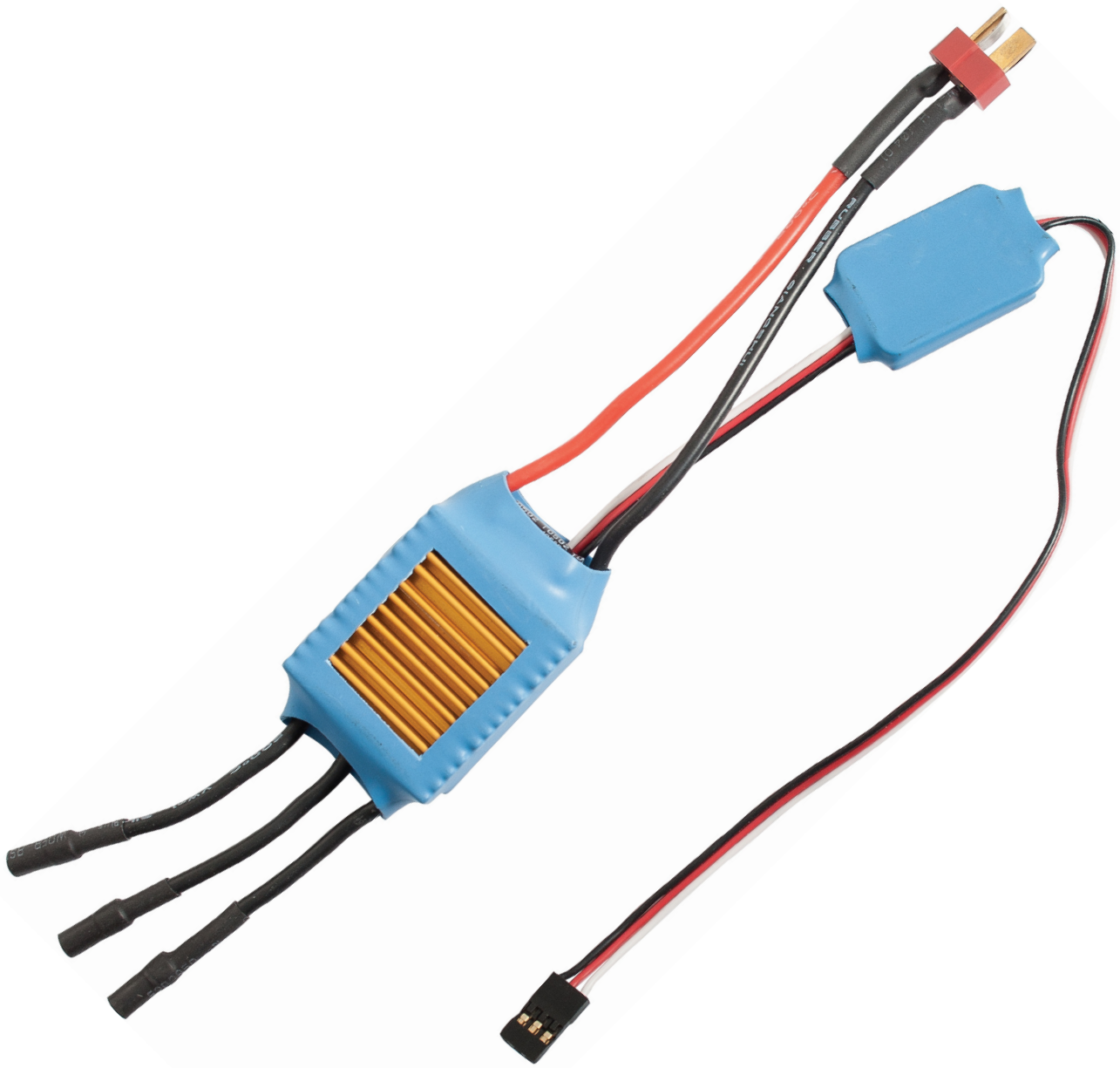
CX450-10-05

50A Brushless ESC with BEC

INSTRUCTION MANUAL



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MENU

1. Introduction

Thank you for purchasing CopterX Electronic Speed Controller (ESC). High power system for RC model can be very dangerous, so we strongly suggest you read this manual carefully. In that we have no control over the correct use, installation, application, or maintenance of our products, no liability shall be assumed nor accepted for any damages, losses or costs resulting from the use of the product. Any claims arising from the operating, failure or malfunctioning etc. will be denied. We assume no liability for personal injury, property damage or consequential damages resulting from our product or our workmanship. As far as is legally permitted, the obligation to compensation is limited to the invoice amount of the affected product.

2. Features

• Extreme low output resistance, super current endurance
• Multiple protection features: Low-voltage cut-off protection / over-heat protection / throttle signal loss protection
• 3 start modes: Normal / Soft / Super-Soft, compatible with fixed-wing aircrafts and helicopters
• Throttle range can be configured and is fully compatible with all transmitters currently available on market
• Separate voltage regulator IC for microprocessor, providing good anti-jamming capability
• 3 brake option available for different applications

3. Specifications

• Cont. Current: 50A
• Burst Current (>10s): 75A
• BEC Mode: Linear
• BEC Output: 5V / 3A
• Li-ion / Li-poly: 2-6 cells
• User Programmable: Available

Phrases 1 Enter programming Mode

1. Connect your motor and receiver to the speed controller, but do not connect the battery yet.
2. Move the throttle stick to the full throttle position (full up), then turn on transmitter. Please Note: Most Futaba transmitter have the throttle channel resersed by default.
3. Connect your battery and the controller will initialize with a musical tone.

Phrases 2 Programming

After 3 seconds, the controller will start beeping a sequence of tones. Each sequence represents a parameter that you can program and is repeated 3 times. The parameters are:

♪ —	Music Tone + 1 Beep	Option 1. Cell Type and No. of Cells
♪ — —	Music Tone + 2 Beeps	Option 2. Brake Mode
♪ — — —	Music Tone + 3 Beeps	Option 3. Start Mode (for Heli.)
♪ — — — —	Music Tone + 4 Beeps	Option 4. Throttle Type

Step 1. Starting, Enter Sub-options. When you hear the sequence for the parameter you wish to program, move the throttle stick to the Center Position to Enter Sub-options. The controller will then start beeping a long beep follow by No. of beeps representing the possible options you may choose for the selected parameter. See table 2 for a list of all programmable options. Each option sequence is repeated 3 times.

Step 2. Select and save, the select the option, move the throttle stick back to the Fill-up-position. When you hear the sequence for the option you wish to select. The controller will then save the selected option, and sound a long beep as a confirmation. It then goes back to the beginning of the programming sequence (Phrases 2).

Step 3. Complete programming and save options. Setup all the parameters you need to change. When complete, move the throttle stick to the Lowest (Down) Position. The controller will save all options and re-initialize in normal running mode so you can start your motor.

The table below summarizes the various programming options for each parameter:

1. For (2S-7S)-ESC — Cell Type and Number of Cells	
— • 1 Long + 1 Short	NiMh / NiCD No cut off
— •• 1 Long + 2 Short	3S / 9V
— ••• 1 Long + 3 Short	4S / 12V
— •••• 1 Long + 4 Short	5S / 15V
— ••••• 1 Long + 5 Short	6S / 8V

2. Brake Mode ——	
— • 1 Long + 1 Short	No Brake
— •• 1 Long + 2 Short	Soft Brake
— ••• 1 Long + 3 Short	Hard Brake

3. Start Mode ———	
— • 1 Long + 1 Short	Soft Start
— •• 1 Long + 2 Short	Normal Start
— ••• 1 Long + 3 Short	Hard Start

4. Throttle Type ————	
— • 1 Long + 1 Short	Manual Set Throttle Range
— •• 1 Long + 2 Short	Auto Throttle Range

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