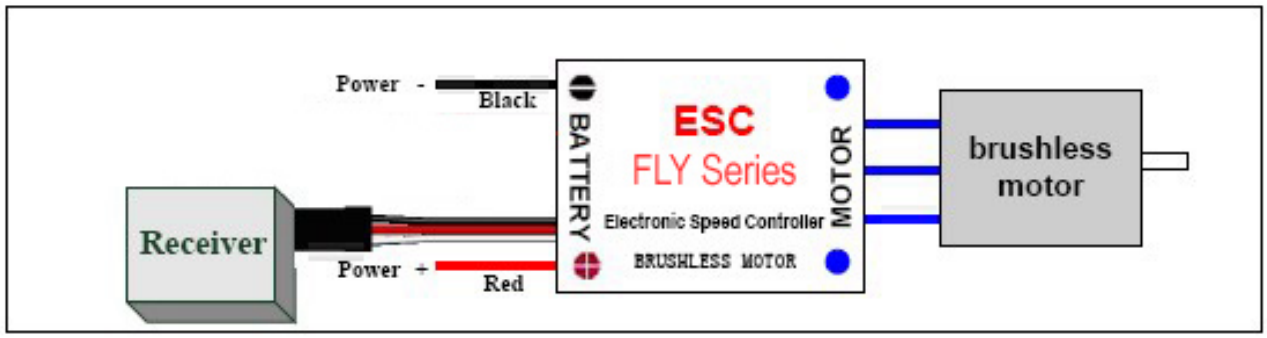
HiModel Fly Series Electric Speed Controllers Instruction Manual

a. Install Fly Series ESC into your model:

. Mount the speed controller into the model, and isolate it from vibration and shock, and make sure ventilation of the speed controller is surfficient and directly by outside airflow, otherwise it may result in overheat of the speed controller.

b. Connection & power up procedurers:



*Just connect the three wires of the brushless motor to the three wires of the ESC, in case the motor runs in a wrong direction, you can reverse the motor by swapping any two connections of the 3 wires to the motor.

1. Connect the main power pack to the speed controller, and make sure the connection is sound .
2. Switch on the transmitter, and check the throttle channel settings are +/- 100% (for computer radios).
3. For the types without BEC function, switch on the power to receiver or use an external BEC to power the receiver.
4. Switch on the speed controller.

. You should hear a ‘beep’**. (* Before hearing a ‘beep’, the throttle stick must not be moved)**.

If you do not hear a ‘beep’, switch off the speed controller, disconnect the power connectors, wait for 5 seconds and repeat the procedures of connecting and switching on.

If you still do not hear a beep’, check the following:

- Is the JR connector plugged into the throttle channel?
- Is the throttle stick in full closed position (low end)?
- Is the throttle channel in ‘normal’ position & not reversed? Futaba transmitters should have channel 3 reversed for correct operation of the speed controller.

You will hear the ‘beep’ when first switching on the controller only. When you switch off the speed controller without disconnecting the power pack, you will not hear the beep after next switching on.

The speed controller will adjust the throttle range automatically.

c. Brake mode:

. The speed controller is supplied with the ‘brake’ activated. If you want to turn off the brake, do the following:

- Switch on the transmitter and move the stick to full throttle.
- Connect the main power pack and turn on the receiver switch (if used).
- Wait 5 seconds.
- After 5 seconds you will hear 4 tones.
- Swiftly move the throttle stick to the closed position; you will hear two ‘beeps’.
- The brake is now turned off.

. The brake setting will not change after disconnecting the main power pack. When turning on the speed controller with the brake active, you will always hear one ‘beep’. When the brake is turned off you will hear two ‘beeps’. If you want to activate the brake again, repeat the procedure.

d.Timing modes:

There are two timing options for these speed controllers.

-Soft timing: for 2,4,6, pole motors like Mini AC, Kontronik, Hacker etc. **Do not use hard timing with 2-pole motors**
-Hard timing: **only for 6 and more poles motors , outrunner motors should use Hard timing**.
The Speed controllers are supplied with soft timing.
To change the timing mode:
Switch on the transmitter and move the stick to full throttle.
- Connect the main power pack and turn on the receiver switch (OPTO controllers) and wait 5 seconds
- After 5 seconds you will hear 4 “beeps”
After a further 5 seconds you will hear 5 “beeps” for soft timing
- OR 5 double “beeps” for hard timing
- The required timing is set by moving the throttle stick to the closed throttle position.
- The new timing is confirmed by a single bleep (brake on) or a double “beep” (brake off)
The timing setting will not change after disconnecting the main power pack.
Timing monitor (if you want to know what the current timing mode is).
After the first “beep”(s) wait 5seconds (keep the throttle at the closed position).
The controller (motor) gives 5 single beeps for soft timing or 5 double beeps for hard timing
It is possible to interrupt this beeping at any time by moving the throttle stick forward.

e. Cut-off protection:

The FLY series controllers have automatic cut off with auto detection for the number and type of cells. This circuit provides the correct cut off for all types and number of cells.
If the brake is on, the low voltage motor cut-off is sudden (controllers with BEC) leaving the remaining capacity for a safe landing (soarer mode). If the brake is not active (aerobatic mode or “opto” controllers) the ESC automatically provides a gradual low voltage motor cut-off. A gradual low voltage motor cut-off is preferable with an aerobatic model to avoid a sudden loss of power which would inevitably happen down wind and at low altitude.

f. Overheat protection:

Temperature overload protection is built into the speed controller which will turn off the motor when the temperature reaches 110℃.

Warning:

*Once the main power pack is connected, handle the model with extreme care, ensure that everyone is well clear off the propeller at all times. Rotating propellers are extremely dangerous!
*Take care to ensure the correct polarity of NiCd, NiMH or Li-XX power packs. Wrong polarity may result in severe damage of your speed controller.
*. Connect the main power pack just before flight and disconnect it immediately after landing.
*The speed controller switch does not isolate the main power pack.