



30 AMP ESC (Electronic Speed Control) Programming Instructions

Amps: 30A Continuous/40A for 30 seconds

Voltage: 5V – 15V

6-12 NIMH, 2-3 LIPO

DO NOT EXCEED 500W! (Amps X Volts = Watts).

Cutoff voltage: 6v/2 lithium Polymer, 9v/3 lithium Polymer, 0.8v/cell NiMh (for example, with 6cells the cutoff voltage is 4.8V) **DO NOT USE a 30C Lipoly Battery! It will BLOW the ESC and VOID the warranty!**

BEC: (battery elimination circuit) **2A/6V**, 2 servos can be used.

If you need to power more than 2 servos, you can not use the BEC function. In this case, a separate battery pack for the receiver must be used to power the servos and receiver. If you are not using the BEC function, you must clip the red(+) wire on the throttle lead. It is best to use a servo extension cable between the ESC and the receiver and clip the red wire on the extension. That way, you can still use your ESC with the BEC function by removing the extension.

NOTICE: It is **critical** that you program the ESC correctly depending on the type battery you are using. If you program it for NiMh and use a Lipo battery, the lipo battery will be discharged beyond its cutoff voltage and it may not be able to be recharged again! If you program it for Lipo and use NiMh, the ESC will see a 3.0V cutoff voltage which exceeds that of the NiMh batteries and the boat will only go about 3 feet and stop! Please do not contact Mini Cat Racing USA with these problems unless you are absolutely certain you have programmed the ESC correctly!

To enter the programming mode:

1. Connect the motor and receiver to the ESC
2. Turn on the transmitter
3. Set the throttle stick/trigger to full throttle position. On a trigger transmitter, you must **HOLD** full throttle while plugging in the battery.
4. Connect the battery to the ESC.
5. Beeps will sound.
 - (one beep) beep = Lipo mode (will repeat twice)
 - (two beeps) beep beep = Nimh mode (will repeat twice)
 - (three beeps) beep beep beep = brake function (will repeat twice) To turn brake on or off, repeat.
6. To choose the desired function, quickly move throttle stick/trigger to the full low throttle position. A long tone will sound to confirm your setting. **Note: Do not move the trigger forward (brake) on a trigger style transmitter.**
7. If you want to change a function, repeat steps 1-6.
8. After you have made all the settings, wait for 2 seconds. A long tone will sound. The ESC is now ready for use.
9. If the motor turns in the wrong direction, change any two of the three wires.

CAUTION:

1. If you hear beep -- beep beep beep --- beep beep, that means the throttle is in the wrong position. double check the throttle position. Note that on Futaba transmitters you may have to reverse the throttle channel travel direction.
2. The brake defaults to OFF. If you want to change the brake setting to ON, go back to step 6. If you want to change the brake to OFF again, just repeat step 6 again. **NOTE:** Brake function is not normally used for boats.

ALWAYS DISCONNECT THE BATTERY AFTER RUNNING. STORING THE BOAT WITH BATTERY CONNECTED WILL DISCHARGE THE BATTERY BEYOND REPAIR!

WARRANTY: one year against manufacturing defects. Warranty is void if 11.1 Volts/ 40 Amps are exceeded, ESC gets wet, or ANY propeller other than that sold by Mini Cat Racing for your particular boat is used.

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