

Thunder

R/C Aerobatic Sports Aircraft

TOP[®]
R/C HOBBY



Thunder



FROM THE RIOT FAMILY

Assembly And Instruction Manual

Age 14+

www.toprchobby.com

Warning:

This radio controlled model is not a toy. It requires skill to fly and is not recommended for use by beginners without assistance from an experienced model pilot. It should not be operated by children without the supervision of a suitably experienced adult.

TOP RC HOBBY reserves the right to modify the specification of this model at any time.

Safety Precautions

1. Do not attempt to repair or modify this aircraft with non-factory parts.
2. Never fly this model over roads, railway lines, near to power lines, airports, do not fly this model in excessively strong winds, in the rain, or thunderstorms.
3. Do not fly or launch the model towards people.
4. Keep hands and face away from rotating propeller at all times.
5. We strongly recommend that all fixings and fasteners used in the construction of this model are checked regularly for integrity. Failure to do so could cause a crash, injury to yourself or others around you.
6. We only recommend the use of 2.4GHz radio equipment with this model.

Disclaimer

1. This radio controlled model is not a toy. Used incorrectly it is capable of inflicting serious injury to persons or damage to property. The owner/pilot assumes all responsibility for any damage to persons or property resulting from the use of this product.
2. The manufacturer and distributor decline all responsibility for any liability arising from use of this product.
3. It is very important that you follow all instructions for assembling and setting up of this model. Failure to do so could result in a loss of control and possibly a crash.

EPOFLEXY

“EPOFLEXY” is a very tough and durable material perfect for the manufacture of model aircraft. When using screwed fixings with “EPOFLEXY” components it is important to tighten the screws sufficiently to provide a firm fixing.

Excess tightening could result in the foam material becoming compressed, possibly damaging or distorting the part. We recommend that all fixings are checked regularly for security and safety purposes.

Overview

Thank you for purchasing this THUNDER radio controlled model aircraft. The THUNDER offers a stunning combination of terrific looks and sensational flight performance. Manufactured from “EPOFLEXY” it is extremely robust, however, in the event of a “less than perfect” arrival, we supply a range of spares to get you flying again in the shortest time. It is capable of a wide range of amazing aerobatic manoeuvres to thrill the experienced pilot, but with reduced control throws it provides a solid and predictable flight performance, perfect for the sports flyer. We are certain you will enjoy your new model. Please take the time to read this manual thoroughly and understand its contents completely prior to commencing assembly.

Key Features

- Powerful Brushless Motor
- 40A Brushless Electronic Speed Controller
- Efficient 2 Blade Propeller
- Pre-Installed servos
- “Live” Control Surface Hinges
- Durable “EPOFLEXY” Construction
- Steerable Tail Wheel
- Superb Flight Performance
- High Brightness LED Lighting System

Specification

Wingspan:	1380mm
Length:	1130mm
Weight:	1480g
Motor:	3720~880kv
ESC:	40A Brushless
Servos:	2 x 17g 2 x 9g
Battery Required:	11.1V 2200mAh- 3300MAH (Not Included)

1. Undercarriage

Fix the undercarriage in position with the four 2.6 x 12mm self-tapping screws as shown. If the screws become excessively tight whilst fixing, simply back them off a turn or two, and then continue. Note: The undercarriage legs are angled towards the front of the fuselage.



4 x 2.6 x 12mm Screw 

2. Horizontal Tail-Plane

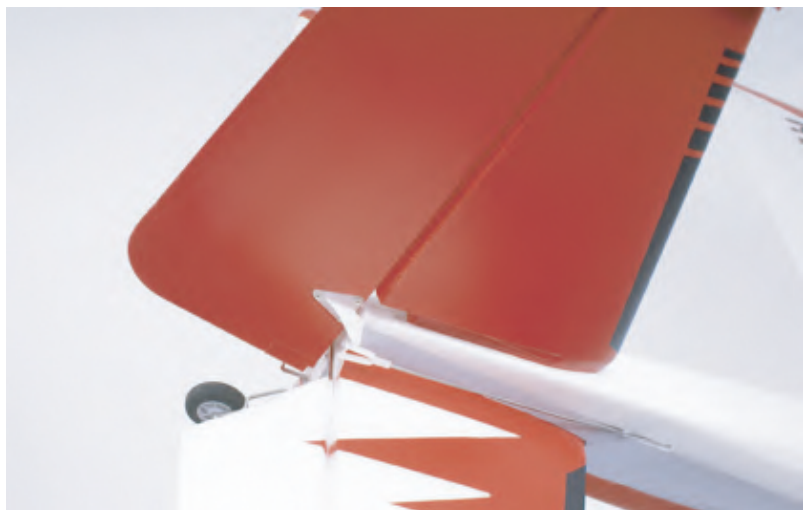
Remove the moulded tab at the end of the fuselage with a sharp knife. Slide the horizontal tail-plane into the fuselage slot as shown. Make certain that the holes in the tail-plane line-up with the corresponding fuselage holes. If desired, a small amount of foam glue can be used for maximum security.



3. Vertical Fin & Rudder

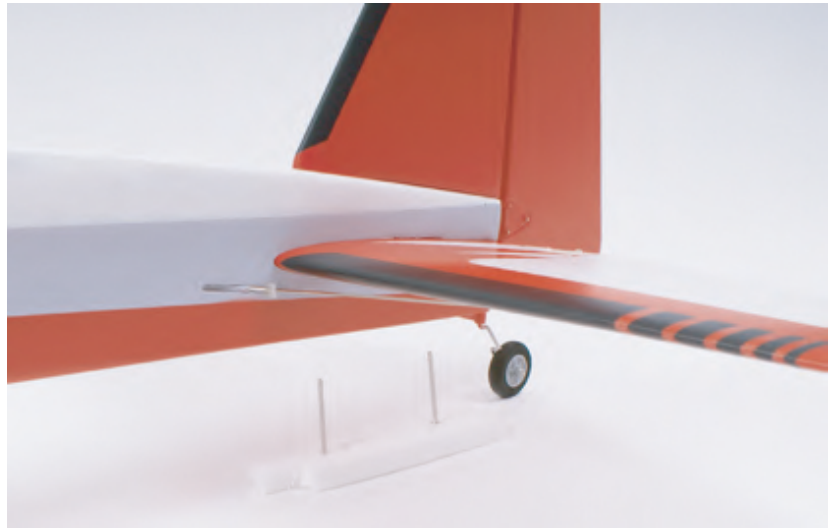
Install the vertical fin and rudder assembly into the slot in the fuselage. Please make certain that the tail-wheel control wire is located correctly in the rudder slot as shown.

If desired, a small amount of foam glue can be used for maximum security



4. Tail-Plane Fixing

Fix the horizontal tail-plane and vertical fin in position with the two 2.6 x 35mm screws provided. The screws must be tightened sufficiently to securely fix the parts in position, however be careful not to over-tighten the screws.



2 x 2.6 x 35mm Screw



5. Tail Control Horns

Connect the rudder and elevator snap-links to their respective control horns as shown in images to the right.

Minor adjustment to obtain perfect neutral positions of the control surfaces can be achieved by rotating the plastic link on the threaded portion of the control push-rod.



Make certain the plastic link is securely "snapped" closed when connected to the control horn.



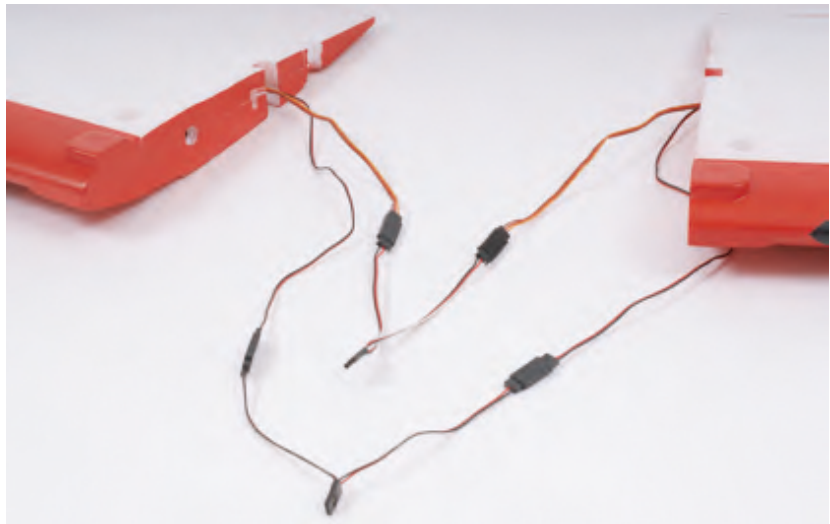
6. Wing Assembly

Locate the 500mm aluminium wing joining spar and slide into the round aperture of one wing panel up to the centre locating collar. Locate the small plywood wing locking plate and insert into the rectangular aperture behind the main wing spar, (image G). Slide the remaining wing panel onto the exposed portion of the aluminium spar. The



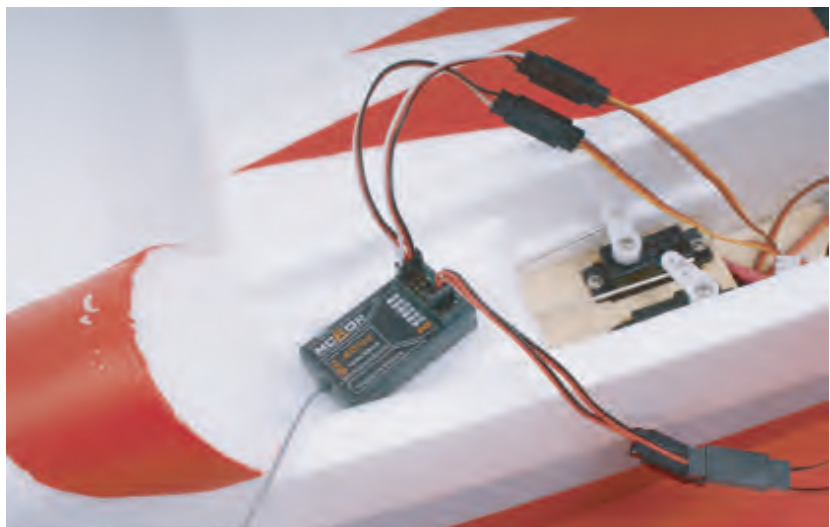
plywood locking plate will ensure perfect alignment of the two wing halves. Be certain that all wires are routed correctly via the moulded slots and do not foul the joint between the wing roots. If desired, a small amount of foam glue can be used for maximum security.

Connect the two black aileron servo plugs from the wing to the Y-lead as shown. The plugs can only be inserted easily one way round. Make sure the signal wires match up (signal is either white or orange)



The remaining red and black wires (2 core) from the wing are for the model's built-in LED lighting system and should be connected to the Y-lead with the black and red leads.

The 2 Y-leads can then be threaded through the hole in the fuselage and plugged in to the corresponding channels on your receiver.



7. Wing Fixing

The moulded wing cowlings are used to secure the wing to the fuselage and can only be fitted one way round. The cutout is towards the front on the aircraft.

The longer screws are used at the front.



2 x M4 x 55mm Screw



1 x M4 x 38mm Screw



The moulded wing cowlings should be installed once the wing is in place and the cables are threaded through to the cockpit area. The wing and cowlings can now be secured to the fuselage using the 3 M4 screws.



8. Receiver Installation

Connect the speed controller to the throttle channel of your receiver (receiver not included in PNP versions). This wire is easily identified, it is the only one that is routed from the front of the model.

Connect the rudder and elevator servos to the corresponding channel outputs of the receiver and then connect the Y-lead from the ailerons to the aileron channel output and the lights to any spare receiver channel. There is a moulded recess in this compartment which is sufficient to accommodate most popular 2.4GHz receivers; however there is ample room elsewhere to locate yours if it does not.

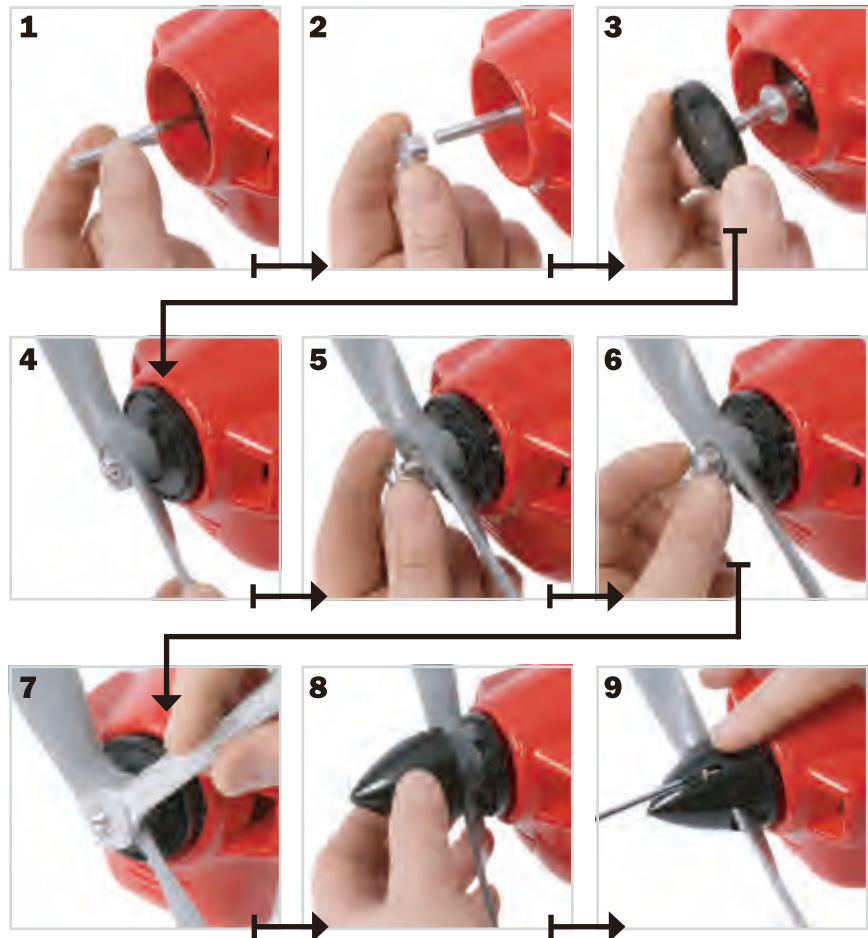
We recommend that it should be securely positioned with self-adhesive "Velcro". You must adhere to the receiver manufacturer recommendations regarding positioning and aerial routing.

9. Propeller & Spinner

Following steps "1" to "9", slide the aluminium propeller adaptor onto the motor shaft, followed by the tapered aluminium driver. Slide the plastic spinner back plate onto the adaptor shaft.

Fit the propeller using the washer and securing nut.

Securely tightening the nut will clamp the adaptor to the motor shaft and fix the propeller in position. Note: Use of excessive force will cause damage to the aluminium adaptor. Attach the front section of the plastic spinner and secure with the two screws provided.



Note: It is essential that the propeller is securely fixed. Failure to do so could result in serious injury

10. Propeller Rotation

Double-check that the propeller is securely fixed and it is rotating in the correct direction. When standing behind the plane the propeller should be rotating in a clockwise direction.



11. Battery Installation

The battery is mounted in to the model by removing the upper canopy that is held in place by magnets.

Your flight battery, (not included in the PNP Version) can easily be installed and connected to the factory fitted "T" style connector. Make certain the battery is secured using the velcro straps and that the canopy is secure before flight.



For added security of the battery pack we recommend using some self adhesive velcro applied to the battery and battery tray.

12. Control Surface

Check that all control surfaces are centred and responding correctly to transmitter inputs. Adjustments can be made to control surface centres by carefully rotating the plastic control horns on the threaded portion of the metal control rods. Use the servo reversing function on your transmitter for any control that is not responding in the correct sense to control inputs. Make certain that all plastic links are securely "snapped" closed and that all control surface hinges are secure. Use a small amount of foam glue if any hinges are not firmly attached.

We make the following recommendations for control surface deflections. Experienced pilots may wish to increase these movements after initial flight testing.

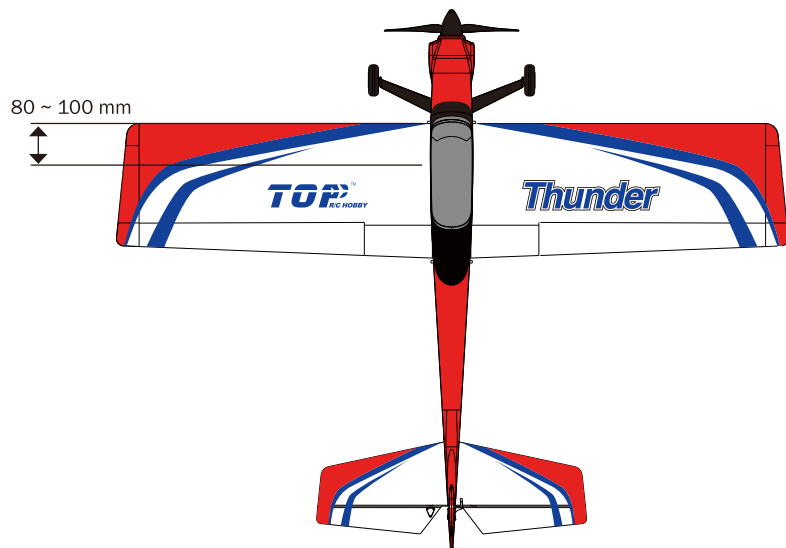
Ailerons: 15mm each way

Elevator: 20mm each way

Rudder: 28mm each way

13. Centre Of Gravity

It is vital that you check that the centre of gravity is correct. Failure to do so could result in a complete loss of control. We recommend the balance point of the model, complete with battery, should be 80 -100mm back from the leading edge of the wing for initial flights. Very experienced pilots may wish to move the balance point further back after initial flight testing.





Top087001
FUSELAGE



Top087002
MAIN WING



Top087003
HORIZONTAL TAIL



Top087004
RUDDER AND FIN



Top087005
Cabin BLACK



Top087006
PLASTIC WING JOINERS



Top087007
SCREW set for main wing



Top087008
Out runner brushless 3720 -880KV



Top087009
40AMP ESC



Top0870010
PROP ADAPTOR



Top0870011
COWLING



Top0870012
LAND GEAR SET



Top0870013
PROPELLOR 12 X 8



Top0870014
Spinner



Top0870015
WING CONNECTING ROD



Top0870016
9G SERVO



Top0870017
17G SERVO

Statement:

1. Please read this manual carefully and follow the instruction of the manual before you use this products;
2. Our airplane is not a toy, which is only suitable for the experienced manipulator or under the guidance of the experienced pilot.
3. Not recommended for the children under 14 years old.
4. Please adjust this plane according to the instruction and make sure that the finger and other parts of your body be out of the rotating parts of the plane, or it may cause damage to the plane or injury to your body.
5. Do not fly in the thunderstorm, strong wind or bad weather.
6. Never fly the plane where there are power lines overhead, automobiles, near airdrome, railway or highway.
7. Never fly our plane where are crowds of people. Give yourself plenty of room flying, as the plane can fly at a high speed. Remember that you are responsible for others safety.
8. Do not attempt to catch the plane when you are flying it.
9. The user should bear full responsibility of proper operation and usage with regards to this model. We, Top RC together with any distributor of us will not be responsible for any liability or loss due to improper operation.

Thunder
R/C Aerobatic Sports Aircraft

TOP[®]
R/C HOBBY

深圳市鼎典航模科技有限公司
Shenzhen Top RC Hobby Tech Co., Ltd

www.toprchobby.com

Tel : 86-(0)0755-27908315

Fax : 86-(0)0755-27908325

Made in China

