



Suppo Speed Controller Programming Instructions

Applicable for 10A, 18A, 20A, 30A, and 40A Models

All Suppo 10A, 18A, 20A, 30A, and 40A ESCs can be used with 2-3 cell lipo or 4-10 NiMH/NiCd batteries and will automatically detect the number of cells once the desired battery type is selected in the programming menu. The BEC (battery eliminator circuit) is functional with up to 3s LiPo packs. Before use, you will need to program the battery type (LiPo or NiMH/NiCd) and the brake setting. **By default, the battery type is NiMh, and the brake is disabled.**

CAUTION:

1. Before programming, secure the motor or aircraft and stay clear of the propeller.
2. Running the motor at high RPM without a propeller attached may damage the motor.

Battery Eliminator Circuit (BEC):

This ESC contains a linear battery eliminator circuit (BEC) which is used to power the receiver and servos without needing a separate battery pack or external BEC. The built-in BEC may not be used simultaneously with an on-board RX battery or external BEC -- use one or the other, but not both. With a linear BEC, it is not recommended that you power more than 3-4 micro servos or the voltage supplied to the RX may be drawn below its low voltage cutoff. If your model uses more than 3-4 micro servos or the servos are of larger size, it is recommended that you either use an external BEC or a separate RX battery, or purchase an ESC with a built-in switching BEC.

Connection Instructions:

1. Solder an appropriate connector on the battery + (red) and - (black) leads. We recommend Deans plugs.
2. Connect the three motor wires to your brushless motor (ignore the wire colors) using gold spring (bullet) connectors. If the motor spins in the wrong direction, swap any two of the motor wires to reverse the direction. Be sure to cover the bullet connectors with heat shrink tubing.
3. Plug the servo-style connector into the appropriate channel on your receiver. Most receivers use channel 3 for the throttle, but some use channel 1. Consult your RX manual for details.

Programming Instructions:

1. Connect your motor and receiver to ESC, but do not connect the battery yet.

2. Turn on your transmitter and move the throttle stick to the full-throttle position.

3. Connect your battery to the ESC and you will hear a starting beep tone indicating the ESC is in program mode. After 3 seconds, the motor will start beeping a sequence as follows. All beeps repeat only once.

4. To select a submenu option, simply move the throttle stick to the off (low) position during pause between repeating beeps. You will then hear a confirmation sound.

5. Each time when you select an option within one of the submenus, the programming menu will end. The ESC is now ready to use -- BE CAREFUL as the throttle control will now be active. To set another option, you will need to restart from step 1.



	Tone Sequence (.5s break between)	Options:	
1	-- ' --	Cell type: Lipo	Auto detect Lipo cells and set Lipo protection mode: Reduce Output Power 50% at 3V per cell, Cut-off at 2.9V per cell. (When selected, NiMh mode will be disabled automatically)
2	--- ' ---	Cell type: NiMh (Default)	Auto detect NiMh cells and set NiMH protection mode: Reduce Output Power 50% when voltage reaches 60% of starting voltage (0.72V each cell of NiMH) (When selected, Lipo mode will be disabled automatically)
3	---- ' ----	Brake: Enable/Disable	Brake Disabled by Default