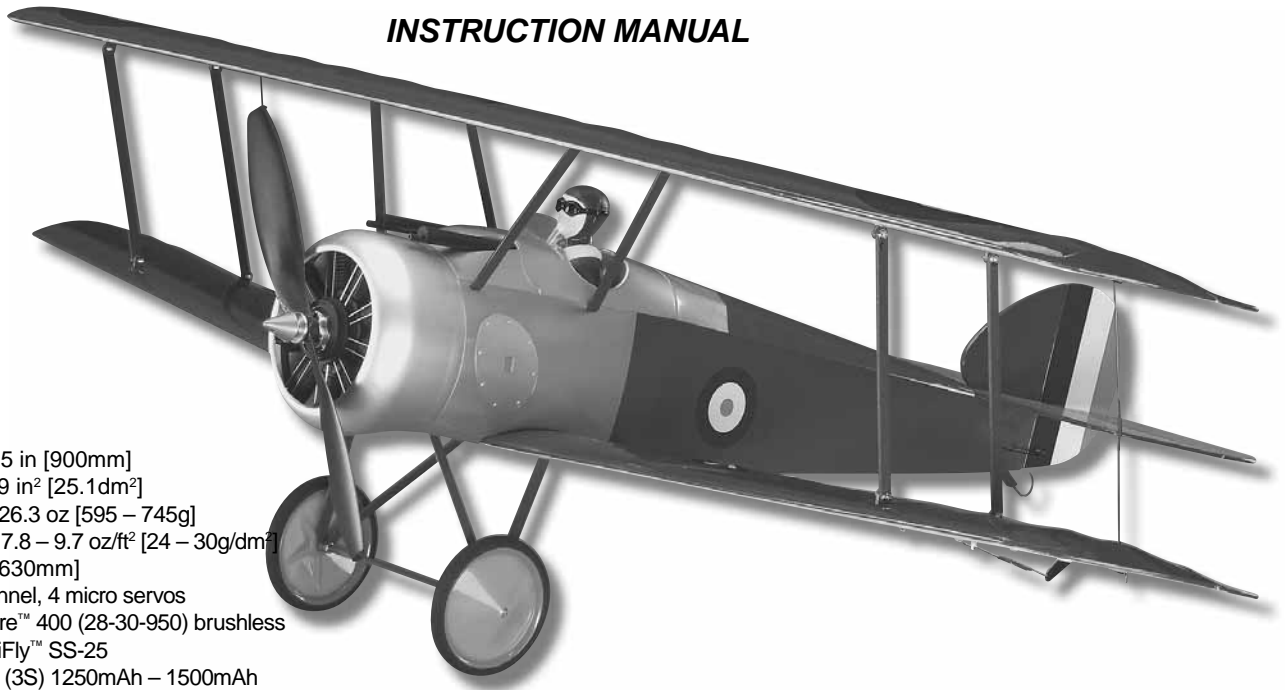


# SOPWITH CAMEL

## INSTRUCTION MANUAL



**Wingspan:** 35.5 in [900mm]  
**Wing Area:** 389 in<sup>2</sup> [25.1dm<sup>2</sup>]  
**Weight:** 21.1 – 26.3 oz [595 – 745g]  
**Wing Loading:** 7.8 – 9.7 oz/ft<sup>2</sup> [24 – 30g/dm<sup>2</sup>]  
**Length:** 25 in [630mm]  
**Radio:** 4-channel, 4 micro servos  
**Motor:** RimFire™ 400 (28-30-950) brushless  
**ESC:** ElectriFly™ SS-25  
**Battery:** 11.1V (3S) 1250mAh – 1500mAh

### WARRANTY

Great Planes® Model Manufacturing Co. guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Great Planes' liability exceed the original cost of the purchased kit.** Further, Great Planes reserves the right to change or modify this warranty without notice.

In that Great Planes has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

**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 to the place of purchase.**

To make a warranty claim send the defective part or item to Hobby Services at the address below:

Hobby Services  
3002 N. Apollo Dr., Suite 1  
Champaign, IL 61822 USA

Include a letter stating your name, return shipping address, as much contact information as possible (daytime telephone number, fax number, e-mail address), a detailed description of the problem and a photocopy of the purchase receipt. Upon receipt of the package the problem will be evaluated as quickly as possible.

**READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.**



Champaign, Illinois  
(217) 398-8970, Ext 5  
airsupport@greatplanes.com

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## INTRODUCTION

Thank you for purchasing the Great Planes EP Sopwith Camel ARF. During our testing and development we were pleasantly surprised to learn how well this plane handles in conditions normally too breezy for lightweight models of this type—flying in 7 to 10 mph winds was no problem! Although this WWI “bipe” doesn’t have the self-correcting tendencies of a primary trainer, it is an “honest” flyer that won’t reach out and “bite” you. And it’s a model that appeals to just about everybody—experienced pilots will chuckle while putting the EP Sopwith Camel ARF through its aerobatic paces and intermediate pilots will simply enjoy flying the EP Sopwith Camel ARF on a calm evening, watching it fly straight down the runway.

For the latest technical updates or manual corrections to this model visit the Great Planes web site at [www.greatplanes.com](http://www.greatplanes.com). Open the “R/C AIRPLANES” pull down tab across the top of the page, then select “ARFs-ELECTRIC.” Scroll down the page and click on “EP Sopwith Camel ARF.” If there is new technical information or changes, an “**Important! TECH NOTICE**” box will appear in the upper left corner of the page. Click on the Tech Notice box to read the info.

## AMA

We urge you to join the AMA (Academy of Model Aeronautics) and a local R/C club. The AMA is the governing body of model aviation and membership is required to fly at AMA clubs. Though joining the AMA provides many benefits, one of the primary reasons to join is liability protection. Coverage is not limited to flying at contests or on the club field. It even applies to flying at public demonstrations and air shows. Failure to comply with the Safety Code (excerpts printed in the back of the manual) may endanger insurance coverage. Additionally, training programs and instructors are available at AMA club sites to help you get started the right way. There are over 2,500 AMA chartered clubs across the country. Contact the AMA at the address or toll-free phone number below:



**Academy of Model Aeronautics**  
5151 East Memorial Drive  
Muncie, IN 47302-9252  
Tele. (800) 435-9262  
Fax (765) 741-0057  
Or via the Internet at:  
<http://www.modelaircraft.org>

**IMPORTANT!!!** Two of the most important things you can do to preserve the radio controlled aircraft hobby are to avoid flying near full-scale aircraft and avoid flying near or over groups of people.

## PROTECT YOUR MODEL, YOURSELF & OTHERS....FOLLOW THESE IMPORTANT SAFETY PRECAUTIONS

1. Your EP Sopwith Camel ARF should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, the EP Sopwith Camel ARF, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.
2. You must assemble the model **according to the instructions**. Do not alter or modify the model, as doing so may result in an unsafe or unflyable model. In a few cases the instructions may differ slightly from the photos. In those instances the written instructions should be considered as correct.
3. You must take time to **build straight, true and strong**.

4. You must use an R/C radio system that is in first-class condition.

5. You must correctly install all R/C and other components so that the model operates correctly on the ground and in the air.

6. You must check the operation of the model before **every** flight to insure that all equipment is operating and that the model has remained structurally sound. Be sure to check pushrod connectors often and replace them if they show any signs of wear or fatigue.

7. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get the assistance of an experienced pilot in your R/C club for your first flights. If you're not a member of a club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots.

8. While this kit has been flight tested to exceed normal use, if the plane will be used for extremely high-stress flying, such as racing, or if a motor larger than the one recommended will be used, the modeler is responsible for taking steps to reinforce the high-stress points and/or substituting hardware more suitable for the increased stress.

We, as the kit manufacturer, provide you with a top quality, thoroughly tested kit and instructions, but ultimately the quality and flyability of your finished model depends on how you build it; therefore, we cannot in any way guarantee the performance of your completed model, and no representations are expressed or implied as to the performance or safety of your completed model.

**Remember: Take your time and follow the instructions to end up with a well-built model that is straight and true.**

## **ADDITIONAL ITEMS REQUIRED**

### **Radio System**

The EP Sopwith Camel ARF requires a four-channel radio with four micro servos and a mini receiver. The most basic system would be something such as a Futaba® 4YF 4-channel FM radio (FUTJ36\*\*) with R114F mini receiver and two (2) S3114 micro servos. Two more micro servos would need to be purchased separately (FUTM0414). While this system is suitable, a slightly more advanced system with dual rates and endpoint adjustments would ease set up and maximize flight performance. For modelers who already have an advanced radio, but still must purchase a mini receiver and micro servos separately, following are the recommended part numbers for the radio gear shown in this manual:

- Futaba S3114 micro servo – FUTM0414
- Futaba R114F 4-channel mini receiver – FUTL0442 low band or FUTL0443 high band
- Matching Rx crystal – FUTL62\*\* low band or FUTL63\*\* high band

**The following servo extensions are also shown in this manual:**

- (2) AEC-26 300mm J-series aileron extension for the aileron servos (FUTM4507)
- (1) AEC 13 J-series dual servo extension cord to connect aileron servos to receiver (FUTM4130)

### **Battery & Charger**

The EP Sopwith Camel ARF was designed for the Great Planes ElectriFly™ 1250mAh or 1500mAh BP series LiPo battery. The 1500 will provide slightly longer flight time, but may cost a little more. Most importantly, read and follow all the instructions and precautions that come with LiPo batteries and chargers. Charge LiPo batteries only with chargers intended for LiPo batteries or with chargers that have a LiPo setting. Following are the batteries and chargers recommended for the EP Sopwith Camel ARF:

- Great Planes ElectriFly 11.1V 1250mAh 15C BP LiPo battery w/Balance Connector (GPMP0713)
- or-**
- Great Planes ElectriFly 11.1V 1500mAh 15C BP LiPo battery w/Balance Connector (GPMP0717)
- Great Planes PolyCharge4™ DC-only LiPo battery charger (GPMM3015)

Additionally, one (1) Great Planes ElectriFly Equinox™ LiPo Cell Balancer w/3S battery adapter for each battery to be charged simultaneously is recommended (GPMM3160).

Finally, if charging the battery from a 120V AC outlet is preferred, a 12 volt power supply will also be required (Hobbico® 12 Volt Power Supply – HCAP0250).

### **Hardware & Accessories**

Following is the list of additional hardware and accessories required to finish the EP Sopwith Camel ARF. Order numbers are provided in parentheses.

- ElectriFly™ RimFire™ 400 (28-30-950kV) out-runner brushless motor w/propeller adapter (GPMG4560)
- ElectriFly Silver Series 25 Amp Brushless ESC (GPMM1820)
- (1 pkg. of 3) Great Planes 3.5mm male/2mm female bullet adapters (GPMM3122)
- Great Planes 10 x 4.5 Power Flow Slo-Flyer Elec Prop (pkg. of 2) (GPMQ6660)
- (1 pkg) Great Planes adhesive-back Velcro® (GPMQ4480)

- 1/2" [13mm] double-sided foam mounting tape (GPMQ4440)
- Stick-on segmented lead weights (GPMQ4485)

### Adhesives & Building Supplies

In addition to common household tools and hobby tools, this is the "short list" of the most important items required to build the EP Sopwith Camel ARF. Great Planes Pro™ CA glue is recommended.

- 1/2 oz. [15g] Thin Pro CA (GPMR6001)
- 1/2 oz. [15g] Medium Pro CA+ (GPMR6007)
- CA applicator tips (HCAR3780)
- Threadlocker threadlocking cement (GPMR6060)
- #11 blades (5-pack, HCAR0211)
- #1 Hobby knife (HCAR0105)

### Optional Supplies & Tools

Here is a list of optional tools mentioned in the manual that will help you build the EP Sopwith Camel ARF.

- 2 oz. [57g] spray CA activator (GPMR6035)
- 4 oz. [113g] aerosol CA activator (GPMR6034)
- R/C-56 canopy glue (JOZR5007)
- CA debonder (GPMR6039)
- Medium T-pins (100, HCAR5150)
- Metal Template Set (30/60/90 and 45° triangles, HCAR0500)
- Hobby Heat™ micro torch (HCAR0755)
- C.G. Machine™ (GPMR2400)

A model airplane covering iron with a protective covering sock may also be necessary to retighten the covering and remove any wrinkles that may have formed after the model was originally covered at the factory. If you don't already have a covering iron, the 21st Century® sealing iron (COVR2700) and 21st Century iron cover (COVR2702) are recommended.

### BUILDING NOTES

- The stabilizer and wing incidences and motor thrust angles have been factory-built into this model. However, some technically-minded modelers may wish to check these measurements anyway. To view this information visit the web site at [www.greatplanes.com](http://www.greatplanes.com) and click on "Technical Data." Due to manufacturing tolerances which will have little or no effect on the way your model will fly, please expect slight deviations between your model and the published values.

### ORDERING REPLACEMENT PARTS

Replacement parts for the Great Planes EP Sopwith Camel ARF are available using the order numbers in the **Replacement Parts List** that follows. The fastest, most economical service can be provided by your hobby dealer or mail-order company.

To locate a hobby dealer, visit the Hobbico web site at [www.hobbico.com](http://www.hobbico.com). Choose "Where to Buy" at the bottom of the menu on the left side of the page. Follow the instructions provided on the page to locate a U.S., Canadian or International dealer.

Parts may also be ordered directly from Hobby Services by calling (217) 398-0007, or via facsimile at (217) 398-7721, but full retail prices and shipping and handling charges will apply. Illinois and Nevada residents will also be charged sales tax. If ordering via fax, include a Visa® or MasterCard® number and expiration date for payment.

Mail parts orders and payments by personal check to:

Hobby Services  
3002 N. Apollo Drive, Suite 1  
Champaign, IL 61822

Be certain to specify the order number exactly as listed in the **Replacement Parts List**. Payment by credit card or personal check only; no C.O.D.

If additional assistance is required for any reason contact Product Support by e-mail at [productsupport@greatplanes.com](mailto:productsupport@greatplanes.com), or by telephone at (217) 398-8970.

#### Replacement Parts List

| Description        | How to Purchase         |
|--------------------|-------------------------|
| Missing pieces     | Contact Product Support |
| Instruction manual | Contact Product Support |
| Full-size plans    | Not available           |

Contact your hobby supplier for the following parts:

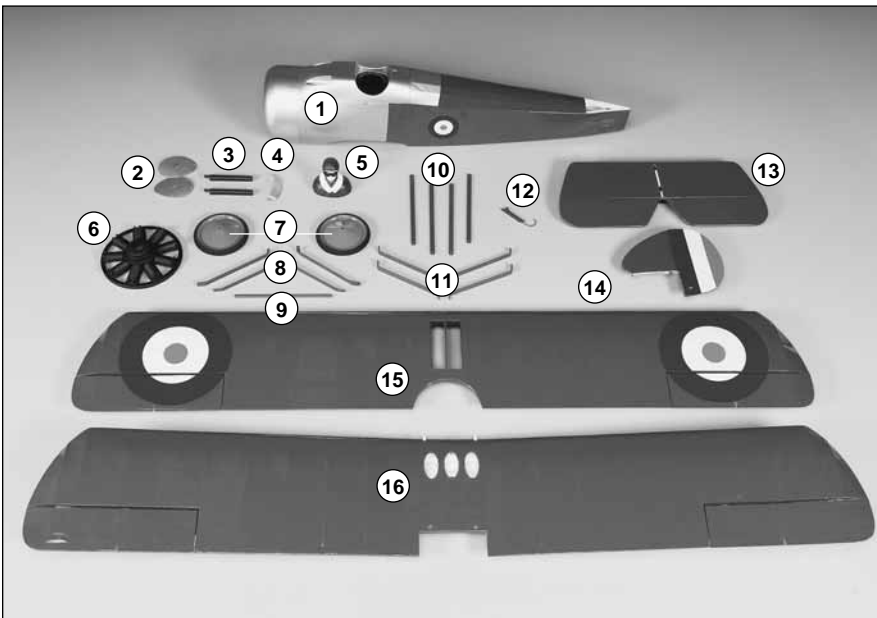
|          |               |
|----------|---------------|
| GPMA3110 | Top Wing      |
| GPMA3111 | Bottom Wing   |
| GPMA3112 | Fuselage      |
| GPMA3113 | Tail Set      |
| GPMA3114 | Cowl          |
| GPMA3115 | Dummy Engine  |
| GPMA3116 | Landing Gear  |
| GPMA3117 | Cabanes       |
| GPMA3118 | Spinner       |
| GPMA3119 | Gun Set       |
| GPMA3120 | Strut Set     |
| GPMA3121 | Battery Hatch |
| GPMA3122 | Decal         |

## KIT INSPECTION

Before starting to build, take an inventory of this kit to make sure it is complete and inspect the parts to make sure they are of acceptable quality. If any parts are missing or are not of acceptable quality, or if you need assistance with assembly, contact **Product Support**. When reporting defective or missing parts, use the part names exactly as they are written in the Kit Contents list.

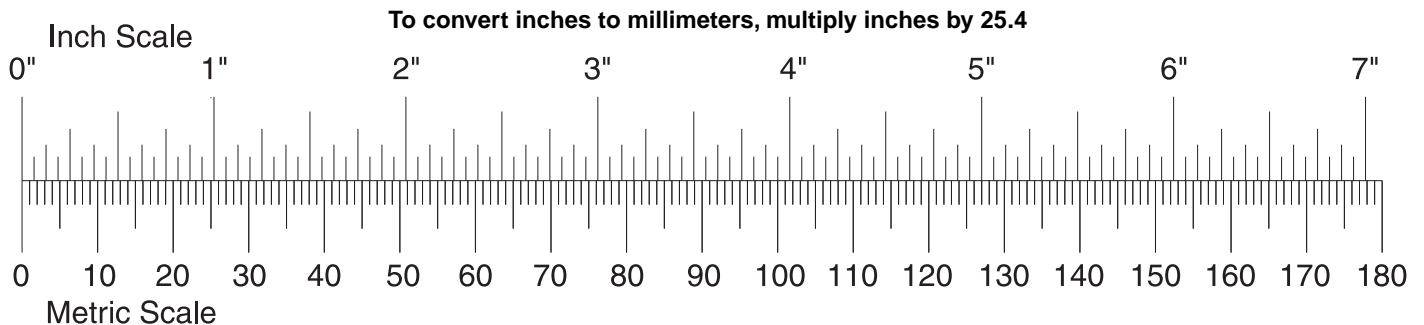
**Great Planes Product Support:**  
**3002 N Apollo Drive, Suite 1**  
**Champaign, IL 61822**  
**Telephone: (217) 398-8970, ext. 5**  
**Fax: (217) 398-7721**  
**E-mail: [airsupport@greatplanes.com](mailto:airsupport@greatplanes.com)**

## KIT CONTENTS



### Kit Contents

- |    |                                   |
|----|-----------------------------------|
| 1  | Fuselage                          |
| 2  | Inspection Panels (L&R)           |
| 3  | Machine Guns                      |
| 4  | Windscreen                        |
| 5  | Pilot                             |
| 6  | Replica Engine                    |
| 7  | Main Wheels (2)                   |
| 8  | Landing Gear Struts (4)           |
| 9  | Cross Tube                        |
| 10 | Wing Struts (4)                   |
| 11 | Cabane Struts (4)                 |
| 12 | Tail Skid                         |
| 13 | Horizontal Stabilizer w/Elevators |
| 14 | Vertical Stabilizer & Rudder      |
| 15 | Top Wing w/Ailerons               |
| 16 | Bottom Wing w/Ailerons            |



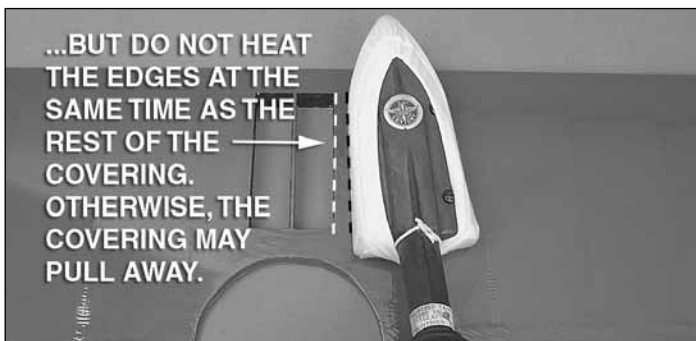
## ASSEMBLY

### Tighten the Covering

HEAT THE COVERING TO REMOVE ANY WRINKLES...



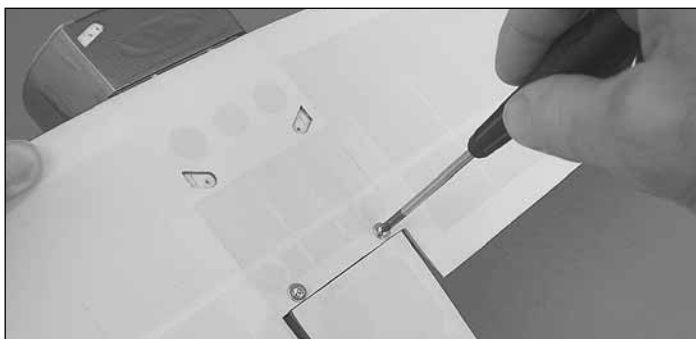
...BUT DO NOT HEAT THE EDGES AT THE SAME TIME AS THE REST OF THE COVERING. OTHERWISE, THE COVERING MAY PULL AWAY.



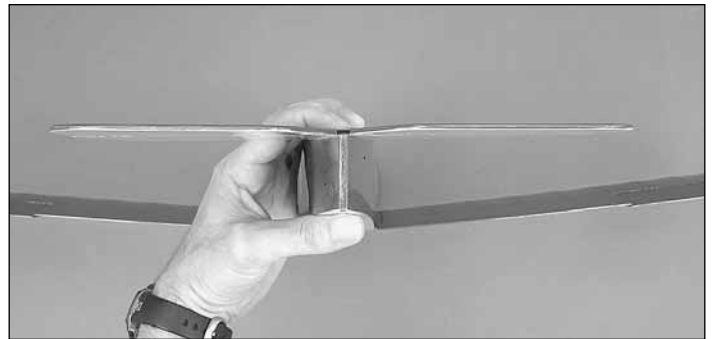
1. Use a covering iron set to approximately 250 to 300 degrees F [120 to 150 degrees C] with a protective covering sock to remove any wrinkles and tighten the covering wherever it looks loose. Be careful along edges and seams—if an edge or seam is heated at the same time as the rest of the covering, it may pull away when it shrinks.

**Note:** If too much heat is used, delicate parts like the wings and tail may twist or warp. These parts can be straightened by carefully twisting them in the opposite direction, then re-shrinking the covering on the top and bottom.

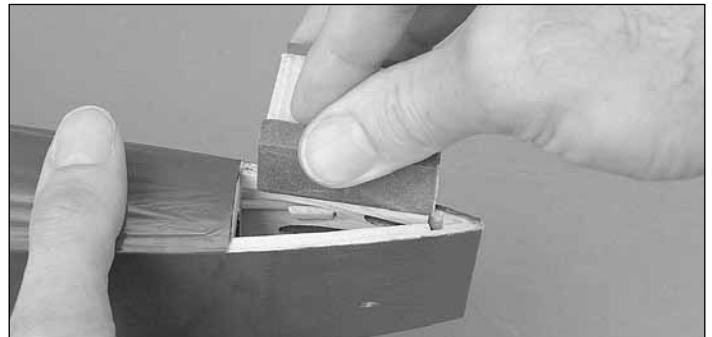
### Mount the Horizontal & Vertical Stabilizers



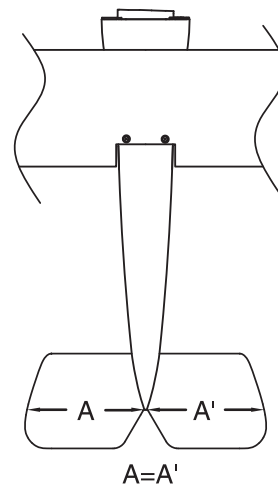
1. Temporarily mount the **bottom wing** to the **fuselage** with two 3 x 20mm screws and 3mm washers.



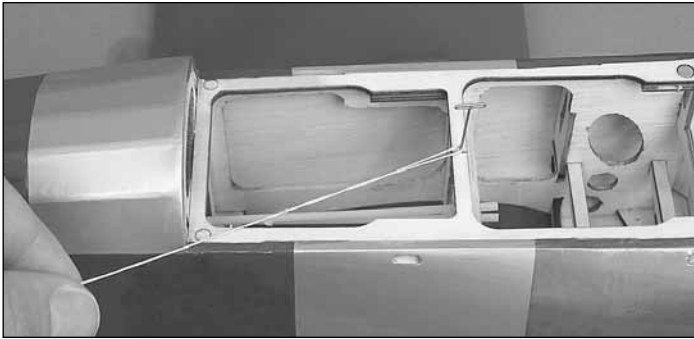
2. Holding the **horizontal stabilizer (stab)** on the fuselage, view the model from the rear to see if it is parallel with the wing.



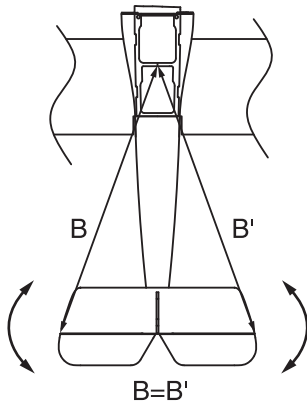
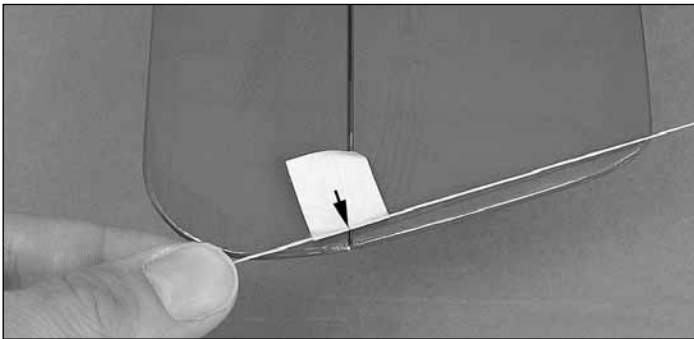
3. If necessary, use a small sanding block with medium-grit sandpaper to carefully sand the “high side” of the **stab saddle** so the stab will be parallel with the wing.



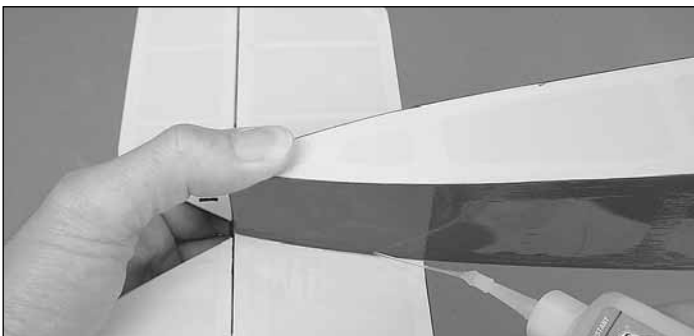
4. Taking accurate measurements, center the TE of the stab from side-to-side over the end of the fuselage and hold it in place with a pin.



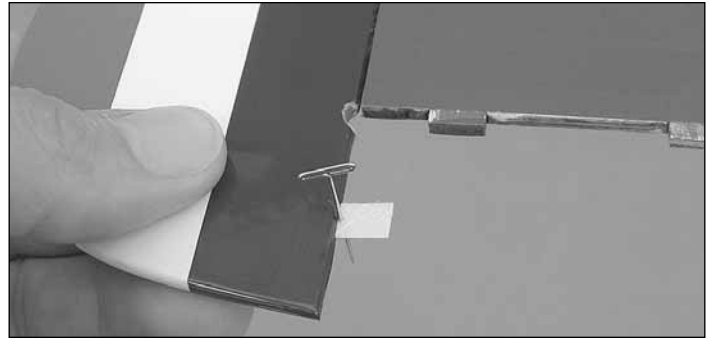
❑ 5. Stick another T-pin through the **cockpit base** at the centerline. Tie a loop in one end of an approximately 24" [600mm] piece of non-elastic string such as Kevlar® fishing thread or something similar. Fit the loop over the T-pin.



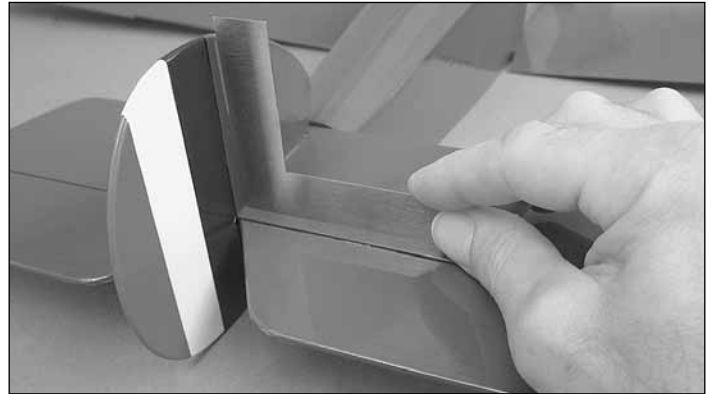
❑ 6. Wrap a piece of masking tape over the string near the other end and mark an arrow on the tape. Slide the tape along the string until the arrow aligns with one end of the stab. Swing the string over to the other end of the stab to see if the distances are equal as shown in the sketch. Rotate the stab on the pin and slide the tape along the string until the stab is aligned.



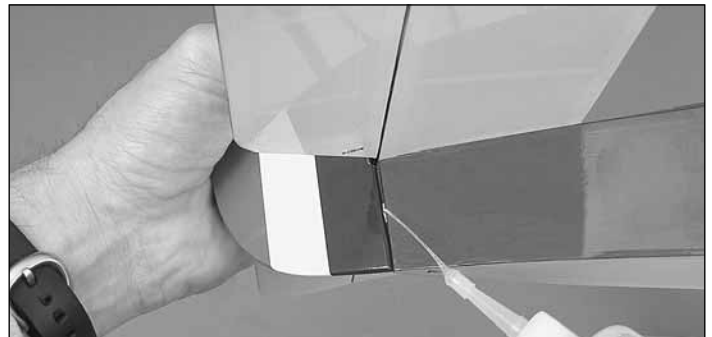
❑ 7. Holding the stab in position, use thin CA to securely glue the stab to the fuselage.



❑ 8. Insert a pin through the middle of the 1/4" x 1/2" [6 x 13mm] CA hinge—the pin will keep the hinge centered. Insert the hinge into the bottom of the **rudder**.



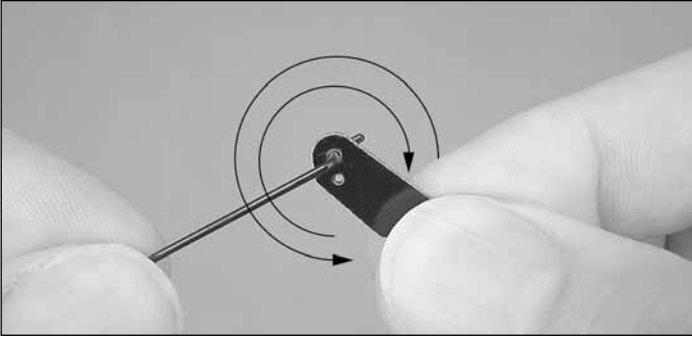
❑ 9. Join the **vertical stabilizer (fin)** to the stab and fit the hinge into the slot in the back of the fuselage. Use medium CA to glue the fin to the top of the stab. While the CA is hardening, use a small builder's square to make sure the fin is perpendicular.



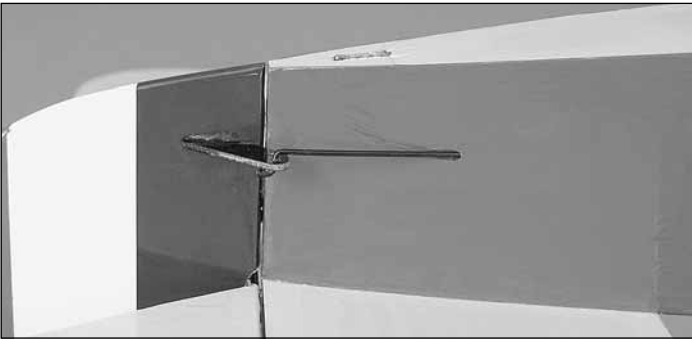
❑ 10. Remove the pin from the CA hinge. Add two or three drops of thin CA to each side of the hinge in the bottom of the rudder and the fuselage

❑ 11. If you haven't already done so you may remove the bottom wing from the fuselage.

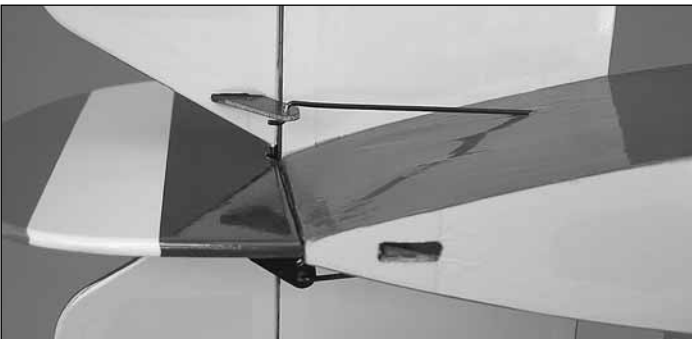
## Hook Up the Elevator & Rudder



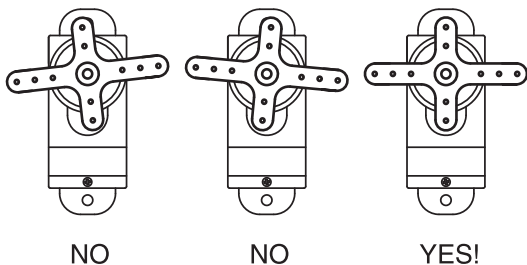
❑ 1. Test fit the “Z-bend” of one of the two longest wire pushrods into the outer hole of one of the fiberglass control horns as shown in the photo. If necessary, spin the horn around the wire a few times to loosen the hole in the horn so the pushrod will move freely.



❑ 2. With the horn attached to the pushrod, slide the pushrod into the **rudder guide tube** in the fuselage. Fit the horn into the slot in the rudder. Use a few drops of thin CA followed by a few drops of medium CA to securely glue the horn into position.

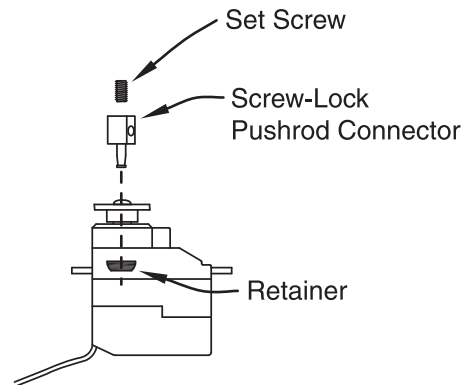
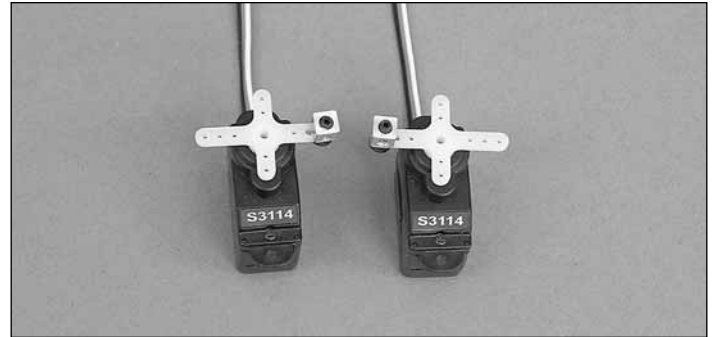


❑ 3. Connect the elevator pushrod the same way.



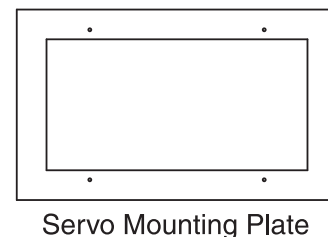
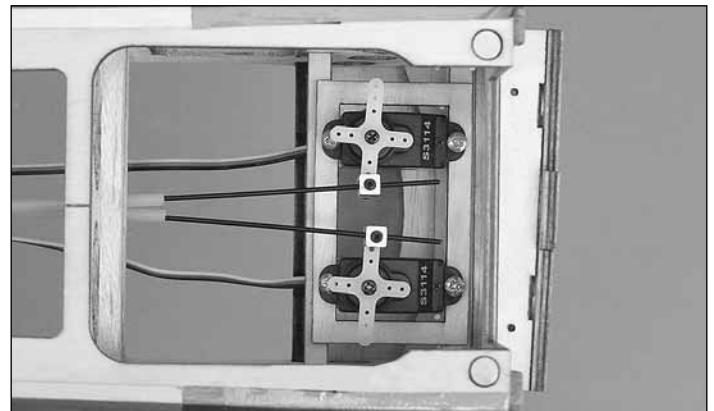
❑ 4. Temporarily connect the servos you will be using for the elevator and rudder to your receiver with a receiver battery,

or with your ESC and the motor battery, so you can operate the servos with the transmitter. Center the trims on your transmitter and turn on the transmitter and receiver. Position the servo arm on each servo so the longer arms will be perpendicular to the servos.



❑ 5. Use a #56 (.046" [1.2mm]) drill or a hobby knife to enlarge the holes in the servo arms for the screw-lock pushrod connectors. Mount the screw-lock pushrod connectors to the servo arms with the nylon retainers.

*Refer to this photo for the next four steps.*



Servo Mounting Plate

❑ 6. Test fit the elevator and rudder servos in the servo rails in the fuselage. If the rails are too far apart for the servos you

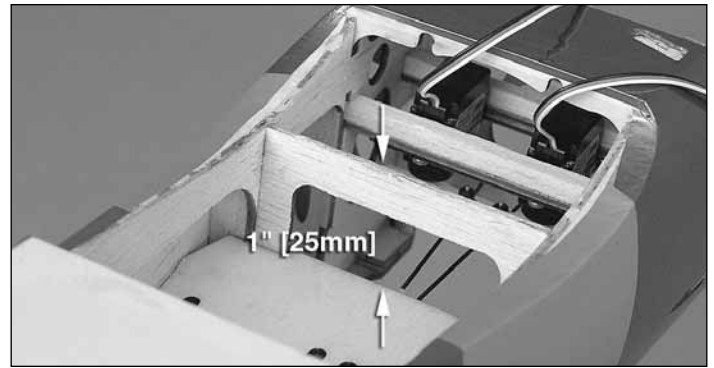


are using, center the plywood **servo mounting plate** on the rails and glue it into position. Then, place the servos on the mounting plate.

❑ 7. Fit the pushrods through the screw-lock pushrod connectors on the servo arms. If necessary, shorten the pushrods by cutting them.

❑ 8. For small models such as this it has become common practice to glue the servos into position. If this is your preference use medium CA to securely glue the servos to the rails. However, if you prefer to mount your servos the conventional way with screws, use the 2 x 6mm Phillips screws included with this kit – you should be able to simply tighten them into the wood – no drilling is necessary.

❑ 9. Re-connect the servos to your receiver and turn the system on. Center the **elevator** and **rudder** and lock the pushrods to the screw-lock pushrod connectors by tightening the set screws with a small drop of threadlocker and the small hex wrench that came with this model. Secure the servo arms to the servos with the screws that came with the servos.



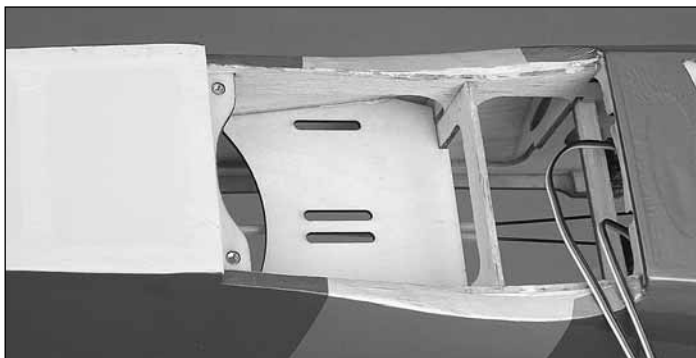
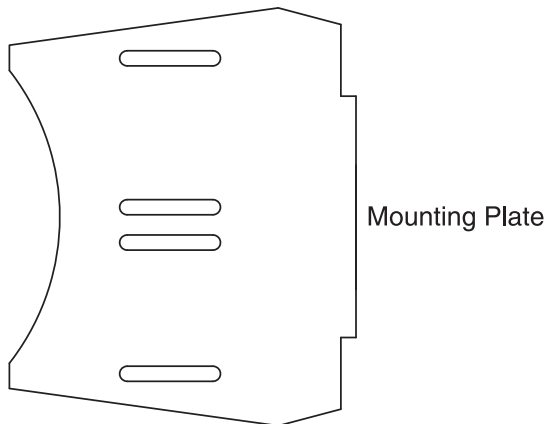
❑ 2. Position the ESC/receiver mounting plate so it will be 1" [25mm] from the bottom of the former as shown. Use medium CA to glue the mounting plate into position.



❑ 3. Use double-sided foam mounting tape (not included) to mount the ESC and receiver to the top of the mounting plate as shown.

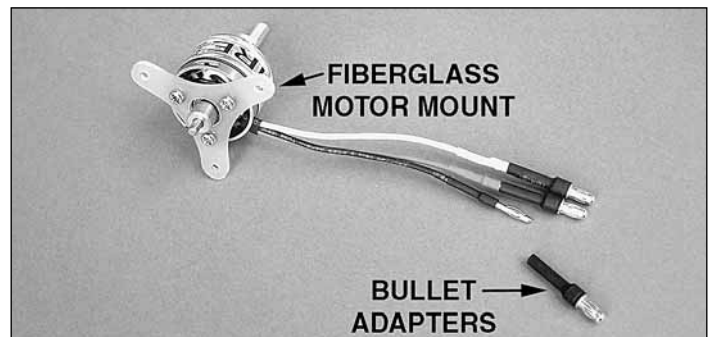
❑ 4. Guide the receiver antenna down and out through the antenna tube in the fuselage.

### Mount the ESC & Receiver

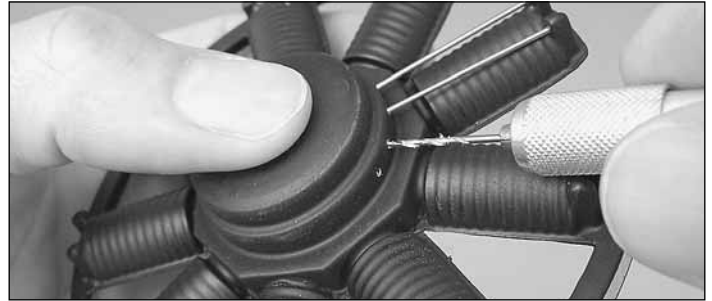
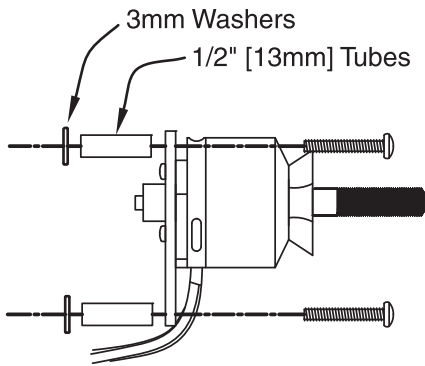


❑ 1. Fit, but do not glue the plywood **ESC/receiver mounting plate** where shown in the fuselage—it may take a bit of “wriggling” to get it into position, but rest assured the plate will fit.

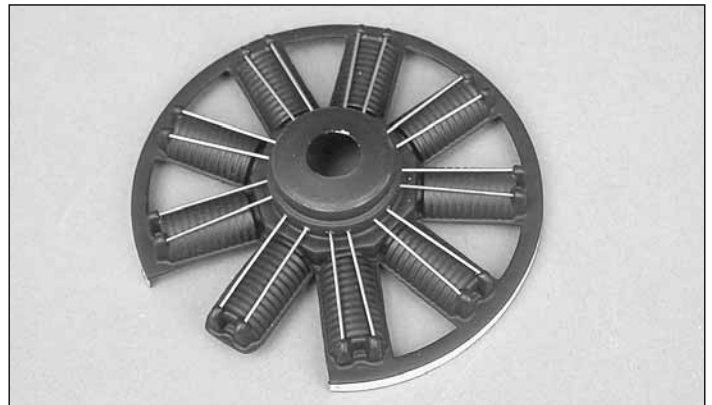
### Mount the Motor



❑ 1. Remove the metal motor mount that came on the motor. Mount the fiberglass motor mount included with this kit to the motor with the screws and a drop of threadlocker on the threads. Also connect the 3.5mm male/2.0mm female bullet wire adapters (not included—GPM3122) to the motor wires.



❑ 2. Use a pin vise with a small drill or a hobby knife to drill the holes for the pushrod wires. The size of the drill isn't critical—it just has to be approximately the same size or slightly larger than the pushrod wires so they will fit into the holes. The pushrod wires are .040" [1mm] dia., so a #60 drill (.040" [1mm] or slightly larger) is suitable.



❑ 3. Once all the holes are drilled, install the pushrod wires. Glue the wires into position **from the back** of the **replica engine** with medium CA.

❑ 4. As best as you can, position the replica engine into the **cowl** as described below:



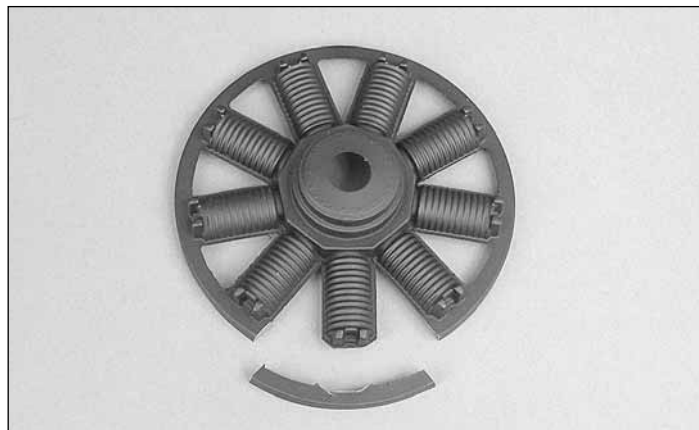
❑ A. Straddle the bottom two engine cylinders over the balsa cowl ring as shown.



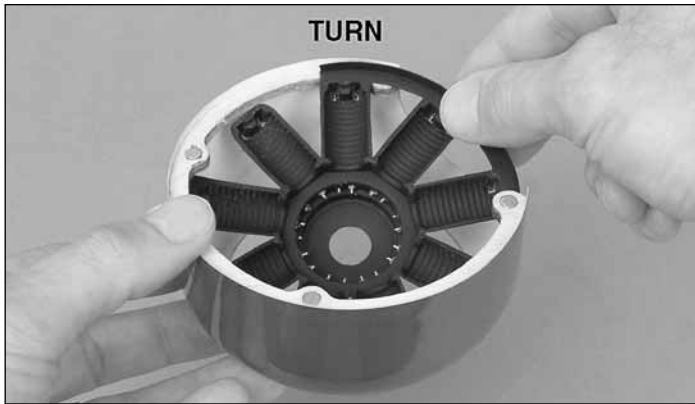
❑ 2. Mount the motor mount to the firewall on the fuselage with three 3 x 20mm Phillips screws (apply a drop of threadlocker to the threads), a 1/2" [13mm] tube and a 3mm washer on each screw behind the motor mount.

❑ 3. Connect the motor wires to the wires coming from the ESC. Turn on the transmitter and connect a motor battery to the ESC. Advance the throttle stick to make sure the motor is turning the correct direction. If the motor is turning backwards, switch any two wires connecting the ESC and motor to get the motor to turn in the correct direction (counterclockwise when viewed from the front).

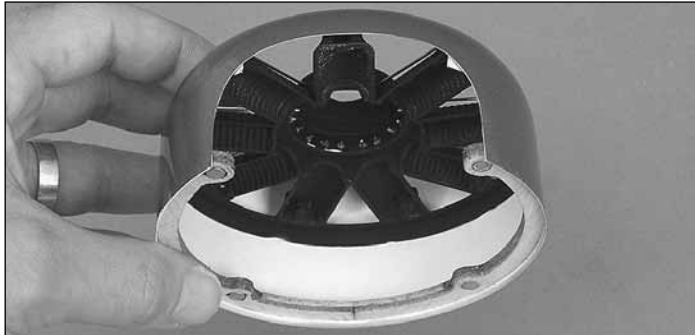
***Install the Replica Engine***



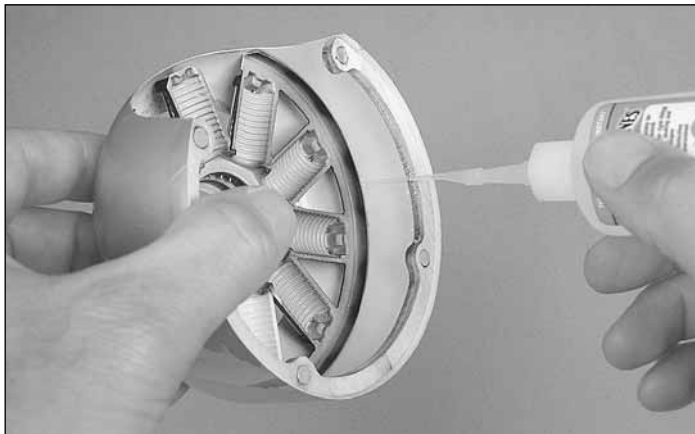
❑ 1. Use plastic-cutting scissors or a hobby knife to cut away part of the "ring" around the replica engine as shown.



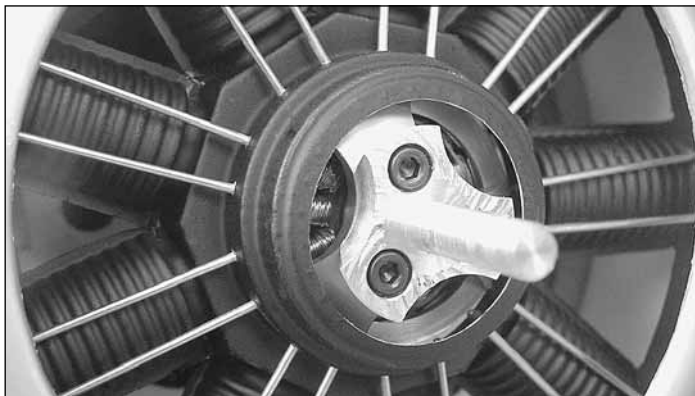
❑ B. Turn it into position.



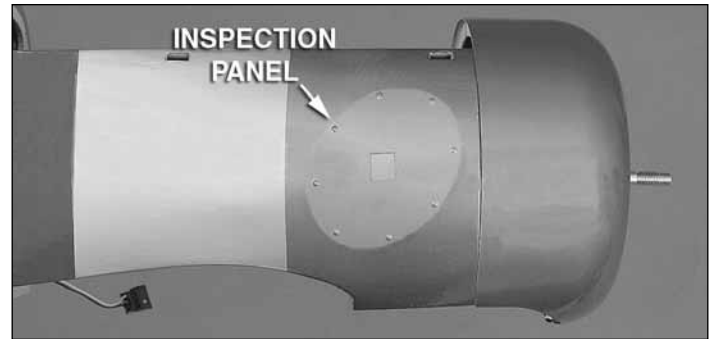
❑ 5. Center the bottom cylinder in the opening in the bottom of the cowl.



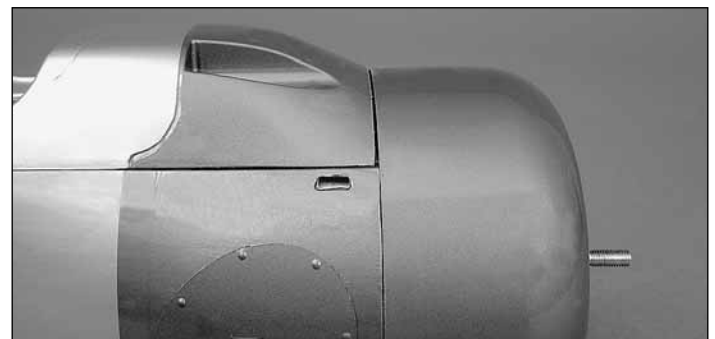
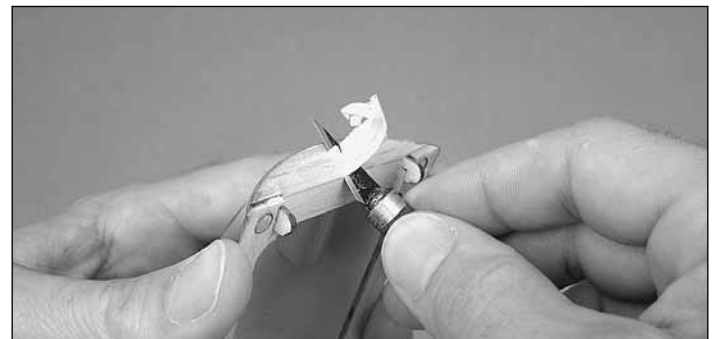
❑ 6. Center the replica engine in the cowl and push it all the way forward. View it from all angles to make sure it is centered. Then, glue it into position with thin CA.



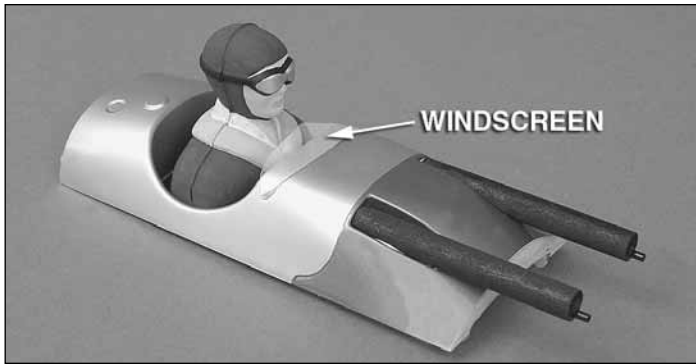
❑ 7. Use a hobby knife or a rotary tool with a drum sander to enlarge the opening in the replica engine until it fits over the motor.



❑ 8. While we're working on the front of the fuselage, it will be easier to glue on the **inspection panels** now before the wings are mounted. Add six or eight small drops of medium CA to the back of each panel, and then glue them into position on the sides of the fuselage where shown.



❑ 9. Test fit the **cockpit hatch**. If necessary, use a hobby knife to carefully trim back the balsa former at the bottom front of the hatch so it will clear the back of the cowl during installation and removal.

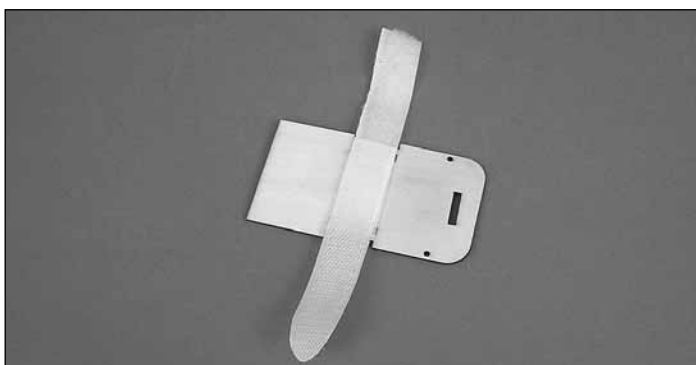
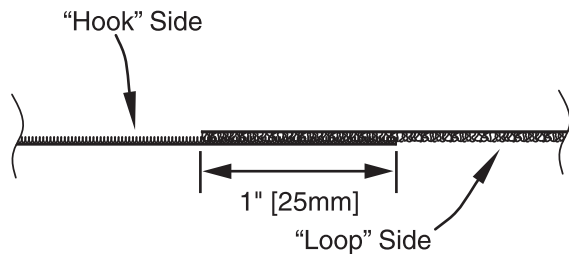


❑ 10. While holding the windscreen in position, add a small drop of CA to one spot and apply a drop of CA accelerator with a T-pin or a small piece of wire.

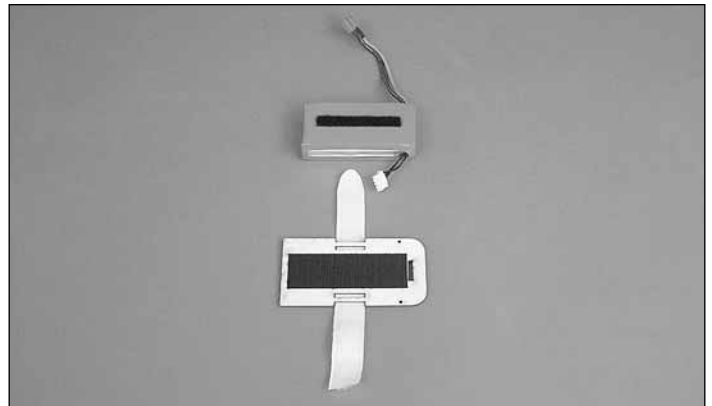
### Install the Battery Plate



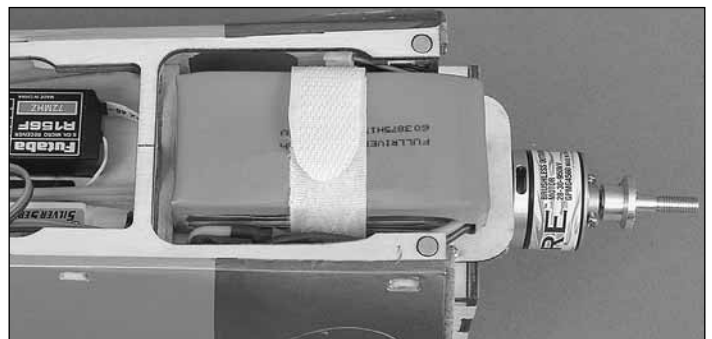
❑ 1. Test fit the plywood battery plate into the fuselage and apply a strip of adhesive-back Velcro (GPMQ4480, not included) to the top as shown.



❑ 2. Make a battery strap from the hook & loop strips included with this kit. Use medium CA to glue the strap to the **bottom** of the battery plate.



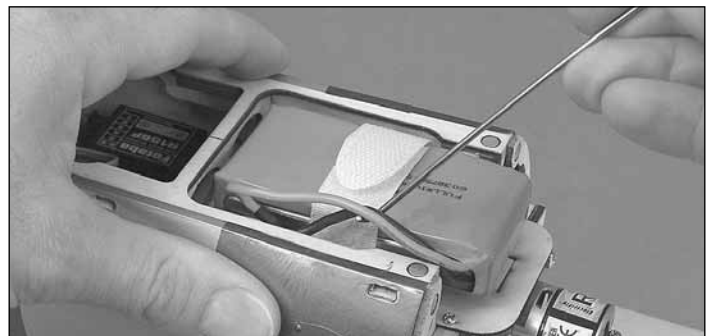
❑ 3. Apply the opposite side of Velcro to your battery—note that the Velcro strip on the battery is only about 3/8" [10mm] wide. It takes only a small amount of Velcro to keep the battery from shifting and if you use too much Velcro the battery will be too difficult to take out.



❑ 4. Mount the battery plate in the fuselage with two #2 x 3/8" [10mm] flat head screws. Mount the battery to the plate.



❑ 5. Test fit the cockpit hatch to the fuselage to make sure it fits over the battery. Make any adjustments necessary.

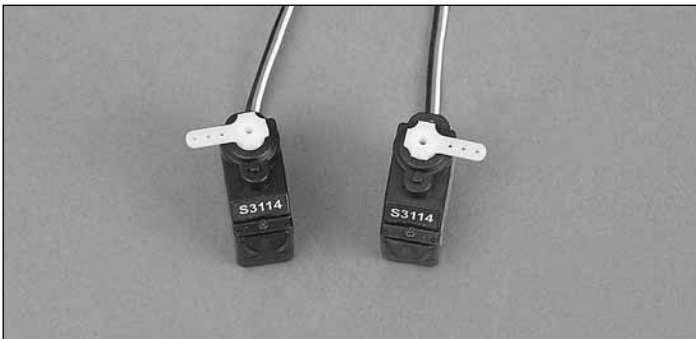


**Hint:** When you get to the flying field and are in the process of disconnecting the battery, it will be helpful to have a piece

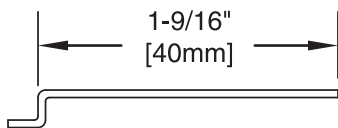
of wire with a "hook" on the end to "fish out" the battery wires. Otherwise, getting to the wires to disconnect the battery may be difficult when the wings and canopies are in the way.

## Mount the Aileron Servos

1. Same as was done with the elevator and rudder servos, temporarily connect one of your aileron servos to your receiver with a battery so you can power the system up. Center the aileron trim on your transmitter, turn on the radio and "square up" the servo arm.



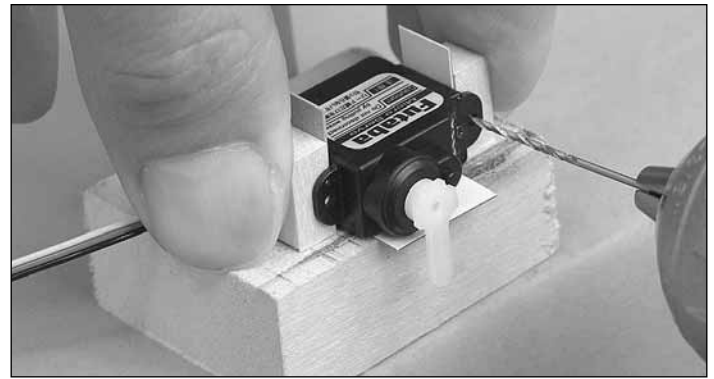
2. Connect the other aileron servo to the receiver and repeat the procedure. Cut off the unused arms as shown.



3. Use a #58 (.042" [1mm]) drill or a hobby knife to slightly enlarge the holes in the servo arms so the 1-9/16" [40mm] aileron pushrods will fit. Test fit the pushrods to make sure they fit easily.

*If you prefer to mount your servos with screws rather than gluing them in, skip this step...*

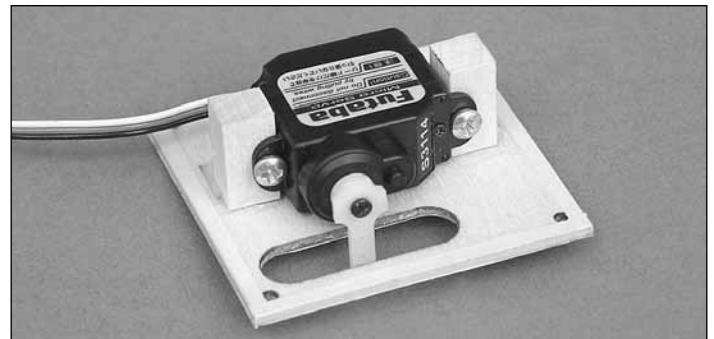
4. Clean the sides of the aileron servos with denatured alcohol, then use medium CA to glue them to the hatches with the output arms centered in the openings as shown in the photo at step 7.



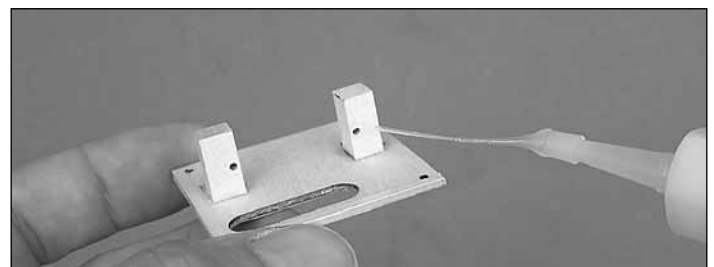
5. If you prefer to mount your servos with screws, place a 1/4" x 1/2" [7 x 12mm] **servo mounting block** on each side of one of the aileron servos. Place pieces of thin cardstock between the servo and the blocks and under the servo as shown. Drill #60 (.040" [1mm]) holes through the blocks for the servo mounting screws.



6. With the cardstock in position, mount the servo to the blocks with two 2 x 6mm screws.

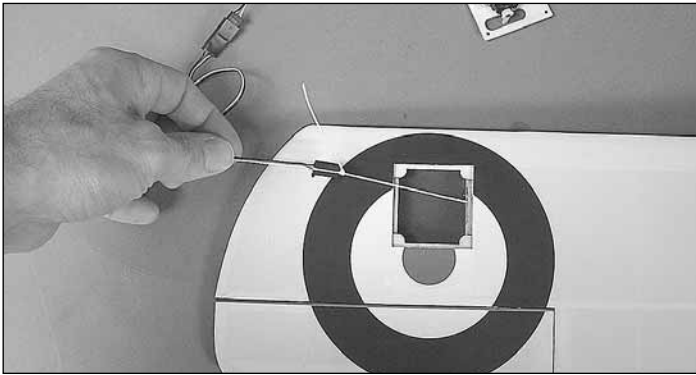


7. Apply medium CA to the bottom of each mounting block and to the **aileron hatch**. Glue the blocks to the hatch with the servo arm centered in the opening.

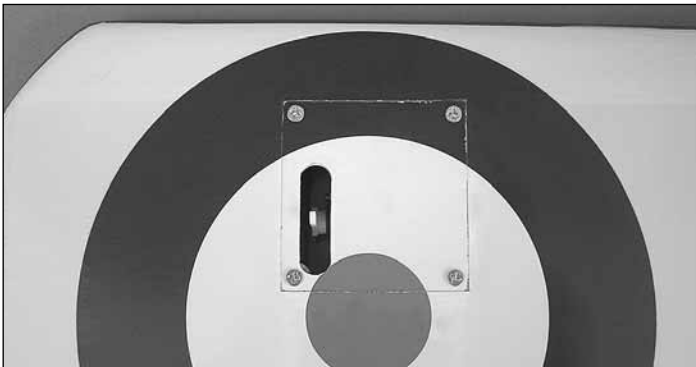


8. Temporarily remove the servo. Add a drop of thin CA to the screw holes in the blocks and allow the CA to harden. Remount the servo with the screws.

- ❑ 9. Mount the other aileron servo to the other hatch the same way. If you haven't done so already, be sure to mount the servo arms to the servos with the screws.



- ❑ 10. Connect an 8" to 12" [200 to 300mm] servo extension wire to one of the aileron servos. (A Futaba 300mm J-series extension w/slim lead was used in this model—FUTM4507.) Tie the string coming from the aileron hatch to the connector on the end of the servo wire. Pull the wire through and out the hole in the middle of the wing.

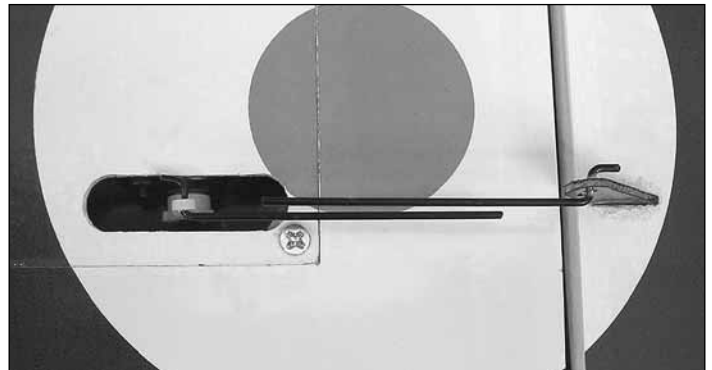


- ❑ 11. Mount the aileron hatch cover in the wing with four #2 x 3/8" [10mm] flat head Phillips screws.
- ❑ 12. Mount the other aileron servo hatch in the wing the same way.

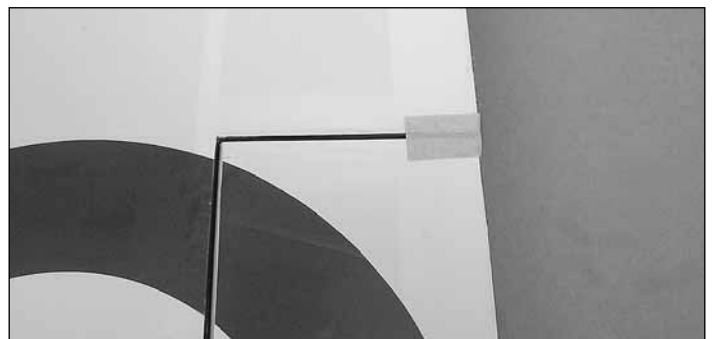
## Hook Up the Bottom Ailerons

- ❑ 1. Same as was done for the elevator and rudder horns and pushrods, fit one of the aileron pushrods into the outer hole in one of the fiberglass control horns. Spin the horn around the pushrod several times to wear the paint off the wire and loosen the fit in the hole.

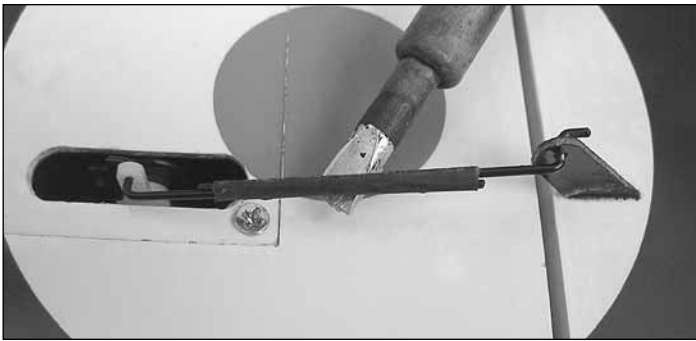
*Refer to this photo for the next two steps.*



- ❑ 2. Fit the horn into the slot in the bottom of the right aileron. Glue the horn into place with a few drops of thin CA followed by a few drops of medium CA.
- ❑ 3. Fit a second aileron pushrod into the servo arm. The pushrods should be parallel with each other. If they are not parallel, remove the pushrod from the servo arm. Use long nose pliers to bend the part of the pushrod that goes into the servo arm so the pushrod will be parallel with the pushrod in the aileron control horn as shown in the photo.
- ❑ 4. Temporarily unscrew the aileron hatch from the wing so you can slide a piece of the 1" [25mm] heat-shrink tubing over both pushrods. Reinstall the hatch.



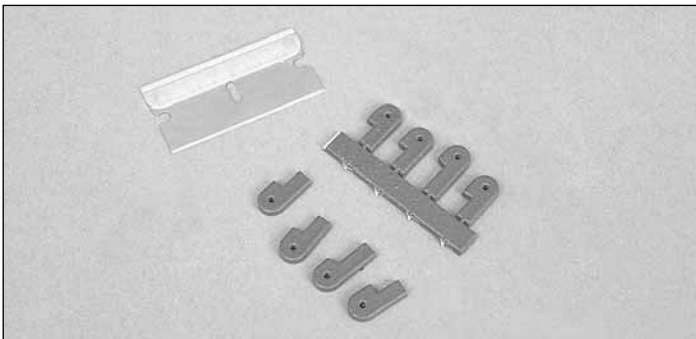
- ❑ 5. Hold the aileron centered to the wing with a small piece of masking tape.



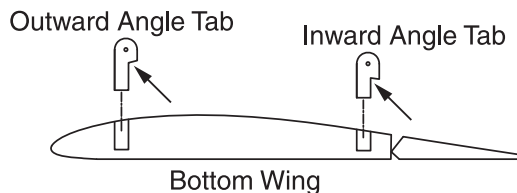
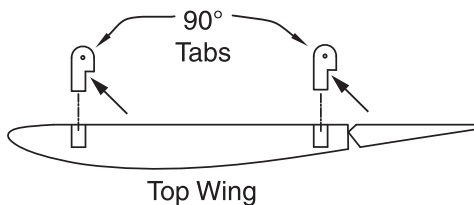
❑ 6. Connect the aileron servo wire coming out the middle of the wing to the receiver with a battery. Turn on the radio so the servo will center. Working quickly, add a few drops of medium CA to the pushrods where they overlap and center the heat-shrink tubing over the pushrods. Use a soldering iron to shrink the tubing. Add a drop of thin CA to both ends of the heat-shrink tubing where the wires come out. Remove the masking tape.

❑ 7. Connect the other servo to the other aileron the same way.

### Mount the Wings to the Fuselage

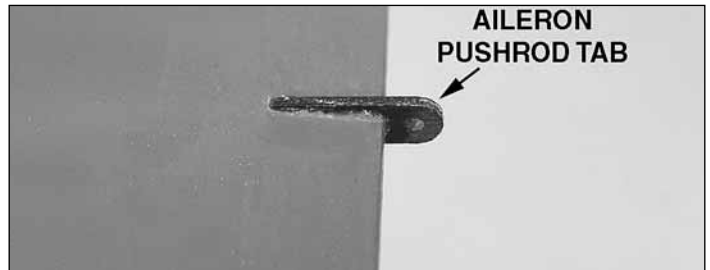


❑ 1. Cut all the plywood **wing strut mounting tabs** from the “tree” they are attached to.

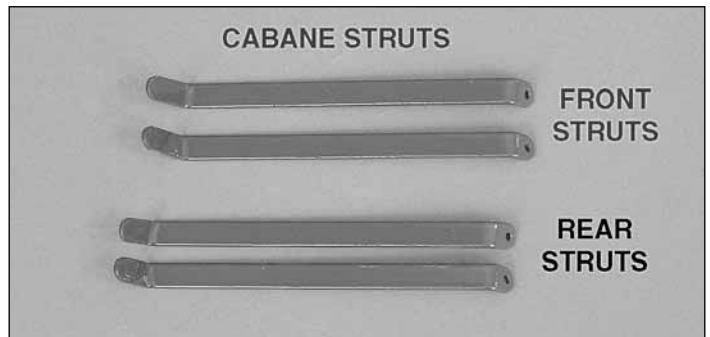


❑ 2. Note that there are three different kinds of mounting tabs—two with an inward angle, two with an outward angle and four with a 90° angle. All the 90° mounting tabs go in the top wing. Fit the tabs into the wings as shown in the illustration. Then, securely glue them into position with thin CA.

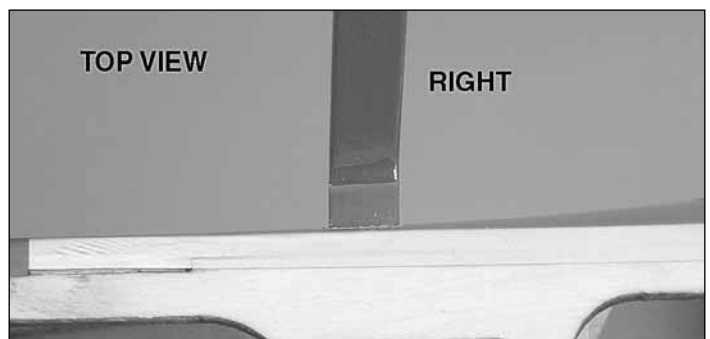
❑ 3. Test fit the four aileron pushrods into the four fiberglass **aileron pushrod tabs**. Rotate the tabs around the pushrods to wear the paint off the pushrods and “break in” the holes.



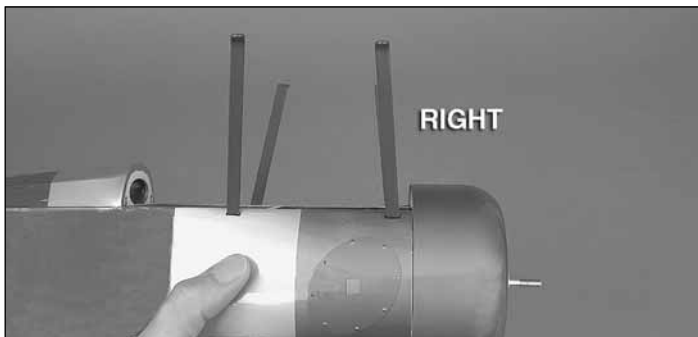
❑ 4. Fit, then use thin CA to glue the tabs into the slots in the TE of each aileron.



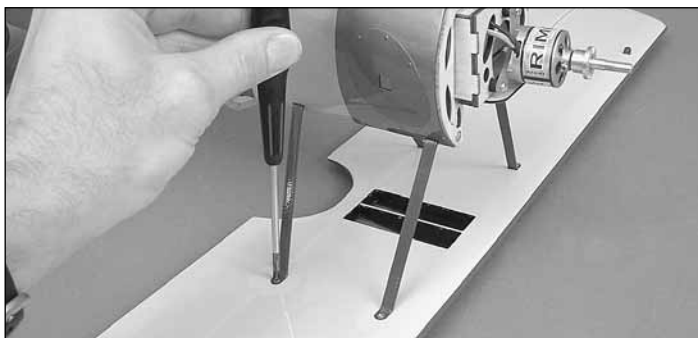
❑ 5. There are eight, painted aluminum struts included with this kit (there are four others that are wood). Separate the **cabane struts** (for mounting the top wing) from the **landing gear struts**—the cabanes are the ones that don't have any holes in one end. Also separate the **front cabane struts** from the **rear cabane struts**—the front cabane struts are the ones that have the longer tabs (without holes) on the end.



❑ 6. Fit, **but do not glue** the rear cabanes into the fuselage—the way to tell if the cabanes are installed correctly is how they fit. When installed correctly, the angle on the bottom will be parallel with the fuselage side.



❑ 7. Fit, but **do not glue** the front cabanes into the fuselage. When installed correctly, the front cabanes should have a slightly rearward sweep.

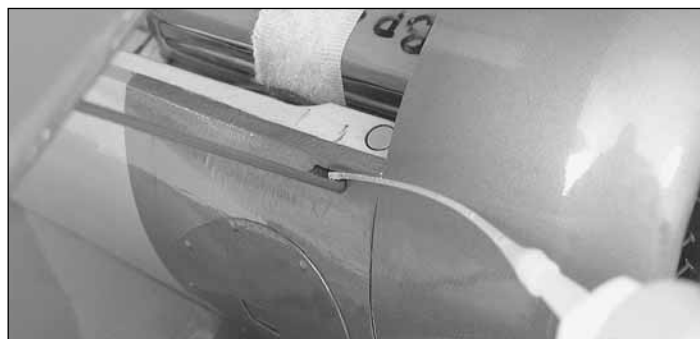


❑ 8. Turn the fuselage upside-down. Fit the cabanes into the top wing and drill 1/16" [1.6mm] holes into the wing for the mounting screws. Mount the cabanes to the wing with four #2 x 3/8" [10mm] flat-head Phillips screws. **Note:** If any of the screws are too long and contact the covering on the top wing, use wire cutters to cut 1/16" [1.6mm] from the end of the screws.

❑ 9. Connect a dual servo extension or a Y-harness to the aileron servo wires coming out the hole in the middle of the bottom wing. Bolt the bottom wing to the fuselage with the 3 x 20mm screws and 3mm washers. From the top of the fuselage down inside the cockpit hatch, connect the dual servo extension to the aileron channel in your receiver.



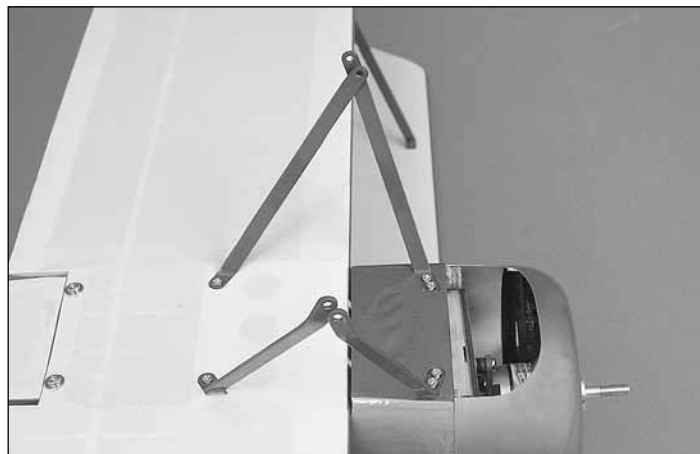
❑ 10. Use 2.6 x 8mm washer-head screws to mount the **front and rear wing struts** to the mounting tabs—the front struts are approximately 1/16" [1.6mm] shorter than the rear struts and it doesn't matter which end is up. Use care not to overtighten the screws or they will strip out of the tabs. If you do accidentally strip out one of the tabs, or if you would like the screws to have a little more "bite," remove the screws, add a drop of thin CA to each hole, allow to harden, and then remount the struts.



❑ 11. Once both wings are mounted, use thin CA to glue the cabane struts into the fuselage.

The top and bottom ailerons are ready to be connected, but it will be easier to do after the landing gear has been mounted and the plane is sitting on its "legs."

### *Mount the Landing Gear*



❑ 1. Mount the front and rear landing gear struts to the bottom of the fuselage with six #2 x 3/8" [10mm] flat-head Phillips screws. Do not tighten the screws all the way yet. The struts should be loose.

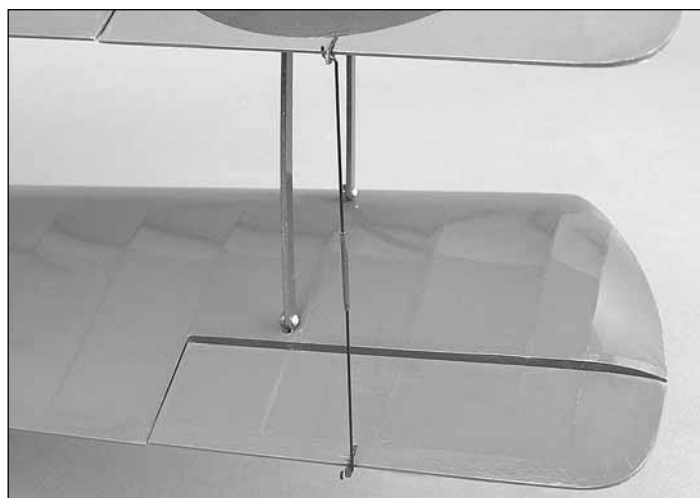


## Connect the Top & Bottom Ailerons

1. Hold each top aileron centered to the wing with small pieces of masking tape. If you have mounted the propeller, remove it. Connect the motor battery to the ESC and turn on the transmitter.



2. Fit one aileron pushrod into the tab in the top aileron and another aileron pushrod into the tab in the bottom aileron on one side of the wing.



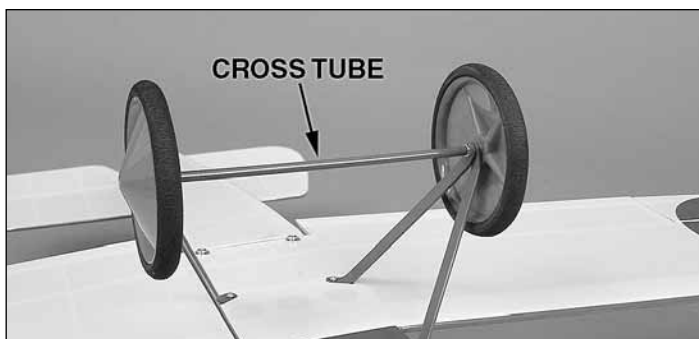
3. Slip a piece of heat-shrink tubing over the bottom pushrod. Apply a few drops of medium CA to the pushrods where they contact each other. Slide the heat-shrink tubing equally over both pushrods. Working quickly, use a soldering iron or a hobby torch to shrink the tubing.

4. Apply a drop of thin CA to the pushrod wires where they come out both ends of the heat-shrink tubing.

5. Connect the pushrods to the other aileron the same way. Remove the masking tape and operate the ailerons with the transmitter to make sure everything operates smoothly.



2. Mount the wheels to the struts with a 3 x 25mm bolt and two 3mm nuts. Use threadlocker and tighten the nuts to the struts, but make sure the wheels can roll freely.



3. Fit the **cross tube** between the wheels by inserting the ends of the 3mm bolts into each end. Tighten the screws in the struts to the wing and fuselage.

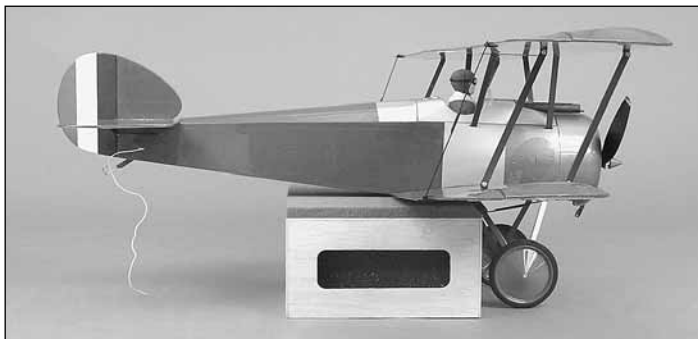


4. Test fit the **tail skid** into the bottom of the fuselage. Note how the notch in the end of the skid should catch another notch in a plywood plate inside the fuselage. Once you see how the skid fits, remove the skid and glue it into position with medium CA.

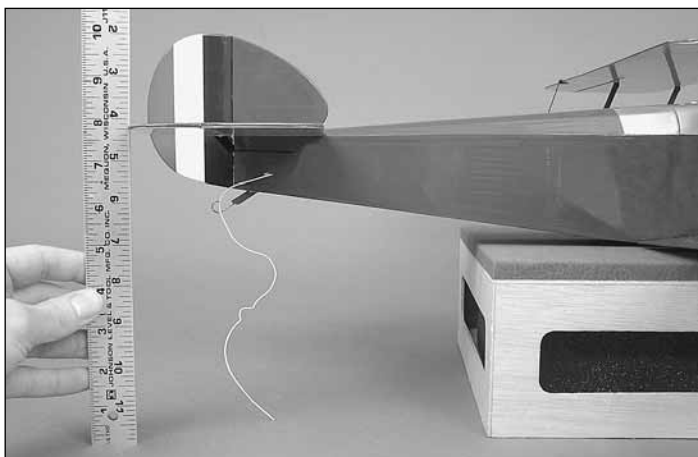
## GET THE MODEL READY TO FLY

### Set the Control Throws

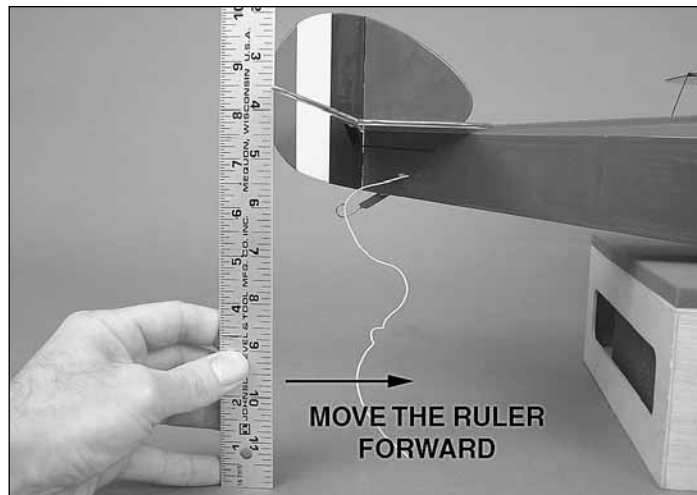
❑ 1. If using a device that measures model airplane control throws in degrees, follow the instructions that came with the device to measure and set the throws according to the measurements provided on page 19. If measuring the throws with a ruler, proceed with the following instructions.



❑ 2. Set the throws on the elevator first. Use a small box or something similar to prop up the bottom of the fuselage until the wings and horizontal stabilizer are level.



❑ 3. With the transmitter and receiver on and the elevator centered, hold a ruler up to the TE of the elevator.



❑ 4. Use the transmitter to move the elevator up. Move the ruler forward so it will still be touching the TE. The distance the elevator moves is the “up elevator” control throw. Use the endpoint adjustment in your transmitter or move the screw-lock pushrod connector in the elevator servo arm to a new hole to change the throw according to the measurements provided below.

❑ 5. Measure and set the up and down and left and right control throws for all of the control surfaces. If your radio does not have dual rates, we recommend setting the throws at the **high rate** setting. **Note:** The rudder throw is measured at the **widest part** of the rudder.

#### These are the recommended control surface throws:

##### HIGH RATE

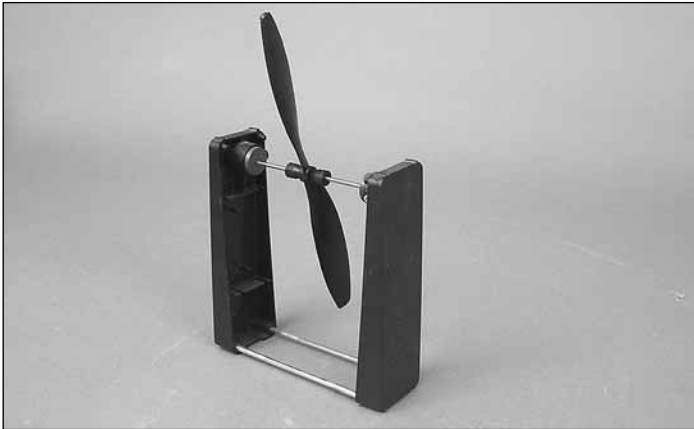
|                  |  |
|------------------|--|
| <b>ELEVATOR:</b> | 1/2" [13mm], 15° up<br>1/2" [13mm], 15° down |
| <b>RUDDER:</b>   | 1" [25mm], 22° up<br>1" [25mm], 22° down     |
| <b>AILERONS:</b> | 5/8" [16mm], 19° up<br>5/8" [16mm], 19° down |

##### LOW RATE

|                  |  |
|------------------|--|
| <b>ELEVATOR:</b> | 5/16" [8mm], 10° up<br>5/16" [8mm], 10° down     |
| <b>RUDDER:</b>   | 1-1/4" [32mm], 17° up<br>1-1/4" [32mm], 17° down |
| <b>AILERONS:</b> | 3/8" [10mm], 16° up<br>3/8" [10mm], 16° down     |

**IMPORTANT:** The Great Planes EP Sopwith Camel ARF has been **extensively** flown and tested to arrive at the throws at which it flies best. Flying your model at these throws will provide you with the greatest chance for successful first flights. If, after you have become accustomed to the way the EP Sopwith Camel ARF flies, you would like to change the throws to suit your taste, that is fine. However, too much control throw could make the model difficult to control, so remember, “more is not always better.”

## Balance the Propeller & Mount the Spinner



❑ 1. For optimum performance and motor efficiency balance the propeller using a Top Flite® Precision Magnetic Prop Balancer (TOPQ5700) or other suitable balancer. Use a hobby knife or sandpaper to sand the heavy blade until you can get the prop to balance.

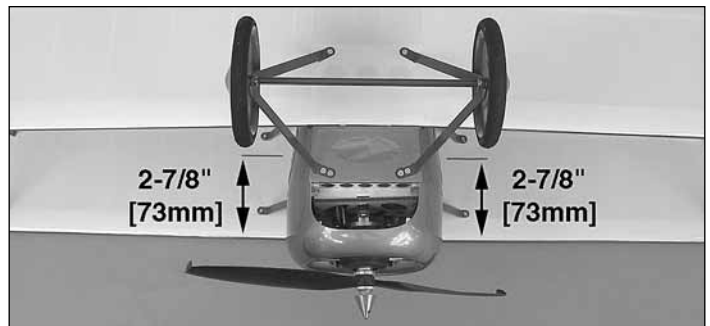


❑ 2. Mount the propeller with the propeller washer and propeller nut. Tighten the nut with an 8mm or 5/16" wrench. Install the aluminum propeller cone and tighten with a piece of wire through the hole in the front.

## Balance the Model (C.G.)

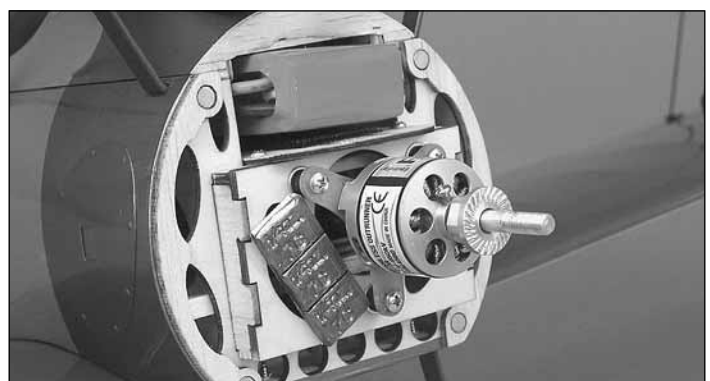
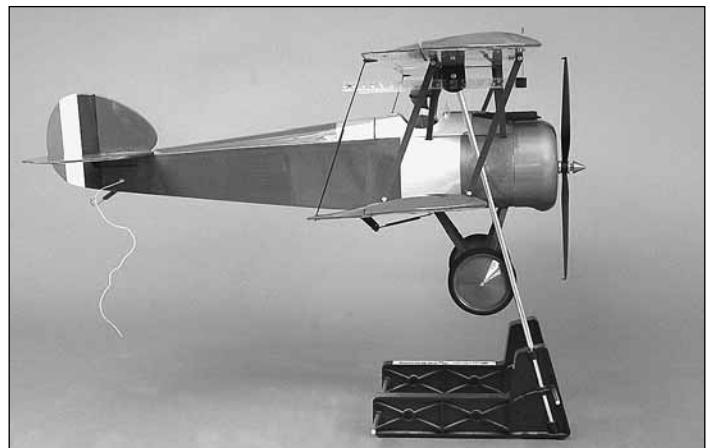
More than any other factor, the **C.G.** (balance point) can have the **greatest** effect on how a model flies, and may determine whether or not your first flight will be successful. If you value this model and wish to enjoy it for many flights, **DO NOT OVERLOOK THIS IMPORTANT PROCEDURE.** A model that is not properly balanced will be unstable and possibly unflyable.

At this stage the model should be completely ready-to-fly with all of the systems in place including the motor, propeller, motor battery, ESC, and the complete radio system.



❑ 1. If using a Great Planes C.G. Machine to balance your EP Sopwith Camel ARF, set the rulers to 2-7/8" [73mm]. If not using a C.G. Machine, use a fine-point felt-tip pen to draw short lines marking the balance point on the bottom of the **top** wing 2-7/8" [73mm] from the LE as shown. Place 1/16" [1.5mm] strips of tape over the marks so you will be able to feel the balance point with your fingers when you turn the model upside-down.

This is where your model should balance for the first flights. Later, you may wish to experiment by shifting the C.G. up to 1/4" [6mm] forward or 1/4" [6mm] back to change the flying characteristics. Moving the C.G. forward may improve the smoothness and stability, but the model may then require more speed for takeoff and make it more difficult to slow for landing. Moving the C.G. aft makes the model more maneuverable, but could also cause it to become too difficult to control. In any case, **start at the recommended balance point** and do not at any time balance the model outside the specified range.



❑ 2. Place the model on your C.G. Machine or lift it with your finger tips at the balance point you marked on the bottom

of the top wings. When the model is balanced correctly the wings and horizontal stabilizer will be level (the model in the photo is very slightly tail-heavy). If the tail is low the model is "tail heavy" and weight must be added to the nose. If the nose is low the model is "nose heavy" and weight must be added to the tail. Carefully lay segments of Great Planes "stick-on" lead (GPMQ4485) on the tail or nose until you can get the model to sit level. Once you know how much weight is required, attach it to the model. Tail weight can be stuck to the fuselage under the horizontal stabilizer and nose weight can be stuck to the firewall next to the motor—it is likely that 1/2 to 1 oz. [15 to 30 grams] will be needed on the firewall to get the model to balance.

**3. IMPORTANT:** If you found it necessary to add any weight, recheck the C.G. after the weight has been installed.

### ***Balance the Model Laterally***

1. Lift the model by the tail skid and the propeller shaft several times and note which wing tip drops.

2. If one wing always drops, it means that side is heavy. Balance the airplane by adding weight to the bottom of the opposite wing near the tip. **An airplane that has been laterally balanced will track better in loops and other maneuvers.**

## **PREFLIGHT**

### ***Identify Your Model***

No matter if you fly at an AMA sanctioned R/C club site or if you fly somewhere on your own, you should always have your name, address, telephone number and AMA number on or inside your model. It is **required** at all AMA R/C club flying sites and AMA sanctioned flying events. Use a fine-point felt-tip pen to write the information somewhere inside the airplane such as on the bottom of the cockpit.

### ***Charge the Batteries***

Follow the battery charging instructions that came with your radio control system to charge the transmitter batteries. You should always charge your transmitter the night before you go flying, and at other times as recommended by the radio manufacturer.

**CAUTION:** Unless the instructions that came with your radio system state differently, the **initial** charge on **new** transmitter and receiver batteries should be done for 15 hours **using the slow-charger that came with the radio system.** This will "condition" the batteries so that the next charge may be done using the fast-charger of your choice. If the initial charge is done with a fast-charger the batteries may not reach their full capacity and you may be flying with batteries that are only partially charged.

### ***Range Check***

When you get to your flying site ground check the operational range of the radio before the first flight of the day. With the transmitter antenna collapsed and the receiver and transmitter on, you should be able to walk at least 100 feet away from the model and still have control. Have an assistant stand by your model and, while you work the controls, tell you what the control surfaces are doing. Repeat this test with the motor running at various speeds with an assistant holding the model, using hand signals to show you what is happening. If the control surfaces do not respond correctly, **do not fly!** Find and correct the problem first. Look for loose servo or battery connections, damaged wires or a damaged receiver crystal from a previous crash in another model. One other possible source of radio "noise" that could cause interference is the arrangement and relative location of the receiver, receiver antenna and motor wires. If possible, remount the receiver in a different location or re-route some of the wires. Then, try the range check again.

## **ELECTRIC MOTOR SAFETY PRECAUTIONS**

**Failure to follow these safety precautions may result in severe injury to yourself and others.**

Use safety glasses when running the motor.

Do not run the motor in an area of loose gravel or sand; the propeller may throw such material in your face or eyes.

Keep your face and body as well as all spectators away from the plane of rotation of the propeller as it is turning.

Keep these items away from the prop: loose clothing, shirt sleeves, ties, scarfs, long hair or loose objects such as pencils or screwdrivers that may fall out of shirt or jacket pockets into the prop.

Always remove the LiPo battery from the plane before charging.

Always use a charger designed to charge LiPo batteries for charging the LiPo flight battery.

Never leave the LiPo battery unattended while charging. If the battery becomes hot, discontinue charging.

## AMA SAFETY CODE (excerpts)

Read and abide by the following excerpts from the Academy of Model Aeronautics Safety Code. For the complete Safety Code refer to *Model Aviation* magazine, the AMA web site or the Code that came with your AMA license.

### General

- 1) I will not fly my model aircraft in sanctioned events, air shows, or model flying demonstrations until it has been proven to be airworthy by having been previously, successfully flight tested.
- 2) I will not fly my model aircraft higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right-of-way and avoid flying in the proximity of full-scale aircraft. Where necessary, an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full-scale aircraft.
- 3) Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.
- 5) I will not fly my model unless it is identified with my name and address or AMA number, on or in the model. **Note:** This does not apply to models while being flown indoors.
- 7) I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile of any kind).

### Radio Control

- 1) I will have completed a successful radio equipment ground check before the first flight of a new or repaired model.
- 2) I will not fly my model aircraft in the presence of spectators until I become a qualified flier, unless assisted by an experienced helper.
- 3) At all flying sites a straight or curved line(s) must be established in front of which all flying takes place with the other side for spectators. Only personnel involved with flying the aircraft are allowed at or in the front of the flight line. Intentional flying behind the flight line is prohibited.
- 4) I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission.
- 5) **I will not knowingly operate my model within three miles of any pre-existing flying site except in accordance with the frequency sharing agreement listed** (in the complete AMA Safety Code).

- 9) Under no circumstances may a pilot or other person touch a powered model in flight; **nor should any part of the model other than the landing gear, intentionally touch the ground, except while landing.**

## CHECK LIST

Perform these basic checks to make sure the model is ready to fly. Where appropriate, refer to the instruction manual for additional information required to complete the check.

1. Make sure you have checked the C.G. according to the measurements provided.
2. Confirm that all controls operate in the correct direction and the throws are set according to the manual.
3. Be certain the battery and receiver are securely mounted.
4. Extend your receiver antenna all the way out the antenna tube in the fuselage.
5. Balance the model *laterally*.
6. Make sure all the hinges are **securely** glued in place by tugging on the control surfaces. If any hinges are loose, add a few drops of thin CA to the top and bottom of the loose hinge.
7. Make sure all servo arms are mounted to the servos with the screws that came with them.
8. Make sure you have balanced the propeller. It would be a good idea to have spare propellers in your flight box as well.
9. Make sure the propeller nut and spinner are tight.
10. Place your name, address, AMA number and telephone number on or inside your model.
11. If you wish to photograph your model, do so before your first flight.
12. Range check your radio when you get to the flying field.

## FLYING

The EP Sopwith Camel ARF is a great-flying model that flies smoothly and predictably. The EP Sopwith Camel ARF does not, however, possess the self-recovery characteristics of a primary R/C trainer and should be flown only by R/C pilots who have some experience.

**CAUTION (THIS APPLIES TO ALL R/C AIRPLANES):** If, while flying, you notice an alarming or unusual sound such as a low-pitched “buzz,” this may indicate control surface *flutter*. Flutter occurs when a control surface (such as an aileron or elevator) or a flying surface (such as a wing or stab) rapidly vibrates up and down (thus causing the noise). In extreme cases, if not detected immediately, flutter can actually cause the control surface to detach or the flying surface to fail, thus causing loss of control followed by an impending crash. The best thing to do when flutter is detected is to slow the model **immediately** by reducing power, then land as soon as safely possible. Identify which surface fluttered (so the problem may be resolved) by checking all the servo grommets for deterioration or signs of vibration. Make certain all pushrod linkages are secure and free of play. If it fluttered once, under similar circumstances it will probably flutter again unless the problem is fixed. Some things which can cause flutter are; Excessive hinge gap; oversized holes in servo arms or control horns where the pushrods connect, Excessive free play in worn servo gears; Insecure servo mounting; and one of the most prevalent causes of flutter; Flying an over-powered model at excessive speeds.

## Preflight

Monitor your flight time using the timer in your transmitter or the timer on your wrist watch. When the batteries are getting low you will usually notice a performance drop before the ESC cuts off motor power, so when you notice the plane flying slower you should land. Often (but not always!), power can be briefly restored after the motor cuts off by holding the throttle stick all the way down for a few seconds.

To avoid an unexpected dead-stick landing on your first flight set your alarm or timer to a conservative 6 minutes. When the alarm sounds you can either land your model, or if you are an experienced pilot, you may continue to fly and plan for a dead-stick landing to see just how long the motor will run. Circle the plane upwind of the landing area until the motor quits. Note the run time, and then land.

When you learn how much flight time you are getting you can adjust your timer accordingly. Always be conservative so the motor won't quit unexpectedly and you will have enough battery to land under power.

## Takeoff

The EP Sopwith Camel ARF will not take off from grass unless it is extremely short and smooth. But taking off from a paved surface should be no problem as long as the model is pointing into any prevailing wind. If the nose is not pointing into the wind, and if there is anything stronger than a slight breeze, the model will weathervane into the wind as soon as you advance the throttle anyway. If the conditions do not allow for a ROG (rise off ground) takeoff, the model may be hand-launched instead. After checking the controls simply advance the throttle to full power and have an assistant launch the model into the air at a straight-and-level or **slightly** nose up attitude. Keep the wings level, but allow the model to briefly sink until it gains enough airspeed to climb.

If taking off from the runway, **smoothly** but rapidly advance the throttle until the model gains enough speed. The rudder will not be very effective until the model is almost ready to take off. Once the plane has built up enough speed, apply “up” elevator to lift the model into the air. As soon as it breaks ground it should be easy to control. Continue to climb until the model has reached an altitude that is comfortable for you and make the first turn away from the runway.

## Flight

Continue to fly the model around for a minute while you get used to how the EP Sopwith Camel ARF responds. The first priority will be to adjust the trims to get the model to fly straight-and-level. Continue to fly around, getting the model properly trimmed while you learn its characteristics and get a good feel for how it flies. While still at a high altitude, test to see how the EP Sopwith Camel ARF will behave when it's time to land by cutting motor power to see how it glides. Let the model continue to glide as long as you like. Then, apply power and climb to altitude again. Perform this exercise a few times so you will be ready to make a good landing. Remember to monitor your flight time so the motor doesn't cut off.

## Landing

Landing any model into the wind is always preferred, but with a small, lightweight plane such as this landing into the wind is even more important. A headwind will help keep the wings level, make the controls more effective at reduced ground speeds, and allow for a slower ground speed for softer touchdowns. When ready to land and on the downwind leg, cut or reduce motor power, allowing the model to descend. Make the turn across the wind toward the runway, simultaneously keeping the nose down so the model maintains airspeed. Add power if the model is too far away and not going to reach the runway. When the model is a few feet [1 meter] off the ground apply increasing amounts of up elevator, allowing the

model to slow while it continues to descend. Ideally, in calm conditions, you will be holding full up elevator at the point of touchdown. If the conditions are breezy you may have to “fly” the model to the ground with a small amount of motor power and less up elevator.

Once the model touches down and has lost flying speed hold full up elevator to hold the tail down and keep the model from flipping over. If landing in grass the model will probably flip over immediately, but no damage should occur.

One final note about flying your model. Have a goal or flight plan in mind for **every** flight. This can be learning a new maneuver(s), improving a maneuver(s) you already know, or learning how the model behaves in certain conditions (such as on high or low rates). This is not necessarily to improve your skills (*though it is never a bad idea!*), but more importantly so you do not surprise yourself by impulsively attempting a maneuver and suddenly finding that you’ve run out of time, altitude or airspeed. Every maneuver should be deliberate, not impulsive. For example, if you’re going to do a loop, check your altitude, mind the wind direction (anticipating rudder corrections that will be required to maintain heading), remember to throttle back at the top, and make certain you are on the desired rates (high/low rates). A flight plan greatly reduces the chances of crashing your model just because of poor planning and impulsive moves. **Remember to think.**

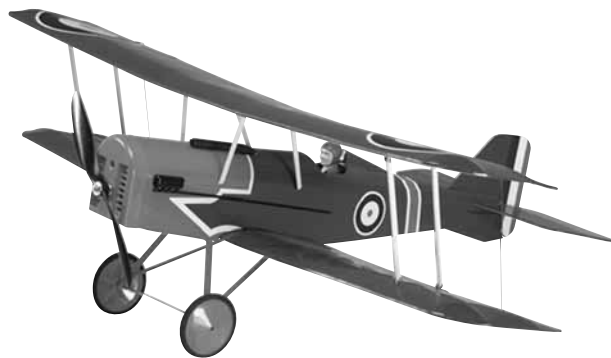
***Have a ball! But always stay in control and fly in a safe manner.***

**GOOD LUCK AND GREAT FLYING!**

|                        |                 |
|------------------------|-----------------|
| This model belongs to: | _____           |
|                        | Name            |
|                        | _____           |
|                        | Address         |
|                        | _____           |
|                        | City, State Zip |
| _____                  |                 |
| Phone number           |                 |
| _____                  |                 |
| AMA number             |                 |

***Make a copy of this identification tag and put it on or inside your model.***

## **OTHER ITEMS AVAILABLE FROM GREAT PLANES**



### **ElectriFly S.E. 5a WWI Park Flyer EP ARF by Great Planes**

On your next trip to the park or flying field, give chase to the Red Baron's Flying Circus – behind the sticks of ElectriFly's all-wood S.E. 5a biplane! This prebuilt version of the famous RAF fighter comes ready to take advantage of the latest breakthroughs in electric power for long flight times and dogfight-winning maneuverability. It assembles quickly from prebuilt structures of laser-cut, film-covered balsa/ply, and includes easy-to-install cabanes, struts, and molded details for vintage warbird looks. Spanning just 34", the S.E. 5a can stay in one piece for transport in most vehicles. With its ability to turn sharply and change directions quickly, any open area can easily become the stage for exciting sport flying and mock combat! **GPMA1140**



### **ElectriFly™ Fokker D.VII EP ARF by Great Planes®**

Like the full-size Fokker D.VII that challenged Allied air forces in WWI, this prebuilt park flyer is a spirited performer. And because the Fokker D.VII park flyer is an ARF, the high-quality, laser-cut wood parts assemble quickly and easily. Its prebuilt balsa/ply structures are precovered in a high-quality film. Lots of impressive details are included, from the vacuum-formed cowl and realistic machine guns to the scale-shaped landing gear and scale wheels. The cabanes and interplane struts come already painted and are shaped for easy installation and proper alignment. An out-runner brushless motor gives this model a great power-to-weight ratio and long flight times. The ElectriFly RimFire 28-30-950 motor (GPMG4560) was found to be ideal for the Fokker D.VII. **GPMA1141**

