

1:10 On/Offroad



POLARIS DR120AX2

TURBO FOR COMPETITION



www.rcomg.net



POLARIS DR120AX2

感谢您使用RCOMG设计、制造的竞赛级车用无刷电子调速器。RCOMG车模用调速器专门针对竞赛级车模用而开发的有感、无感无刷马达专用电子调速器。我们强烈建议您在使用之前阅读本使用手册。

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Thank you for your purchasing the RCOMG Brushless Electronic Speed Controller (ESC). The RCOMG is specifically designed for operating Sensored/Sensorless brushless motors. High power systems for RC model can be very dangerous and we strongly suggest that you read this manual carefully. RCOMG Model have no control over the correct use, installation, application or maintenance of these products, thus no liability shall be assumed nor accepted for any damages, losses of costs resulting from the use of this item. Any claims arising from the operating, failure or malfunction 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 for compensation is limited to the invoice amount of product in question.

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产品特点

Features

- ◆ 快速的油门响应、强劲的加速度、卓越的线性和可操控性。
 - ◆ 可用电脑编程菜单设置和软件升级。
 - ◆ 可用LCD编程卡设置参数。
 - ◆ 油门曲线和启动力度可调。
 - ◆ Dynamic boost进角和Turbo进角可调。
 - ◆ 刹车曲线和刹车力度可调。
 - ◆ 动态的行进数据记录功能。
 - ◆ 多重保护功能：电池低压保护,温度保护，油门失控保护。
 - ◆ Enhanced throttle response, excellent acceleration, linearity and driveability
 - ◆ Using advanced PC interface to set up or update the firmware
 - ◆ Using LCD program card to make adjustments
 - ◆ Throttle curve and punch rate adjustment
 - ◆ Dynamic boost timing and turbo timing adjustment
 - ◆ Brake curve and brake rate adjustment
 - ◆ Dynamic running data log
- Multiple protection features: Low voltage cut-off protection, over-heat protection and throttle signal loss protection

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首次使用TURBO系列车用无刷电子调速器 Using Turbo Series ESC for the debut

在使用全新的车用无刷电子调速器前请您仔细检查各个连接是否正确可靠。检查一切正常后，请按以下顺序启动您的电子调速器。

please attend to each connections and make sure each assignment is correct.

1	风扇线	Fan wire
2	信号线插孔	Signal wire socket
3	开关	Switch
4	马达蓝色线A	Blue motor wire A
5	电源线(+)	Power wire(+)
6	马达黄色线B	Yellow motor wire B
7	电源线(-)	Power wire(-)
8	马达橙色线C	Orange motor wire C
9	有感插孔	Sensor socket

Turbo Series Brushless System specification

PN#Model	DR120AX2	DR120AX2S
Cont Current	120A	120A
Burst Current	760A	760A
Resistance	0.0003ohm	0.0003ohm
Suitable Car	1:10/1:12 Car	1:10/1:12 Car
Motor Type	540 Sensored Brushless Motor	
Suitable Brushless Motor	with 2S Lipo or 5-6S NiOO, 1/10 on-road/3.5T/1/10 off-road/3.5T with 3S Lipo or 7-10S NiOO, 1/10 on-road/2.5T/1/10 off-road/2.5T	with 1S Lipo or 3S NiOO, 1/12 on-road/3.5T, 1/10 on-road/3.5T
Battery cell	2-3S Lipo/5-10S NiMH/NiCd	1S Lipo/3S NiMH/NiCd
BEC Output	6V/3A	
Dimension (without fan)	41.5*37*21mm	41.5*37*18mm
Weight(g)	102g	94g

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有感模式 Sensored Mode

连接有感马达时，请注意三根电调马达线颜色：蓝色线A、黄色线B、橙色线C，一定要对应有感马达外壳标示A、B、C连接。马达传感线要顺应插头位置连接。




When using a Sensored Brushless motor, the Blue motor wire A, Yellow motor wire B and Orange motor wire C of the ESC must be connected with the Sensored motor wire A, B, C respectively. It is necessary to connect the Sensor wire to the "Sensor" socket on the ESC. Don't change the wires sequence optionally.

无感模式 Sensorless Mode

连接无感马达时，三根电调马达线颜色：蓝色线A、黄色线B、橙色线C，可与马达任意连接。如果马达反转，请更换其中的任意两根马达线的连接顺序。

When using a Sensorless Brushless motor, the Blue motor wire A, Yellow motor wire B and Orange motor wire C of the ESC can be connected with the motor wires freely. If the motor runs in the opposite direction, please swap any two wire connections.

连接接收机 Connection to the Receiver

	黑线/Black wire	RX-
	红线/Red wire	RX+ 6.0V
	白线/White wire	RX-Signal

功能指示灯 LEDs

电调连接电源后，会自动检测马达类型，并通过LED灯指示，不用人为设置。当您电调使用有感功能时，马达传感线掉落，电调会自动转换为无感工作模式运行。

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When the Power wires on ESC are connected with the battery pack, the ESC can automatically identify the motor type (Sensored/Sensorless) via indicated LEDs.

If the ESC works in Sensored Mode, remove the Sensor wire and the ESC will automatically change to Sensorless Mode.

LED相应功能

功能状态	Function	LED	LED Status
电池低压	Low voltage of the battery	红色	Red LED 闪烁
电调与马达过热 (95°C)	Over-heat of the ESC and motor(95°C)	蓝色	Blue LED 闪烁
配有有感马达	Sensored Mode	红色 蓝色	Red and Blue LED 长亮
配用无感马达	Sensorless Mode	蓝色	Blue LED 长亮

设油门行程 Throttle Range Calibration

◆ 初次使用电调时需要进行油门行程设定。

◆ 初次使用或者更换接收机时也需要进行油门行程设定。

- 首先关闭电调开关，连接电池，再打开您的车用发射机电源，将油门通道方向设置为（REV），油门通道的EPA/ATV正反向均设置为最大。
- 按下SWITCH键不松开，红色和蓝色LED灯长亮，等待2秒左右，电调红色LED灯灭蓝色LED亮，这时把SWITCH键松开，同时把您的发射机油门拉杆拉最大，蓝色LED闪烁3秒左右长亮，马达滴响后；
- 再把油门拉杆推到最小，红色LED闪烁3秒左右长亮，马达滴响后；
- 把发射机油门拉杆置自然位，红色LED、蓝色LED同时闪烁后长

亮，马达滴滴响后，油门行程设定OK。

- 关闭电调开关（注意：按住SWITCH键超过2秒就可关闭电调）。
- 打开电调开关，您的电调现在可以工作了。

- ◆ Set up the ESC at the Throttle Range Calibration for the debut.
- ◆ For the first time using transmitter or changing the transmitter you must set up Throttle Range Calibration.

- Switch off the ESC, then connect ESC with the battery packs and turn on the transmitter; set the direction of the throttle channel to REV; set the EPA /ATV value of the throttle channel to 100%.
- Hold the "Switch" button, Red and Blue LED are on solid, wait for about 2 seconds until the Red LED is off, then release the "Switch" button, pull the throttle trigger to full throttle until Blue LED blinks and will be on Solid, the motor beeps.
- Push the throttle trigger to Full Brake until the Red LED blinks and will be on solid, the motor beeps.
- Now return the throttle trigger to the Neutral position, both of the Red LED and Blue LED blink simultaneously and will be on solid, the motor beeps. The Throttle Range Calibration is confirmed.
- Turn off the ESC power switch. (Note: Holding "Switch" button over 2 seconds just can turn off the ESC.)
- Turn the ESC back ON. You are ready to use the ESC now.

电调可编程项目说明与出厂默认图示 Programmable items

备注：DR120AX2S的两种进角的设定值和DR120AX2的设定值不同，详情请见表格如下。

Note: The settings of Boost timing and Turbo timing of DR120AX2 are different from that of DR120AX2S. Please see details in the following sheet.

类别 Section	编程项目 Programmable Item	功能设定值 Programmable Value																
		前进/刹车 (无倒车) Forward/Brake	前进/刹车/倒车 Forward/Brake/Reverse	前进/倒车 (无刹车) Forward/Reverse														
一般 设置 General Setting	行进模式 Run Mode																	
	低电压关断值 Cut-off voltage	默认 (3.0V/节) Auto(3.0V/Cell)	3.0-11.1V (调整量0.1V) 3.0-11.1V(step 0.1V)															
	电调过热保护 ESC Overheat Protection	85°C	105°C	不保护 Disable	Disable													
	马达转向 Motor Rotation	正向 Normal	反向 Reverse															
油门 设置 Throttle Control	油门前段力度	Punch Rate1 1-30 (调整值/Step 1)																
	油门后段力度	Punch Rate2 1-30 (调整值/Step 1)																
	倒车力度	Reverse Speed	25%	50%	75%	100%												
	正向油门分段点	Switch Point	1%-99% (调整值/Step 1%)															
刹车 设置 Brake Control	油门曲线	Throttle Curve	线性 Linear	自定义 Custom														
	初始刹车力度	Initial Brake	=拖刹 Drag brake	0%	20%	30%	40%											
	拖刹力度	Drag Brake	0%-100% (调整值/step 1%)															
	极限刹车力度	Brake Strength	0%	12.5%	25%	37.5%	50%	62.5%	75%	87.5%	100%							
Boost	刹车前段力度 Brake Rate 1	1-20 (调整值/step 1)																
	刹车后段力度 Brake Rate 2	1%-99% (调整值/step 1%)																
	刹车力度 Brake Rate Control	1-20 (调整值/step 1)																
	刹车曲线 Brake Curve	线性 Linear	自定义 Custom															
Timing	DR120AX2 的Boost进角值 Boost Timing of DR120AX2	0-64° (调整值/step 1°)																
	DR120AX2s的Boost进角值 Boost Timing of DR120AX2S	0-8° (调整值/step 1°)																
	初始转速/Start RPM	1000-35000 RPM(step 500 RPM)																
	结束转速/End RPM	3000-60000.RPM(step.500.RPM)																
Turbo	Boost是否固定/Stability	是 YES 否 NO																
	Boost与转速的相关性/ Slope	线性 Linear 自定义 Custom																
	DR120AX2 的Turbo进角值 Turbo Timing ofDR120AX2	0-64° (调整值/step 1°)																
	DR120AX2s 的Turbo进角值 Turbo-Timing ofDR120AX2S	0-21° (调整值/step 1°)																
Turbo	Turbo进角触发方式	满油门	转速	满油门+转速														
	Activation Method	Full throttle	RPM	Full Throttle + RPM														
	满油门延迟时间(秒)	立刻	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.6	0.7	0.8	0.9	1.0	
	Turbo Delay	Instant	0.05	0.1	0.15	0.2	0.25	0.3	0.35	0.4	0.45	0.5	0.6	0.7	0.8	0.9	1.0	
Turbo	触发转速 Start RPM	8000-50000 转/RPM (调整值/step 1000 转/RPM)																
	Turbo全释放速度(0.1秒) Slope ON(deg/0.1sec)	3	6	9	12	15	18	21	24	27	30	Instant						
	Turbo全关闭速度(0.1秒) Slope OFF(deg/0.1sec)	6										12	18	24	30	Instant		
		6										12	18	24	30	Instant		

DR120AX2 车用无刷电子调速器功能说明

Series ESC information

我们的车用无刷电子调速器允许您针对自身需求来编程所有功能,充分体现了产品以用户为本的特点。

运行模式

Run Mode

◆ 正向与反向模式通常用于训练 ◆ 双向带刹车 (出厂默认) ◆ 双向无刹车

Forward /Brake

This is a Race setting - Reverse is disabled.You will find in racing, most tracks will not allow racing with reverse enabled.

Forward /Brake/Reverse(Default)

If reverse is allowed in General Bashing around (FUN) or racing, the Electronic Speed Controller requires 2 seconds of continuous neutral from the transmitter prior to allowing reverse to operate.

注意：电调中有一个自动保护,即油门拉杆在第一次从自然位推到反向区域时,电调只是刹车,不会有倒车动作;当把油门拉杆拉回自然位再次推至反向区域时,如果此时车已停止,则产生倒车动作。因此只在您的车停止或是返回油门到自然位置时倒车才有效;这样可防止电调误动作。

Note: There is automatic protection within the RCOMG ESC. Only after you have stopped and returned the trigger to neutral reverse will become available. If while traveling in reverse, pull the trigger to go forward. This is to help prevent serious damage to the drive train.

低电压关断值

此功能防止电池过度放电而造成不可恢复的破坏。

根据您使用的电池,通过电脑软件或编程盒设置您的电池类型与低压关断值;这样可使电调工作时随时监测电池电压,一旦电池电压低于设置低压点,电调将降低功率。

当使用锂电时,出厂设定为每节放电不能少于3.0V,当使用2s锂电池而电压低于6V时为低电压状态。

Forward / Reverse

If the option is active, the RC car could go forward and backward, but couldn't brake.

ESC- reverse operation

Should you get into a situation that requires reverse, after you have applied any brakes you may have needed, return the throttle trigger to the neutral position. Wait a moment or two and then push the trigger forward for reverse.

Cut-off Voltage

Prevent the lipo batteries to over discharge. If the low voltage cutoff is activated, the ESC detects the Voltage of the battery anytime and the output power will be reduced to 20% in 3 seconds once the Voltage of the battery is lower than the preset Low Voltage Cutoff Threshold. After entering the voltage protection, Red LED blinks. When to be set 'Auto', the ESC will detect the cell of batteries and set the Cut-off voltage to 3.0V/cell. E.g.: when using 2s lipo, the low voltage threshold is 6.0V.

电调过热保护

ESC overheat protection

启用该功能后,当电调的温度达到过热保护设定值时,电调将降低功率,而且蓝色LED灯会闪烁。

If the function is activated, the output power will be gradually reduced to 20% and the blue LED will blink when the temperature of ESC is up to the preset option.

马达转向

Motor Rotation

正向(Normal)/反向(Reverse)

正向油门分段点/油门前段加速度/油门后段加速度

Switch Point /Punch Rate /Punch Rate 2

这三项参数用于设定油门输出力度。对油门输出力度进行设定车手在启动时进行油门控制,防止出现车胎打滑等不利情况。

油门行程分为前后可调的两段,分段点为1%-100%可调。每一段的油门加速度为1-30可调,所设的值越小,油门输出力度越小,加速度越小;所设的值越大,油门输出力度越大,加速度越大。

The three items are used to control the speed of throttle output. Setting a suitable punch rate is helpful for user to control the throttle when the vehicle starts, avoid the skid when rapidly pulling the throttle, etc. The whole throttle range consists of 100 parts, which include the front adjustable part and back adjustable part. The punch rate has 30 programmable options. When to be set '1', the punch rate is slow and there are lots of limit on the output of punch rate; the larger the settings is, the faster the punch rate is, the fewer the limit is.

倒车力度

Reverse Speed

该功能对倒车的速度进行设定,当油门推到反向最大位置时,倒车速度最快。推荐将倒车力度尽量设定得小一点,以免因快速倒车导致错误损伤。

Provide the strongest reverse speed when the throttle trigger is pushed to the max position in reverse, the reverse speed rely on the option you selected. (Note: Recommend using the small reverse speed in case the fault occurs because the speed is too fast when reversing)

油门曲线

Throttle Curve

线性(出厂默认):

该选项时,油门输出力度和油门拉杆的推动速度线性相关。

自定义:

该选项时,通过PC软件设定,车手可以根据自己的驾驶习惯对油门加速度和油门拉杆推动速度的相关性进行设定,以实现推动拉杆时,油门行程前后两段油门力度的柔和和暴力的调节。

The function is used to define the input throttle curve in the ESC.

Option 1:'Linear' - This is where the forward throttle position of the transmitter directly relates to the forward throttle position of the ESC.

Option 2:'Custom'-This allows for a multi-step setting to the forward throttle. This differs from index on the transmitter because the forward throttle input into the ESC can be defined in multiple increasing steps.

刹车力度

Brake Speed

初始刹车/Initial Brake

该项参数设定进行刹车时的初始最小刹车力度,出厂默认的初始刹车力度为拖刹。初始刹车力度越小刹车越柔和,越大刹车越灵敏并形成点刹效果。

The function refers to the brake strength applied in the initial position of the brake. The default is 'drag brake', so the brake effect can be smooth.

拖刹力度/Drag Brake

当油门摇杆处于中立点区域时自动产生的刹车效果,1%-100%范围内可调,数值越小拖刹力度越小,数值越大刹车越灵敏。拖刹效果有助于控制和降低刹车难度。

The function provides the driver a set percentage of brake when you have the transmitter resting in neutral. This will create the "feel" of a brushed motor.

Drag brake are used in racing to slow a vehicle as you let off approaching a corner versus the driver having to push the brake at every corner.

Try working with this to get a sense of how you might use this for your track.

If you are running on a high traction track with tight corners, a stronger setting should work best.

If you are running in an open area, you will find a smaller percentage will result in better control.

If you are running in dusty or slippery surfaces, you will more than likely want to use the lowest option.

极限刹车力度/Brake Strength

当摇杆处于刹车极限位置产生的刹车力度和效果, 1%-100%之间有9项可调,数值越小刹车越柔和,越大越灵敏, 车手可选择自己喜欢的刹车力度。

The function defines the overall brake level as a percentage of the backward throttle.

刹车油门分段点/刹车前段力度/刹车后段力度

Switch Point/Brake Rate 1/Brake Rate 2

这三项参数用于设定刹车力度, 可分为前后两段对刹车力度进行调节, 分段点为1%-100%可调。每段刹车力度为1-30可调,数值越小刹车力度响应越小, 刹车越柔和, 数值越大刹车力度响应越大, 刹车越灵敏。车手可根据自己的经验和习惯设定适合自己的刹车力度响应。

The three items are used to control the speed of brake throttle output. Setting a suitable punch rate is helpful for user to control the brake strength and avoid rising the brake wildly. The whole throttle range consists of 100 parts, which include the front adjustable part and back adjustable part. The punch rate has 20 programmable options. When to be set '1', there're lots of limit on the brake level; the larger the setting is, the fewer the limit of brake throttle is.

刹车曲线

此项参数可调节刹车力度响应与刹车摇杆推动速度的相关性。

线性 (出厂默认)

出厂默认为线性, 刹车力度响应与刹车摇杆推动线性相关。

自定义

车手也可通过PC软件按照自己的个性化要求对刹车曲线进行设定, 从而获得头段柔和后端灵敏的刹车或者头段灵敏后端柔和的刹车。

Brake Curve

The function adjusts the brake strength relating to the throttle range. The default is linear, which is also can be set to non-linear by PC software.

Boost 进角

Boost Timing

Boost进角在整个油门行程范围内有效, 直接影响车辆在直道和弯道的速度。使用Boost进角模式时, 行进过程中的进角随马达转速变化而随时变化。

The timing is available in whole throttle range, which directly affects the speed in the curve road and straight road. When the boost timing is activated, the timing will change dynamically according to the RPM.

初始转速和结束转速

Boost进角由转速决定,当转速低于起始转速时,起始Boost进角为0; 当转速处于起始转速和最终进角之间时,Boost进角随转速的改变而改变。如果Boost进角与转速相关性设为线性相关的话,在相关范围内, Boost进角随转速线性变化。

例如:如果Boost进角设为5°, 起始转速为10,000,结束转速为15,000, Boost进角在每个转速范围内的值如下表所示。 如果转速比结束进角高, Boost进角初始值为Boost的设定值。

Start RPM and End RPM

As boost is dynamically defined through the RPM, when RPM is lower than start RPM, the start boost is '0'. When the RPM is between start RPM and end RPM, the boost changes dynamically according to the RPM. If the 'boost slope' is set to 'linear', the boost is linearly defined in the range.

For example: if boost timing is set to 5°, start RPM is 10000, end RPM is 15000, the boost timing in every rpm is as follows. If the RPM is higher than end RPM, the start boost is the current set boost.

RPM	<10000	10001-11000	11001-12000	12001-13000	13001-14000	>14000
Boost timing	0°	1°	2°	3°	4°	5°

Boost值是否固定

当启用Boost进角由油门控制时,Boost进角值受油门和转速共同影响。当油门处在25%位置时,最大的Boost进角起始值为16°;当油门处在50%位置时,最大的Boost进角起始值为32°;满油门时,Boost进角值可达到64°。在该设定下,在车辆启动阶段比较柔和,马达发热低,但是爆发力不强。

Stability

If the boost controlled by throttle is activated, the boost is not only controlled by RPM but also by throttle range. When the throttle is at 25%, the biggest boost timing which can be started is 16°; When the throttle is at 50%, the biggest boost timing which can be started is 32°; When the throttle is at 100%, the 64° boost timing is just available. After selecting the 'Yes', the initial part of whole throttle range is smoother, the heat productivity of motor is lower, but the start power is worse.

Boost与转速的相关性

线性相关: Boost进角值随转速线性变化。

自定义: 由车手根据自己的经验和喜好自由定义Boost进角值与转速的变化关系。该设定可以让车手自由选择以平衡车辆启动爆发力和马达发热。

Slope

'Linear'- the boost per degree is consistent to corresponding RPM;

'Custom'- freely define the corresponding RPM of boost timing per degree. The setting is very flexible, proper adjustments can activate the start power and heat productivity of motor.

Turbo 进角

Turbo Timing

极速进角,该功能通常在较长的直道上启动,以取得极大的爆发速度。

The function is just used in the long straightaway generally.

触发方式

Turbo进角的触发方式有3种,只有在满足设定的触发方式的情况下, Turbo进角功能才会启动。Turbo功能运行时,如果运行情况变为不满足触发条件是, Turbo进角功能就会关停。

以下为3种触发方式

满油门时间

当油门摇杆达到满油门位置一定时间后, Turbo进角功能会被触发。

转速

当马达转速超过设定的触发速度时, Turbo进角功能会被触发。

满油门时间+转速

只有满足上述2个条件时, Turbo进角功能会被触发。

Activation Method

Including 3 activation methods. The turbo is just allowed to be activated when meeting the activation condition; the turbo is not allowed to be activated when not meeting the activation condition. If the activation condition is turned into 'not meeting', the turbo timing will be closed.

'Full Throttle'

It is recognized to meet the activation condition when the continuous time in the full throttle is up to the preset time.

'RPM'

It is recognized to meet the activation condition when the motor RPM is faster than the preset activation RPM.

'Full Throttle and RPM'

It is recognized to meet the activation condition when the continuous time in the full throttle is up to the preset time and the motor RPM is faster than the preset activation RPM. If either of them doesn't conform to the condition, it'll be recognized to not meet the activation condition. The purpose to have Turbo activated is to make sure that the vehicle has a certain RPM and decreases the heat productivity of motor.

满油门触发延迟时间

当 Turbo 触发方式设为满油门时间触发时，摇杆达到满油门位置和 Turbo进角功能触发之间的延时时间。

Turbo Delay

The function refers to the continuous full throttle time activating turbo requires. When turbo activation method is set to 'Full Throttle', the turbo is just activated after the continuous full throttle time is up to the preset time.

触发转速

Turbo进角设为转速触发时,当马达转速超过预设触发转速时就会触发 Turbo进角功能。

Start RPM

When turbo activation method is set to 'RPM', the turbo is just activated after the motor RPM is faster than the preset activation RPM.

Turbo全部释放速度

当满足 Turbo进角功能触发条件时,Turbo进角按照设定的释放速度开始增长,例如:如果设为6°/0.1秒的释放速度,Turbo进角每0.1秒会增加6°,直到最大进角。选择的释放速度越大,Turbo进角增大越快,车辆爆发力越强,加速度越快,马达发热也越大。

Turbo Slope " ON"

When meeting the turbo activation condition, the turbo start to release at the selected speed. E.g.: '6 deg/0.1sec' indicates releasing turbo timing of 6 deg within 0.1 sec. The more it releases within 0.1 sec, the faster the turbo releases, the faster the vehicle accelerates, the higher the heat productivity of motor generates.

Turbo全部关停速度

车辆到达直道末端时,需要关停 Turbo功能。选择一定的 Turbo功能关停速度进行线性降低,而不是使 Turbo进角瞬间降低,车辆减速更柔和,从而减少瞬间减速和刹车产生的破坏。

Turbo Slope "OFF"

When the turbo is activated, if the activation condition does not meet such as: slowing down to turn in the end of straightaway, the 'Full throttle' will be turned into 'Non full throttle'. When not meeting turbo activation condition, if the turbo is closed instantly, an obvious slowing down will occur such as: brake, which causes that the driveability becomes worse. If the turbo is closed at a certain speed, slowing down will become linear relatively, the driveability will be better.

编程卡使用说明书

LCD Program Card

编程卡仅适用于RCOMG.CO.,LTD生产的DR120AX2系列车用无刷电调,该编程卡可以设置并存储多项不同的参数,便于使用者随时选择最钟意的参数存储于电调。可以作为独立的设备,直接利用LCD(液晶屏幕)显示电调参数,进行参数设定;也可以作为USB适配器将电调和PC相连,利用PC软件实现电调程序的更新和参数设置功能。

Turbo LCD program card is only applied to Turbo series brushless ESC produced by RCOMG Model. Users can choose their desired parameter at any time. It has 2 use methods as follows: 1. Working as an individual device to set the parameters; 2. Working as a USB adapter to update the firmware and set the parameters on PC.

规格/Specification

外形尺寸/Dimension : 91x54x18mm

重量/Weight : 68g

供电电源/Power supply : DC5.0V-12.0V

连接步骤

1. 首先断开电调电源。
2. 将电调上的信号线从接收机上拔下来，插入LCD编程卡左侧标注的()符号的插座，请根据符号所显示的极性插入信号线，不要插反。
3. 将电调接上主电源，打开开关键。
4. 如果连接正确，LCD 屏幕则显示界面(Turbo+Version+Date)，此时按压编程卡上任意键，编程卡将显示界面(Ready to connect ESC)，表示编程卡正在尝试和电调建立数据连接。

如果编程卡和电调的数据连接失败，则LCD屏幕会一直显示 (Ready to connect ESC)。请检查信号线是否插反，并重复1,2,3操作步骤。

5. 如果连接成功，LCD屏幕会直接进入第一个设定项，此时即可设定参数。

注：请严格按上述顺序进行连接，步骤2和步骤3不可颠倒，否则编程卡不能正常工作。

How to connect the LCD program card

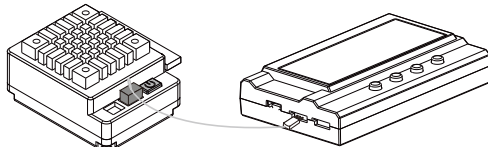
1. Disconnect the battery from the ESC;
2. Disconnect the signal wire of the ESC from the receiver; then plug it into the socket marked with()
3. Connect the battery to the ESC and turn on the ESC.
4. If the connection is correct, the following message(Turbo+Version+Date) will be displayed on the LCD screen. Press any buttons, the following message (Ready to connect ESC)will be showed on the LCD Screen. It signifies that the data connection between LCD and ESC is establishing. If the data connection between LCD and ESC is failed, the LCD Screen is always showing (Ready to connect ESC); Please check whether the signal wire is connected correctly and repeat step1,2,3.
5. If the connection is established successfully, the first programmable item will be displayed on LCD screen. It's ready to set the parameters now.

Note: Please strictly connect according to the above sequence. The sequence of step 2 and step 3 can not be reversed. Otherwise, the LCD program card will not work properly.

设定流程

Operation

作为独立设备，利用LCD屏幕设置电调参数，按钮功能说明如下：
Working as an individual device to program the ESC, the function of button is as follows:



MENU: 循环切换编程项目

VALUE: 循环切换某编程项目的参数值

注：长按Menu, Value键可以快速选择自定义参数

RESET: 返回到出厂默认设置模式；

OK：保存并发送当前所选的参数值到电调；如果更改自定义参数值后，没有按压OK按钮，新参数值将不会保存在编程卡中并且也不会更新到电调。对于已选择的自定义参数值，只有按压OK按钮，才会保存到编程卡中并且会自动更新到电调；如果仅按压 MENU 按钮，则自定义参数值只能保存于编程卡中，但不会更新到电调。
例：首先进入某参数项的自定义参数界面（比如“低电压关断值” cut-off Voltage 3.2/cell），再按压VALUE键，选择参数值，最后按压OK键存储参数并更新到电调。

作为USB适配器，将电调和个人电脑连接，利用电脑上的专用程序更新电调软件或设置参数。

"Menu" : Change the programmable items circularly;
"Value" : Change the parameters of each programmable item circularly

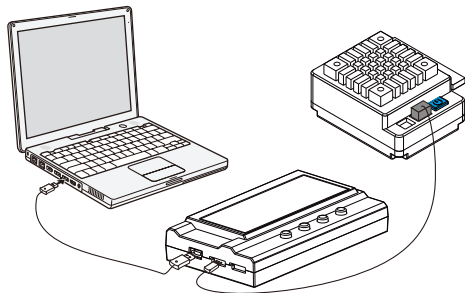
"Note" : Keeping the "Menu" or "Value" button holding can select the desired parameters quickly.

"Reset" : Return to the default settings

"OK" : Save the current parameters into the ESC. If you don't press "OK" button, the customized settings will not be saved and updated into the ESC. If you just press "Menu" button, the customized settings are just saved into the program card, not into the ESC.

For example: Firstly, enter the interface of a customized programmable item (e.g.: cut-off voltage 3.2/cell); Secondly, press "Value" button to select the desired parameters; Thirdly, press "ok" button to save the parameters into the ESC.

- Working as a USB adapter to link the ESC with PC to update the firmware or set the parameters on PC.



推荐动力配置 Suggested Power Configuration

STRIKE

Sensored Brushless Motor
ESC DRIFT/RACING

Mounting Hole Depth(mm):4mm
 Extensive Shaft Length(mm):15mm
 Shaft Diameter(mm):3.175mm
 Efficiency (%):92
 Rotor:N35EH 12.5mm

Operational Motor Temperature (Degree):80
 Poles:2
 Winding Wire:Star
 Size:35.8mm X 52.5mm
 Weight (g.):170

Item No.	KV	Continuous Current (A)	Applicable Voltage (V)	Resistance (Ω)	No-Load Current (A)	Continuous Power (W)
STRIKE-7.5T	4450	40A	7.4-8.4	0.0134	4.4	340
STRIKE-8.5T	4150	38A	7.4-8.4	0.015	3.2	320
STRIKE-10.5T	3550	28A	7.4-8.4	0.0208	2.5	240
STRIKE-13.5T	2850	22A	7.4-8.4	0.0334	2	190
STRIKE-13.5T	2850	22A	7.4-8.4	0.0334	2	190
STRIKE-17.5T	2250	15A	11.1	0.0565	1.9	110
STRIKE-21.5T	1820	13A	11.1	0.0861	1.5	110
STRIKE-23.5T	1500	11A	11.1	0.1125	0.8	110
STRIKE-27.5T	1200	10A	11.1	0.185	1.1	110
STRIKE-30.5T	1100	8A	11.1	0.199	0.6	90

EPIC

Sensored Brushless Strong Adjustable Top Motor
ESC DRIFT/RACING

Mounting Hole Depth(mm):4mm
 Extensive Shaft Length(mm):15mm
 Shaft Diameter(mm):3.175mm
 Efficiency (%):92
 Rotor:N35EH 12.5mm

Operational Motor Temperature (Degree):80
 Poles:2
 Winding Wire:Star
 Size:35.8mm X 52.5mm
 Weight (g.):170

Item No.	KV	Continuous Current (A)	Applicable Voltage (V)	Resistance (Ω)	No-Load Current (A)	Continuous Power (W)
EPIC-5.5T	6000	50A	7.4-8.4	0.0075	5.5	400
EPIC-6.5T	5100	45A	7.4-8.4	0.0093	4.8	370
EPIC-7.5T	4450	40A	7.4-8.4	0.0134	4.4	340
EPIC-8.5T	4150	38A	7.4-8.4	0.015	3.2	320
EPIC-10.5T	3550	28A	7.4-8.4	0.0208	2.5	240
EPIC-13.5T	2850	22A	7.4-8.4	0.0334	2	190