

RIPPER OBL 29 28/09 **BRUSHLESS MOTOR** **INSTRUCTION MANUAL**



Introduction

Congratulation on your choice of Thunder Tiger 2928/09 OBL Outrunner Brushless Motor. Thunder Tiger Ripper outrunner motor is the ideal power upgrade for smaller 3D aerobats and is foamies.

Thunder Tiger provides a brand new brushless motor to satisfy your any flying desire. Extremely high torque and power you have ever seen. With the best mechanical design for cooling down the motor temp, you can get the best efficiency of flying experience.

Thunder Tiger has been endeavored to set up a dream for each of modeler. A dream that every body can easily achieve no matter what age or property. Moreover, we always stand on the same side with customer to think about the requirement.

Features

- The perfect current capacity for long time flying
- The most efficient RPM value
- The best mechanical design for cooling motor
- Light weight with the best performance
- Dual ball bearings shaft support
- Strong Neodymium "rare earth" magnets for high output torque and one of the highest temperature ratings in R/C at 302°F (150°C) for longer life

Specifications

Voltage range	6-10 cells 3x Li-Poly	Current capacity	17A/60s
KV rating	920 RPM/V	Internal resistance	150mΩ
Dimensions ø x L mm (in)	28.5x28.1 mm (1.12 x 1.11 in)	Propeller Recommended	APC 9 x 6 APC 10 x 4.7 APC 10 x 7
Shaft Diameter mm(in)	3.175mm (0.125 in)	Weight	54g
Max. efficiency current	6~14A		

Tech Notes

Ripper OBL 2928/09								
Propeller	Battery	6cells	7cells	8cells	9cells	10cells	251P Li-Poly	351P Li-Poly
9*6	Voltage	7.2	8.3	9.4	10.6	11.7	6.8	9.6
	Current(A)	7.2	9.0	10.9	12.8	14.5	6.5	10.7
	RPM	5043	5603	6099	5625	6891	4811	6075
	P-IN(W)	51.8	74.7	102.5	135.7	169.7	44.2	102.7
10*4.7	Voltage	7.1	8.3	9.4	10.5	11.7	6.8	9.5
	Current(A)	7.5	9.3	11.1	13.0	14.7	6.8	11.0
	RPM	4925	5468	5967	6424	6807	4678	5949
	P-IN(W)	53.3	77.2	104.3	136.5	172.0	46.2	104.5
10*7	Voltage	7	8.1	9.2	!	!	6.6	9.3
	Current(A)	9.4	11.5	13.5	!	!	8.5	13.5
	RPM	4364	4804	5186	!	!	4173	5183
	P-IN(W)	65.8	93.2	124.2	!	!	56.1	125.6
ESC		10-15AMP Recommended						

No Recommended

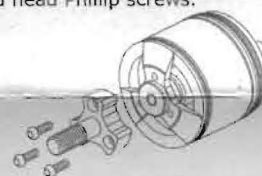
1. All data might be subjected to change without notice.
2. Due to with different performance of battery, all data might be changed.
3. Different brand of ESC and propeller will also cause difference efficiency.

Installation

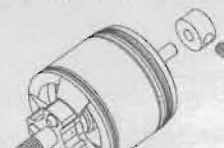
- Refer to your model instruction manual for mounting the Ripper motor on your model. There are two practical mounting options: motor in the front (Type A) or motor behind the firewall (Type B). The installation of Type A needs optional parts AQ06380 as shown in the back.
- Apply the template to mark the locations of the mounting holes.
- Install the propeller on the prop-adapter first before put the nut on.
- Each motor has two different sets of mounting holes as shown in the diagram below. One set of mounting holes is spaced 16.0mm apart, the other one is 19mm apart. All require fine threaded machine screws which are 3mm in diameter.

Type A Install your motor on the firewall

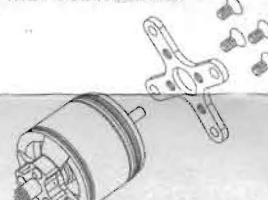
- Step 1 : Fasten the RR prop adapter on the motor with 3 round head Phillip screws.



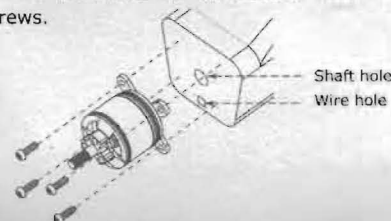
- Step 2 : Secure lock ring on the shaft with the set screw.



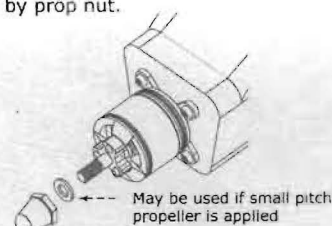
- Step 3 : Fix the mounting plate on the frontside of the motor with 4 sink screws.



- Step 4 : Drill holes based on the template provided. Secure the motor on the firewall with 4 wood screws.

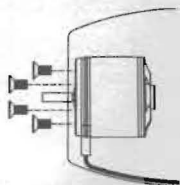


- Step 5 : Install the propeller on the RR prop adapter and secure by prop nut.

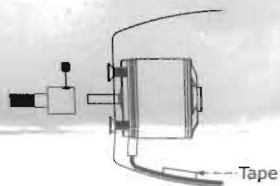


Type B Install your motor in the fuselage

Step 1 :



Step 2 :



CAUTION

Do fix wires on a safety location in the fuselage, cause potential hitting on the case of out-running motor.

About the detail installation, please refer to your airplane instruction.

CAUTION

- In case of accidentally coming loose of motor, do make sure the motor is mounted firmly on the firewall before motor rotating.
- Do follow the voltage range shown on the specifications above for battery selection.
- Double check if the ESC current limitation meets the shown on the specifications above.
- Do NOT make the positive and negative wires to touch each other while power is applied.
- Do NOT fly in rain or get water or moisture into the motor. It might cause the permanent damage for the motor and ESC.
- Do NOT try to touch the rotating case or shaft, it might cause you physical injury.
- Please stop to use the motor once you find any electrical or mechanical defective issue.

Safety Notes

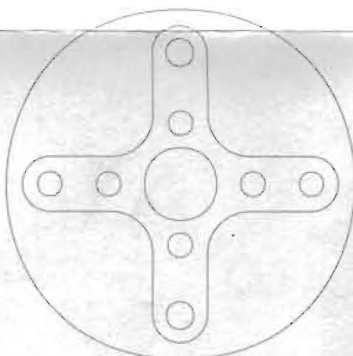
Do double check if the propeller undamaged and balance well before installation. Be ware of the range of propeller rotating or it might be get serious injury. Secure the propeller on the adapter firmly tight before you switch it on, Propeller must be discarded once a crash or heavy landing cause potential internal stress or damage resulting in a failure later.

Before switch on your transmitter please make sure the throttle stick at the low speed position.

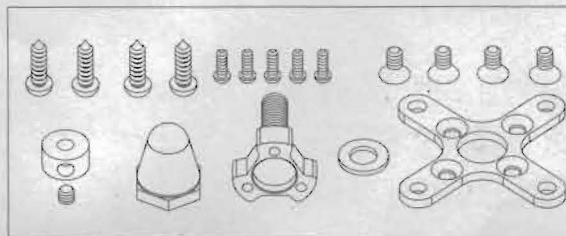
Direction of Rotation

Simply switch over any two cables between the motor and speed controller if you would reverse the rotation.

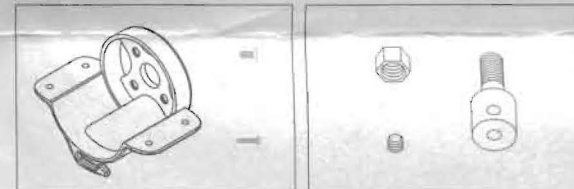
Please use below printed template to mark the drill location on the firewall.



Optional Parts



AQ0965 Radial Mount OBL 29 series



AS6380 OBL Motor Mount

AQ0969 FR prop adapter

Other items of interest

Miscellaneous		
Servo	ACE C1016	No.8117
	Li-Po 1050mAh 7.4V 2S1P	No.2800
	Li-Po 1050mAh 11.1V 3S1P	No.2801
Battery	Li-Po 2100mAh 11.1V 3S2P	No.2802
	NIMH 1200mAh 8.4V 2/3A flat Tamiya	No.2933
	NIMH 1200mAh 8.4V 2/3A hump Tamiya	No.2934
	NIMH 1200mAh 9.6V 2/3A flat Tamiya	No.2935
	NIMH 1200mAh 12V 2/3A flat Tamiya	No.2936

CAUTION

Do NOT attempt to use Ripper motors with an ESC that is designed for traditional brushed motors as permanent damage will result.

Care and Maintenance

Unlike the brushed motor, Ripper brushless motor does not require break-in, replacement or cleaning of internal parts. After flying, clean the dust with compressed air first if necessary. While installation, be ware of screws or other small items have been attracted to the magnets of your motor.

If you have some other question about the care and maintenance, please contact the local distribution for advanced assistance.

Service

Thank you for purchasing the Thunder Tiger 2928/09 brushless motor. Thunder Tiger strives to bring you the highest level of quality and service we can provide. We race and test our products around the world to bring you state-of-the-art items. Thunder Tiger guarantees that you should enjoy many hours of trouble free use from our R/C products.

Thunder Tiger products have been sold worldwide through the authorized distributors that are supported directly and rapidly from Thunder Tiger. You may find that Thunder Tiger is always pursuing to explore new items creatively with highest quality. To update the latest product information and to get the best technical support, please feel free to contact your local hobby shops or Thunder Tiger authorized distributor.

Manufactured by
THUNDER TIGER CORP.

<http://www.thundertiger.com>

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