



## Park 370 & Park 400 Outrunner Brushless Motors

### **Park 370 Outrunner Features:**

- Replacement for Speed 280 and some Speed 370 applications
- Excellent motor for small 3D airplanes 7 oz – 14 oz (200 g – 400 g)
- Motor mount included
- Prop adapter (EFLM1923) and gold-plated connectors (EFLA241) included
- Slotted 12-pole outrunner design

### **Park 370 Outrunner Specifications**

Diameter: 28 mm (1.1 in)  
Length: 25 mm (1 in)  
Weight: 45 g (1.6 oz)  
Shaft Diameter: 3.17 mm (1/8 in)

#### **EFLM1200**

Kv: 1080 (rpms per volt)  
Io: .7A @ 10V (no load current)  
load current) Ri: .19 ohms (resistance)  
(resistance) Continuous Current: 7A\*  
Max Burst Current: 10A\*  
Cells: 6-10 Ni-Cd/Ni-Mh, 2-3 Li-Po  
Brushless ESC: 10- to 25-Amp

#### **EFLM1205**

Kv: 1360 (rpms per volt)  
Io: 1A @10V (no  
load current) Ri: .1 ohms  
Continuous Current: 9A\*  
Max Burst Current: 13A\*  
Cells: 6-8 Ni-Cd/Ni-Mh, 2 Li-Po  
Brushless ESC: 10- to 25-Amp

### **Park 400 Outrunner Features:**

- Replacement for Speed 370 and some Speed 400 applications
- Excellent motor for small 3D and scale park flyers 10 oz – 20 oz (280 g – 560 g)
- Motor mount included
- Prop adapter (EFLM1923) and gold-plated connectors (EFLA241) included
- Slotted 12-pole outrunner design

### **Park 400 Outrunner Specifications**

Diameter: 28 mm (1.1 in)  
Length: 29 mm (1.13 in)  
Weight: 56 g (2 oz)  
Shaft Diameter: 3.17 mm (1/8 in)

#### **EFLM1300**

Kv: 740 (rpms per volt)  
Io: .54 @ 10V (no load current)  
load current) Ri: .26 ohms (resistance)  
(resistance) Continuous Current: 7A\*  
Max Burst Current: 10A\*  
Cells: 6-10 Ni-Cd/Ni-Mh, 2-3 Li-Po  
Brushless ESC: 10- to 25-Amp

#### **EFLM1305**

Kv: 920 (rpms per volt)  
Io: .7A @10V (no  
load current) Ri: .1 ohms  
Continuous Current: 10A\*  
Max Burst Current: 13A\*  
Cells: 6-10 Ni-Cd/Ni-Mh, 2-3 Li-Po  
Brushless ESC: 10- to 25-Amp

\* Maximum Operating Temperature: 220 degrees Fahrenheit

\* Adequate cooling is required for all motor operation at maximum current levels.

\*Maximum Burst Current duration is 5 seconds. Adequate time between maximum burst intervals is required.

See our web site at [www.horizonhobby.com](http://www.horizonhobby.com) or [www.e-fliterc.com](http://www.e-fliterc.com) for our complete line of brushless motors. We have posted a specification comparison sheet on our web site so you can compare the different motors. E-flite also offers a complete line of brushless speed controls and accessories that can be purchased at your local hobby shop or on-line.

EFLA311 20-Amp Brushless ESC  
EFLA110 Power Meter (measures power output in amps, volts, watts, and capacity)  
EFLA241 Gold Bullet Connector Set, 3.5mm (3)  
EFLM1923 Prop Adapter w/ Collet, 1/8"  
EFLM1914 Prop Saver

## Operating Instructions:

1. This brushless motor requires the use of a sensorless brushless speed control. Failure to use the correct speed control may result in damage to the motor and/or speed control.
2. When mounting the motor, be sure the correct length of screws are used so damage to the inside of the motor will not occur. **The use of long screws will damage the motor.**
3. You may connect the three motor wires directly to the controller with solder or use connectors such as gold plated brushless bullet connectors (EFLA241), which will also need to be soldered properly to your wires. The three motor wires can be connected in any order to the three output wires or output port on a sensorless brushless speed control. Be sure to use heat shrink tubing to properly insulate the wires so the wires will not short.  
Note: Shorting may damage the motor and speed control.
4. If you add connectors and you no longer wish to use them, never cut the motor wires. Remove them by properly desoldering them. Shortening the motor wires is considered an improper modification of the motor and may cause the motor to fail.
5. When you connect the motor to the esc, check the rotation direction of the motor. If you find the rotation is reversed, switching any two motor wires will reverse the direction so the motor rotates properly.
6. Proper cooling of the motor is very important during operation. New technology has brought much higher capacity batteries with higher discharge rates, which can cause extreme motor temperatures during operation. It is the responsibility of the user to monitor the temperature and prevent overheating. Overheating of the motor is not covered under any warranty.
7. You can install the propeller on the motor shaft after you have confirmed proper rotation direction. Also consult the instruction included with your sensorless electronic speed control for proper adjustments and timing.
8. Once the battery is connected to the motor, please use extreme caution. Stay clear of the rotating propeller since spinning propellers are very dangerous as the motors produce high amounts of torque.
9. Never disassemble the motor. This will void any warranty.

## Changing Shaft Installation

This Outrunner motor has a shaft, which exits through the rotating part of the motor. If you want the shaft to exit through the fixed part of the motor, follow these instructions carefully for changing the shaft installation.

1. Carefully remove the retaining clip from shaft, making sure not to damage it. Use a retaining clip remover for best results (make sure you save for reuse).
2. Loosen the setscrew in the rotating part of the motor.
3. Slide the shaft through the motor.
4. Retighten the setscrew making sure you line up with the flat spot on the shaft.

Replacement shafts are available separately. Order EFLM1201 for a Park 370 Outrunner shaft or EFLM1301 for a Park 400 Outrunner shaft.

## Warranty and Repair Policy:

The Park 370 Outrunner Brushless Motors are guaranteed to be free from original manufacturing defects in material and workmanship at the date of purchase. No term warranty applies to this product. This warranty does not cover any component parts damaged by use, misuse, unauthorized service or any form of modification. Horizon Hobby assumes no liability for damages caused during the installation of this motor. At no time will Horizon Hobby be responsible for collateral or incidental damages caused during the operation of this motor. We reserve the right to change or modify this warranty at any time.

**To speak to a service technician, call (877) 504-0233.**

## Warranty Repairs:

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing that warranty conditions have been met, your motor will be repaired free of charge.

## Non-Warranty Repairs:

Should your repair cost exceed 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. Any return freight for non-warranty repairs will be billed to the customer. For non-warranty repairs, please advise us of the credit card that you prefer to use. Horizon Service Center accepts Visa or MasterCard. Include your card number and the expiration date. Horizon Service Center also accepts money orders.

If your motor needs to be repaired, ship the motor in its original box (freight prepaid) to:

Horizon Service Center  
Attn: E-flite™ Service Center  
4105 Fieldstone Rd.  
Champaign, IL 61822

Include your complete name and address information inside the carton, as well as clearly writing it on the outer label/return address area. Include a brief summary of the difficulty. Date your correspondence and be sure that your name and address appear on this enclosure. Also, please include a phone number where you can be reached during the business day.