

**Electric or Glow powered**

# **3D 70 SERIES**

**SBACH342/MXS-R**

..... ALMOST-READY-TO-FLY .....



## **Assembly Manual**

1. For can correct assembly this model ,enable this model the design to obtain the ful display , should assemble in under the experienced public figure' s correct instruction
2. Please does not trace in the child the place assembles this airplane
- 3.Before model flight , must take the full security measure You must reponsible to the flight scene facility and the personal safety
- 4.Before perphery the flight must inspect whether there is line electrical noise
- 5.Plaese observe national the related radio act of administration
- 6.Completes after the assembly , please continuously retains this instruction booklet to facilitate the consult
- 7.Initial flight this model should from the experienced flight that collection related flight and the adjustment news
- 8.Remembers,flies the airplane model which has not assembled good perhaps has not adjusted is extremely dangerous
- 9.The beginner must have experiences under public figure's instruction to fly , surely may not alone fly!



## REQUIRED FOR OPERATION

### 1 Wireless apparatus

This airplane model should use 4 channels or the above airplane model special-purpose remote control device 5 standard servers, please do not have to use car and the ship model remote control device



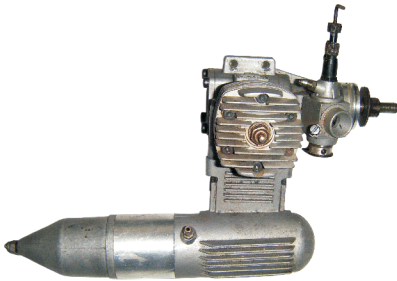
12 batteries



2 steering engine extension lines

### 2 Engine system

Use model special-purpose engine  
Engine: .46-.52 2C .52-.82 4C



Propeller



Fuel pipe



SPINNER



Filters the mouth

### 3 Flying and Starting supplies



Fuel pipe



Fuel



Trigger



Absorption of shock sponge

### 4 Glue



Instant Glue



AB epoxy glue

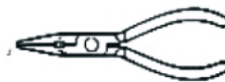
## TOOLS REQUIRED



Slanting cuts



Scissors



Pliers



Iron



Drill bit



Knife



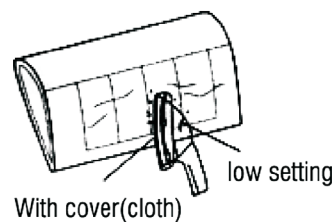
Screwdriver



Adhesive tape

## BEFORE YOU BEGIN

- 1, Before the assembly please the careful reading instruction booklet, he can give you the full detail instruction If you are the first contact airplane model public figure, should assemble under the experienced correct instruction!
- 2, Please inspect in the packing all components, if lacks perhaps the damage, please immediately with dealer relation
- 3, As a result of weather Temperature The moist change, the model outer covering possibly can appear the phenomenon which relaxes, you may use the package to have a cotton fabric the iron to burn again the outer covering smoothly, but must pay attention to the temperature not to have too to be high



## Features:

- 1, Latest structure
- 2, Light weight construction with high structural strength
- 3, Super quality
- 4, Excellent aerobatics and 3D performance
- 5, Easy installation
- 6, Two pieces removable wings fitted nylon bolts
- 7, High performance hardware includes:
  - 2mm Ball linkage control system
  - Fiberglass long servo arms
  - Servo extension safety connector clips
- 8, Low wing loading makes it easy to fly
- 9, One piece 6061 T-6 Anodized Aluminum landing gear
- 10, Carbon fiber wing tube
- 11, Aerofoil tail wings
- 12, Canopy quick release system
- 13, Powered by Electric or Glow

## Specification

SBACH342 70

WING SPAN: 60"(1520mm)

LENGTH: 58"(1470mm)

WING AREA: 738sq.in.(47.6sq.dm.)

FLYING WEIGHT: 5-5.5lbs(2300-2500g) Electric: Brushless outrunner 80z.

PROP: APC16x10E-17x8E LI-POLY 5-6S 3800-5000mAh

Glow: .46-.52 2C .52-.82 4C

RADIO: 4CH/5S or 4s 1ESC (70A)

MXS-R 70

WING SPAN: 60.3"(1530mm)

LENGTH: 58"(1470mm)

WING AREA: 740sq.in.(47.8sq.dm.)

FLYING WEIGHT: 5-5.5lbs(2300-2500g) Electric: Brushless outrunner 80z.

PROP: APC16x10E-17x8E LI-POLY 5-6S 3800-5000mAh

Glow: .46-.52 2C .52-.82 4C

RADIO: 4CH/5S or 4s 1ESC (70A)

## Additional Required Equipment

### Radio Equipment

4-channel radio system  
4-5 standard servos

### Power System

Electric Brushless outrunner 8 oz. and up A4520  
LI-POLY 4S-5S 3700-5000mAh  
Glow .46-.52 2 stroke  
.52-.82 4 stroke

## Recommended

- JR systems
- JR 9X or JR 9XII
- JR PCM 10X
- Futaba systems
- Futaba 9CHPS
- 12ZAP
- 14MZA

## SYMBOLS USED THROUGHOUT THE INSTRUCTION MANUAL, COMPRIS



Apply epoxy glue



Ensure smooth non-binding Movement while assembling.



Must be purchased separately!



Apply instant glue



Assemble left and right Sides the same way.



Cut off shaded portion.



Pay close attention here!



Make hole with awl.



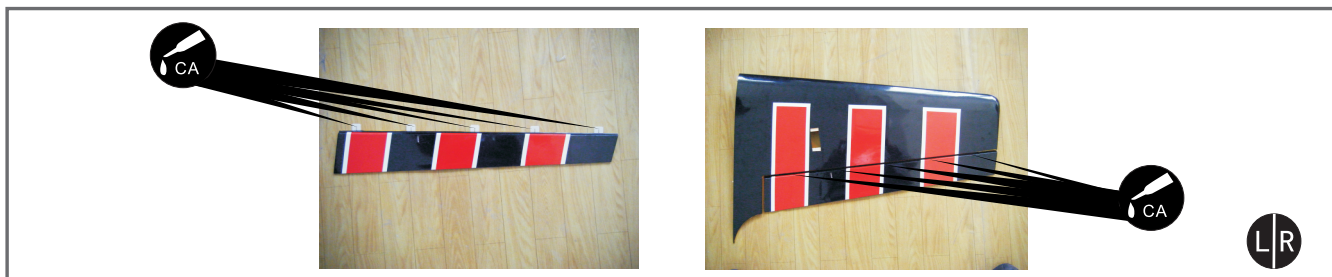
Cut off excess.



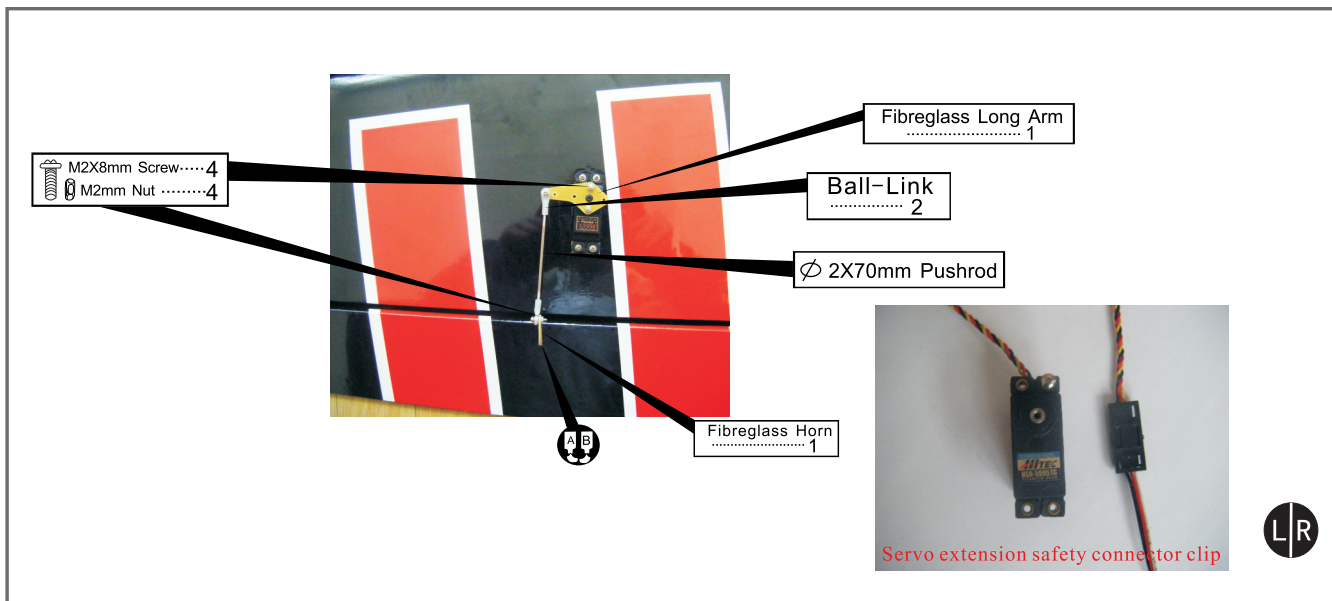
**Warning!**

Do not overlook this symbol!

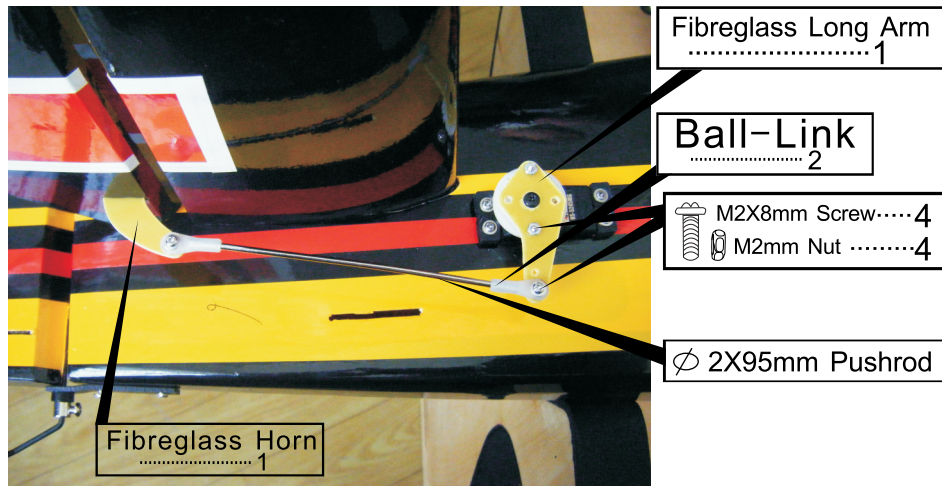
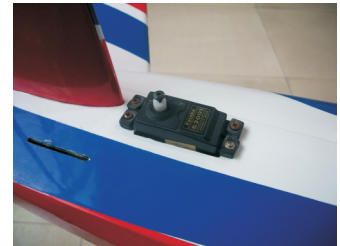
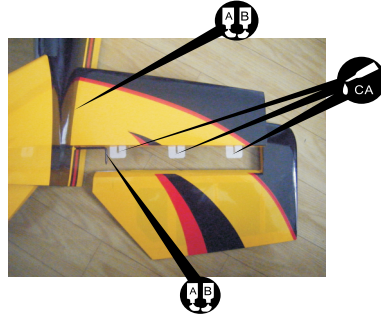
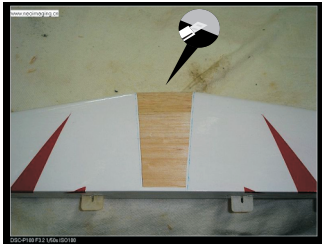
## Wing Assembly



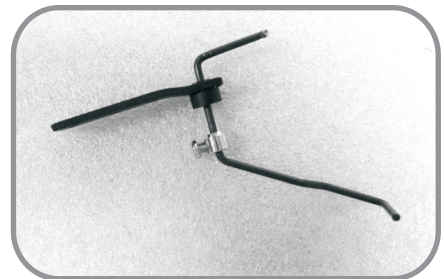
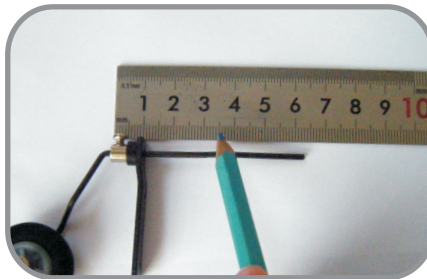
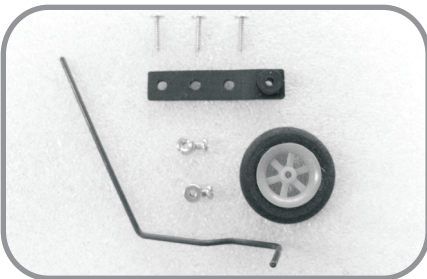
### ● Aileron servo



## Elevator Assembly



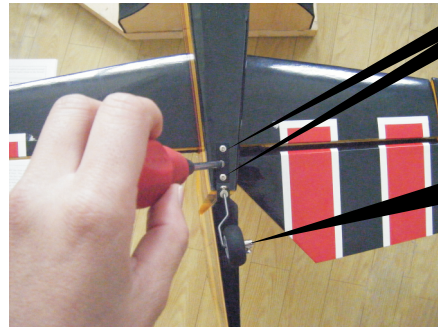
## Rudder & Tail Wheel Assembly



- Measure the location of hole that you need to drill on the rudder. The location is for bending tail landing gear.
- Drill a hole that fit for the tail landing gear. And make a slot which both the width and the depth are 3.5mm on the rudder.
- Let the wire through the tail landing gear mount and wheel collar.
- Measure and bend the wire to 90 degrees.



A/B



M2X12mm Tapping Screw ..... 3

M2 Wheel Collar ..... 1

- Glue the hinge into the rudder.
- Install the tail wheel and insert the wire into the hole.
- Insert the hinge into the hinge slots. At the same time, install the tail landing gear onto the bottom of the tail.
- Secure it with glue.



CA

M2X8mm Screw ..... 1

Fibreglass Horn ..... 1

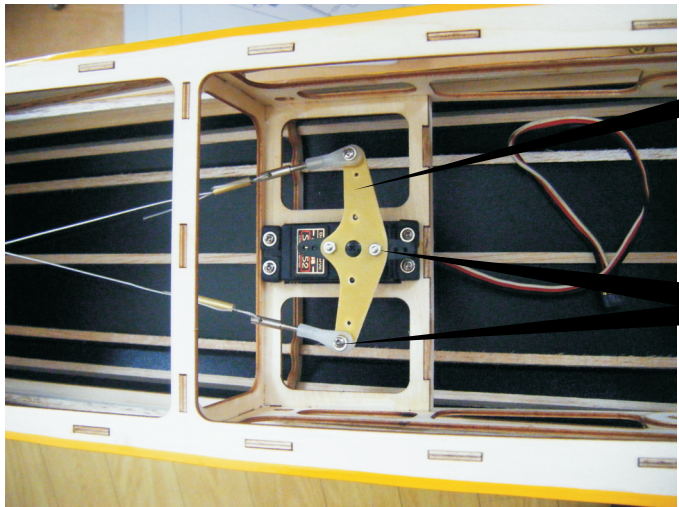
M2mm Nut ..... 1



2mm Linker ..... 1

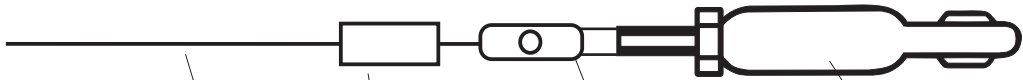
Ball-Link ..... 1

L/R



Fibreglass Dual Arm

M2X8mm Screw ..... 4  
M2mm Nut ..... 4



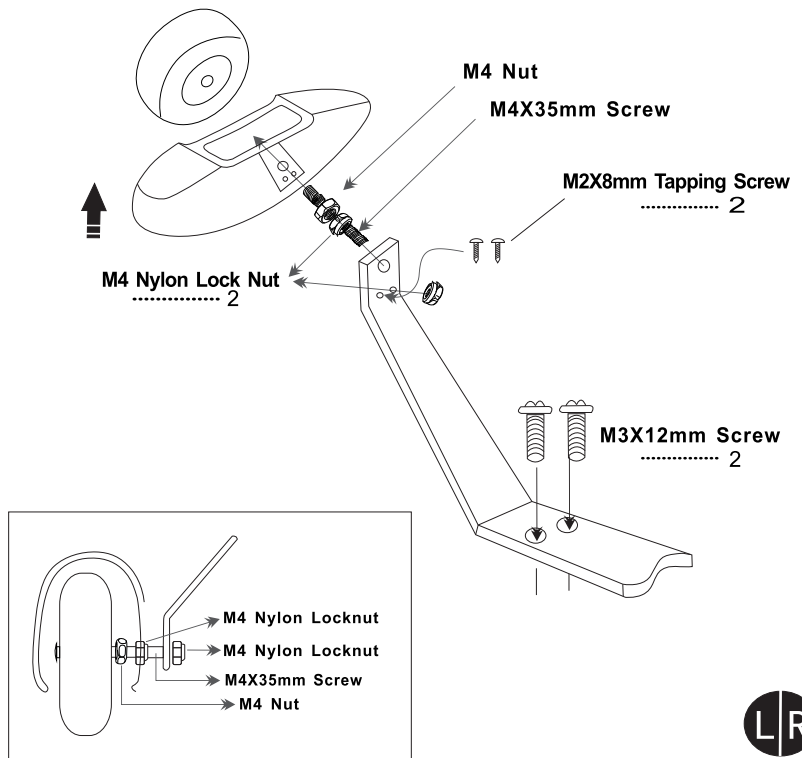
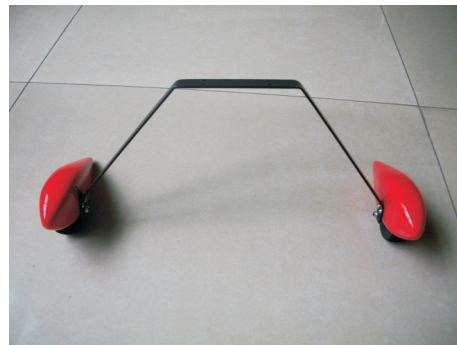
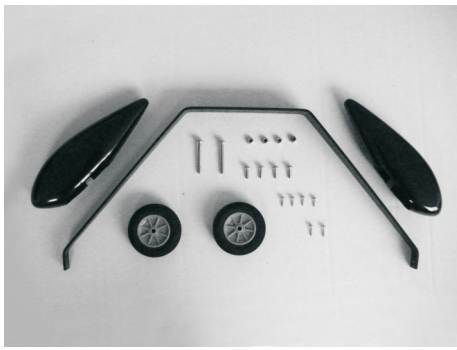
Pull-pull Cable ..... 2

Crimp ..... 2

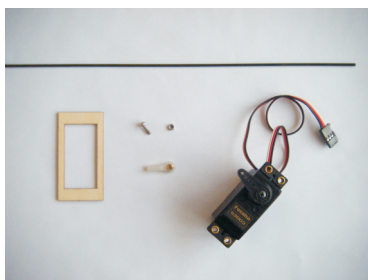
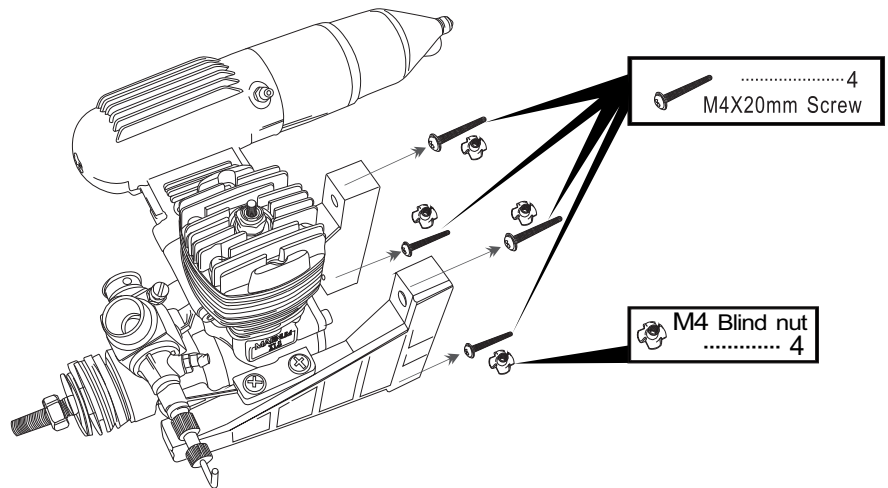
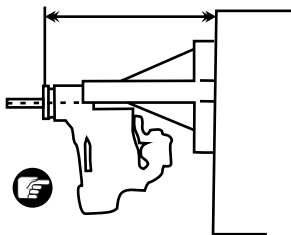
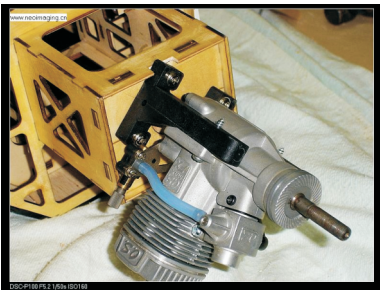
2mm Brass pull-pull connectror ..... 2

2mm Ball Link ..... 2

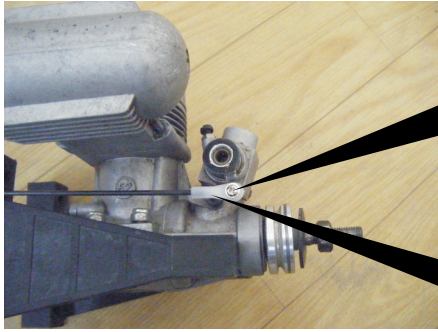
# Main Landing Gear Installation



# Engine Installation

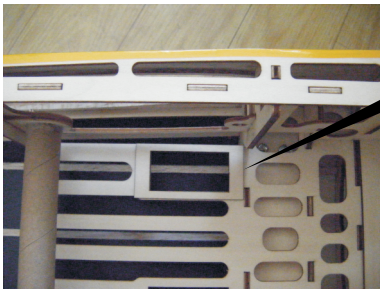


- Standard Servo ..... 1
- ∅2X300mm Pushrod ..... 1
- Ball Link ..... 1
- M2X8mm Screw ..... 1
- M2mm Nut ..... 1
- Nylon Straper ..... 1



-  M2X8mm Screw..... 1
-  M2mm Nut .....1

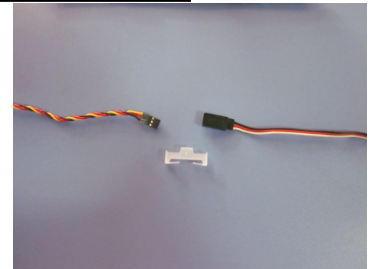
**Ball-Link**  
..... 1



A B



**Nylon Straper**  
1



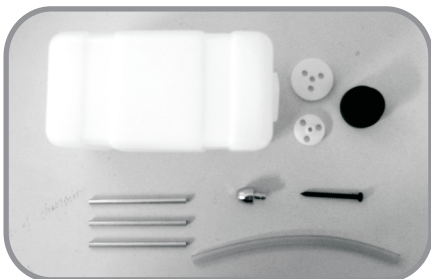
Drill four holes and install the engine on the engine mount with four M4 screws. And then install the mount to the firewall board with the screws and claw nuts. The Four screws should be secured with Blue Loctite. Finally, install the throttle serve and the throttle pushrod.

### Cowling Installation



Use a rotary cutting tool and sanding drum to cut out the openings in the cowl. The shape and size of open pore depends on the type of the engine. Install the cowl and check that everything fits correctly and nothing rubs against cowl. If needed enlarge the cutouts and test fit again until everything fits correctly.

### Fuel Tank Installation

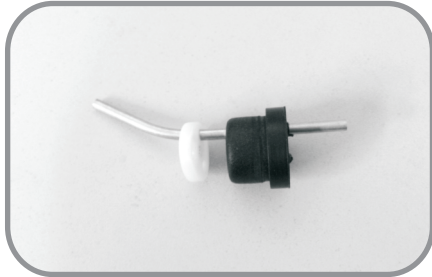


Note: The stopper provided with the model has three holes. The holes are for the fuel pickup, fill and vent lines. You can use two holes: One for the fuel pickup and one for the fuel vent. Only open the third hole if you are going to use a separate fill line.  
Note for gas engines: The stopper is OK for both gas and glow, the inside fuel tubing supplied is for gas and glow. If a gasoline engine is used, you must choose the fuel tubing Tygon for all lines.

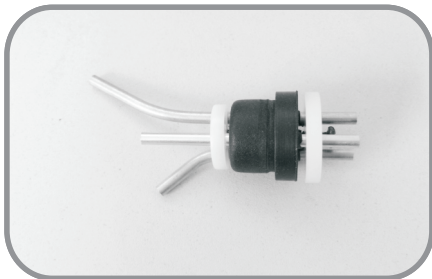




1. Bend two fuel tubes carefully to a 45-degree angle using your fingers. These will be the fuel tank fill and vent tubes. Use carefully not to kink the tube while bending.



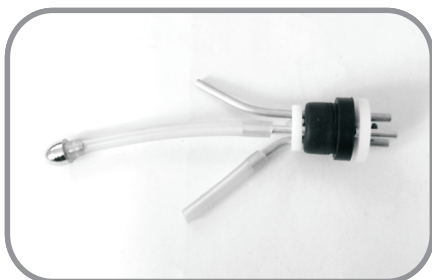
2. Locate the rubber stopper. Insert the three metal fuel tubes into the holes in the stopper so that an equal amount of tube extends from each side of the stopper. The straight tube will be the fuel tank pickup that provides fuel to the engine.



3. Slide the smaller cap over the tube on the smaller end of the rubber stopper. This end will be inserted into the fuel tank. The larger cap is placed on the side of the rubber stopper that makes the cap. Loosely install the M3 x 30 screws through the center of the stopper.



4. Locate the clear piece of Tygon or silicone fuel tubing and the fuel tank clunk. Cut the tubing to appropriate length. Install the clunk onto one end of the tygon or silicone tubing. Slide the tubing (end opposite the clunk) onto the fuel tank pickup tube (straight tube) in the stopper.

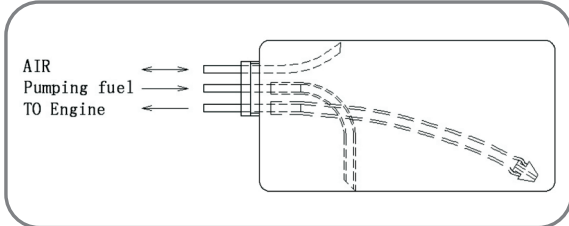


5. Slide a tubing onto the metal tube that has been bent.



6. Carefully insert the stopper assembly into the fuel tank. Note the position of the vent tube; it must be up at the top portion of the fuel tank to function properly. Also, it may be necessary to shorten the length of the fuel pickup tubing to make sure the clunk does not rub against the back of the fuel tank. You should be able to turn the tank to any attitude, and the clunk will fall to the lowest point (all directions except for having the stopper facing down).

Note the position of the fill tube; it must be down at the bottom portion of the fuel tank, then you can pick up fuel when you end your flying.

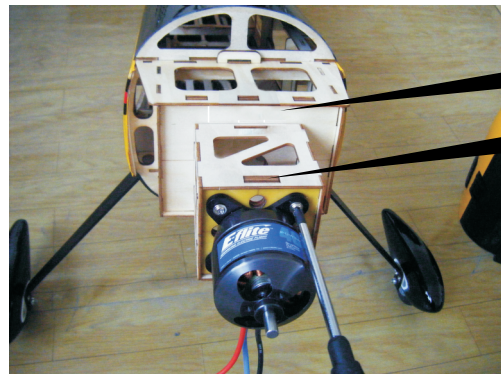
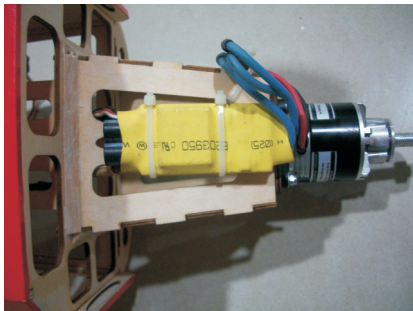
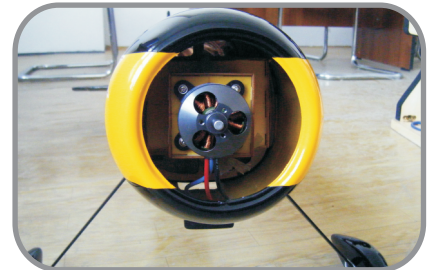
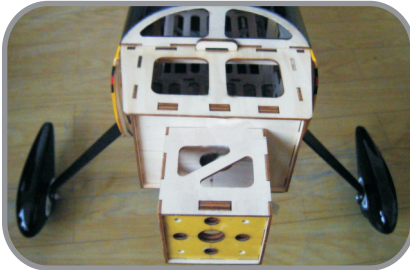


7. Tighten the M3 x 20 screw carefully-do not overly tighten. This allows the rubber stopper to form a seal by being slightly compressed, thus sealing the fuel tank opening.



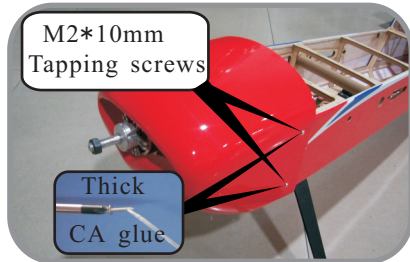
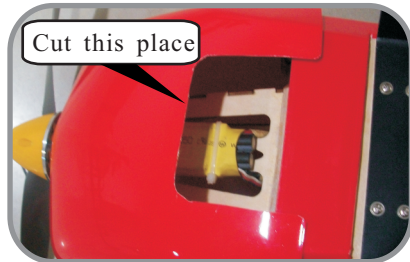
- Assemble and check the fuel tank to ensure there are no leaks before installing it. Make sure you connect the three inlet/outlet tubes correctly when connecting the fuel lines.
- Bind the fuel tank with nylon strips.
- Connect the outlet fuel line with the engine, get a stopper to plug up the pumping line, fix the line of air under the bottom of engine mount.

## Motor Installation



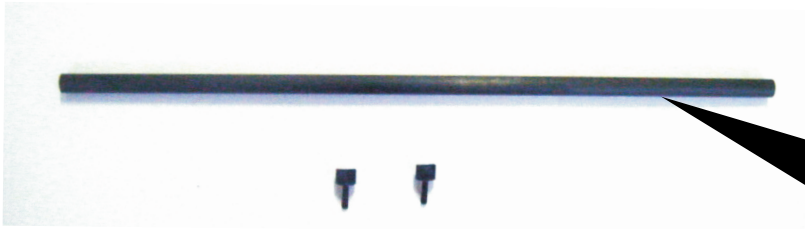
M4 Blind nut ..... 4

M4X12mm Screw



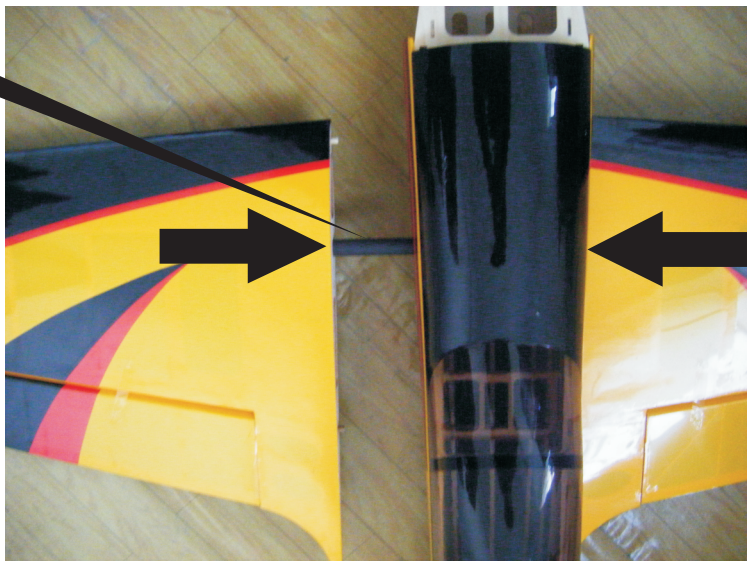
2. It is necessary to remove a part of the cowling for OPTO heat dissipation. Drill four 1mm holes and install the cowling with four M2\*10mm screws. And then you can install the propeller and the

**Preflight Assembly**

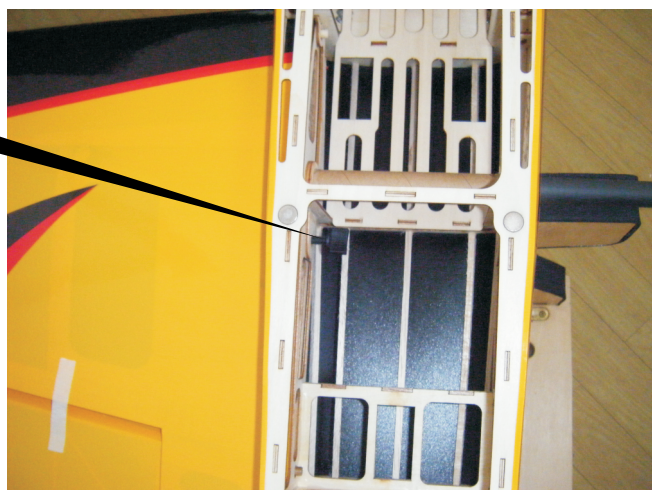


$\phi$  15X550mm  
C. F. Tube

C. F. Tube



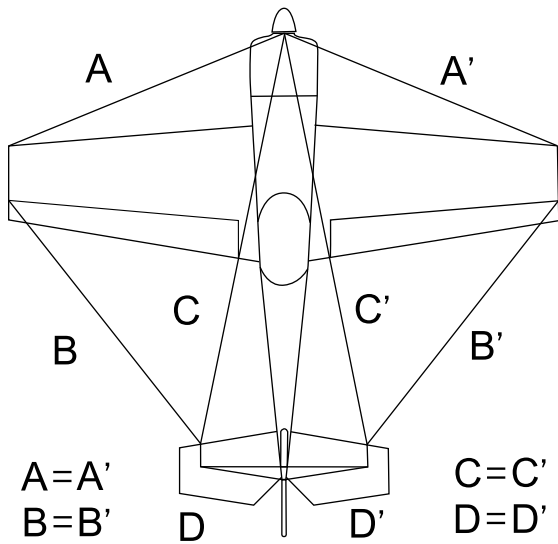
Nylon Bolt  
M4\*20. . . . 2



## Canopy Assembly

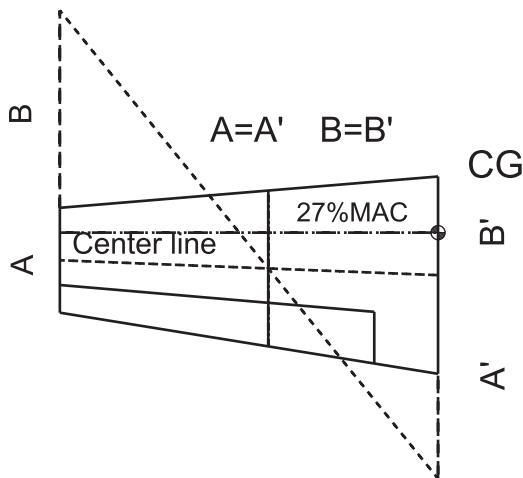


Nylon clasp is easy for canopy assembly.



Adjust the aircraft and make sure both of the sides symmetric. Like the diagram shown.

## C. G Location



Measure the CG from the leading edge of wing against the fuselage, Adjust the battery pack location. For CG proper position should be at 27%MAC. This recommendation balance point is for your first flights . The CG can be moved around later to fit your personal taste.

PLANE	SBACH342	MXS-R
27%MAC CG Location:	4-1/5" 106mm	3-4/5" 96.7mm

1. Check every angle and adjust them to correct position.
2. Check all parts and make sure the installation is firm and reliable.
3. Add some weight in either of wingtip to balance the left and right wings.

**Power on to trim your plane.**

1. Range check the radio (test whether the Engine/Motor is running or not ).
2. Ensure that the servos and control surfaces move smoothly and are in the correct direction.
3. Adjust the servo throw. The chart below is the recommended throws for the first flight. You can adjust the servo arms and control horn length later to fit your flying style.


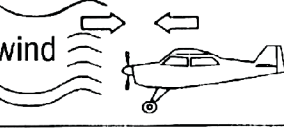
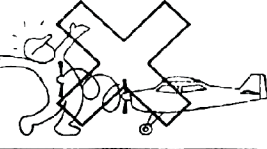
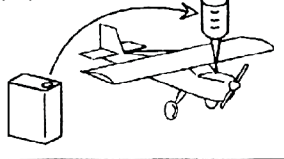


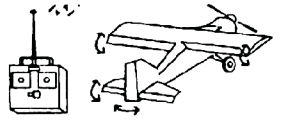
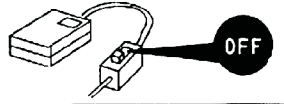
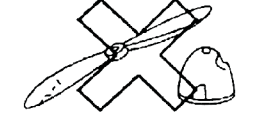
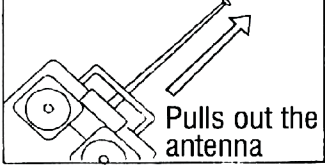
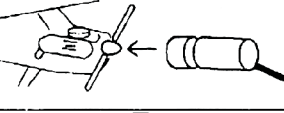
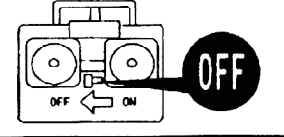
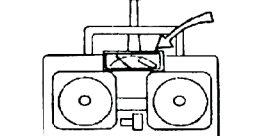
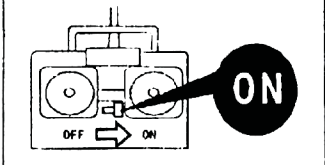
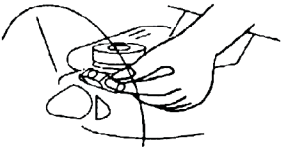
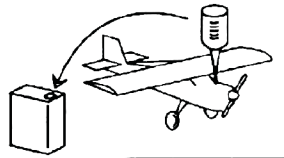

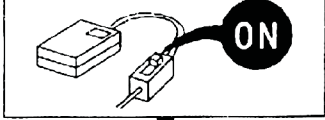
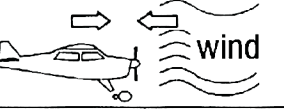
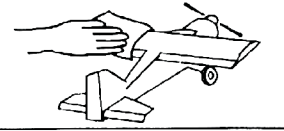
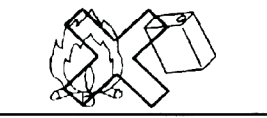
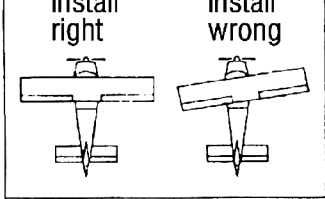
**Control Throw:**

	Surface	Throws	Exp
Common flying	Aileron	20 degrees	25%
	Elevator	20 degrees	25%
	Rudder	30 degrees	30%
3D flying	Aileron	45 degrees	50%
	Elevator	45 degrees	50%
	Rudder	45 degrees	50%

**T**rail run the Engine to check its stability at high speed and low speed to ensure there are no problems with vibration on the model. Run the motor at high speed about 30 seconds, check the Engine and make sure the temperature is below the prescription of manufacturer. Once everything is right... ..



# Flight operates order

before the flight	flying	after the flight	! Safe Warning!
<p>Must choose a big location, don't have to approach the high tension cable, big building and airport</p>	<p>ok      not The wind is so strong</p> 	<p>Must landing against the wind</p> 	<p>Don't near to propeller when engine is working</p> 
<p>Please confirm the propeller and the spinner all already by the safe locking</p>	<p>top up the tank with fuel</p> 	<p>The high temperature, carefully scalds</p> 	<p>Make sure nobody and other obstacles of front</p> 
<p>Please confirm does not have the same frequency radio disturbance Before the flight, otherwise will create the serious accident</p>	<p>check the Wireless apparatus and all control surfaces</p> 	<p>Turn off receiver power</p> 	<p>Do not use the propeller and the spinner already damaged</p> 
<p>Pulls out the antenna</p> 	<p>Starting engine</p> 	<p>Turn off ransmitter power</p> 	<p>Must pay attention to the electric quantity the charge, the electric quantity excessively is low may not fly</p> 
<p>Turn on ransmitter power</p> 	<p>Adjustment Needle</p> 	<p>Pulls out in the dry airplane the fuel</p> 	<p>Do not fly in the crowd top of the head</p> 
<p>Turn on receiver power</p> 	<p>Must take off against the wind</p> 	<p>Deletes the greasy dirt</p> 	<p>Do not have to invest in the fire with the spatial oil drum</p> 
<p>install right      install wrong</p> 			

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