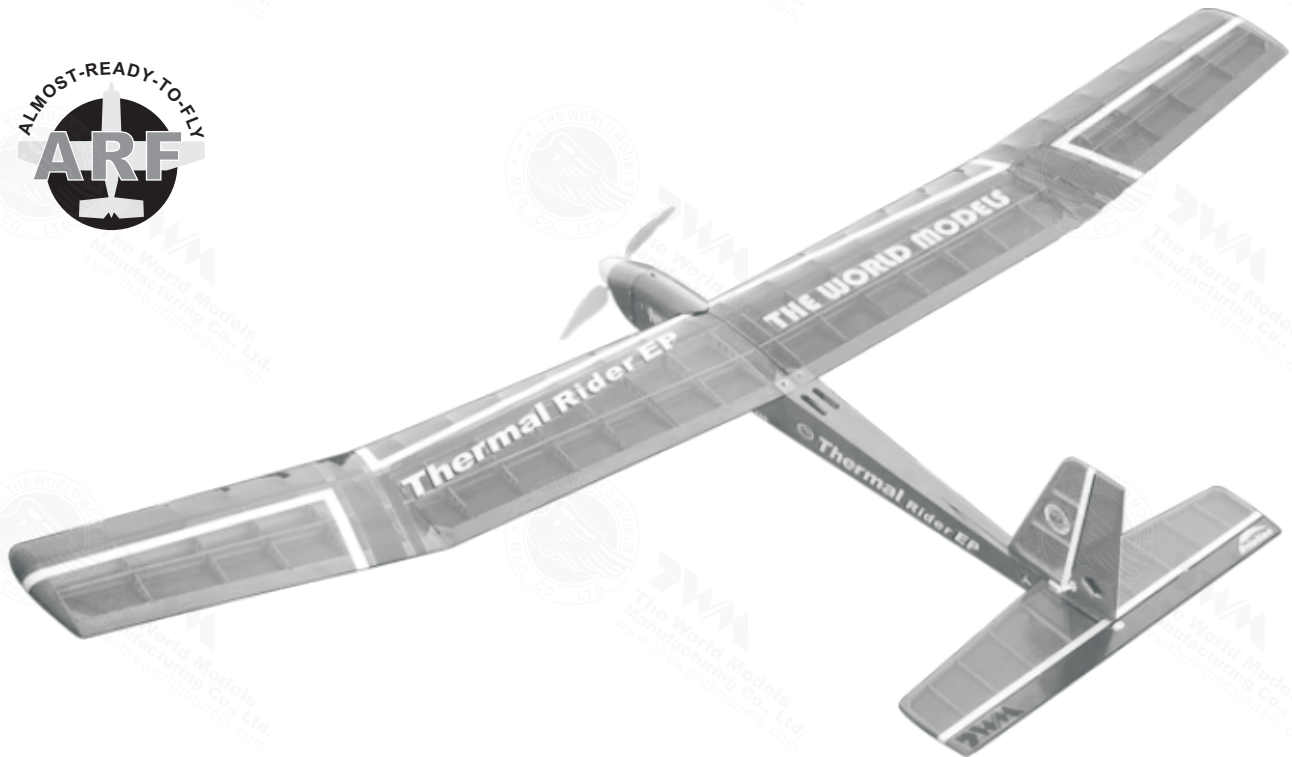


Thermal Rider EP



Requires: 3-channel radio w/ 2 mini servos, Outrunner Motor KM0283010 w/ Propeller Adaptor HW2340100 20A brushless ESC, 3 cells 11.1V 2100mAh Li-Po battery & charger.

Specifications

Wing Span	78 in / 1980 mm
Wing Area	665 sq in / 42.9sq dm
Flying Weight	32 oz / 900g
Fuselage Length	40 in / 1020mm

Specifications are subject to change without notice.

Warning! This model is not a toy.

It is designed for maximum performance. Please seek advice if one is not familiar with this kind of electric powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.



The World Models
Manufacturing Co., Ltd.
www.theworldmodels.com

FACTORY PRE-FABRICATED
ALMOST-READY-TO-FLY (ARF) SERIES
MADE IN CHINA

Thermal Rider EP

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BEFORE YOU BEGIN

- 1** Read through the manual before you begin, so you will have an overall idea of what to do.
- 2** Check all parts. If you find any defective or missing parts contact your local dealer. Please DRY FIT and check for defects for all parts that will require CA or Epoxy for final assembly. Any parts you find to be defective after the gluing process may be difficult to remove for warranty replacement. The manufacturer will replace any defective parts, but will not extend to the parts that are good before gluing to defective parts during assembly. Warranty will not cover any parts modified by customer.
- 3** Symbols used throughout this instruction manual comprise of the following :-



Apply epoxy glue.



Apply instant glue
(C.A.glue, super glue.)



Apply thread locker



Must be purchased separately!



Assemble left and right
sides the same way.



Ensure smooth non-binding
movement while assembling.



Peel off shaded portion
covering film.



Cut off shaded portion.



Drill holes with the specified
diameter (here: 3mm).



Pierce the shaded portion
covering film.

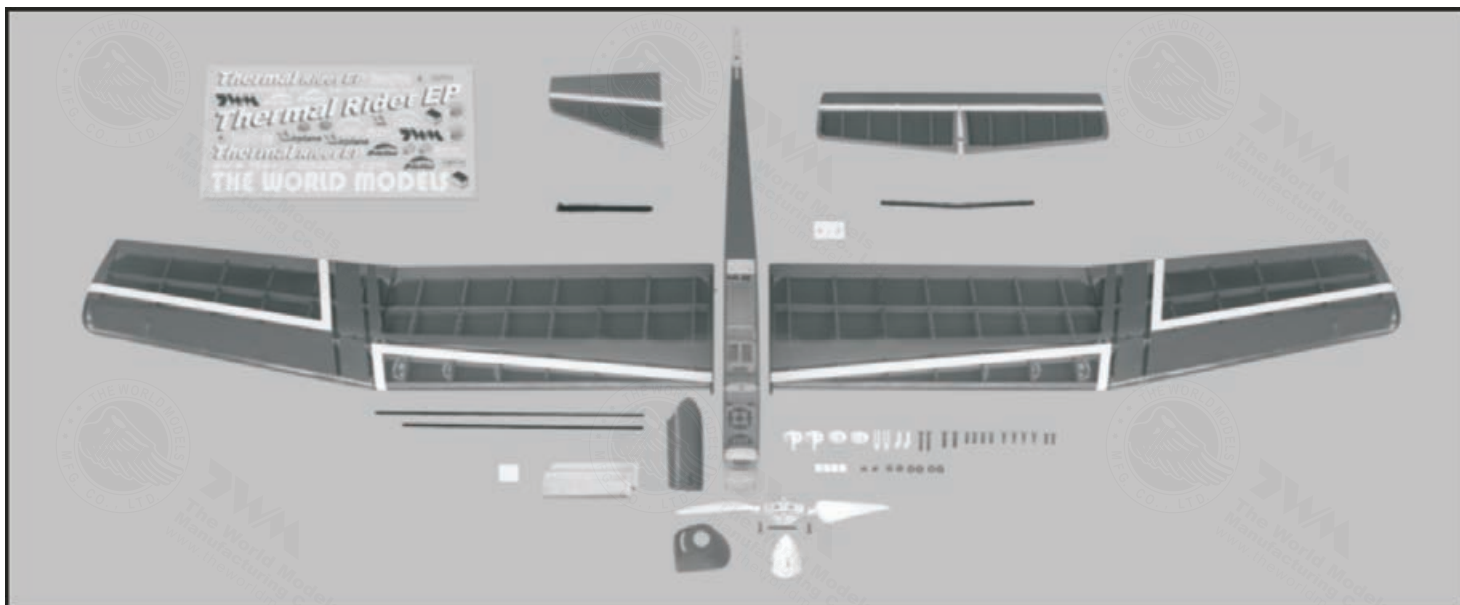


Pay close attention here!



Warning!

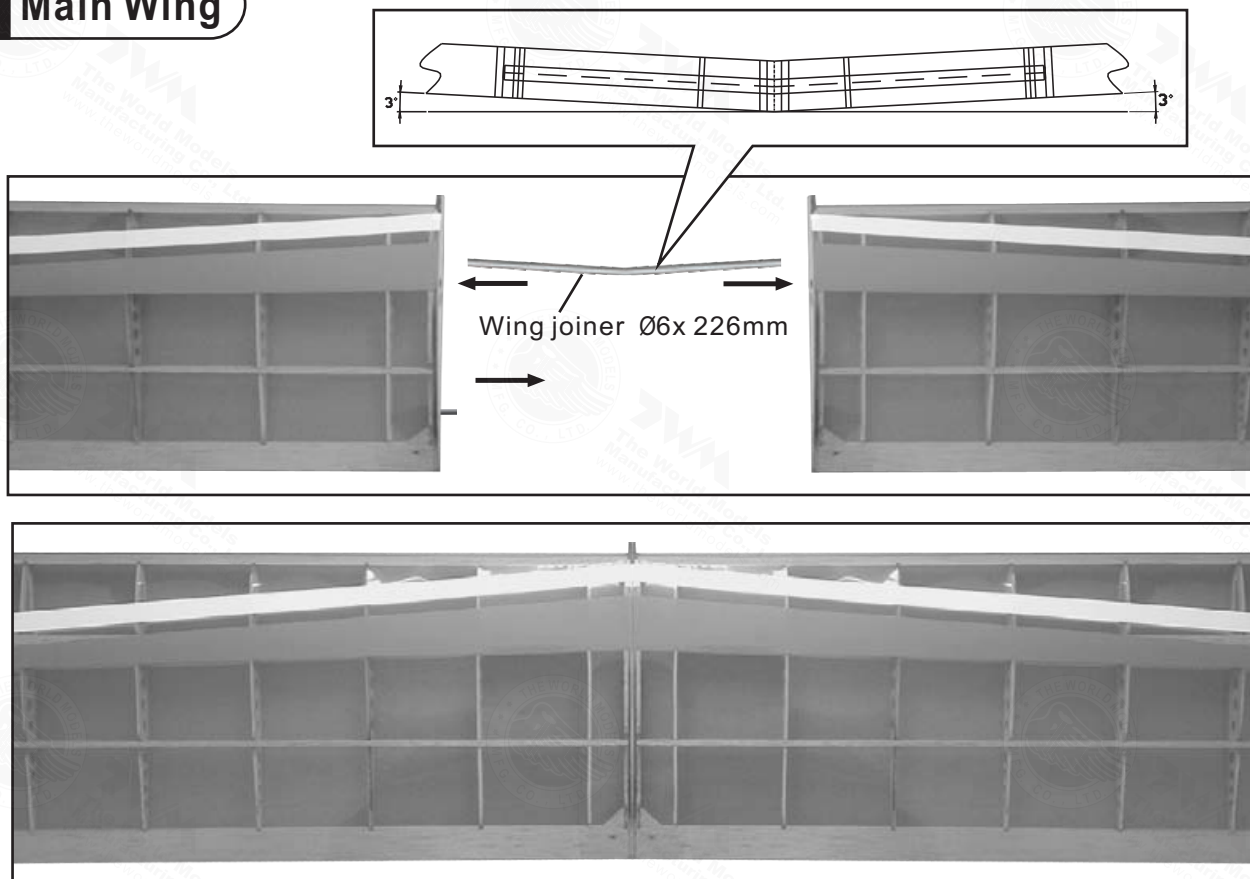
Do not overlook this symbol!



Parts list

1. MAIN WING—1 set
WING JOINER Ø6x226mm—1 pc.
2. STABILIZER & ELEVATOR—1 set
3. VERTICAL FIN & RUDDER—1 set
4. PUSHROD Ø1.4x618mm w/ Threads (For Elevator)—1 pc.
SCREW PB2x10mm—2 pcs
FUEL TUBE d2xD4x4mm—1 pc.
CLEVIS—1 pc.
HORN—1set
5. PUSHROD Ø1.4x563mm w/ Threads (For Rudder)—1 pc.
SCREW PB2x10mm—2 pcs
FUEL TUBE d2xD4x4mm—1 pc.
CLEVIS—1 pc.
HORN—1set
6. SCREW PM3x6mm -- 4 pcs
WASHER d3xD7mm -- 4 pcs
FOLDING RPOPELLER SET PL6314020 -- 1set
COWLING -- 1 pc.
SCREW PWA2X8 mm -- 4pcs
SPINNER Ø45mm —1 set
7. SPONGE 10x50x150mm--2 pcs
DOUBLE-SIDED TAPE (30x35mm) --1 pc.
BATTERY TIE--1 pc.
STRAPER--2 pcs
FUEL TUBE d2xD4x4mm--2 pcs
8. PVC PLATE 0.8x25x55mm (Wing Protection) --1 pc.
WASHER d2.5xD8mm--2 pcs
SCREW PM2.5x16mm--2 pcs
9. CANOPY--1 set
10. DECALS : DECE201 --1 set
11. **COVERING :**
LIGHTEX SGX 312 Bright Red
LIGHTEX SGX 040 Transparent Green
LIGHTEX SGX 100 White
LIGHTEX SGX 330 Cadmium Yellow
LIGHTEX SGX 000 Transparent
LIGHTEX SGX 240 Green

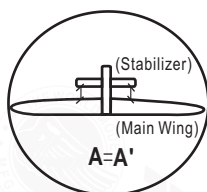
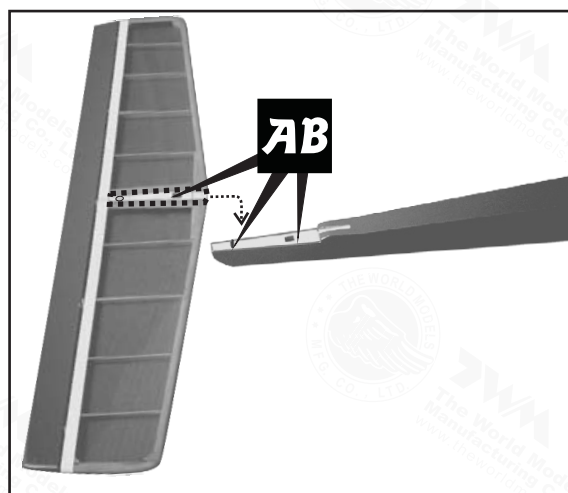
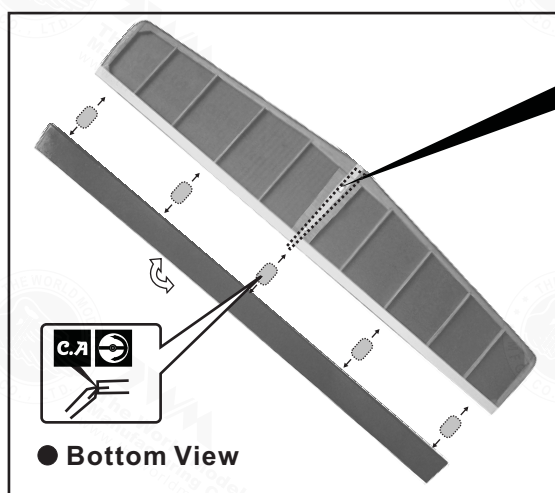
1 Main Wing



● Completed

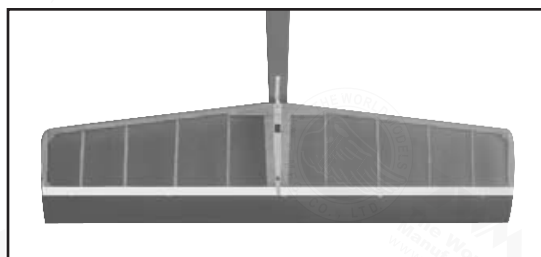
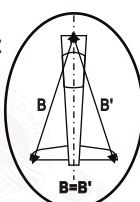
2 Stabilizer & Elevator

● Apply instant type CA glue to both sides of each hinge.



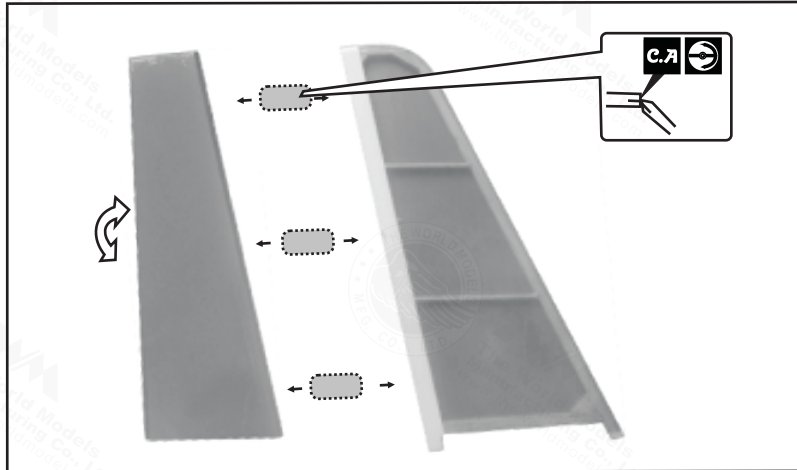
Temporary install the main wing, adjust leveling of the stabilizer to make it as parallel to the main wing as possible.

*Also refer to step 10 Wing Setting

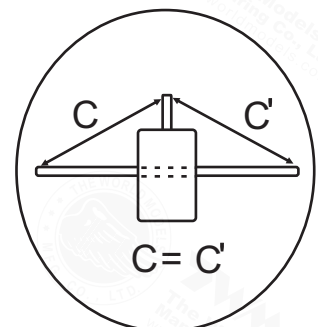
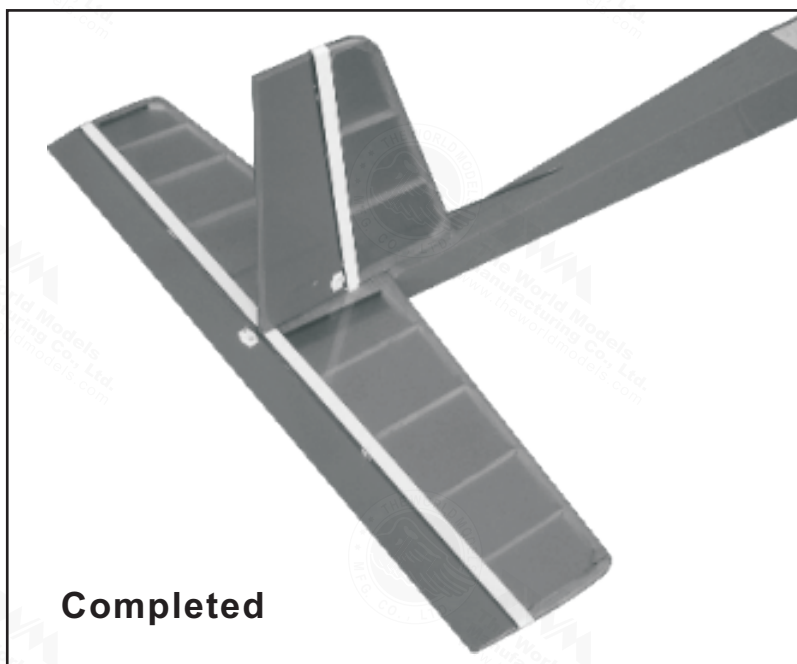
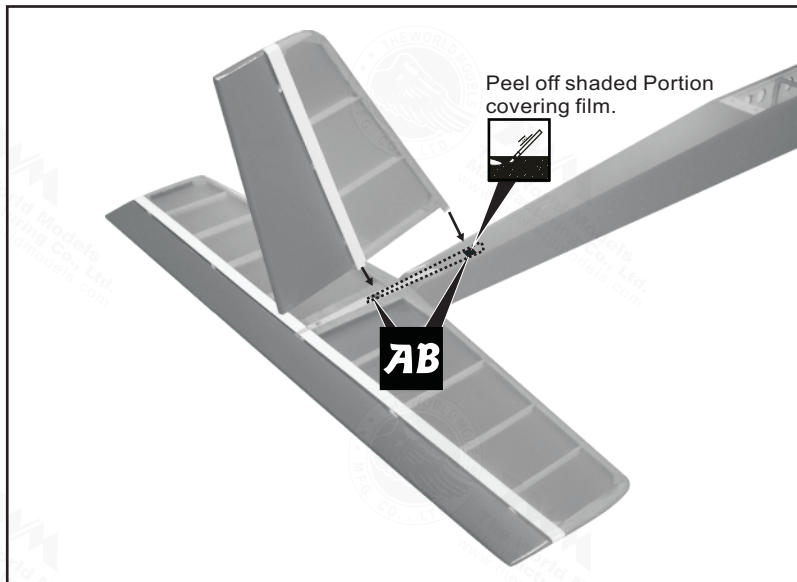


● Completed

3 Vertical Fin & Rudder



● Apply instant type CA glue to both sides of each hinge.

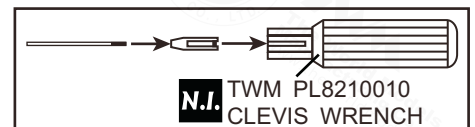
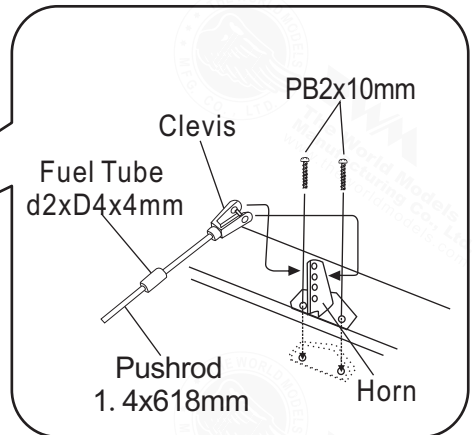
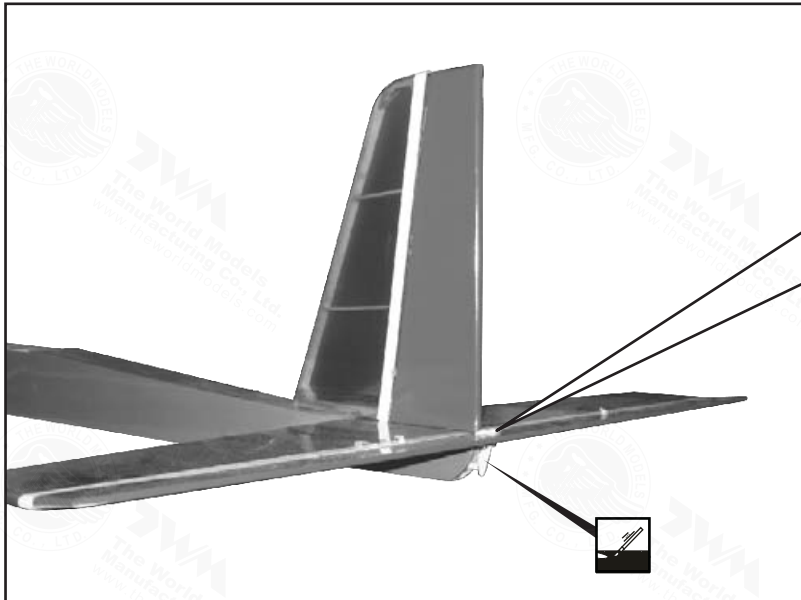


4 Elevator Pushrod

PB2x10mm **Screw**

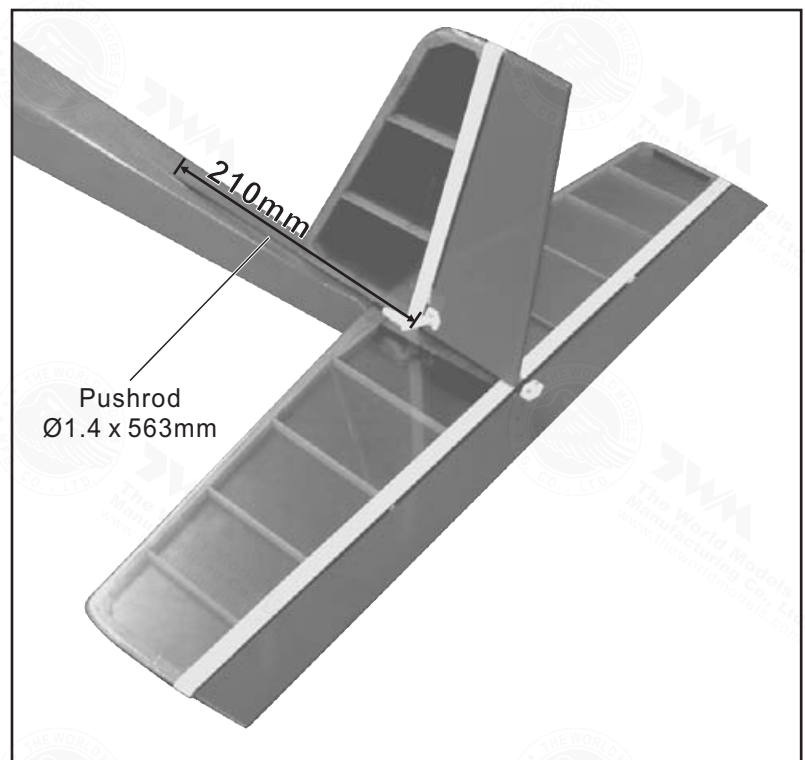
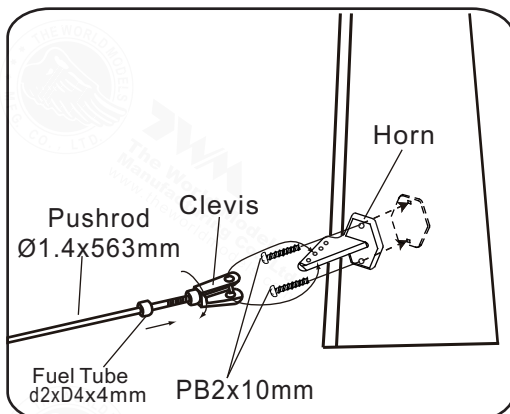
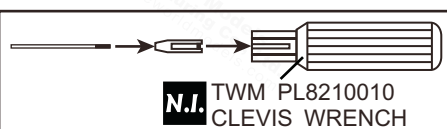


- Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at under side of control surfaces.



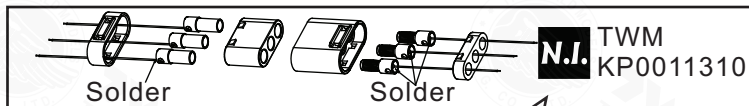
5 Rudder Pushrod

PB2x10mm **Screw**



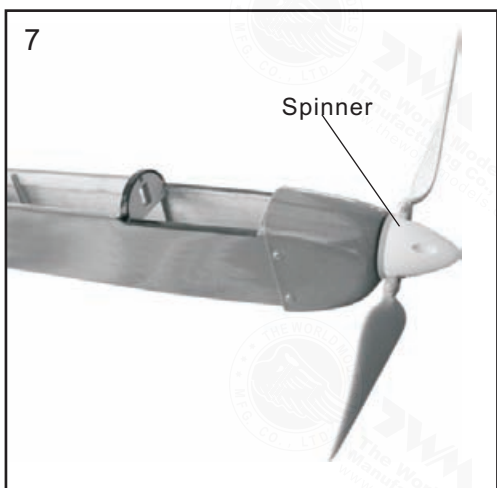
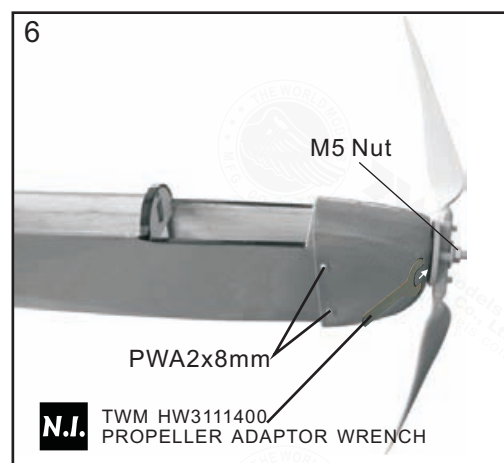
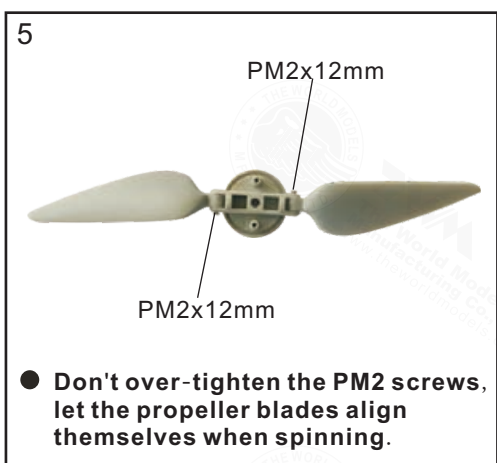
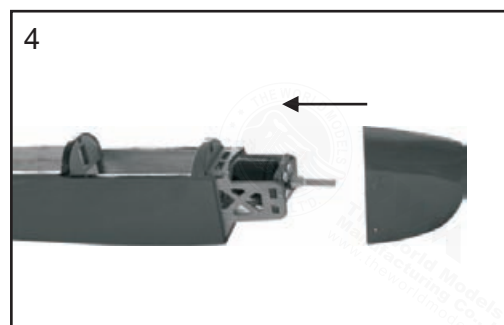
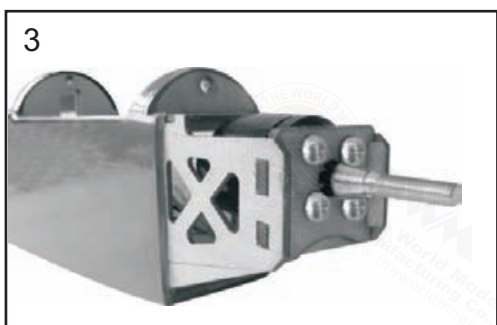
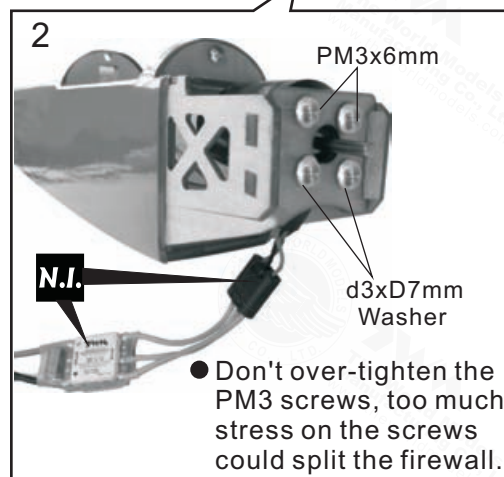
- Ø1mm pilot holes for World Models tri-horn are pre-drilled. Please look for pin-hole marks at side of control surfaces.

6 Motor / Cowling Setting



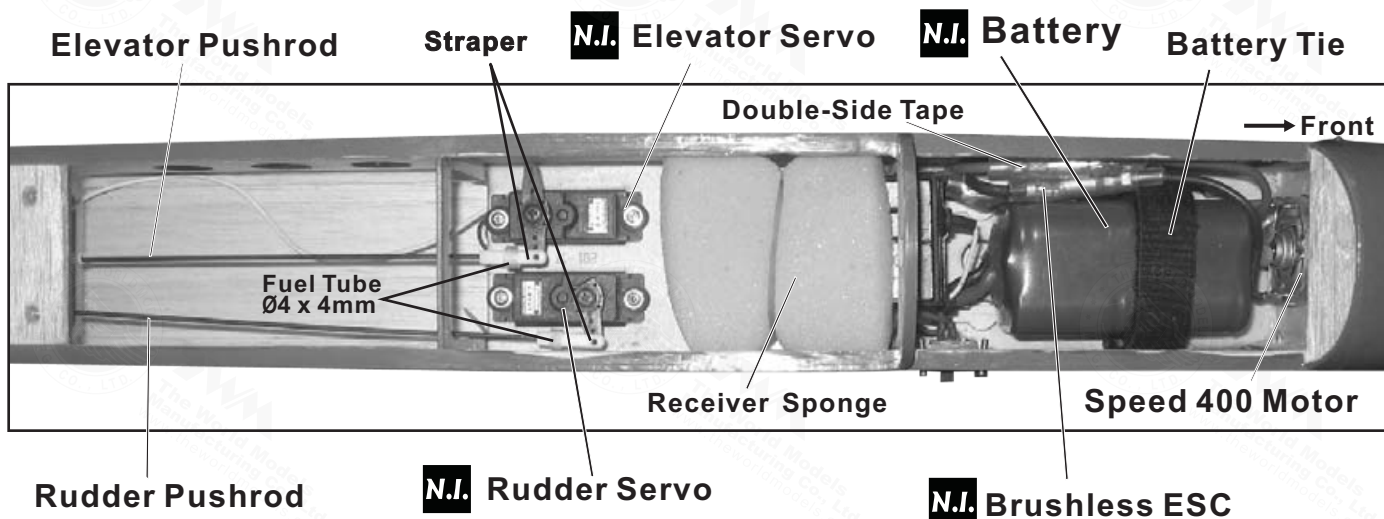
PM3x6mm Screw	4
PM2x12mm Screw	2
PWA2x8mm Screw	4
d3xD7mm Washer	4

N.I. Optional Parts



7 Radio Equipment

● Install and arrange the servo as shown in the diagram.



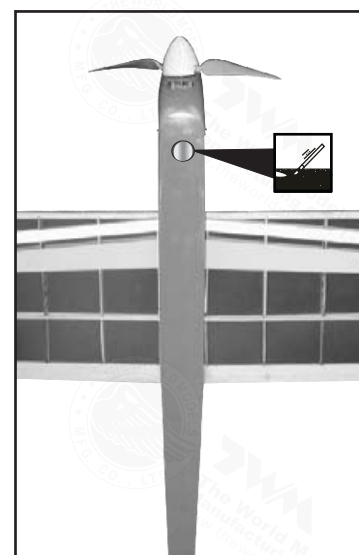
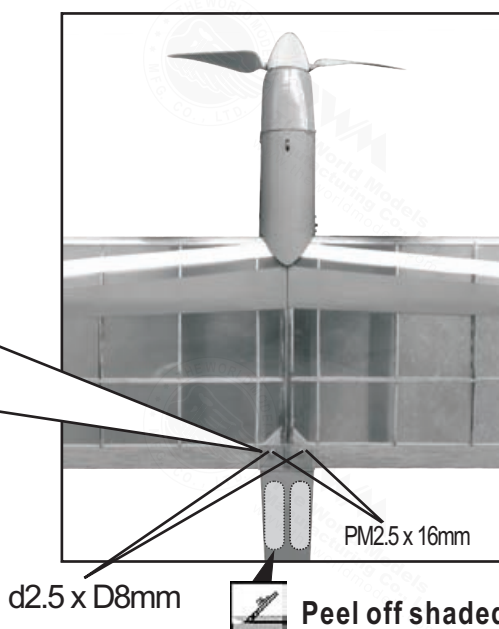
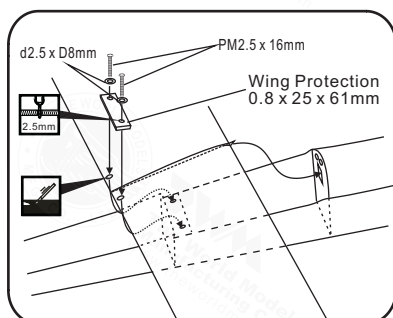
8 Main Wing

PM2.5 x 16mm Screw

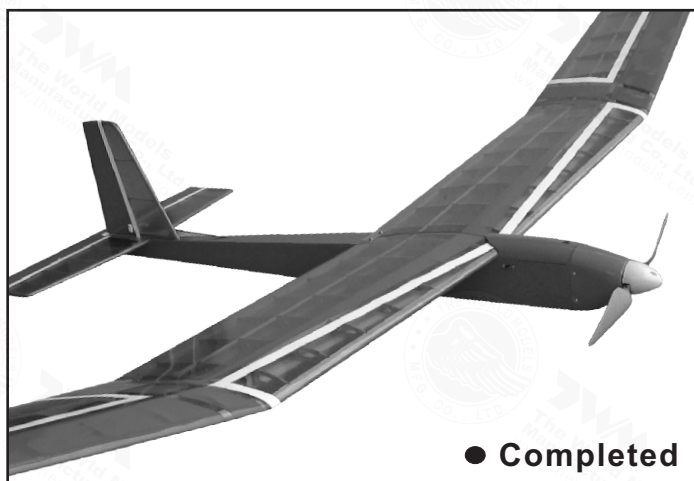
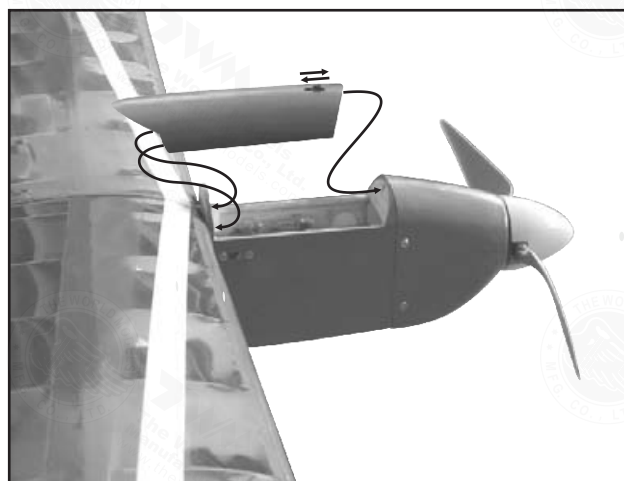
d2.5 x D8mm Washer

2

2

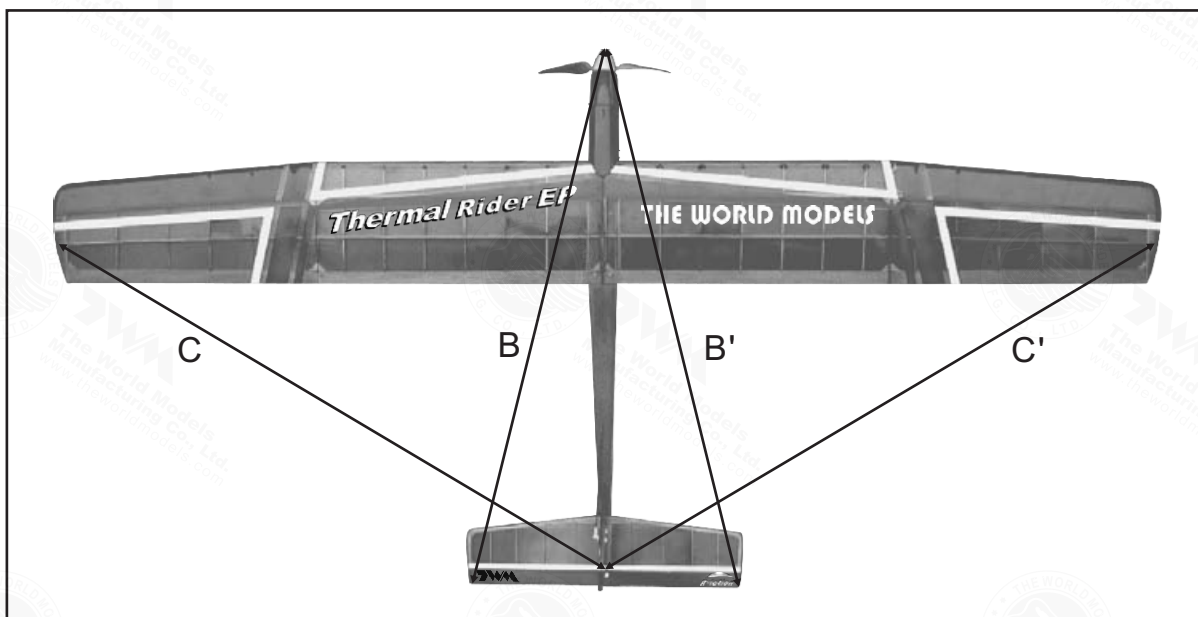
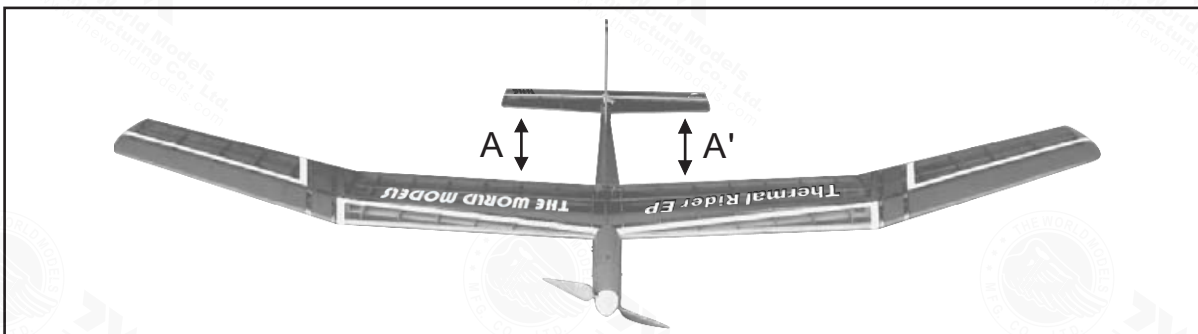
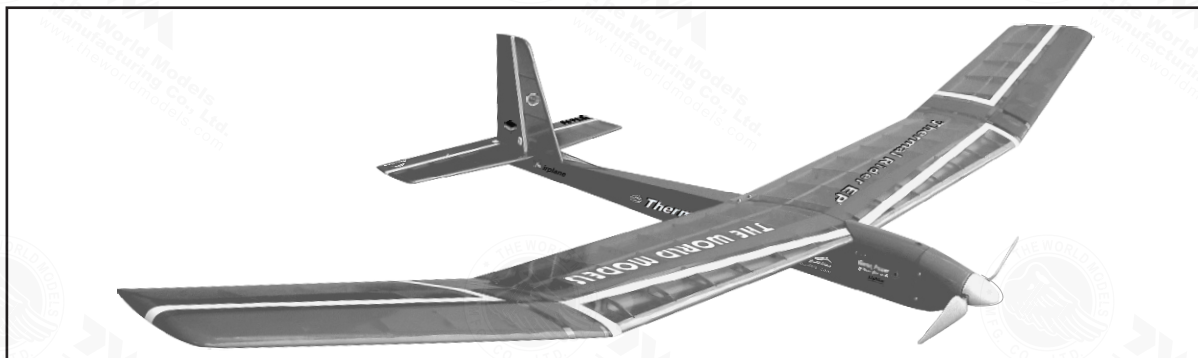


9 Canopy



10 Wing Setting

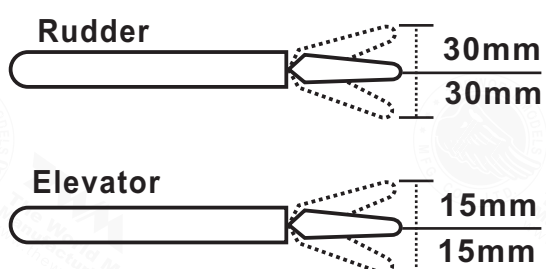
- Adjust the wing and fuselage configuration as shown in the diagrams



$$A=A' \quad B=B' \quad C=C'$$

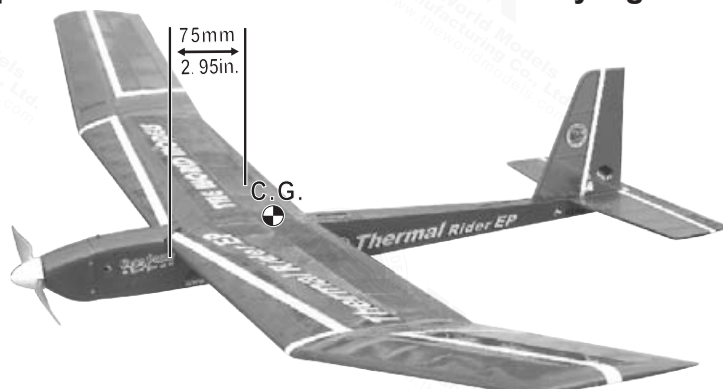
11 Control Throws

Adjust the control throws as shown in the diagram. These throws are good for general flying. You can adjust according to your personal preference.



12 C.G.

The ideal C.G. position is 75mm (2.95 in.) Behind the leading edge measured at where the wing meets the fuselage. In order to obtain the C.G. specified, add weight to the fuselage or move the battery position. Check the C.G. Before flying.



<http://www.theworldmodels.com/para/instruction/instructionManuals.php>

! Warning!

Important Safety Precautions

- # First time flyer should never fly by himself / herself. Assistance from experienced flyer is absolutely necessary.
- # Pre-flight adjustment must be done before flying, it is very dangerous to fly a badly pre-adjusted aircraft.
- # **Thermal Rider EP** is specially designed to be powered by **KM0283010 Outrunner Motor**.
- # Make sure the air field is spacious, never fly the plane too close to people and never get too close to a running propeller. Extreme caution should be exercised when working with electric powered models. Make sure the propeller is cleared of all objects, especially your hands before connecting the battery to the model. Make sure you understand the operation of the ESC (Electronic Speed Control) by studying the ESC manual. Once you plug in the battery for electric powered model, always treat the propeller as a rotating one, as accidental movement of the throttle stick will spin the propeller and could cause injuries.
- # If you find wrinkles on the covering as a result of weather changes, you can use hot iron to remove the wrinkles. Please begin with lower temperature setting and gradually raise the temperature until the wrinkles are gone. Too hot an iron may damage the covering. Don't use hot iron near the seams or edges, hot iron will melt the glue and shrink the covering at the same time, causing the seams to pull away.
- # Check and re-tighten up all factory assembled screws, use thread locker if necessary.

Product Registration Form (US Customers)

We would like to share with you any relevant information regarding your model, including product news and free upgrade parts when applicable. Please fill in the following and send to AirBorne Models, 4749-K, Bennett Drive, Livermore, CA 94551 USA.

1. Name: _____

2. Address: _____

3. Phone #: _____ E-mail: _____

4. Model: _____

Wing QC# _____ Fuselage QC# _____

(QC numbers are stamped on wing and fuselage)

5. Date of Purchase: _____

6. Store Name: _____

Please call AirBorne Models at 925 371 0922 for any assistance in filling this form.
Thank you very much for purchasing our product.

Optional Parts

(TWM ACCESSORIES)

3 - Pin EZ Connector

Code No.	Size	Package
KP0011310	40A Max. Current	1 set



-ideal for electric models

2 - Pin EZ Connector

Code No.	Size	Package
KP0011210	40A Max. Current	1 set



-ideal for electric models

Propeller Adaptor Wrench

Code No.	Size	Package
HW3111400		1 pc



Brushless ESC

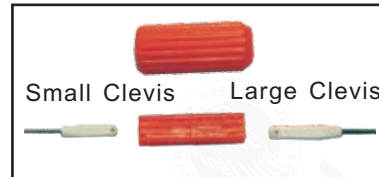
Code No.	Size	Package
KC2025A02A	24x45x11mm	1 pc



- Voltage Range : 5.6 ~ 16.8V
- Current : 25A continuous
- Current (Burst, >10 seconds): 35A
- Weight : 24 g
(with wires and connector)
- BEC : 5V / 2A
- Low Voltage Cut-off : /
- Light weight with low internal resistance for high current operation
- BEC function for Li-ion / Li-poly
2 – 4 cells; Nimh / Nicd 5 – 12 cells operation.
- Low battery voltage auto cut off to reserve power to the servos.
- Safe start up motor.

Clevis Wrench

Code No.	Size	Package
PI8210010		1 set



Special tool for clevis installation.
Suitable for standard and small (EP) clevis.

Propeller Adaptor

Code No.	Size	Package
HW2340100	d3xD5	1 set

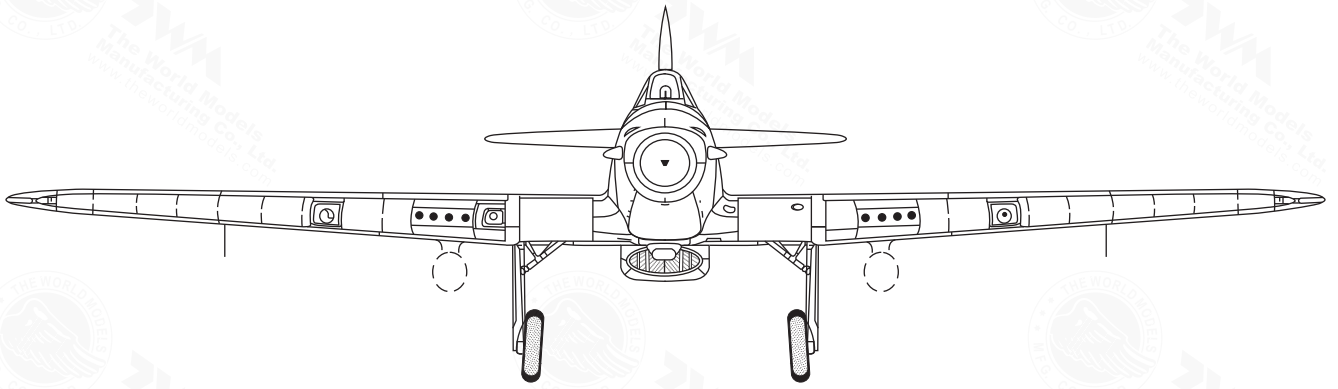


Outrunner 28/ 30

Code No.	Package
KM0283010	1 pc



- Max speed: 12000 rpm
- Kv (rpm/V): 1015
- Operating Power: 180W
- Operating Voltage: 6-12V
- Operating Current: 15A
- Peak Current: 20A (max. 15 sec.)
- Internal Resistance: 95 m ohms
- Diameter: 28mm
- Length: 30mm
- Weight: 60g
- Shaft Diameter: 3mm
- Shaft Length: 14.8 mm
- Mounting Screw: M3
- Distance of Mounting Holes:
Front (16mm and 19mm)



Ducted Fan

Pattern

Warbirds

Funfly

Scale

Electric

Sports

Glider

Trainer Boat

Accessories

Covering

(Lightex / Toughlon)



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