

ZTW Brushless ESC Program Card Instructions

Programming card use and features:

This programming card can be used to quickly and intuitively setup ZTW's Brushless Electronic Speed Controller parameter setting.

Specifications:

1. Dimensions: 49mm (length) * 30mm (width)
2. Weight: 6.5 grams

Programming note

Move the jumper caps located on either side of the programming card to change the desired parameters in the ESC. For example, to change the motor spin direction, move the 'Rotation' jumper cap from Normal to Reverse.

A) When using ZTW ESC with built-in BEC

1. First, disconnect the main power pack from the ESC.
2. Disconnect the BEC cable of the ESC (trio wires) from your receiver and connect it to the program card with the 3 prong output at the top of the ESC. Make sure the polarity is correct when making this connection (-ve connects to the black or brown wire). See diagram 1 below.
3. Move the jumper cap to the desired setting of the corresponding parameter you would like to change.
4. Connect the main power pack to the ESC. You will hear a long audio tone which informs you that the parameters have been stored to the ESC.
5. Again, disconnect the power from the ESC to confirm your changes.

B) When using ZTW ESC with no built-in BEC (OPTO)

If the ESC is marked as "OPTO", that means this ESC does not have a built-in BEC. You will have to use an additional battery pack (4.8V-6.0V) to power the program card. A receiver battery pack is usually a good choice.

1. First, disconnect the main power pack from the ESC.
2. Disconnect the BEC cable of the ESC (trio wires) from your receiver and connect it to the program card with the 3 prong output. Make sure the polarity is correct when making this connection (-ve connects to the black or brown wire). See diagram 2 below.
3. Move the jumper cap to the desired setting of the corresponding parameter you would like to change.
4. Connect the battery pack to the 2 prong output at the top of the ESC. Again, ensure the polarity is correct when inserting the battery pack plug.
5. Connect the main power pack to the ESC. You will hear a long audio tone which informs you that the parameters have been stored to the ESC.
6. Again, disconnect the power from the ESC to confirm your changes.

Note: The programming sequence for ESC with built-in BEC:

Connect ESC to programming card ---- select function parameters ---- connect power to the ESC ----
 ---- ESC motor power issued a "drop" long audio tone ---- Disconnect power to the ESC ----
 Programming is completed

Note: The programming sequence for ESC with no built-in BEC (OPTO):

Connect ESC to programming card ---- Programming Card power supply ---- select function
 parameters ---- connect power to the ESC ---- Motor issued a "drop" long audio tone ----
 Disconnect power to the ESC ---- Programming is completed

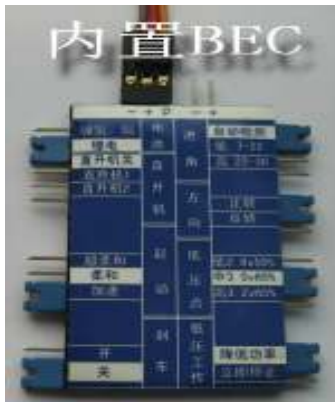


Diagram 1 ← → Diagram 2



- + P - +			
NiMH	BATT	Governor mode	AUTO
Lipo			Low 7-22
Rpm off			High 22-30
First range	Start	Cut off volg	Rotation
Second range			
	Brake	Cut off Power	Reverse
Very soft			2.8v/50%
Soft			3.0v/65%
Start ACC		3.2v/65%	
	ON		Reduce
	OFF		Stop