

## **Auto-Detect 2-4S LiPo SMART-STOP Module**

### **• Read instructions completely before installation or set-up •**

The Novak Auto-Detect 2-4S Smart-Stop Module monitors the LiPo pack's voltage and safety cuts off the ESC's throttle output when the voltage drops below a safe level -- 6.25V for 2S, 9.375V for 3S, & 12.50V for 4S.

### **Determine Mounting Position:**

It is best to mount the module near the speed control, as its main power leads (20G Red & Black silicone wires) connect easiest to ESC's battery power wire tabs (if ESC has solder tabs). It can also connect to the battery, battery connector, or along the battery's power wires. Based on where your Smart-Stop will be connected, select a position where the unit can be mounted in the vehicle and the LEDs on top will be visible (**Do not mount module at this time**).

### **Power Lead Connection:**

Cut the Smart-Stop's 20G RED & BLACK silicone power wires to the length required for where it will be mounted. **Strip & tin the wire ends and solder to the ESC's battery solder tabs--RED wire to POSITIVE tab & BLACK wire to NEGATIVE tab.**

*When soldering wires to the tabs, make sure you do not short any of the tabs to each other--your electronics will be damaged!*

If connecting Smart-Stop's power wires to the battery, battery connector, or battery wires, insulate solder joints & exposed wiring to avoid short circuits.

### **Input Signal Harness Connection:**

Disconnect the speed control's input signal harness from the receiver and plug it into the 3-pin right-angle header on the Smart-Stop module's PC Board--**connect input harness with the WHITE wire toward the outside of the Smart-Stop's PC board--The black/red/white sequence of ESC's harness should match the Smart-Stop's input signal wires that are soldered to the bottom side of PC board--white over white, red over red, black over black.**

Connect the Smart-Stop's input signal harness to the receiver's throttle channel (#2), **making sure wiring sequence matches the other receiver connections.** Very old radio systems may require changing the wiring sequence in plug plastic.

### **Mount Module in Vehicle:**

Use the included double-sided tape or tie-wraps to mount the Smart-Stop module in the vehicle.

### **Blue Indicator LED:**

Included is an auxiliary high-power Blue LED harness that can be mounted in the vehicle for easier visibility--*on shock tower, wing mount, or a hole reamed in body so it 'pops' in from underneath.*

### **Smart-Stop Operation:**

The Smart-Stop module programs itself to your transmitter's neutral point **EVERY TIME** you turn on the ESC (**You MUST NOT adjust the transmitter's neutral point after turning the power ON, or the Smart-Stop will NOT cut the throttle!**). If you need to adjust the neutral trim after turning the power ON to make the vehicle "hold still", do so and then cycle the ESC power OFF and then back ON to reset the Smart-Stop correctly to the new neutral point.

The Smart-Stop will start interrupting, or 'blipping' the throttle as your LiPo battery nears the critical safety voltage--**Blue LED will also begin flashing.** If you continue running vehicle after critical voltage is reached, the Smart-Stop will completely shut off the ESC's throttle signal--*you will still have control of vehicle's steering.*

### **Trouble Shooting:**

**Smart-Stop module does not shut off throttle**—Transmitter was not at neutral during ESC power up, or neutral trim was adjusted after power up.

**PRODUCT WARRANTY:** Novak Electronics, Inc. guarantees all products to be free from defects in materials or workmanship for a period of 120 days from original date of purchase (verified by dated, itemized sales receipt). In no case shall our liability exceed the product's original cost. Warranty does not cover water damage, use with incorrect number of cells, incorrect installation, short-circuiting, or any damage to other electronics used in conjunction with the Smart-Stop. We reserve the right to modify warranty provisions without notice. **55-5476-2 • 8-2011**

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