

ZOO CONTROLL

18-6-10 BL2

25-6-10 BL2

36-6-10 BL2

ESC Programming Instructions

1.0 ESC Programming Features

Programming the ESC is as simple as answering few questions. The ESC asks questions by “beeping” a setting number, followed by the possible setting values.

There are five settings that can be programmed in the ESC:

- 1) Cutoff voltage,
- 2) Brake Type,
- 3) Timing Advance and
- 4) Cutoff Type
- 5) Change the rotation of motor.

As the programmer, you must make the choice of the setting values as they are presented by the ESC. The setting values are “beeped” and “flashed” by the LED.

When answering a question, you will need to move the transmitter stick to the full throttle position and keep it there for about 2 seconds. After that, the ESC will return to the programming mode and ask the next question.

You are not required to continue through all five programming options. You can choose that item you want to change in the programming mode and the change will be retained when you leave the programming mode.

2.0 Entering programming mode

The ESC software is designed to make it difficult to accidentally enter programming mode, therefore it may seem like a long process to enter this mode. This is to prevent entering programming mode while preparing to fly or while in flight.

To enter programming mode, follow the steps below:

2.1 Verify Normal Operations

If this is the first time the ESC has been used, it is important to verify that the ESC operates normally with your transmitter otherwise programming may not function properly. Once you have verified that the ESC operates normally, proceed to 2.2 below.

2.2 Enter programming Mode

2.2.1 Remove battery power from the ESC .

2.2.2 Moving the transmitter stick to the top position (normally full “On”)

2.2.3 Reconnect battery power to the ESC .

2.2.4 After approximately 2 seconds, the ESC will emit a short atone, and the LED on, the ESC will give a short flash, that means power on, Then, after waiting for 5 seconds, you will hear four short “beeps” and six long “beeps”, repeated. That means it have entered programming mode.

2.2.5 As the long “beeps” occur, move your transmitter stick to the lowest position to select an option as in table below show.

ESC “beeps”	Operation	Setting	ESC Response
Four short “beeps”	Put stick to the lowest position		
First long “beeps”	Put stick to the lowest position	Cutoff voltage	One “beep”
Second long “beeps”	Put stick to the lowest position	Brake Type	Two “beeps”
Third long “beeps”	Put stick to the lowest position	Timing Advance	Three “beeps”
Fourth long “beeps”	Put stick to the lowest position	Cutoff Type	Four “beeps”
Fifth long “beeps”	Put stick to the lowest position	Change rotation	Five “beeps”
Sixth long “beeps”	Put stick to the lowest position	Leave programming mode	Wait 2 seconds for one or two “beeps”(section 8.0)

2.2.6 Proceed to Section 3.0 –Programming the ESC

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3.0. Programming the ESC:

Important Note: When answering a question, you will need to move the transmitter stick to the yes (full "On" throttle) position and keep it there for about 2 seconds, When the ESC has accepted your answer, you will get responses, then return to the programming mode and be asked the another question.

3.1 Programming Setting 1-Cutoff Voltage

* An asterisk in the option listings below indicates factory default settings.

ESC "beep"	Setting	Recommended for use with:	Operation	ESC Response
One short "beep"				
First long "beep"	4.8V	6 cell Ni-MH packs	Put stick to the top position	One "beep"
Second long "beep"	*5.6V	7 cell Ni-MH or 2 cell Li-poly packs (2.8V/Cell)	Put stick to the top position	Two "beeps"
Third long "beep"	6.0V	8 cell Ni-MH or 2 cell Li-poly packs	Put stick to the top position	Three "beeps"
Fourth long "beep"	7.2V	9 cell Ni-MH	Put stick to the top position	Four "beeps"
Fifth long "beep"	8.4V	10 cell Ni-MH or 3 cell Li-poly packs (2.8V/Cell)	Put stick to the top position	Five "beeps"
Sixth long "beep"	9.0V	12 cell Ni-MH or 3 cell Li-poly packs	Put stick to the top position	Six "beeps"
Seventh long "beep"	11.2V	4 cell Li-poly packs (per cell 2.8v	Put stick to the top position	Seven "beeps"
Eighth long "beep"	12V	4 cell Li-poly packs	Put stick to the top position	Eight "beeps"

3.2 Programming Setting 2-Brake Type

ESC "beep"	Setting	Recommended for use with:	Operation	ESC Response
Two short "beeps"				
First long "beep"	*No brake		Put stick to the top position	One "beep"
Second long "beep"	Brake		Put stick to the top position	Two "beeps"

3.3 Programming setting 3-Electronic timing advance

ESC "beep"	Setting	Recommended for use with:	Operation	ESC Response
Three short "beeps"				
First long "beep"	*4 ⁰ -10 ⁰	12 or more pole motor and out runner motor	Put stick to the top position	One "beep"
Second long "beep"	10 ⁰ -20 ⁰	6 or 8 pole motor	Put stick to the top position	Two "beeps"
Third long "beep"	20 ⁰ -30 ⁰	2 or 4 pole motor	Put stick to the top position	Three "beeps"

3.4 Programming Setting 4-Cutoff Type

ESC "beep"	Setting	Recommended for use with:	Operation	ESC Response
Four short "beeps"				
First long "beep"	Cut off		Put stick to the top position	One "beep"
Second long "beep"	*Reduce power		Put stick to the top position	Two "beeps"

3.5 Programming Setting 5- Change the rotation of the motor

ESC "beep"	Setting	Recommended for use with:	Operation	ESC Response
Five short "beeps"				
First long "beep"	*			
Second long "beep"		Change rotation	Put stick to the top position	Two "beeps"

3.6 Programming Setting 5- leave programming mode

Please see 2.2.5