



THUNDER TIGER RIPPER OBL SERIES HELICOPTER BRUSHLESS MOTOR INSTRUCTION MANUAL

Product no. #2379/2380/2381

INTRODUCTION

Congratulations on your choice of Thunder Tiger Ripper OBL series outrunner brushless motor. Thunder Tiger Ripper OBL outrunner motors are designed for R/C electric helicopters. Thunder Tiger provides a brand new brushless motor to satisfy all your flying desire. Extremely high torque and power you have never seen. With the best cooling mechanical design, you can get the best efficiency out of the motor. Thunder Tiger has endeavoured to set up a paragon for every modeler. More over, we always stand on the same side with the customers to think about their requirement.

FEATURES

- The perfect current capacity for long time flying.
- The most efficient RPM value.
- The best mechanical design for cooling.
- Light weight with the best performance.
- Dual ball bearings shaft support.
- Strong magnets for high output torque and high temperature rating.
- OBL 29/35-10H is designed especially for mini helicopter with 3S Li-Po battery setup.
- OBL 43/11-30H motor is designed for middle size electric helicopter of 6S Li-Po battery setup.
- OBL 49/08-50H motor is designed for middle size electric helicopter of 10S Li-Po battery setup.

SPECIFICATION

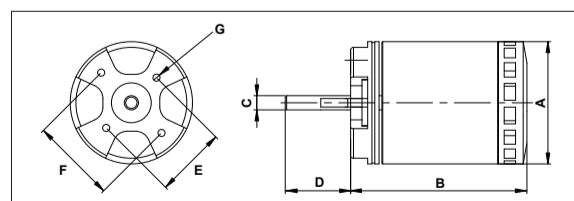
Item No.	2379	2380	2381
Product Name	OBL 43/11-30H	OBL 49/08-50H	OBL 29/35-10H
Voltage Range	5~6S Li-Po Battery	8~10S Li-Po Battery	2~3S Li-Po Battery
KV Rating (RPM/Volt)	1050 RPM/V	770 RPM/V	3500 RPM/V
Max. Efficient Current	3~55A	4~60A	4~20A
Max. Surge Current	75A/5s	80A/5s	30A/60s
Internal Resistance	19.6 mΩ	18.4 mΩ	36 mΩ
Weight (g/oz)	280g/9.88oz	355g/12.52oz	55g/1.94oz
Recommended Speed Control	No.8043-H BLC-75	No.8042-H BLC-65	No.8041-H BLC-40

CONTENTS

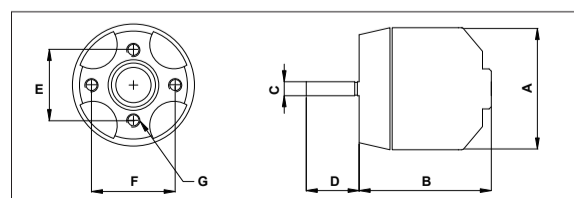
- Instruction manual × 1
- Ripper series outrunner brushless motor × 1
- Heat shrink × 3
- Golden connector (male) × 3
- Golden connector (female) × 3
- Screw Set × 1
- Allen wrench (2.5mm) × 1
- Promotion decal × 1

INSTALLATION

Please refer to your model instruction manual for mounting the Ripper motor on you model. Please follow the recommended pinion setting of your model's manual, it will make it easier to approach the required RPM and get the best efficiency. The following table show the installation dimension of the helicopter OBL series motors for your reference.



■ OBL 43/11-30H & OBL 49/08-50H



■ OBL 29/35-10H

No	Description	Item No	A(mm/in)	B(mm/in)	C(mm/in)	D(mm/in)	E(mm/in)	F(mm/in)	G
1	OBL 43/11-30H	2379	43mm (1.693 in)	62mm (2.441 in)	5mm (0.197 in)	23mm (0.906 in)	25mm (0.984 in)	30mm (1.181 in)	M3×0.5
2	OBL 49/08-50H	2380	49mm (1.929 in)	61mm (2.4 in)	5mm (0.197 in)	23mm (0.906 in)	25mm (0.984 in)	30mm (1.181 in)	M3×0.5
3	OBL 29/35-10H	2381	28.5mm (1.12 in)	28.1mm (1.11 in)	3.175mm (0.125 in)	12 mm (0.47 in)	16mm (0.63 in)	19mm (0.748 in)	M3×0.5

CAUTION

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

SETTINGS FOR EXAMPLE

Model	Motor	ESC	Battery	Main Gear	Pinion	Gear Ratio	Desired RPM
mini Titan E325	OBL 29/35	BLC-40	2S Li-Po	150T	15T	1 : 10	2100rpm
			3S Li-Po		13T	1 : 11.54	2800rpm
Raptor E550	OBL 43/11	BLC-75	6S Li-Po	111T	10T	1 : 11.1	1900rpm
Raptor E620 SE	OBL 49/08	BLC-65	10S Li-Po	111T	9T	1 : 12.33	2100rpm

Note

We have to emphasize that again. The OBL brushless motors are very powerful. Please make sure that your helicopter can take the stress. And we strongly recommend that do not let the head speed go beyond the limit of the helicopter, or it may cause property damage and bodily harm.

CARE AND MAINTENANCE

Unlike the brushed motor, Ripper brushless motor does not require any break-in process, replacement or cleaning of the internal parts. All that you do is to prevent any obstacles can penetrate into the motor. Furthermore, to protect the motor from dampness, dirt, paint, glues, etc. Please do not lubricate the motor. While installation, be aware of screws or other small items could be attracted to the magnets of the motor. If you have some other question about the care and maintenance, please contact the local distribution for advanced assistance.

SERVICE

Thunder Tiger strives to bring you the highest level of quality and service we can provide. We test our products around the world to bring you the state-of-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 form 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.

OTHER ITEM OF INTEREST



No.8041-H
ACE ESC / BLC-40



No.8042-H
ACE ESC / BLC-65



No.8043-H
ACE ESC / BLC-75



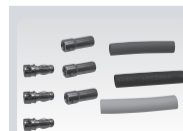
No.2808 Li-Po Battery
3S1P/2200mah, 20C



No.2809 Li-Po Battery
2S1P/2200mah, 20C



No.2532 Li-Po Battery
E-Charger ELC 4



AQ0836 Gold
Connectors(3.5mm)



AQ0837 Gold
Connectors(4mm)