes with a 180 day warranty. The warranty only covers the WRC 15Amp Regulator. Always perform range tests. Warranty and support is available by emailing Wike RC Products at billw@nc.rr.com.