4-Max Inspiration F3A, 50e Assembly Instructions

Specifications

Class	50e
Type	F3A
Material	EPO Foam
Wingspan	1380mm / 54.33”
Length	1480mm / 58.26”
Flying Weight	1950g / 4.3lbs (inc 4S 3700mAh battery)

Many thanks for purchasing the 4-Max Inspiration F3A 50E Kit from 4-Max Models.
We hope you enjoy your new model.

At 4-Max Models, we like to offer competitive prices, good performance, and products that you can setup and use with ease. That's why we have extensively researched and tested this airplane and suggested all the products necessary for you to have a great performing aircraft.

By purchasing and/or building this model, the user assumes ALL liability and risk involved with this product. This model should be built and flown by an experienced builder and R/C Flyer.

4-Max Models guarantees this model to be free of defects at the date of purchase. This warranty does not cover any parts damaged by use, modification or crash damage.
In no way shall 4-Max Models' liability exceed the original cost of the purchased model. Further, 4-Max Models reserves the right to modify this warranty without notice. 4-Max Models has no control over the final stages of assembly or the materials/glue used for the final assembly.

By the act of using the final product the user accepts all resulting liability.
4-Max Models, as an R/C supplier provides a top-quality model and instructions to complete the model. The quality and flight characteristics of the finished model will depend greatly on how it is built. We cannot guarantee the performance for the completed model and representations are expressed or implied as to the performance of the completed model.
If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately, in new and unused condition for a full refund.

Safety in Assembly
During assembly of this airplane, you will need to use sharp knives and glues. Please follow all safety procedures recommended by the manufacturers of the products you use, and always follow these important guidelines: ALWAYS protect yourself when working with adhesives, knives, or tools. Safety glasses are advised to protect your eyes.

Safety in Flying
This is NOT a toy! It is a high-performance R/C model capable of high speeds and extreme manoeuvres. It should only be operated by a competent R/C pilot in a safe area with proper supervision. ONLY fly your airplane in a safe, open area, away from spectators and vehicles– and where it is legal to fly. Never run your motor inside a house or building with the propeller attached – Remove the prop for safety. Never run the motor on the ground at full or near full throttle for more than 20 seconds. We recommend you get insurance from the BMFA.

Required Items

• Brushless Motor	Recommended 4-Max PO-3547-800
• Brushless ESC	Recommended 4-Max 4M-ESC50A
• Propeller	Recommended 4-Max JXF 13x6
• 4x Servo	Recommended Emax ES3001
• Servo Extension Leads	4x 200mm, 2 x100mm
• Spinner	Recommended 4-Max 57mm cooling spinner
• Foam Safe Glue	Recommended Deluxe Materials Foam 2 Foam
• Transmitter and Receiver	Minimum 4 channel, 6 is recommended
• LiPo Battery	4S, 3700mAh LiPo Minimum 40C, 60C Recommended
• Suitable LiPo charger	MUST be LiPo compatible
• Sharp knife	
• Set Metric Allen wrenches	
• Scissors	
• Small pliers	
• Wire cutters	
• Petroleum jelly	

All of these items are available from www.4-max.co.uk

Before Starting Assembly

Unpack your model and examine the contents. If you have any missing or damaged items, do not do any assembly and contact 4-Max Models immediately.

Airframe Parts

1. 1x Fuselage
2. 1x Right wing and 1x left wing
3. 1x Rudder
4. 1x Carbon fibre wing tube
5. 1x Horizontal stabiliser
6. 2x Landing gear covers
7. 1x Small fuselage wing (canalyzer)
8. 2x Spats
9. 1x Landing gear wire
10. Foam safe glue (**NOT in kit**)
11. 1x Small Philips screwdriver
12. 3x Pin hinges (rudder)
13. 2x Push rods with clevises
14. 4x Control horns and backing plates
15. 8x Control horn screws
16. 1x Landing gear retaining set
17. 2x Wing fixing plates
18. 1x Landing gear plate
19. 2x Wheels
20. 1x Motor mounting set ("X" mount not included)
21. Spare screws

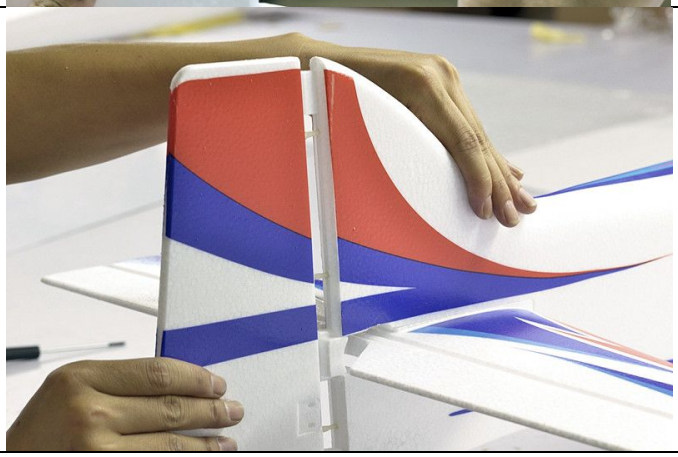
Step 1
Dry fit the Horizontal stabilizer to the fuselage and trim/adjust if necessary to get a good fit.

Step 2
Apply foam safe glue to the top and bottom of the fuselage opening as per the photo.

Step 3
Slide the horizontal stabilizer in place, make sure it is square to the fin and fuselage and allow to dry.

Step 4
Dry fit the rudder to the fin and trim/ adjust if necessary to get a good fit. Make holes in rudder for pin hinges.

Step 5
Apply a little petroleum jelly to just the centre of the pin hinges (to stop the glue from seizing them up)
Apply foam safe glue to three slots and pin hinges on the tail of fuselage.

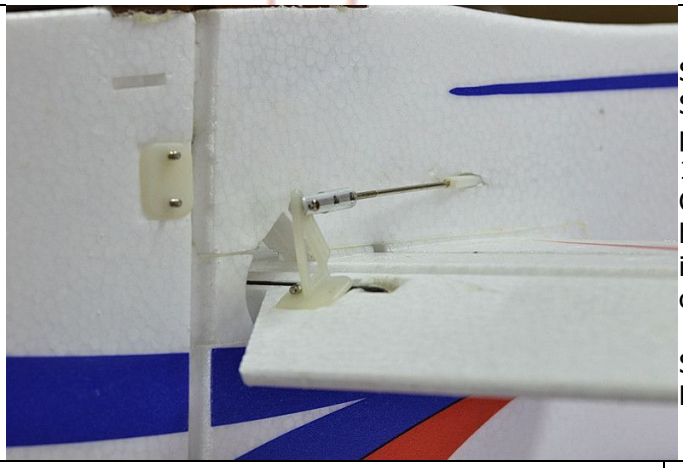


Step 6
Glue the 3 pin hinges in the rudder first, ensuring the are at the correct angle

Apply glue to the three rudder connectors and pin hinges, DO NOT apply glue to the tail wheel wire. Insert into the pre-cut slot/holes in the rudder. Make sure the tail wheel wire is also inserted in the rudder when gluing the rudder on. Ensure no glue is on the centre part of the pin hinges

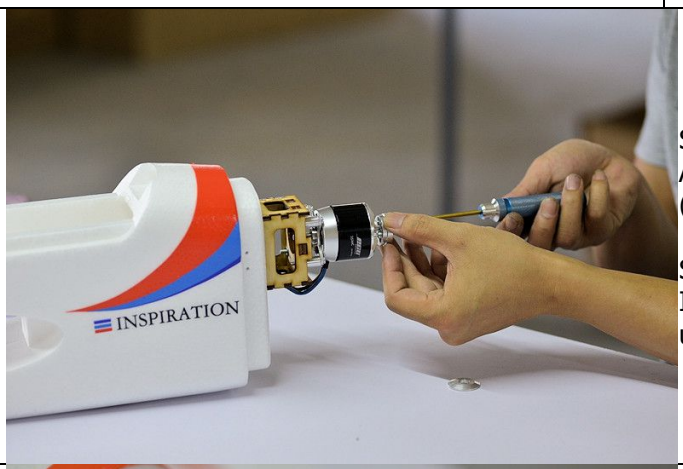
Step 7
Secure two servos on the servo plate in the fuselage using the servo screws supplied with the servos as per the photo. The holes are cut for the Emax ES3001 servo. To get at the rear screws, cut the piece of foam out at the bottom of the slot for the canopy.

Step 8
Connect the servos to the push rods using the swing keepers.



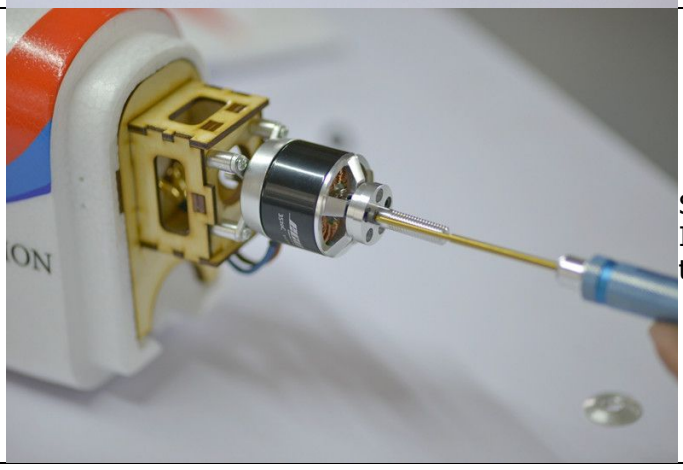
Step 9
Secure the white control horn and backing plate on the elevator with two M2.5 by 16mm long self-tapping screws.
Connect control wire to the servo control horn on the elevator. Clip the Swing Keeper in place to stop the wire coming out of the control horn as per the photo.

Step 10
Repeat for the rudder.



Step 11
Attach the motor to the "X" mount (supplied)

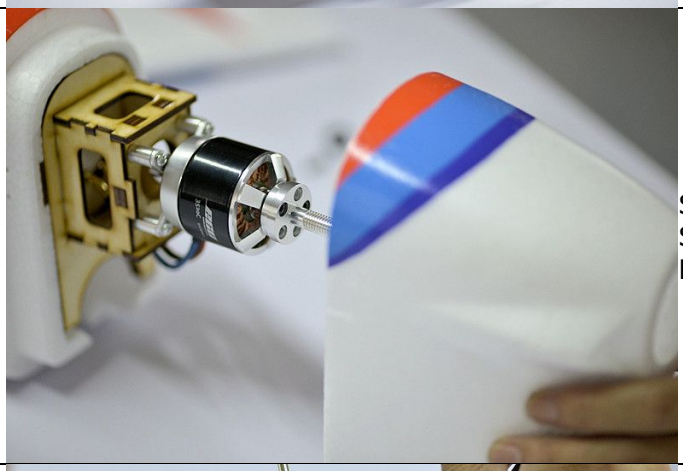
Step 12
Install the motor assembly on the motor box using the 10mm spacers (supplied).



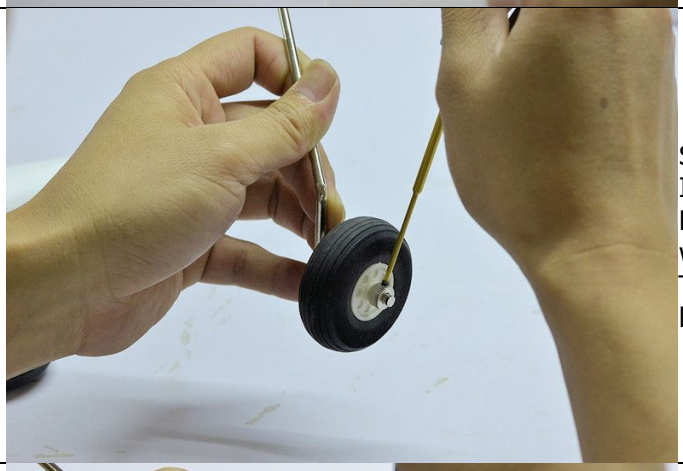
Step 13
Install the Prop driver on the motor using the 4 screws supplied with the motor.

Step 14
Remove any pre-soldered ends of wire and solder (only using leaded solder) your connector of choice to the battery side of the ESC, paying close attention to the polarity. You will most probably need to extend the battery wires from the ESC.

Step 15
Attach the ESC to the side or bottom of the wooden motor mount as per the photo and connect the 3 wires to the motor.



Step 16
Secure the cowling to the fuselage with four M2.5 by 25mm long self-tapping screws.



Step 17
Install the wheels on the landing gear wire. Lock the wheel in place with the supplied wheel collets.
The wheels should rotate freely, but not be loose, adjust if necessary.

Step 18
Install the spats to the undercarriage leg using the two M2.5 by 10mm long screws as per the photo.

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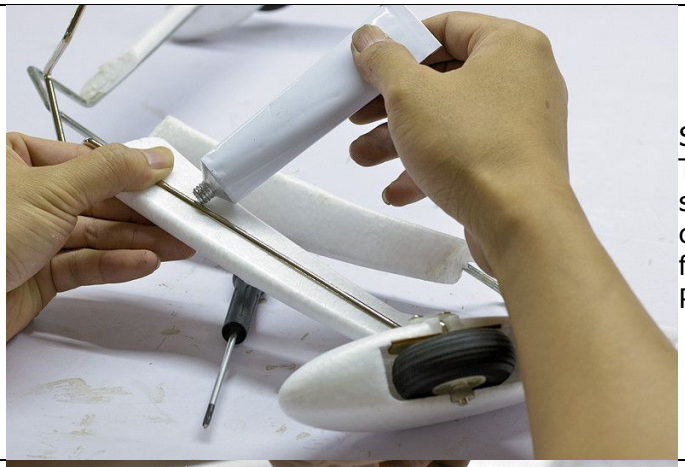
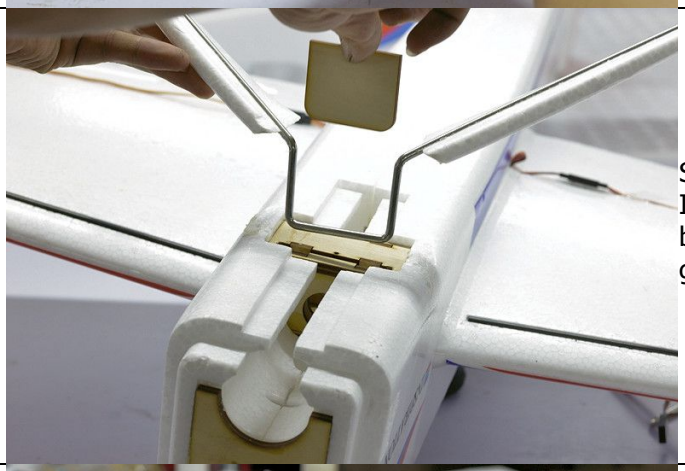
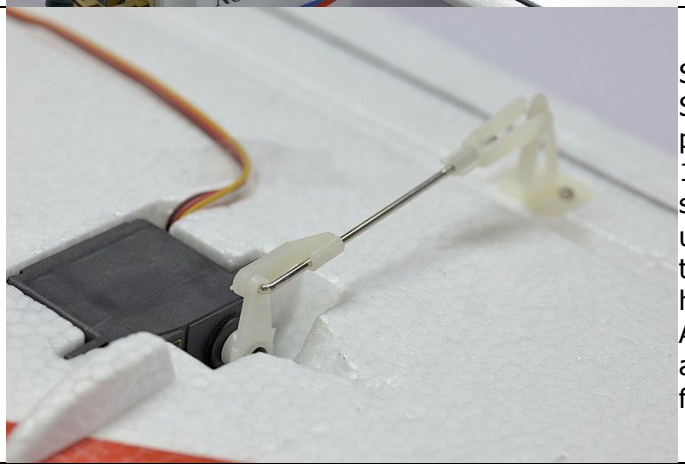


Step 19
Trim the landing gear covers to fit with a sharp knife and secure landing gear foam covers on the landing gear assembly with foam safe glue.
Please note that they are handed.



Step 20
Insert the landing gear into the slot on the bottom of fuselage. Then Insert the landing gear plate into the slot.

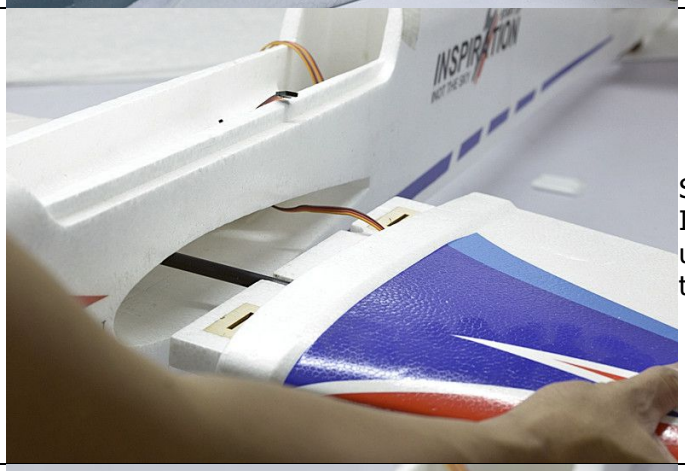
Step 21
Secure the landing gear plate using two M2.5 by 10mm long self-tapping screws. Might be a good idea to add a washer (not supplied)



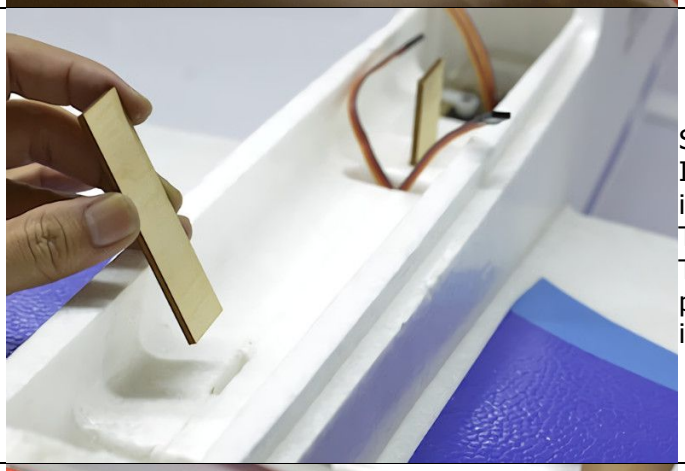
Step 22
Secure the white control horn and backing plate on the aileron using two M2.5 by 16mm long self-tapping screws. Ensure the servo is centred before gluing it in place using foam safe glue. Connect swing keeper to the servo. Clip the clevis to the control horn on the aileron as per the photo.
Attach the servo extension lead to the servo and either glue or tape in place so they are flush to the bottom surface of the wing.

Step 23

Install the small fuselage wing (canalyzer) to the top of the fuselage just behind the canopy using foam safe glue ensure it is fully seated and square to the fin and parallel to the horizontal stabilizer.



Step 23
Install the right and left wing on the fuselage using the carbon fibre tube supplied. Feed the servo leads through as per the photo.



Step 24
Insert the two wooden wing locking plates in to the pre-cut slot in the fuselage.
These lock the wings in place.
Tip: Add a bit of tape to one end of the ply plates to allow you to remove them once installed.

Step 25
Install the propeller and cooling Spinner to the motor. Make sure the propeller spins freely and doesn't touch the plastic nose cone

Step 26
Install your receiver and check all surfaces move in the correct direction.
As you have purchased this model we assume you're are a competent flyer and are familiar with this.

Centre of Gravity
The CG should be 135mm from the leading edge of the wing.

Suggested control throws

Measurements taken at the widest part of the moving surface

Elevator:	+25mm, -25mm, 30% Exponential
Aileron:	+25mm, -25mm, 30% Exponential
Rudder:	+45mm, -45mm, 30% Exponential

Don't forget to range test your model as per the radio manufacturer's instructions.

We hope you have enjoyed assembling this model and may your take off's equal your landings.