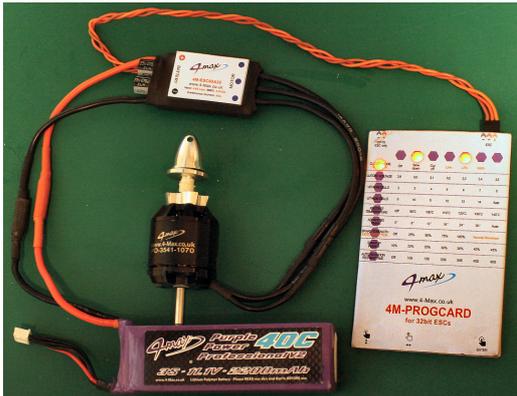


## Programming 4-Max "4M-ESC\*\*" ESC (Electronic Speed Controller)

This guide will go through the steps to program your 4M-ESC\*\* (Black Heatshrink) ESC.

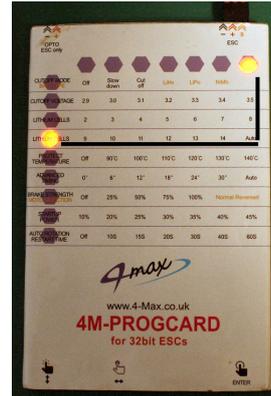
Connect the 4M-PROGCARD to the ESC and motor as shown on "Photo 1" When a battery is connected the light on "CUTOFF MODE" is illuminated for 5 seconds before running from top to down 2 times then you should have 3 lights lit as in "Photo 1".

Photo 1



This is how to connect the ESC for programming

Photo 2



The 4M-PROGCARD works on a grid system

The 4M-PROGCARD works on a grid system, so you only ever get lights across the top and down the left side. For example in "Photo 2" the number of "LITHIUM CELLS" has been set to "Auto" The left light is on the "LITHIUM CELLS" line and the light in the top row is above the "Auto" position.



This button moves the light down a line and when it reaches the bottom it returns to the top

This button moves the light to the right and when at the end returns the light to the 1st column

Press this button after a change has been made

To register any changes you make changes, press the black "ENTER" hand/button at the bottom right of the card.

For outrunners (Most applications) we recommend the following settings

CUTOFF MODE: ..... Slow Down and "LiPo"  
 CUTOFF VOLTAGE: ..... 3.3V or 3.4V For Multi Motored aircraft change to 2.9V  
 LITHIUM CELLS: ..... Auto  
 PROTECT TEMPERATURE: ..... 140°C  
 ADVANCED TIMING ..... 30°  
 BRAKE STRENGTH ..... Off ("100%" of you have a folding prop)  
 STARTUP POWER..... 45%  
 AUTO ROTATION RESTART TIME ..... Off

Remove battery then the card. Plug ESC into the throttle channel on your receiver. Your 4M-ESC is now ready to use.

This is a guide only. 4-Max does not accept any liability whatsoever with regards to any injury or damage caused by advice contained within or not contained within this guide. www.4-Max.co.uk



## One Time Setup Procedure for "4M-ESC\*\* A Brushless ESC's

Please complete the following procedure to set up your 4-Max "4M" ESC correctly.

This procedure teaches the ESC what is the maximum and minimum throttle positions for your particular combination of transmitter and receiver.

You only have to do the following procedure once unless you change the receiver and/or transmitter.

### Please read this procedure in full before commencing.

- 1. Remove any propellers for safety - VERY VERY IMPORTANT!**
- Remove the programming card (if attached) and plug the servo type plug from the ESC into the throttle channel on your receiver, paying attention to the orientation.
- If using Futaba radio equipment make sure the throttle channel is reversed in your transmitter. All other makes please leave as standard (not reversed).
- If using a throttle cut switch on your transmitter, this must be set to -100% (no more, no less). The default setting of -130% will confuse the ESC. Adjust if necessary - This is **VERY IMPORTANT**.
- In your transmitter settings for the throttle channel please ensure that...
  - The internal trim and/or subtrim and the external trim are set in the neutral, or centre position. Adjust if necessary. This is **VERY IMPORTANT**.
  - Make sure the ATV or travel adjust is set to +100% for full throttle and -100% for zero throttle, no more no less. Adjust if necessary. This is also **VERY IMPORTANT**.
- After storing settings on your transmitter, turn it off.
- Make sure a brushless motor is connected to your ESC and your ESC is connected to the throttle channel on your receiver via the servo type lead (all 3 wires in the servo type plug need to be in place).  
**Important** - A brushless motor needs to be connected to the ESC, as the ESC makes the motor "beep" and you need to hear the motor beep as this is your confirmation of successful programming.
- Switch on your transmitter, make sure it is in the normal "flying mode". Move the throttle stick to the full throttle position.
- Connect your flight battery to the ESC via the main thick red and black wires. Pay very close attention to the polarity. After a second or so you will hear the motor make 2 short beeps. **IMMEDIATELY** after hearing these 2 short beeps pull the throttle stick on your transmitter down to the zero throttle position and wait for the next series of beeps, there will be a short pause and then some more beeps. After 10 seconds of quiet, you can then disconnect the battery from your ESC, turn your transmitter off and re-fit your prop.
- You are now ready to fly!