

## PROPER GEARING

Motor & ESC temperatures should **NEVER** exceed **160°F MAX** at any time during operation!

If your application or vehicle set-up produces excessive heating of either the speed control or the motor, check for free operation of the vehicle's drive train and change the gearing if needed to avoid overheating!

Because of the potential of damage from overheating that can cause ESC or motor failure, **you should start with small pinion sizes** and check the speed control and motor operating temperatures at during the initial runs after installation. This is the best way to avoid excessive heating.

If ESC & motor temperatures remain low & stable, you can slowly increase the pinion size while again monitoring the temperatures to determine the safe gearing for your vehicle, motor, and climate/track conditions. Because these variables can change or be modified, **you should continually monitor ESC & motor temperatures** to protect your electronics from damage.

## VOLTAGE CUT-OFF CIRCUITRY

This speed control features Novak's Smart-Stop Auto-Detect Voltage Cut-Off Circuitry built-in, and when used properly will allow you to safely use LiPo batteries, without letting the cells drop below their critical safety voltage during operation that results in premature battery failure.

The default ESC setting is that the Voltage Cut-Off is turned ON and is set to LiPo. If using NiMH cells, you need to switch the Voltage Cut-Off feature OFF.

**Yellow status LED will remain ON at all times during operation to indicate that the LiPo Voltage Cut-Off Circuitry is turned ON.**

**Re-charge battery after Smart-Stop circuitry shuts off throttle**

Even though the pack's voltage will rise (after a short resting period) to a level high enough to run motor again, this is not good for LiPo batteries.

**Reaching critical safety voltage too many times can damage the cells.**

**Note: Whenever the speed control's One-Touch Programming is performed, this setting will revert to the LiPo default setting.**

**DO NOT USE LiPo BATTERIES WITH THE VOLTAGE CUT-OFF CIRCUITRY TURNED OFF**

With the Voltage Cut-Off turned ON & using NiCd/NiMH cells, the ESC's throttle output will shut off very early into the run--Change the Cut-Off Circuitry mode to OFF to use these batteries.

## TEMPERATURE MONITORING

This speed control has a built-in diagnostic temperature monitoring feature that lets you quickly and easily check the ESC's operating temperature at any time with a click of the ESC's push-button.

While connected to a battery and powered ON, **simply tap the ESC's SET button and one of the on-board LED lights will flash 4 times** to indicate the operating temperature of the speed control:

**BLUE** flashing LED = normal operating temp--136-147°F (58-64°C).

**YELLOW** flashing LED = medium operating temp--148-167°F (65-75°C).

**GREEN** flashing LED = hot operating temp--168-194°F (76-90°C).

**RED** flashing LED = **hottest** operating temp--195-215°F (91-102°C).

**You are now pushing the ESC extremely hard and should be very careful to avoid overheating and possible thermal shut-down.**

**All LEDs flashing = DANGEROUS operating temp--216-239°F (103-115°C).**

**Your ESC is now about to thermally shut-down.**

**Reduce the pinion size/check drive train to avoid ESC overheating that could result in potential damage.**

## TROUBLE-SHOOTING GUIDE

### Steering Channel Works But Motor Will Not Run

- Possible receiver damage—Check operation with a different receiver.
- Possible internal damage—Refer to 'SERVICE PROCEDURES' section.
- Check motor or motor connections.
- Check ESC is plugged into receiver's throttle channel. Check signal harness wire sequence.

### Receiver Glitches/Throttle Stutters During Acceleration

- Receiver or antenna too close to ESC, power wires, battery, or motor.
- Bad motor connections—Check wiring & connections.
- Low voltage to receiver—Try Novak Glitch Buster (#5626) on receiver to retain power during surges of high current draw.
- PowerCap damaged/missing—Replace PowerCap/Trans-Cap Module.
- Battery pack damaged or weak—Try a different battery pack.
- Excessive current to motor—Use a milder motor or a smaller pinion gear.
- Untidy wires or signal and power wires are bundled together. Input harness, servo harness, and power wires should be bundled separately. Power wires should be as short as possible.

### Motor and Steering Servo Do Not Work

- Check wires, receiver signal harness wiring & color sequence, radio system, crystals, battery/motor connectors, & battery pack.
- Possible receiver damage—Check operation with a different receiver.
- Possible internal damage—Refer to Service Procedures.

### Motor Runs Backward

- Reverse motor wiring—Swap RED & Black motor wire connections at motor.
- Improper One-Touch set up—Refer to 'ONE-TOUCH PROGRAMMING'.

### Speed Control Runs Excessively Hot

- Gear ratio too low—Increase gear ratio/Reduce pinion size.
- Motor is damaged—Try a different motor.

### Model Runs Slowly/Slow Acceleration

- Gear ratio too high—Reduce gear ratio/Increase pinion.
- Bad battery or connectors—Check & replace if needed.
- Incorrect transmitter/ESC adjustment—Refer to 'TRANSMITTER ADJUSTMENTS'.
- PowerCap damaged/missing—Replace PowerCap or Power Trans-Cap Module.

### ESC Is Melted Or Burnt/ESC Runs With Switch Off

- Internal damage—Refer to Service Procedures.

### No Power to the BEC

- Check power wire connections to your battery, ESC and BEC unit.
- Check that BEC input harness is plugged into receiver & the ESC's red wire is removed from the input harness.
- Be sure that the BEC unit switch is turned ON.

## ERROR/LED CODES

- **Red & Green status LEDs on solid**—Check input signal harness connections. Check input signal harness wiring sequence—Refer to **STEP 3**.
- **Blue & Red status LEDs blinking**. Possible thermal shut-down—Check gear ratio & free operation of drive train for possible overloading/ESC is being severely over-loaded—allow system to cool & return throttle to neutral to regain motor control. **LEDs will continue to blink until system is cooled down.**
- **Red & Yellow status LEDs toggling**. LiPo battery has reached critical safety voltage & LiPo Cut-Off circuitry has cut-off throttle output. Recharge battery.

## SERVICE PROCEDURES

Before sending your product in for service, review the **Trouble-Shooting Guide**. Product may appear to have failed when other problems exist. After reviewing instructions, if you feel that you require service, obtain the most current service options & pricing as follows:

**WEB:** Print out the **PRODUCT SERVICE FORM** from CUSTOMER SERVICE section of the web site. Fill out required information on form and return it with the product requiring service.

**WARRANTY SERVICE:** You **MUST CLAIM WARRANTY** on **PRODUCT SERVICE FORM** & include a valid cash register receipt with purchase date, dealer name, & phone# on it, or a previous service invoice. If warranty provisions have been voided, there will be service charges.

- **ESCs returned without a serial number will not be serviced under warranty**

**TRADE-IN PROGRAM:** Novak offers a trade-in program for non-warranty items toward current and discontinued products. You can replace, exchange, or upgrade Novak products as listed within the trade-in program. Complete a Non-Warranty Service Form to be eligible.

### ADDITIONAL NOTES:

- Dealers/distributors aren't authorized to replace products thought to be defective.
- If a hobby dealer returns your product for service, submit a completed **PRODUCT SERVICE FORM** to the dealer and make sure it is included with product.
- Novak Electronics, Inc. does not make any internal electronic components (transistors, resistors, etc.) available for sale.

## SET-UP GUIDE

NOVAK



**EIGER**



#55-1835-1  
1-2012

The Eiger ESC includes 3 independent Drive/Brake Modes for Rock Crawling, Backyard Bashing, and Robotic/Servo applications. Plus it features adjustable Drive Frequency, Smart-Stop LiPo Voltage Cut-Off Circuitry, and On-Board Temperature Monitoring to keep things in check.

With its simple and straight forward user-interface and a nice compact size, the Eiger is perfect for your 2S or 3S Brush Motor set-up.

## ACCESSORIES

**PLUG-IN INPUT SIGNAL HARNESS (MINI-JST)** [Novak kits #5304 & #5309]  
Input signal harness with 2mm Mini plug on ESC end--4.5" (#5304), 9" (#5309).

**BATTERY HARNESS WITH TRAXXAS® CONNECTOR** [Novak kit #5331]  
Flexible 14GA red and black silicone power wire with Traxxas® battery connector.

**3-AMP HIGH-VOLTAGE UNIVERSAL BEC (For 3S LiPo)** [Novak kit #5463]  
Supplies 6.0V / 3A of power to receiver & servo for 3S LiPo applications.

**EXTERNAL BEC IS REQUIRED FOR 3S LiPo USAGE**

**5-AMP UNIVERSAL BEC (For 2S LiPo)** [Novak kit #5465]  
Supplies 6.0V / 5A of power to receiver & servo for extra BEC performance on 2S LiPo.

**SUPER-FLEX SILICONE 14GA WIRE SET** [Novak kit #5508]  
Two each of 9" length black, red, blue, yellow, and orange 14GA wire.

**REPLACEMENT ESC SWITCH HARNESS** [Novak kit #5600]  
Replacement ON/OFF switch harness for Eiger ESC.

**GLITCH BUSTER CAPACITOR** [Novak kit #5626]  
Supplies reserve power to receiver during spikes of heavy load to avoid drop-out.

**REPLACEMENT POWERCAP HARNESS** [Novak kit #5682]  
1000µF, 16V replacement PowerCap harness for Edge ESC.

**POWER CONNECTORS--3.5mm & 4mm** [Novak kit #5731 & #5741]  
Low-Loss connectors generate dozens of wiring routing and installation options.

**LEAD-FREE SILVER SOLDER** [Novak kit #5831-#5833]  
3% Silver solder for high-conductivity--6gr (#5831), 15gr (#5832), 100gr (#5833).

**MOUNTING TAPE 25x35mm** [Novak kit #5840 & #5841]  
Cushioned, double-sided tape for mounting electronics--10pc (#5840), 100pc (#5841).

**HEAT SHRINK TUBING** [Novak kit #5850 & #5851]  
6" long heat shrink tubing in six sizes: 1/16" - 3/8"--6pc kit (#5850), 24pc kit (#5851).

## PRODUCT WARRANTY

This ESC is guaranteed to be free from defects in materials or workmanship for a period of 120 days from original purchase date (verified by dated, itemized sales receipt). Warranty does not cover incorrect installation, components worn by use, damage to case or exposed circuit boards, damage from using more than 9 cells (1.2 volts DC/cell) or more than 3 LiPo cells input voltage (with 3S rated external BEC), damage resulting from using LiPo batteries without Smart-Stop voltage cut-off circuitry active, using insufficient LiPo batteries that cannot supply the amperage required by this system, cross-connection of battery/motor power wires, overheating solder tabs, reverse voltage application, improper use or installation of external BEC, damage resulting from thermal overload or short-circuiting motor, damage from incorrect installation of FET servo or receiver battery pack, damage due to free revving motor, not using or incorrect installation of a PowerCap or Power Trans-Cap Module on ESC or operating ESC with a damaged PowerCap, using a Schottky diode, splices to input harness or ON/OFF switch, damage from excessive force when using the One-Touch/SET button or from disassembling case, tampering with internal electronics, allowing water, moisture, or any other foreign material to enter ESC or get onto the PC board, incorrect installation/wiring of input plug plastic, allowing exposed wiring or solder tabs to short-circuit, or any damage caused by a crash, flooding, or natural disaster. Because Novak has no control over connection & use of ESC or other related electronics, no liability may be assumed nor will be accepted for any damage resulting from the use of this product. Every Novak ESC & motor is thoroughly tested & cycled before leaving our facility and is, therefore, considered operational. By the act of connecting/operating ESC, user accepts all resulting liability. In no case shall our liability exceed the product's original cost. We reserve the right to modify warranty provisions without notice. This product is not intended for use by children under 14 years of age without the strict supervision of an adult. Use of this product in an uncontrolled manner may result in physical damage or injuries—take extra care when operating any remote control vehicle. Melted ESCs/motors are not covered by the warranty.

Designed by Novak Electronics, Inc. in Irvine, CA and assembled with globally sourced components.  
©2012 Novak Electronics, Inc. • All Rights Reserved • No part of these instructions may be reproduced without the written permission of Novak Electronics, Inc. Eiger ESC, Thermal Overload Protection, & One-Touch Set-Up are all trademarks of Novak Electronics, Inc.

## SPECIFICATIONS

Input Voltage.....	2-3S LiPo cells, 4-9 NiMH cells
540-Size Brush Motor Limit (2S LiPo).....	20-turn or higher
540-Size Brush Motor Limit (3S LiPo).....	35-turn or higher
380-Size Brush Motor Limit.....	Any
ESC Size.....	1.15" x 0.95" x 0.66"H (29.0 x 24.3 x 16.8mm)
ESC Weight (w/o wires).....	0.64 ounce (18.1 grams)
B.E.C. Voltage/Current (built-in).....	6.0 volts DC / 2.0 amps
Power Wire (Battery/Motor).....	14G Super-Flex Silicone
On-Resistance.....	0.0013 ohm (@25°C trans.temp.)
Drive/Brake Modes (1 of 5).....	Basher, Servo, Crawler (low/med/high)
Dead Band Settings (1 of 5).....	3-12 %
Drive Frequency Settings (1 of 5).....	1.0-8.0 kHz
LiPo Voltage Cut-Off (1 of 2).....	ON/OFF

## PRECAUTIONS

### WATER & ELECTRONICS DON'T MIX!

Allowing water, moisture, or other foreign materials to get inside the speed control will void product's warranty.

### MUST BE 14 YEARS OR OLDER TO OPERATE

Strict adult supervision is required for use by children under 14 years of age.

### NO SCHOTTKY DIODES!

Do not use Schottky diodes with with reversible ESCs!

### 2-3S LiPo OR 4-9 NiMH CELLS ONLY

NEVER exceed 3S LiPo packs--Be sure Voltage Cut-Off option is turned ON.

**\*\*\*External BEC is required for 3S operation\*\*\***

For NiMH, NEVER exceed 9-cells (1.2VDC/cell) & disable Voltage Cut-Off.

### DISCONNECT BATTERIES WHEN NOT IN USE

Always disconnect batteries from the ESC when not in use or left unattended to avoid short circuits and possible fire hazard.

### POWERCAP REQUIRED

An external PowerCap is installed on the ESC & MUST be used at all times. Failure to use the correct Novak PowerCap will result in higher ESC temperatures & possible damage.

### GOOD QUALITY LiPo BATTERIES SUGGESTED

Using low quality LiPo batteries that cannot supply the amperage required by this system will result in possible battery, ESC, & motor damage, and will void the warranty.

### TRANSMITTER ON FIRST

Always turn on transmitter power first so you will have control of vehicle when you turn the ESC's power on.

### GOOD QUALITY RADIO SYSTEM SUGGESTED

Undesirable radio noise may occur when using lower quality radio systems. **2.4GHz radio system use is best**; high quality FM system is acceptable; AM systems are **NOT** recommended.

### DO NOT BUNDLE POWER & SIGNAL WIRES TOGETHER

RF noise in the power wires can adversely effect radio system performance.

### INSULATE WIRES & NO REVERSE VOLTAGE!

Insulate all exposed wiring with heat shrink tubing or electrical tape to prevent short circuits, & never reverse connect the battery--ESC damage will occur & void the warranty.

### NO CA GLUE

CA glue or its fumes can damage the PC board and internal components of the ESC & cause premature failure.

## NOVAK ELECTRONICS, INC.

17032 Armstrong Ave. Irvine, CA 92614

PHONE: (949) 833-8873 • FAX: (949) 833-1631

Customer Service E-mail: [cs@teamnovak.com](mailto:cs@teamnovak.com)

## STEP 1-MOUNT ESC

Mount the speed control so that the power wires are as far away from other electronics as possible, and will not interfere with the vehicle's moving parts. Select an installation location that has good airflow for cooling the ESC as this will result in efficient operation.

### 1. MOUNT SPEED CONTROL IN VEHICLE

Use the included double-sided tape to mount the ESC to the vehicle's chassis (do NOT use glue). Avoid contact with chassis side walls or other vehicle components to avoid vibration damage.

Be sure receiver & antenna are mounted as far from ESC, power wires, battery, and servo as possible--These components all emit RF noise.

Note: Mount antenna as close to receiver as possible--trail excess wire off top of antenna mast (cutting/coiling excess wire reduces radio range--2.4GHz too).

### 2. INSTALL ON/OFF SWITCH

Use included double-sided tape to mount switch where it will be easy to access--select a place where it will not get damaged/switched OFF in a crash.

### 3. SECURE POWERCAP & POWER WIRES TO AVOID VIBRATION DAMAGE

To prevent vibration damage, use the included tie-wraps to secure PowerCap (the capacitor on smaller silicone wires soldered to the ESC's positive & negative battery tabs) to the ESC's heavier gauge battery power wires. You should also tie-wrap the power wires together or to a point on the vehicle to avoid vibration & stress on the ESC's solder tabs.

## STEP 2-CONNECT MOTOR

### 1. SELECT PROPER MOTOR FOR OPTIMUM PERFORMANCE

The ESC's different Drive/Brake Modes each work best with different motors. Select the proper motor for the given application & DO NOT over-gear.

### 2. INSTALL PINION GEAR & ADJUST MOTOR FOR PROPER GEAR MESH

Tighten the pinion's set screw onto the flat of motor shaft. Align the pinion and the spur gears.

A. You **NEED** to have a small amount of play between the pinion & spur gear (about thickness of a piece of paper)--**be sure to check for free play at several points around spur gear to ensure a proper mesh** (Make sure gear mesh is NOT TOO TIGHT).

B. Tighten the motor mounting screws--Avoid using excessive force that could break the screws or strip the threaded holes in motor.

### 3. CONNECT MOTOR POWER WIRES TO MOTOR

The ESC's motor leads come with gold-plated bullet-style motor connectors factory-installed for quick and easy motor connection. These connectors are also available separately from Novak in different sizes for other motors or wiring needs.

A. Connect the ESC's **YELLOW 'Positive'** silicone motor power wire to the bullet connector on the motor's **POSITIVE** power wire.

B. Connect **BLUE 'Negative'** power wire to connector on motor's **NEGATIVE** wire--You may need to swap connectors (plus/minus) for reverse rotation.

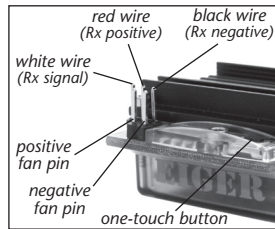
### 4. CHECK FOR PROPER GEARING DURING INITIAL RUNS

Crawler motors/ESCs generally DO NOT get very hot--Lower the gearing or check the vehicle's drive train for binding or other problems if you experience high operating temperatures.

## STEP 3-CONNECT RECEIVER

The ESC has a user-replaceable input harness with a 2mm mini plug on ESC end of it and the industry-standard connector on receiver end.

**The ESC works with all major radio brand's new receivers.** Some very old receivers need the wiring sequence changed in the plastic 3-pin connector on the receiver end--Receiver/servo may be damaged if sequence is incorrect. For instructions on changing the wiring sequences on older receivers, visit our web site.



### 1. CONNECT 2mm MINI PLUG TO RECEIVER HARNESS PINS ON ESC

Insert the 2mm mini plug of receiver input harness onto the 3-pin RX header on the ESC. **White wire goes on the left side pin as shown above.**

### 2. CONNECT RECEIVER HARNESS TO RECEIVER

Insert 3-pin connector of receiver harness into Ch.2 (throttle) slot of receiver.

## STEP 4-CONNECT BATTERY

### 1. CONNECT ESC'S BATTERY CONNECTOR TO BATTERY PACK

Connect the speed control's battery connector to a fully charged 2-3S LiPo or 4-9 cell NiMH (1.2 VDC/cell) battery pack.

**External 3S-rated BEC is required for 3S (or 8-9cell NiMH) operation of ESC**

To change the battery connector on the ESC to a different type, we suggest using low-loss high power connectors like Dean's Ultra Plug.

- Use polarized connectors. Reverse voltage will damage ESC & void warranty.
- Use a female connector on battery packs to avoid shorting.

If using NiMH cells, Voltage Cut-Off Circuitry must be turned OFF after One-Touch Programming.

## STEP 5-ONE-TOUCH PROGRAMMING

With ESC connected to a charged battery and the receiver:

1. TURN ON THE TRANSMITTER'S POWER
2. **PRESS & HOLD** ESC'S ONE-TOUCH/SET BUTTON
3. TURN ON THE SPEED CONTROL'S POWER  
With transmitter at neutral (still pressing SET button), slide ESC's switch to ON position.
4. CONTINUE HOLDING SET BUTTON UNTIL RED LED COMES ON
5. RELEASE SET BUTTON AS SOON AS RED LED TURNS ON
6. PULL TRANSMITTER THROTTLE TO FULL-ON POSITION  
Hold it there until green status LED turns solid green. (Motor won't run during programming).
7. PUSH TRANSMITTER THROTTLE TO FULL-BRAKE/REVERSE  
Hold it there until the green status LED blinks green.
8. RETURN TRANSMITTER THROTTLE TO NEUTRAL  
The red status LED will turn solid red, indicating that speed control is at neutral and that proper programming has been completed.

[Yellow LED on at neutral indicates that LiPo Voltage Cut-Off feature is turned ON]

If transmitter settings are changed, the One-Touch Programming must be repeated. If you experience any problems, turn off ESC and repeat One-Touch.

**NOTE: One-Touch Programming reverts ESC back to factory-default settings.**

## TRANSMITTER ADJUSTMENTS

Note: Transmitter adjustments may not be required to properly complete the speed control's One-Touch programming. If, however, you have any problems with the programming, adjust your transmitter settings as listed below and repeat **ONE-TOUCH PROGRAMMING**.

### THROTTLE CHANNEL ADJUSTMENTS

- A. Set **HIGH ATV** or **EPA** to 100%. [amount of throw at full throttle]
- B. Set **LOW ATV**, **EPA**, or **ATL** to 100%. [amount of throw at full brakes]
- C. Set **EXPONENTIAL** to zero setting. [throttle channel linearity]
- D. Set **THROTTLE CHANNEL REVERSING SWITCH** to either position.
- E. Set **THROTTLE CHANNEL TRIM** to middle. [adjusts neutral position]
- F. Set **ELECTRONIC TRIGGER THROW** to 70% throttle/30% brake (or 7:3)--best for racing. Set to 50%/50% for full time use with reverse for best performance.
- G. Set **MECHANICAL TRIGGER THROW** to 2/3 throttle and 1/3 brake throw position.

**•NOT ALL TRANSMITTERS HAVE ALL OF THESE ADJUSTMENTS•**

## GOOD QUALITY RADIO SYSTEM SUGGESTED

With higher performance electronic systems, undesirable radio system noise may occur when used with lower quality radio systems.

High quality 2.4GHz radio systems are the best to use--Be careful with cheap 2.4GHz systems.

FM radio systems are acceptable, as long as the system is high quality.

**AM radio systems are NOT recommended.**



## EXTERNAL BEC CONNECTION

### Using a Non-Novak External BEC

To use a non-Novak brand BEC with this speed control, please follow the BEC manufacturer's instructions. Remove the RED wire from the plug plastic on the ESC's receiver input signal harness, and leave the ESC's ON/OFF switch in the 'ON' position at all times.

### Using a Novak External BEC

To use a Novak BEC with this speed control, remove the RED wire from the plug plastic on the ESC's receiver input signal harness, and leave the ESC's ON/OFF switch in the 'ON' position at all times.

Connect the Novak BEC's main power input leads (heavier gauge silicone wire) to ESC's Positive & Negative battery solder tabs (RED to Positive & BLACK to Negative). Plug the BEC's receiver power output lead into the slot of any open/unused channel of your receiver.

Use the BEC's ON/OFF switch to turn the system's power ON & OFF--or you can leave both switches on and connect/disconnect battery to turn power on & off.

## OPTIONAL RECEIVER BATTERY USAGE

To use an external receiver battery pack to power the electronics:

1. Plug the 5 cell (1.2VDC/cell) receiver pack into the battery slot of receiver.
2. Switch the receiver pack ON. Next, turn the ESC's switch ON, then OFF to allow the ESC to be powered by the external power source.
3. Turn the receiver pack's switch OFF to turn the vehicle OFF.

### ALTERNATIVE METHOD

1. Plug the 5 cell (1.2 VDC/Cell) receiver pack into the battery slot of receiver.
2. Unplug the ESC's red wire from input receiver harness (insulate the red wire).
3. To turn the vehicle ON, switch the receiver pack ON, then turn ESC's switch ON.
4. To turn the vehicle's electronics OFF, turn ESC's switch OFF, then turn receiver pack's switch OFF.

Note: ESC Parameter values are subject to change due to ongoing development. Refer to our web site for updated values and more information on ESC parameters.

## ESC PROGRAMMING

This ESC features 4 adjustable parameters to fine-tune the ESC's feel & operation for your needs. **NOTE: You must first complete the ESC's One-Touch Programming before adjusting the ESC parameters.**

**DEFAULT PARAMETER SETTINGS FOR ARE LISTED IN BOLD IN TABLES BELOW TO CHANGE PARAMETER SETTINGS:**

1. CONNECT THE ESC TO A CHARGED BATTERY PACK & RECEIVER.
2. TURN ON TRANSMITTER.
3. SLIDE THE ESC'S ON/OFF SWITCH TO 'ON' POSITION
3. WITH ESC AT NEUTRAL, PRESS & HOLD ESC'S SET BUTTON  
Release ESC's SET button once the LED is lit for the setting you wish to change. To skip, continue to press & hold SET button until desired parameter is reached.
4. SELECT PARAMETER VALUE  
LED flashes to indicate active setting (refer to tables). Quick press & release SET button to select desired setting.
5. PRESS & HOLD SET BUTTON TO STORE NEW SELECTION  
When button is pressed & held for 1 second, new selection is stored in ESC's memory. Status LEDs will scroll across to confirm ESC programming & ESC returns to neutral. **There is no time constraint during selection of custom parameters.**

## DRIVE/BRAKE MODE

### #1 DRIVE/BRAKE MODE SETTINGS (1 of 5) **BLUE LED**

Drive mode and braking type & amount being applied.

>> **Setting 1 = Basher Mode--Push Brakes/Forward/Reverse--Regular driving** (No braking applied at neutral/double-pump trigger for reverse). **Setting 2 = Servo Mode--Forward/Reverse--Robotic applications** (No braking/No reverse delay). **Settings 3-5 = Hill Brake settings--Rock crawling** (Low, Medium, or High Brakes).

Setting (# flashes)	1	2	3	4	5
Drive/Br. Mode:	Bash	Servo	Crawl-Lo	Crawl-Md	<b>Crawl-Hi</b>

## DEAD BAND

### #2 DEAD BAND SETTINGS (1 of 5) **RED LED**

The space between Minimum Brake and Minimum Drive, with Neutral in the middle.

>> **Increasing this setting increases amount of 'free play', or distance the transmitter's trigger must move before forward drive or braking begins.** This is useful for triggers that don't center accurately or have worn pots.

Setting (# of flashes)	1	2	3	4	5
Dead Band (%):	3	5	6	<b>8</b>	12

## DRIVE FREQUENCY

### #3 DRIVE FREQUENCY SELECTION (1 of 5) **GREEN LED**

How the ESC's throttle response feels with respect to the transmitter's trigger input.

>> **Increasing the Drive Frequency makes the throttle response feel smoother and more controllable.**

Setting (# of flashes)	1	2	3	4	5
Drive Freq. (KHz):	<b>1.0</b>	1.5	2.0	6.2	8.0

## VOLTAGE CUT-OFF

### #4 VOLTAGE CUT-OFF SELECTION (1 of 2) **YELLOW LED**

>> **Changing this setting enables or disables the built-in Smart Stop cut-off circuitry and sets the voltage cut-off point based on how many cells are being used for the vehicle's main battery pack.**

**DO NOT USE LIPo's WITH VOLTAGE CUT-OFF CIRCUITRY TURNED OFF**

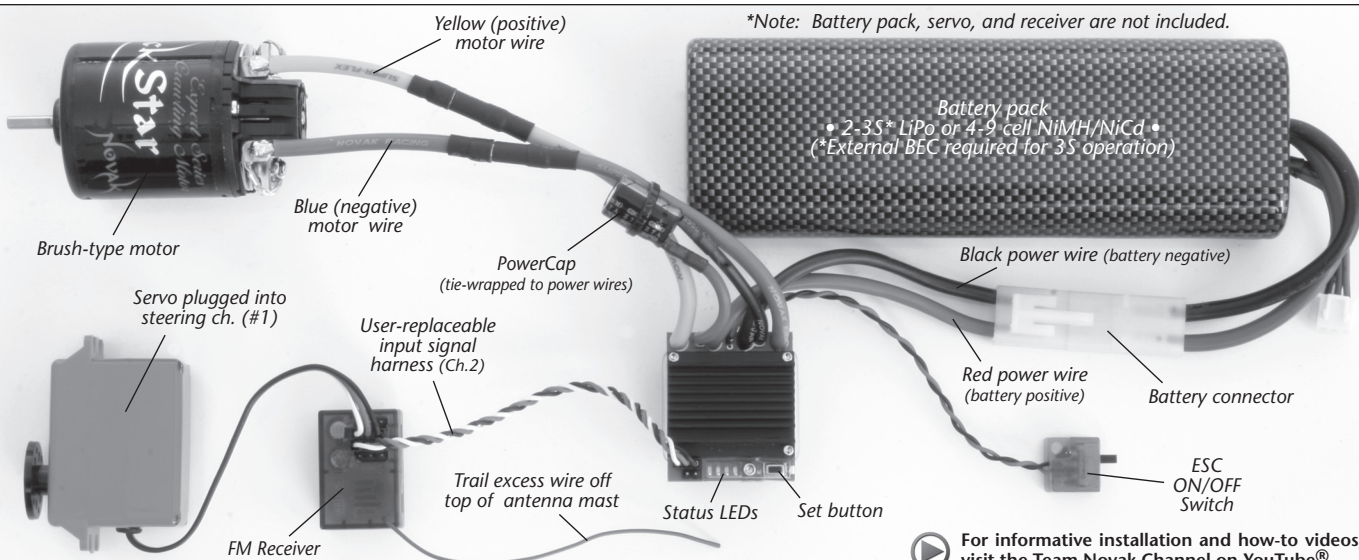
Setting (# of flashes)	1	2
LiPo Voltage Cut-Off:	OFF (NiMH/NiCd)	<b>ON (LiPo)</b>

**NOTE: Yellow LED will stay on at all times when the Voltage Cut-Off is active.**

## RESTORING FACTORY DEFAULTS

**Every time the ESC's One-Touch Programming is performed, ESC automatically revert back to the factory default settings.**

EIGER SET-UP PHOTO



For informative installation and how-to videos, visit the Team Novak Channel on YouTube®.

www.teamnovak.com