



## YAK 54 Aerobatic Model Aircraft Assembly and Instruction Manual



### **Warning:**

This radio controlled model is not a toy. It requires skill to fly and is not recommended for the novice pilot. It should not be operated by children without the supervision of a suitably experienced adult. Max-Thrust 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 or injury to yourself or those 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.

## **Overview**

Thank-you for purchasing this MAX-THRUST YAK 54 radio controlled model aircraft. The YAK54 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 3D 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  
100A Brushless ESC  
Efficient 2 Blade Propeller  
Pre-Installed servos  
"Live" Control Surface Hinging  
Durable "EPOFLEXY" Construction  
Steerable Tail Wheel  
Superb Flight Performance

## **Specification**

Wingspan: 1500mm  
Length: 1210mm  
Flying Weight: 2500g  
Wing Loading: 57g/dm<sup>2</sup>  
Motor: 4255 750KV Out-Runner  
ESC: 100A  
Servos: 5 x 17g Metal Geared  
Battery: 3350mAh 14.8v Li-Po (Not Included, Power-Tech Recommended)

## Parts List.



**Note:** Image shows model with all control horns fitted and decals applied.

- |                          |                    |
|--------------------------|--------------------|
| 1. Main Fuselage Section | 7. Prop Adaptor    |
| 2. Tail Fuselage Section | 8. Propeller       |
| 3. Wings                 | 9. Wing Spar       |
| 4. Horizontal Tail Plane | 10. Accessory Pack |
| 5. Undercarriage         | 11. Spinner        |
| 6. Vertical Fin & Rudder | 12. Clear Canopy   |

### Use of Adhesive:

Apply a **thin film** to one of the mating surfaces to be bonded. Applying light pressure, press the two parts together and hold in position with masking tape until the adhesive has cured. Only use a **thin film** of adhesive, excessive amounts do not provide any additional strength and add unnecessary weight. Remove any paint from surfaces to be glued, as this could impair the strength of the bond. Always check the fit and alignment of parts to be glued prior to the application of adhesive.

### Please Note:

“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. Take care to ensure that all screws are tightened sufficiently to provide a firm fixing, but **do-not** over tighten. We recommend that all fixings are checked regularly for security and safety purposes.

## Tools Required to Complete

1. Screwdrivers
2. Pliers
3. 10mm Spanner
4. Modelling Knife
5. Measure or Rule
6. Drill

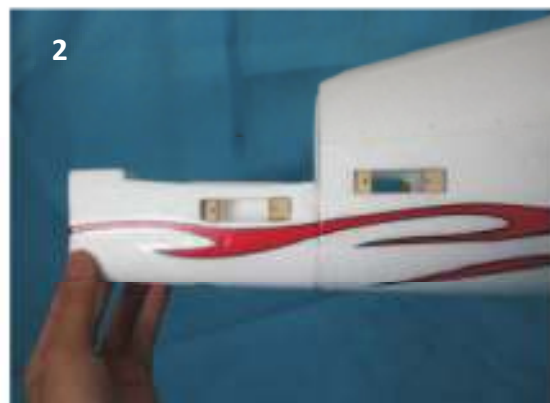
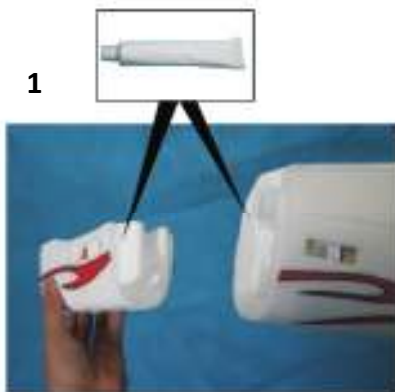
## Additional Items Required to Complete

3350mAh Li-Po 4S Battery Pack (Power-Tech Recommended)  
Charger (Power-Tech C6, B606 or X-Drive 6 Recommended)  
2.4GHz Transmitter (4 + Channel)  
2.4GHz Receiver  
Self-Adhesive Tape  
Velcro Fastenings  
Optional Pilot Figure (Dave Recommended. Part No. CUK-P-DAVE)



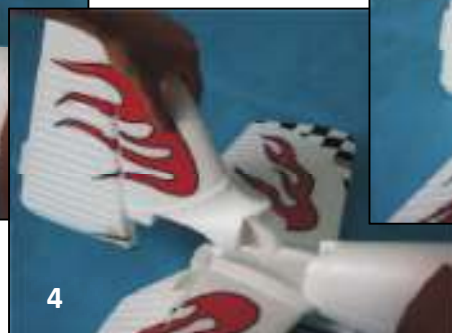
## **Fuselage Assembly:**

Glue the rear section of the fuselage to the main section with adhesive, (Image 1). Make certain that both parts are lined up correctly, (Image 2). Hold in place with masking tape until the adhesive has cured.



## **Horizontal & Vertical Stabiliser Assembly:**

Offer up the horizontal and vertical stabilisers to the fuselage as shown in images 3, 4 & 5.



**Horizontal & Vertical Stabiliser Assembly (continued):**

Once you are certain that these parts align correctly, apply adhesive to the mating surfaces and secure in position using two 3x60mm screws, (Image 6). Use a thin film of adhesive and remove any excess carefully before the adhesive cures.

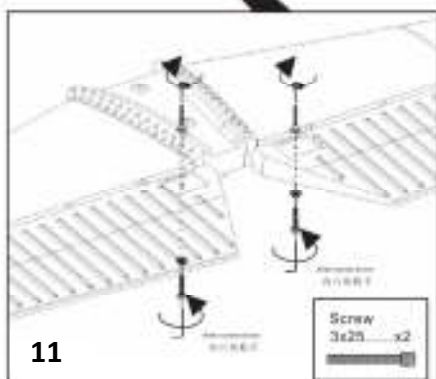
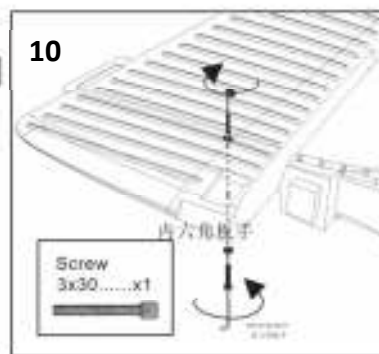
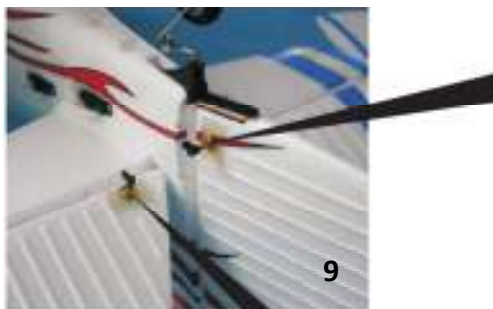


**Tail Wheel Assembly:**

Position the tail wheel assembly as shown, ensuring the locating pin on the rudder passes through the slot in the plastic horn of the assembly, (Image 7). Secure in position using two 3x30mm screws. (Image 8).



**Control Horn Installation (Tail):**



Position the rudder control horn as shown and secure with 3x30mm screw, (Image 9+10). Be careful not to over-tighten. Repeat the process for the elevator control horns using two 3x25mm screws, (Image 9 +11).

### Rudder & Elevator Control Rods:

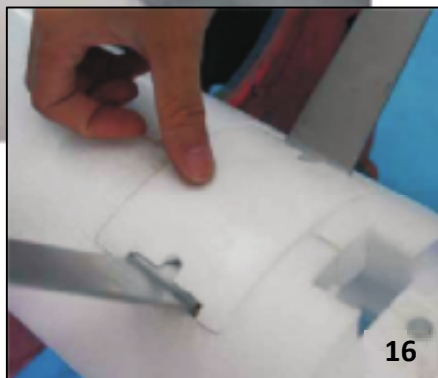
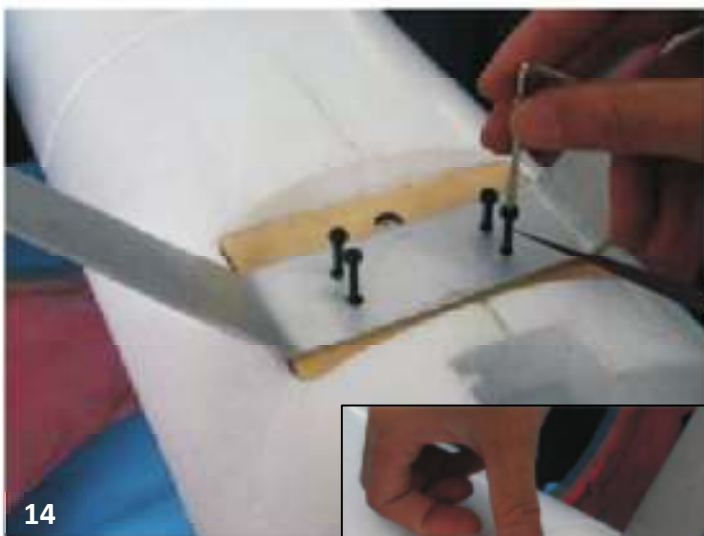
Pass the "Z" bend of the rudder control rod through the hole in the rudder servo arm. Then connect the plastic clevis to the rudder control arm as shown, (Image 12). Repeat the process connecting the elevators to the elevator servos, (Image 12+13).




### Main Landing Gear Installation:

Position the main landing gear on the fuselage, ensuring that the holes in the landing gear line-up correctly with the holes in the wood mount. Fix the gear in position using four 3x45mm screws, (Image 14). Do not over-tighten.

Place the foam landing gear cover in position to ensure correct alignment, then remove the paper backing from the self-adhesive tape, (Image 15). Secure the cover in position on the fuselage, (Image 16).

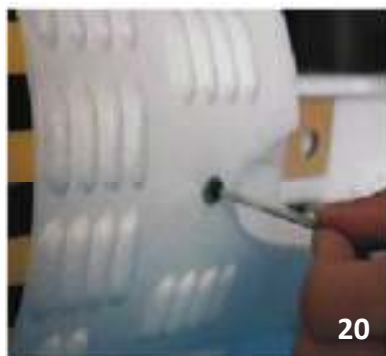
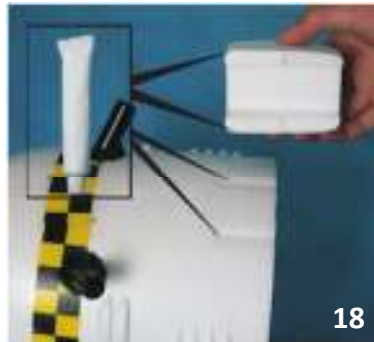
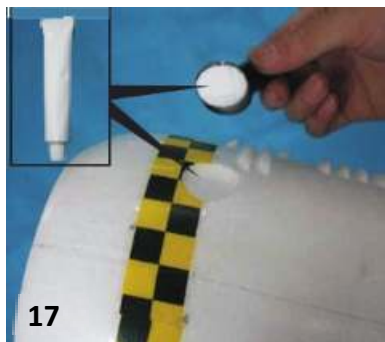


Screw  
3x45.....X4



### Cowl Assembly:

Referring to images 17, 18 + 19, use the adhesive to glue the scale exhaust stacks and additional scale detailing in position.



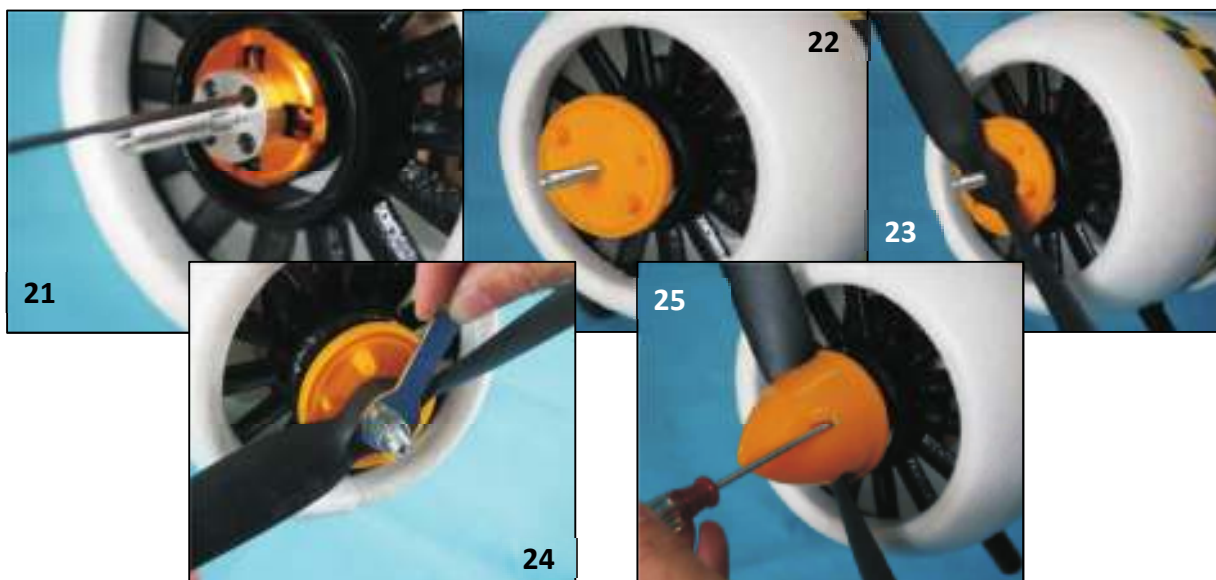
Ensure that the cowl is correctly aligned, then fix in position with the 2 x screws provided. The cowl must be firmly secured, but be careful not to over tighten, (Image 20).

### Propeller:

Attach the aluminium prop adaptor to the brushless motor using the four screws provided, (Image 21).

Mount the spinner back-plate on to the adaptor shaft, (Image 22), then slide the propeller onto the shaft and secure in position with the washer and nut, (Images 23+24). Attach the main spinner body to the back plate using the two fixing screws, (Image 25).

**Please note: It is extremely important to regularly check the tightness of these fixings. Failure to do so could result in a serious accident.**



### Canopy:

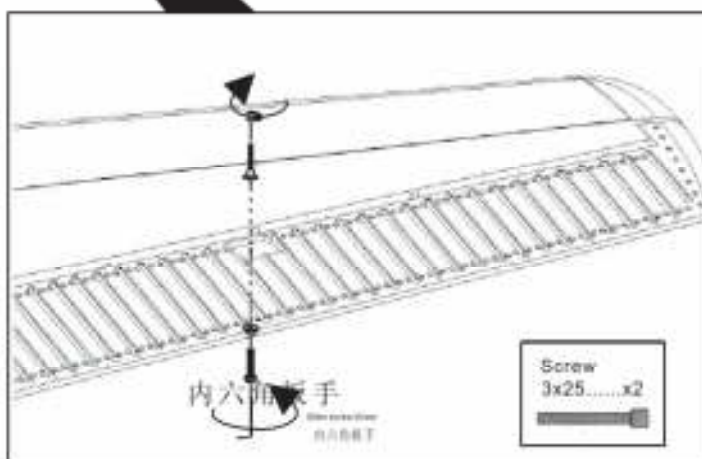
A pilot figure is not included with this model. However if you wish to fit one we recommend "Dave", Part No. CUK-P-DAVE, (Image 27). Your choice of pilot should be fixed in position with double sided self-adhesive tape prior to securing the canopy with the supplied fixing screws, (Image 26).



### Wing Assembly:

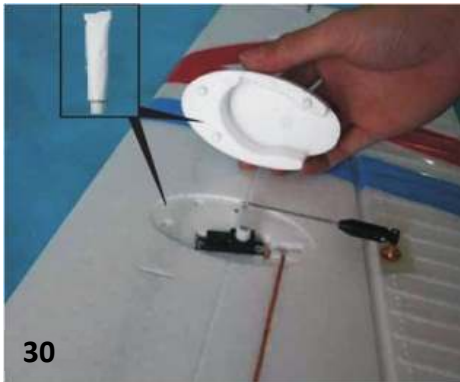


Position the aileron control horn as shown and secure with 3x25mm screw, (Image 28). Repeat the process for the other wing panel.



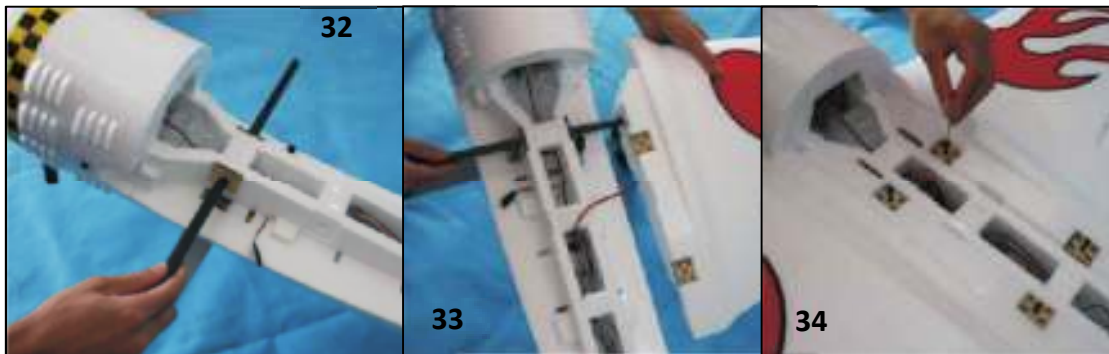
### Aileron Control Rods:

Pass the “Z” bend of the aileron control rod through the hole in the aileron servo arm. Connect the plastic clevis to the control arm as shown, (Image 29). Fix the aileron servo cover in position as shown using adhesive, (Image 30 + 31). Repeat the process for the other wing panel.



### Final assembly:

Pass the fibreglass tube through the fuselage as shown, (Image 32).



Slide a wing panel onto the fibreglass tube, (Image 33). Connect the aileron servo plug to the aileron “Y” lead. Repeat the process for the other wing panel. Fix the wings to the fuselage with the screws provided, (Image 34).

Then connect the two elevator servo plugs to the “Y” lead extension.

### Final assembly (continued):

Plug all the servo leads into your receiver (not included). Ensure that you have the correct servo plugged into the appropriate channel of your receiver. Fix the receiver to the fuselage using double sided tape, (Image 35). Be certain to comply with any instructions from the manufacturer of the receiver regarding aerial positioning.



### Battery Installation:

Check the position of your battery in the front of the fuselage, secure using your preferred retaining method, (Image 36).



### Canopy Installation:

Fit the cockpit/canopy assembly as shown. This is retained with a magnetic catch, however always use the elastic retaining band for additional in-flight security, (Image 37 + 38).



**IMPORTANT:**

**Check before flight:**

Check that all control surfaces move in the correct directions without binding.

We recommend the following control surface deflections for initial flight testing:

Ailerons: 10mm deflection each way.

Elevator: 10mm deflection each way.

Rudder: 10mm deflection each way.

These values can be altered after initial test flights to suit the pilot's personal preference.

**Centre of Gravity:**

328mm – 335mm back from front of cowling.

