



ITEM# WRL-HBEC HV

Congratulations on your purchase of the Hercules Battery Eliminator Circuit High Voltage version (HBEC-HV). This new Battery Eliminator Circuit is the first to be designed and manufactured in Canada with the future in mind. It's made with high quality components that can withstand even more extreme high voltages up to 60 Volts. The Hercules Battery Eliminator Circuit HV is a glitch free high efficiency, high power switching voltage regulator designed to work with all popular brands of R/C receivers and servos. It provides safe and consistent power to your R/C receiver and servo(s) that eliminates the need for a separate battery source. The Hercules HV will boost performance on your R/C model by reducing the overall weight while maintaining a high current output from high voltage sources. The Hercules HV is ideal for today's more demanding R/C aircrafts equipped with ESC's that demands for higher voltages.

Please read the entire manual before proceeding. Before installation, be sure your radio system uses center red or positive receiver/servo connections.

Features:

- Compact high efficiency 5V and 6V selectable voltage regulator.
- Wide input voltage range from 9V to 60V. (8-42 NiCd/NiMH or 3-14 LiPo Cells)
- High current capability of 3.5 Amps continuous.
- High power output that handles multiple servos including digital servos.
- Protects against Thermal/Current overloads.
- LED status indicator gives visual feedback.
- High power toroid coil technology that provides the least Electro-Magnetic Interference.
- Over-rated 10 Amp diode guarantees consistent high current supply.
- Laboratory burn-in tested at excess of 3.5 Amp, 58.8 Volt input continuous load for 48 hrs of uninterrupted operation (under ventilation).

Package Contents:

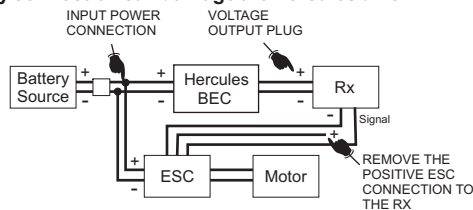
- Hercules BEC High Voltage unit
- User Instruction Manual

WARNING! DO NOT EXTEND THE POWER WIRE CONNECTIONS. IF EXTENDING THEM, REPLACE WITH THICKER GAUGE WIRE TO AVOID VOLTAGE DROPS.

Installation

1. Power Connections: **Please disconnect the battery from its terminal before soldering the power connections.** Connect the Hercules open power wire connections by soldering the Red power wire to the positive (+) terminal of the battery source that is being used. Solder the Hercules Black power wire to the negative (-) terminal of the battery source.

Caution: Please ensure the polarity of the Hercules input voltage connections are attached to the correct polarity. Incorrect polarity connection can damage the Hercules unit.

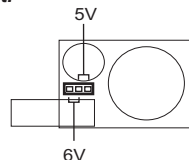


Installation Cont'd:

2. Plug the Hercules voltage output plug into the battery slot of the receiver. Make sure the polarity is matching with the receiver slot before inserting the Hercules plug - **black wire negative (-) and red wire positive (+)**. Connect the ESC signal connection to Rx with the positive red wire removed.
3. **Warning: Under heavy continuous current load, the Hercules HV unit will get extremely hot and cause burns when touched. Allow unit to cool before handling.**
Caution: Current loads of 3.5A continuous and above should be used cautiously with forced cooled air ventilation directed at the Hercules. Ideally place the Hercules unit close to the aircrafts propellor for ventilation.
 Securely mount the Hercules unit on your R/C vehicle preferably away from the receiver and antenna if possible. **It is recommended to mount the Hercules unit where there is some source of forced airflow to prevent heat build up.**

Setup:

1. With the Hercules unit installed and required servo(s) connected, turn on the transmitter without the battery connected.
2. Before connecting the battery to the circuit, please ensure that the proper 5V or 6V jumper settings are set. To set the Hercules to output 5V or 6V, short the jumper to the left side or the to the right side as respectively shown below.
CAUTION: If the 5V/6V jumper is ever left open, the Hercules will default to a 6V output.



3. Make sure your transmitter has the throttle off before continuing. Now connect the fully charged battery into the circuit.
 Note: It is recommended to use a battery source with a minimum of either 3 LiPo or 8 NiCd/NiMH cells.
4. The LED on the Hercules unit should turn on.
5. Now the Hercules Battery Eliminator Circuit is actively powering the RC receiver and servo(s). To further isolate noise from the ESC to receiver and servo(s), consider purchasing Western Robotics Glitch Buster that optically isolates them.

TROUBLESHOOTING:

- Q:** The Hercules LED does not turn on when power is applied?
A: Check if the power source is at least 9V Volts or higher and the connections are secured tightly with the correct polarity. Make sure there are no shorts on the output side.
- Q:** I want a 5V output and the Hercules gives a 6 Volt output and vice versa?
A: Make sure the 5v/6v jumper setting is set proper to output either a 5V or 6V output. Refer to the Setup instructions.
- Q:** The Hercules unit gets very hot during operation?
A: This is normal when the Hercules it put under very heavy loads. Make sure the Hercules unit is air cooled ventilated to prevent thermal shutdown.
- Q:** The wire leads are getting warm?
A: This is normal when operating with higher currents. Make sure not to operate the unit beyond the specified voltage ratings.
- Q:** There us a visual spark when I connect the battery to the Hercules unit?
A: This is normal when large voltage sources are connected because the increase in potential that causes arcing during the initial connection. Consider using an electronic switch to avoid such spark.