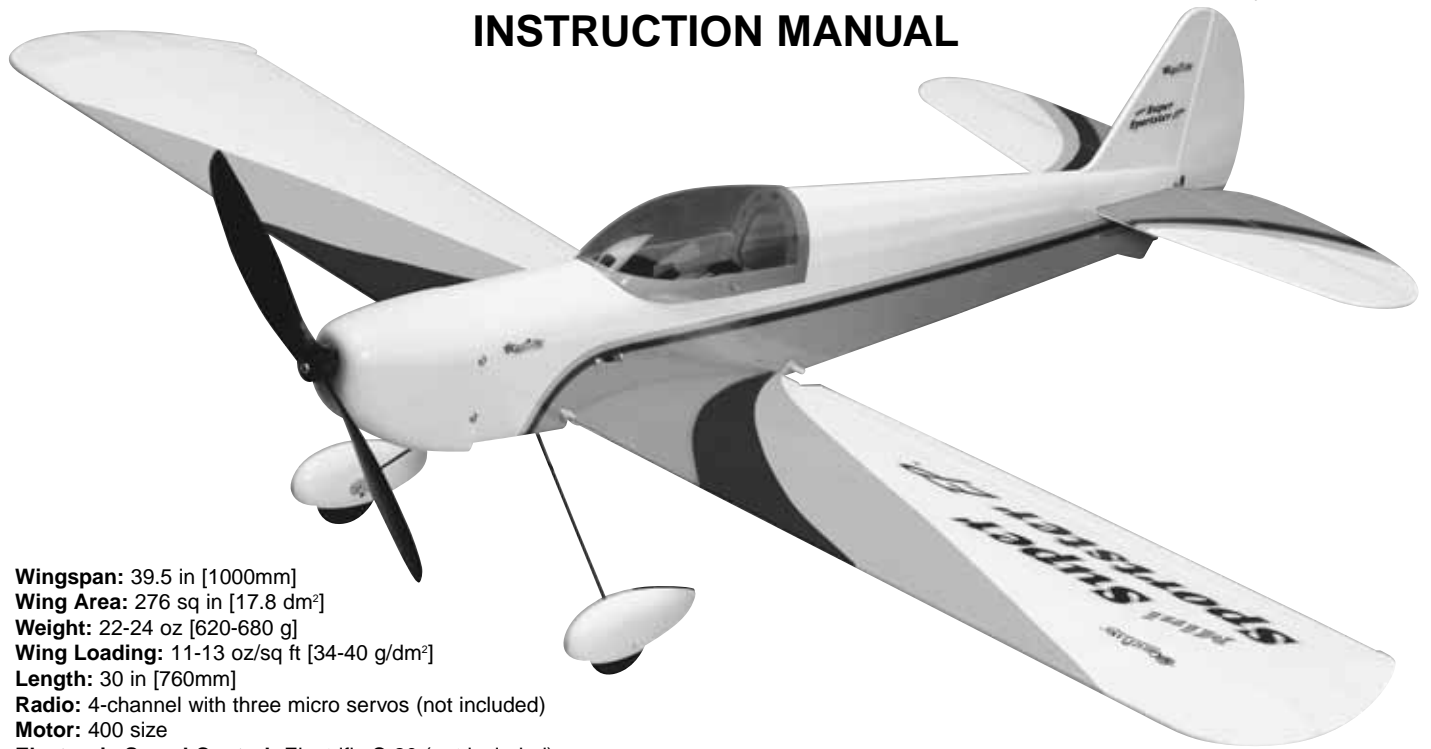


Mini Super Sportster EP™ ARF

INSTRUCTION MANUAL



Wingspan: 39.5 in [1000mm]
Wing Area: 276 sq in [17.8 dm²]
Weight: 22-24 oz [620-680 g]
Wing Loading: 11-13 oz/sq ft [34-40 g/dm²]
Length: 30 in [760mm]
Radio: 4-channel with three micro servos (not included)
Motor: 400 size
Electronic Speed Control: Electrify C-20 (not included)

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 WARNINGS AND INSTRUCTIONS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.



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

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INTRODUCTION

The Great Planes Super Sportster has been a favorite among pilots since 1984. For many pilots the Super Sportster was their first low-wing plane. Now, Great Planes brings you the Super Sportster tradition in an electric park flyer version. Following the lines of the Super Sportster, the Mini Super Sportster EP has been lightened to accommodate electric power without sacrificing performance. If you're ready to continue the Super Sportster tradition without the fuss and mess of a glow engine, the Mini Super Sportster EP is just what you need.

For the latest technical updates or manual corrections to the Mini Super Sportster EP visit the Great Planes web site at www.greatplanes.com. Open the "Airplanes" link, then select the Mini Super Sportster EP. If there is new technical information or changes to this model a "tech notice" box will appear in the upper left corner of the page.

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 Mini Super Sportster EP 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 Mini Super Sportster EP 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 clevises or other 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. **WARNING:** The wheel pants included in this kit are made of fiberglass, the fibers of which may cause eye, skin and respiratory tract irritation. Never blow into a part (wheel pant) to remove fiberglass dust, as the dust will blow back into your eyes. Always wear safety goggles, a particle mask and rubber gloves when grinding, drilling and sanding fiberglass parts. Vacuum the parts and the work area thoroughly after working with fiberglass parts.

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.

DECISIONS YOU MUST MAKE

Battery Charger Options

A fully charged battery pack will provide an initial "surge" of power during the first 15 to 30 seconds of the motor run. Then the power output stays fairly steady for the next several minutes before dropping off quickly. If you do not "peak-charge" your battery, it will not deliver that initial surge necessary for a good takeoff and climb-out. There are three easy ways to peak-charge your battery pack.

1. The easiest way is with a "peak-detecting" battery charger. This type of charger will charge your battery until it is fully charged, then automatically shut off. Using a peak-detecting charger reduces the chances of damaging the batteries from over-charging. We recommend the Great Planes Triton™ DC Peak Charger (GPMM3150) to keep your batteries in good condition or the ElectriFly Peak 400 (GPMM3001).

2. The second method of charging your motor batteries is to monitor the voltage of your battery pack with a voltmeter while charging. **This method is only recommended for NiCd batteries.** Your charger may have sockets into which you may plug a voltmeter. If not, you may insert the probes from the voltmeter into the rear of the battery plug, making contact with the metal contacts. As your battery charges, the voltage will gradually increase. When the battery is fully charged, the voltage will start to **drop**. At this point your battery is fully charged. We recommend the Hobbico® 905 AC/DC Multi-Charger (HCAP0150).

3. The third (and least reliable) method of peak-charging your battery pack is by checking its temperature. **This method is only recommended for NiCd batteries.** As the battery charges it will remain cool until it is fully charged. When it reaches the fully charged state, it will rapidly build up heat. You can feel this heat with your hand. As soon as the pack starts to noticeably warm up, disconnect it from the charger. **Do not continue charging if the battery pack is hot!** Overcharging will damage your battery pack and can result in an explosion.

Connector Replacement

The Mini Super Sportster EP comes with a BEC type connector to allow you to change the connector on the electronic speed control, if needed, to match the connector supplied on the motor battery, or you may also prefer to use the connectors of your choice. The one requirement of the connectors is they must be able to handle a current of at least 12 Amps. Changing the connectors will require that the connectors be soldered to the wires from the ESC and the battery. If you do not have soldering experience, find a fellow modeler who does and have them help with the soldering.

ADDITIONAL ITEMS REQUIRED

Hardware and Accessories

In addition to the items listed in the “**Battery Charger Options**” section, following is the list of hardware and accessories required to finish the Mini Super Sportster EP. Order numbers are provided in parentheses.

- 4-channel radio w/3 micro servos (Futaba® S3107, FUTM0025)
- ElectriFly™ C-20 speed control (GPMM2020)
- 6" [150mm] servo extension (HCAM2701 for Futaba)
- 1100 mAh 9.6 volt battery (GPMP0251)

Adhesives and 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 Mini Super Sportster EP. **Great Planes Pro™ CA and Epoxy glue are recommended.**

- 1/2 oz. [15g] Thin Pro CA (GPMR6001)
- Pro 30-minute epoxy (GPMR6047)
- Drill bits: 1/32" [.8mm], 1/16" [1.6mm], 5/64" [2mm], 7/64" [3mm]
- #1 hobby knife (HCAR0105)
- #11 blades (5-pack, HCAR0211)
- Medium T-pins (100, HCAR5150)
- Builder's triangle set (HCAR0480)
- 36" metal ruler (HCAR0475)
- Denatured alcohol (for epoxy clean up)

Optional Supplies and Tools

Here is a list of optional tools mentioned in the manual that will help you build the Mini Super Sportster EP.

- Pro™ 6-minute epoxy (GPMR6045)
- Stick-on segmented lead weights (GPMQ4485)
- Top Flite® MonoKote® sealing iron (TOPR2100)
- Top Flite Hot Sock™ iron cover (TOPR2175)
- Top Flite MonoKote heat gun (TOPR2000)
- 2 oz. [57g] spray CA activator (GPMR6035)
- CA applicator tips (HCAR3780)
- CA debonder (GPMR6039)
- Epoxy brushes (6, GPMR8060)
- Mixing sticks (50, GPMR8055)
- Mixing cups (GPMR8056)
- Curved-tip canopy scissors for trimming plastic parts (HCAR0667)
- Robart Super Stand II (ROBP1402)
- Masking tape (TOPR8018)
- K & S #801 Kevlar thread (for stab alignment)
- CG Machine™ (GPMR2400)
- Precision Magnetic Prop Balancer™ (TOPQ5700)
- AccuThrow™ Deflection Gauge (GPMR2405)

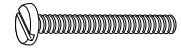
IMPORTANT BUILDING NOTES

- There are two types of screws used in this kit:

Sheet metal screws are pointed and have a coarse thread.



Machine screws have a squared off end and a fine thread.



Both screws are designated by a number, the diameter, and the length. For example, a 3 x 8mm screw has a diameter of 3mm and a length of 8mm.

- When you see the term **test fit** in the instructions, it means that you should first position the part on the assembly **without using any glue**, then slightly modify or *custom fit* the part as necessary for the best fit.
- Whenever the term **glue** is written you should rely upon your experience to decide what type of glue to use. When a specific type of adhesive works best for that step, the instructions will make a recommendation.
- Whenever just **epoxy** is specified you may use **either** 30-minute (or 45-minute) epoxy **or** 6-minute epoxy. When 30-minute epoxy is specified it is **highly** recommended that you use only 30-minute (or 45-minute) epoxy, because you will need the working time and/or the additional strength.
- **Photos** and **sketches** are placed **before** the step they refer to. Frequently you can study photos in following steps to get another view of the same parts.
- 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 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.

COMMON ABBREVIATIONS

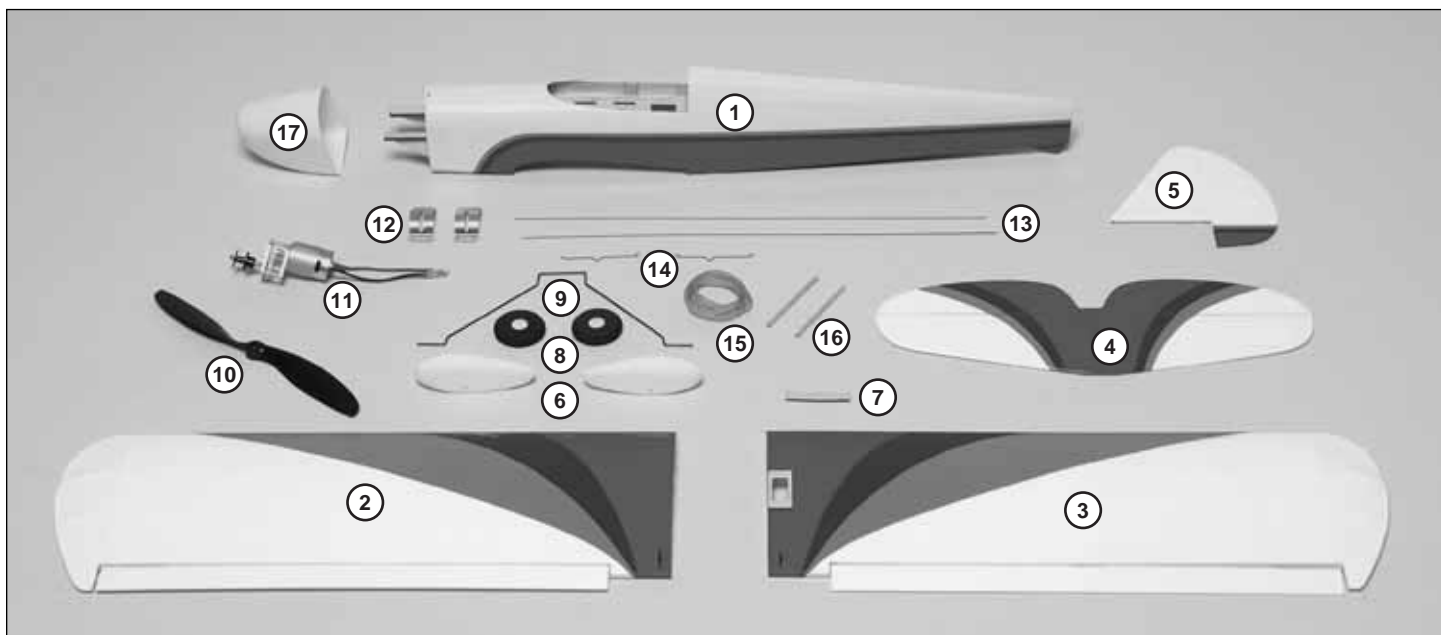
Fuse = Fuselage
Stab = Horizontal Stabilizer
Fin = Vertical Fin
LE = Leading Edge
TE = Trailing Edge
LG = Landing Gear
Ply = Plywood
" = Inches
mm = Millimeters
SHCS = Socket Head Cap Screw

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

KIT CONTENTS



Kit Contents (Photographed)

- | | |
|---|---|
| <ul style="list-style-type: none"> 1 Fuselage 2 Left Wing Panel 3 Right Wing Panel 4 Stabilizer and Elevator 5 Fin and Rudder 6 Wheel Pants (2) 7 Wing Joiner 8 Wheels (2) 9 Main Landing Gear | <ul style="list-style-type: none"> 10 Propeller 11 Motor and Gear Drive 12 Motor Mount (2) 13 Rudder and Elevator Pushrods 14 Aileron Pushrods (2) 15 Rubber Bands (4) 16 Wing Dowels (2) 17 Cowl |
|---|---|

Kit Contents (Not Photographed)

- | | |
|---|---|
| <ul style="list-style-type: none"> Control Horns (2) Landing Gear Strap (2) 2x4mm Sheet Metal Screw (4) 2.3x12mm Tube (1) Hook & Loop Material (1) Female Bullet Connector (2) 2x7mm Sheet Metal Screw (9) | <ul style="list-style-type: none"> CA Hinges (9) 2x9mm Machine Screw (4) Pushrod Connector (2) 2mm Washer (2) 2mm Nut (2) 3mm Set Screw (2) Torque Rod Horns (2) |
|---|---|

ORDERING REPLACEMENT PARTS

Replacement parts for the Great Planes Mini Super Sportster EP 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 Great Planes web site at www.greatplanes.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. If a hobby shop is not available, replacement parts may also be ordered from Tower Hobbies at www.towerhobbies.com, or by calling toll free (800) 637-6050.

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.

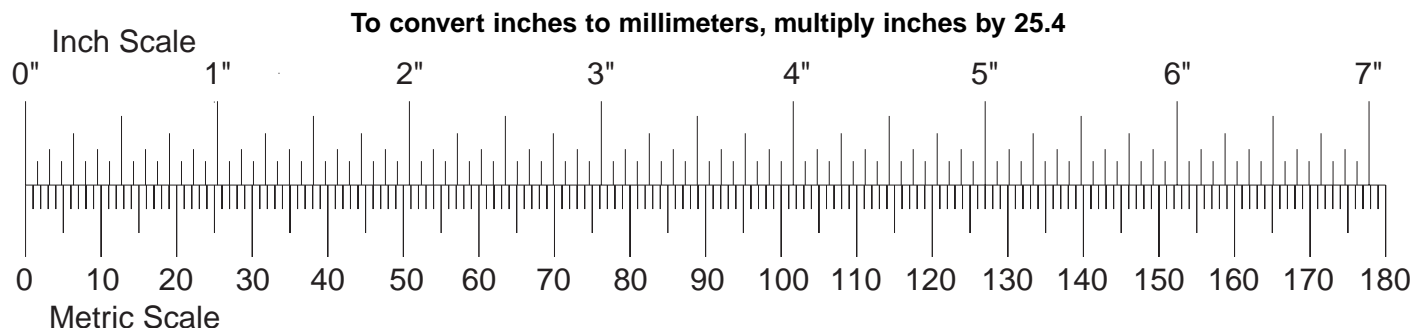
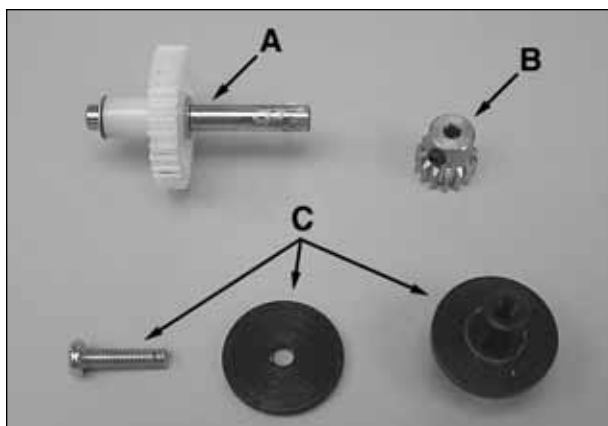
If additional assistance is required for any reason contact Product Support by e-mail at productsupport@greatplanes.com, or by telephone at (217) 398-8970.

Replacement Parts List

<u>Order Number</u>	<u>Description</u>	<u>How to Purchase</u>
	Missing pieces	Contact Product Support
	Instruction manual.....	Contact Product Support
	Full-size plans	Not available
	Kit parts listed below.....	Hobby Supplier

- GPMA2765.....Wing Kit
- GPMA2766.....Fuse Kit
- GPMA2767.....Tail Set
- GPMA2768.....Cowl
- GPMA2769.....Canopy
- GPMA2770.....Landing Gear
- GPMA2771.....Wheel Pants
- GPMQ1680.....Propeller

- GPMG0181.....Gear Box**
- GPMG0308.....Motor
- GPMG0861.....Spur Gear/Shaft (A)
- GPMG0238.....Pinion Gear (B)
- GPMQ4621.....Prop Adapter (C)



PREPARATIONS

1. If you have not done so already, remove the major parts of the kit from the box (wing, fuselage, tail parts, etc.) and inspect them for damage. If any parts are damaged or missing, contact Product Support at the address or telephone number on the front cover.

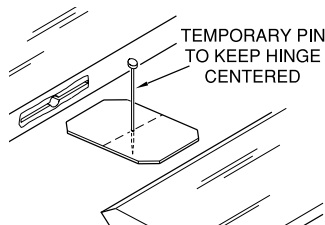


2. Remove the masking tape and separate the ailerons from the wing and the rudder from the fin. If necessary, use a covering iron set on medium/high to tighten the covering. Apply pressure over sheeted areas to **thoroughly** bond the covering to the wood.

ASSEMBLE THE WING

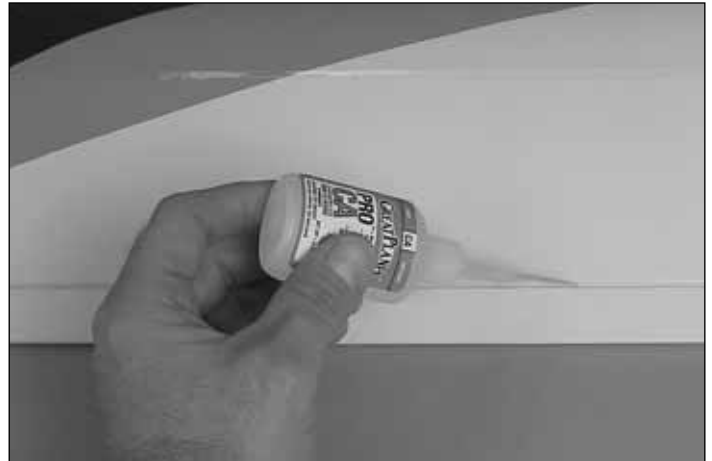
Install the Ailerons

1. Test fit the ailerons to the wing with the supplied CA hinges. If the hinges don't stay centered, stick a pin through the middle of the hinges to hold them in position.



2. Clean the aileron torque rods with denatured alcohol.

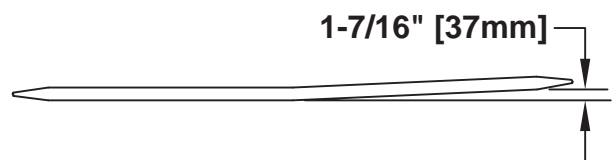
3. Mix a small amount of epoxy. Using a tooth pick, apply epoxy in the aileron torque rod hole and along the groove in the leading edge of one of the ailerons. Before the epoxy sets, join the aileron to the wing. Remove any pins you may have inserted into the hinges. Adjust the aileron so there is a very small gap between the LE of the aileron and the wing. The gap should be small—just enough to see light through or to slip a piece of paper through.



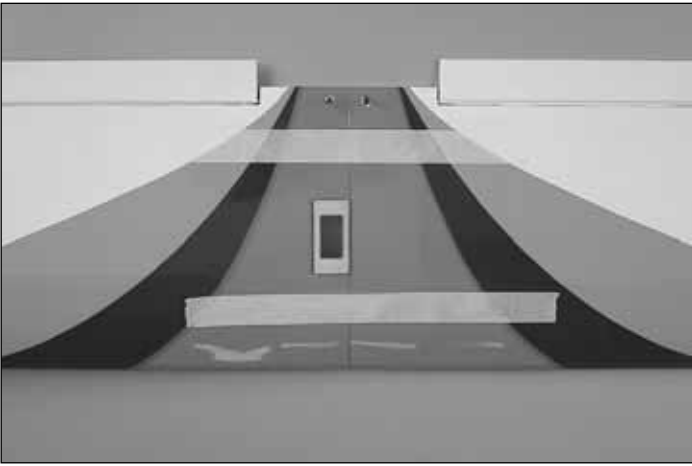
4. Apply six drops of thin CA to the top and bottom of each hinge. Do not use CA accelerator. After the CA and epoxy have fully hardened, test the hinges by pulling on the ailerons.

5. Go back to step 1 and repeat the hinge installation for the other aileron.

Join the Wing Halves



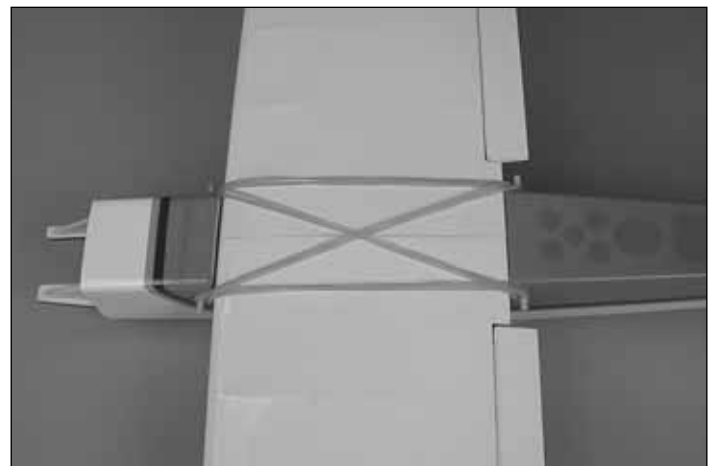
1. **Without using any glue**, temporarily join the wings with the plywood wing joiner. Make adjustments as necessary for a good fit. **Note:** The dihedral angle is factory-set and determined by the angle of the joiner and the joining ribs on the ends of the wing halves. However, you may confirm the dihedral by placing one wing panel flat on the workbench and measuring the distance between the bottom of the rib on the end of the other panel and the bench. The distance should be 1-7/16" [37mm], but a small variance is acceptable. If the wing doesn't fit well or if you can't get close enough to the dihedral specified, there may be excess glue inside the wing or irregularities on the joiner. Use coarse sandpaper to true the edges and bevel the corners of the joiner and/or use a hobby knife to remove any glue from the joiner openings in the ribs on the end of the wing halves.



❑ 2. Prepare 1/2 oz. of 30-minute epoxy. Working quickly, thoroughly coat the inside of both wing halves where the joiner fits and one half of the joiner with epoxy. Making certain the joiner is upright, insert the coated end into one of the wing halves. Coat the other end of the joiner and the root ribs with the remainder of the epoxy. Join the wing halves tightly, holding them together. Use a paper towel dampened with denatured alcohol to wipe away the excess epoxy that comes out of the wing. Tightly hold the wing together with several strips of masking tape on the top and bottom, making certain both halves are in full contact and the leading and trailing edges are aligned. Let the wing set until the epoxy has set.



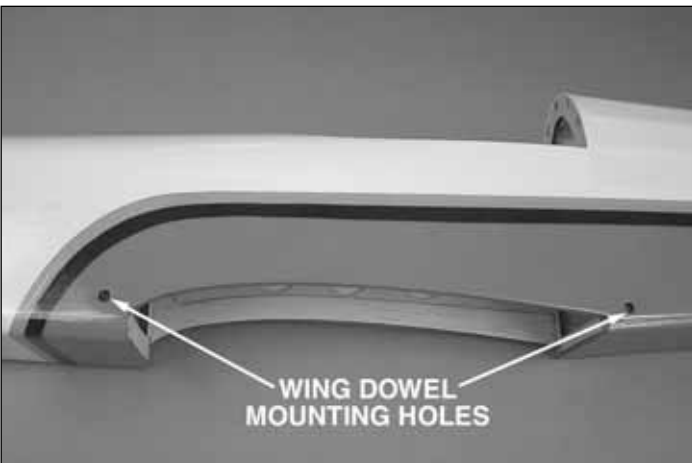
❑ 2. Center the two 4mm x 80mm hardwood wing mounting dowels in the holes. Use thin CA to glue the dowels in place.



❑ 3. Install the wing on the fuselage using four rubber bands.

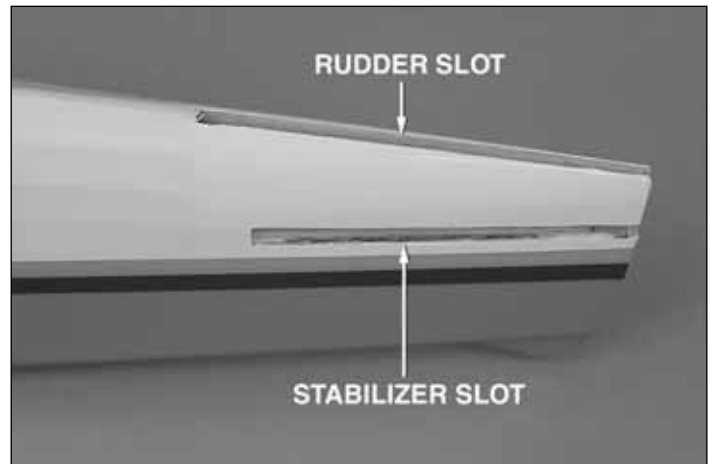
ASSEMBLE THE FUSELAGE

Mount the Wing

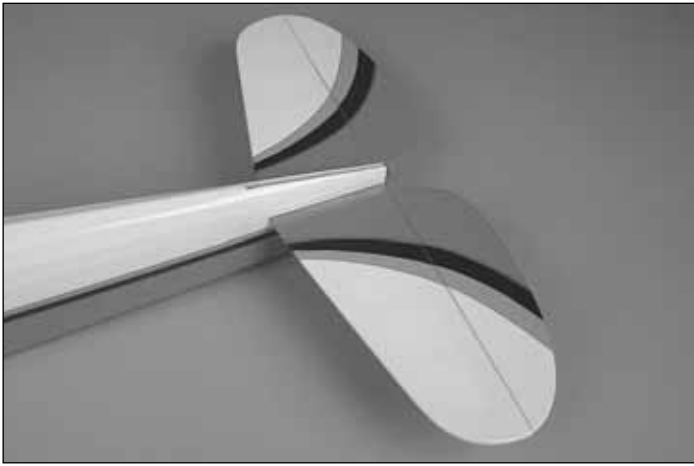


❑ 1. Cut the covering from the four wing mounting dowel holes on the sides of the fuselage.

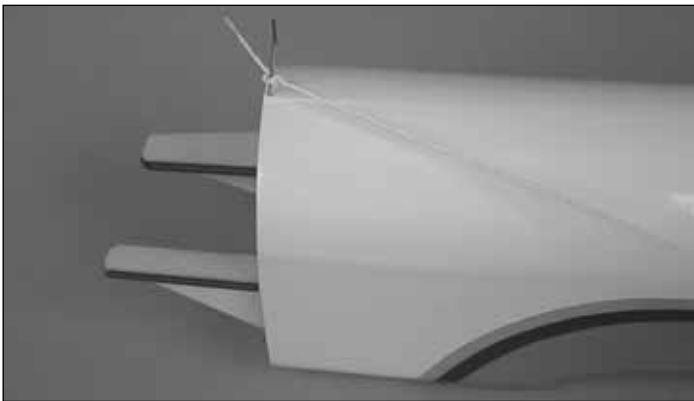
Mount the Stabilizer and Fin



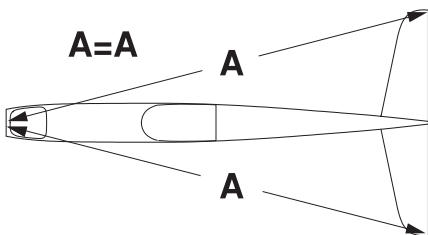
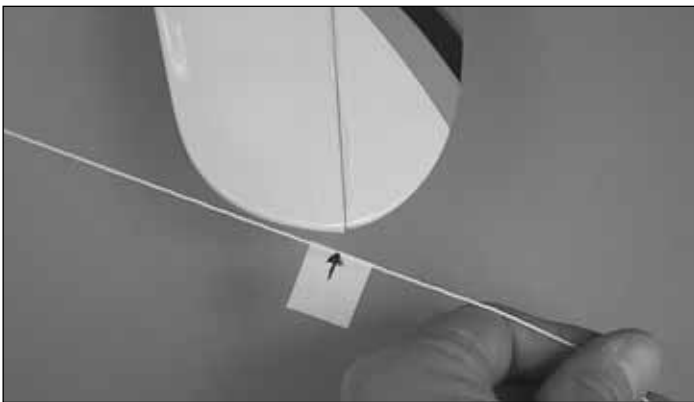
❑ 1. Using a sharp hobby knife, remove the covering from the stabilizer slot at the aft end of the fuselage and from the rudder slot in the top of the fuselage. Also remove the temporary balsa block from the stabilizer slot.



2. Mark the center of the trailing edge of the stabilizer. Insert the stabilizer into the slot, centering the mark you made on the TE of the stabilizer with the aft end of the fuselage.

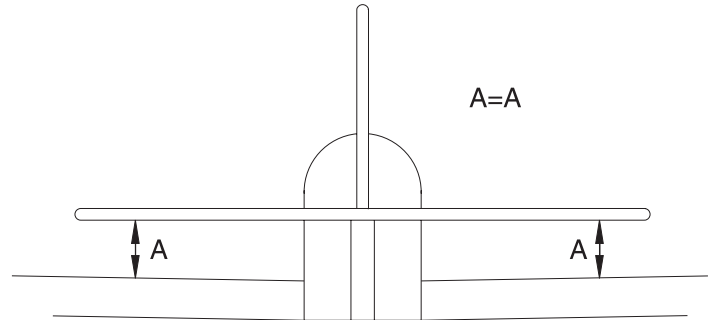


3. Stick a T-pin into the center of the top of the firewall. Tie a small loop in one end of a 36" [910mm] piece of non-elastic string such as K&S #801 Kevlar thread. Slip the loop in the string over the T-pin.



4. Fold a piece of masking tape over the other end of the string and draw an arrow on it. With the stab centered on the

fuselage, slide the tape along the string and align the arrow with one tip of the stab. Swing the string over to the same position at the other end of the stab. If the arrow doesn't align with the tip, adjust the stab and the arrow slightly and check both tips again. Adjust the stab until the stabilizer tips and the trailing edge are centered.



5. View the stab from approximately 10' [3m] behind the plane. Check that the stab is parallel with the wing. If it is not, lightly sand the stab saddle until the stab is parallel with the wing.

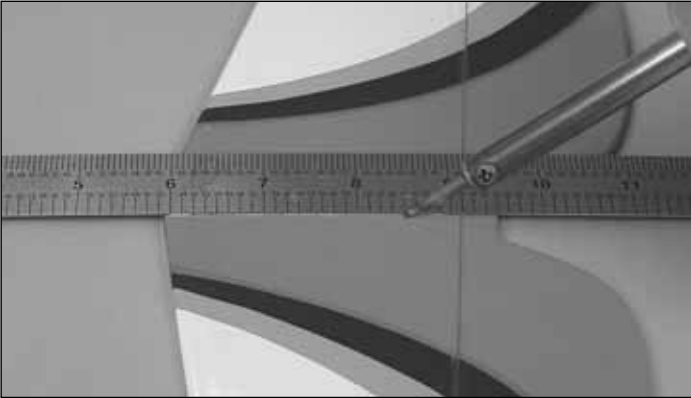


6. Use a fine-point felt-tip pen to mark the outline of the fuselage onto the bottom and top of the stab.

7. Remove the stab from the fuselage. Use a sharp #11 hobby knife or the **Expert Tip** that follows to cut the covering from the stab just inside the lines you marked. Use care to cut **only the covering** and not the wood. Cutting the wood will weaken the stab and it may break in flight.



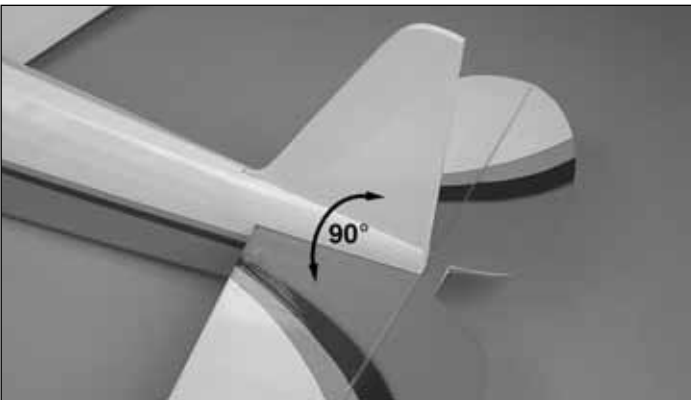
HOW TO CUT COVERING FROM Balsa



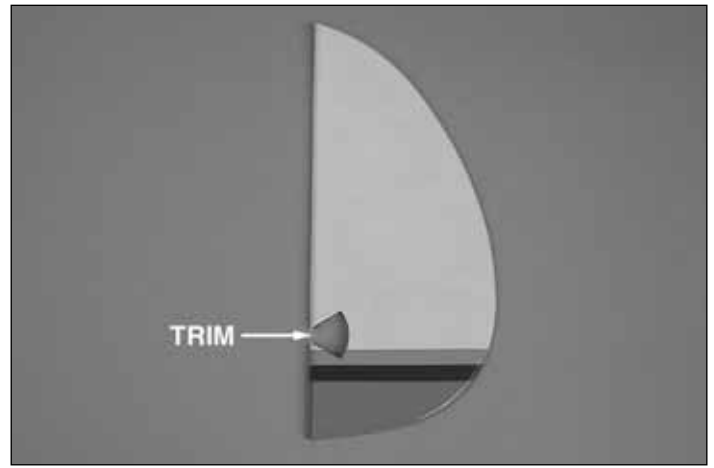
Use a 25 watt soldering iron to cut the covering from the stab. The tip of the soldering iron doesn't have to be sharp, but a fine tip does work best. Allow the iron to heat fully. Use a metal straightedge to guide the soldering iron at a rate that will just melt the covering and not burn into the wood. The hotter the soldering iron, the faster it must travel to melt a fine cut. Allow the heat to melt the covering. Do not apply much pressure or the wood may be damaged. Peel off the covering.

❑ 8. Apply a light coat of 30-minute epoxy in the stabilizer slot and the top and bottom of the stabilizer. Slide the stabilizer into position. Make sure the stabilizer is centered from side-to-side using the string method to re-align the stab with the fuselage. Insert the fin into the fin slot, but do not insert it completely. The fin is used to space the fin slot correctly while the epoxy sets. Wipe off the excess epoxy with a paper towel dampened with denatured alcohol. Allow the epoxy to set completely before installing the fin.

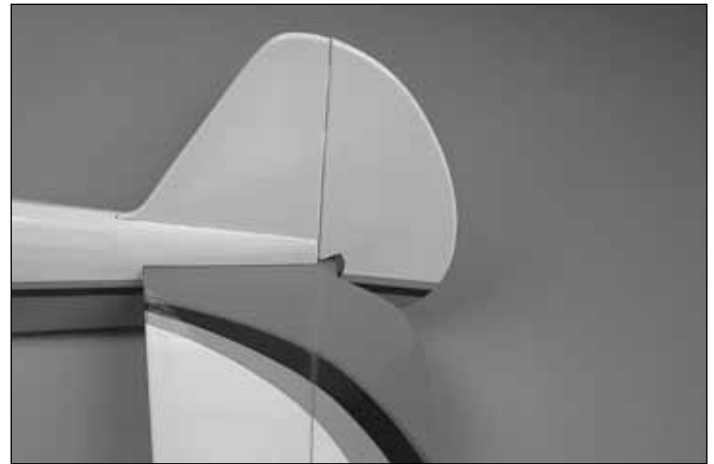
❑ 9. Fit the fin all the way into the fin slot. Again, use a felt-tip pen to mark the fuselage onto the fin. Remove the fin from the fuselage and remove the covering from the fin.



❑ 10. Glue the fin into position using epoxy. Use a builder's square to make sure the fin is perpendicular to the stab. Wipe off the excess epoxy with a paper towel dampened with denatured alcohol. Masking tape can be used to hold the fin in position until the epoxy sets.

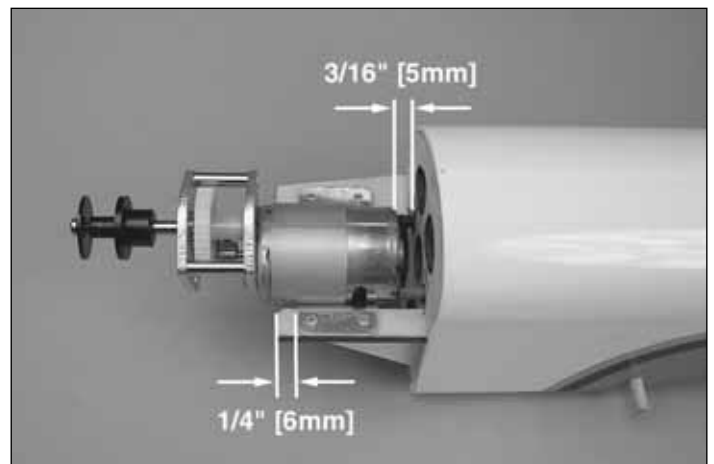


❑ 11. Use a sharp hobby knife to trim the covering from the notch in the leading edge of the rudder.

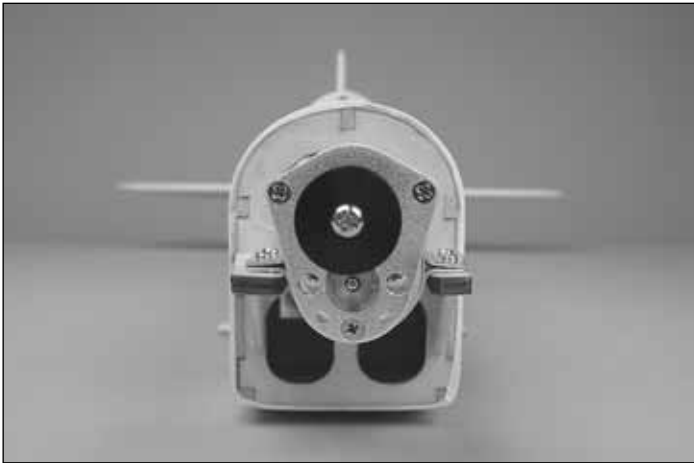


❑ 12. Join the rudder to the fin using three CA hinges. Use thin CA to glue the CA hinges in the rudder and fin following the same procedure used for the ailerons.

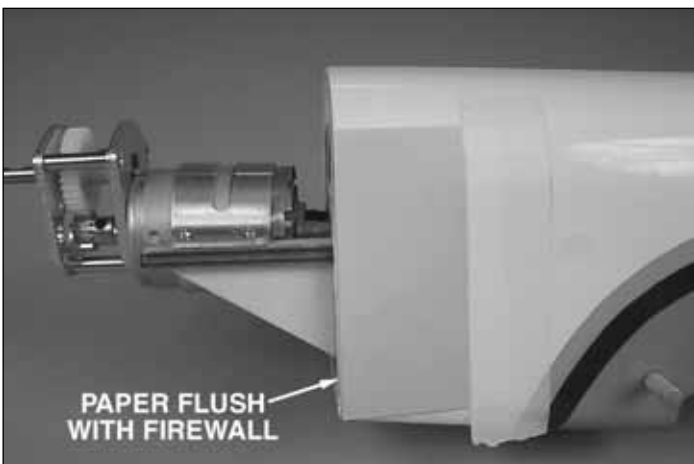
MOUNT THE MOTOR



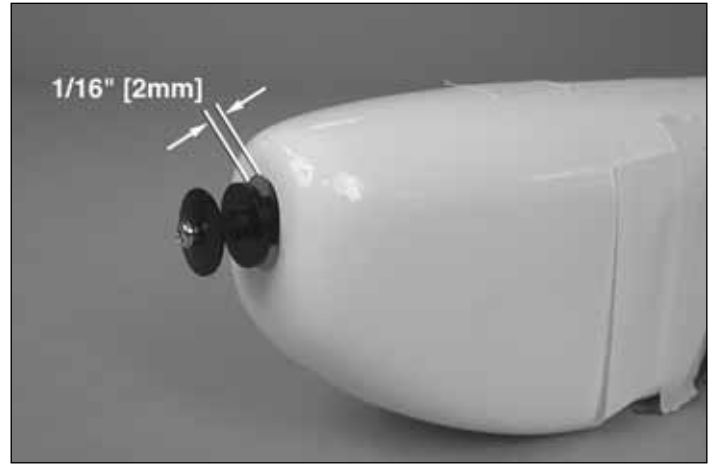
❑ 1. Position one of the aluminum motor brackets 1/4" [6mm] back from the forward edge of the mounting rails. Set the motor on the motor bracket so that the aft edge of the motor is 3/16" [5mm] from the firewall.



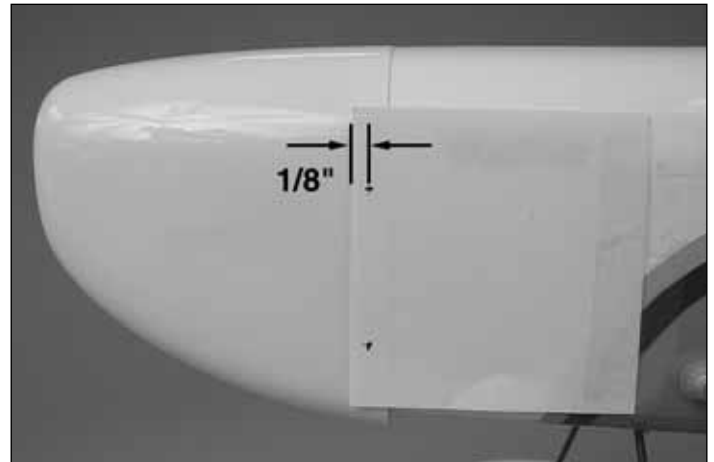
❑ 2. Place the second motor bracket over the motor and drill a 1/32" [.8mm] pilot hole at each mounting hole in the motor bracket. Secure the motor brackets to the mounting rail with 2x7mm sheet metal screws. Rotate the motor/geardrive so that the gear drive is aligned with the firewall. Then tighten the screws.



❑ 3. Use the hex wrench to loosen the set screw in the prop adapter and remove the prop adapter from the gear drive. Tape a piece of paper to each side of the fuselage even with the front of the fuselage.



❑ 4. Slide the cowl onto the fuselage and under the paper. Reinstall the prop adapter on the gear drive. Tighten the set screw on the flat of the gear drive output shaft. Tape the cowl to the fuselage so that the prop adapter is centered in the hole in the front of the cowl and the front of the cowl is approximately 1/16" [2mm] back from the flange on the prop adapter.



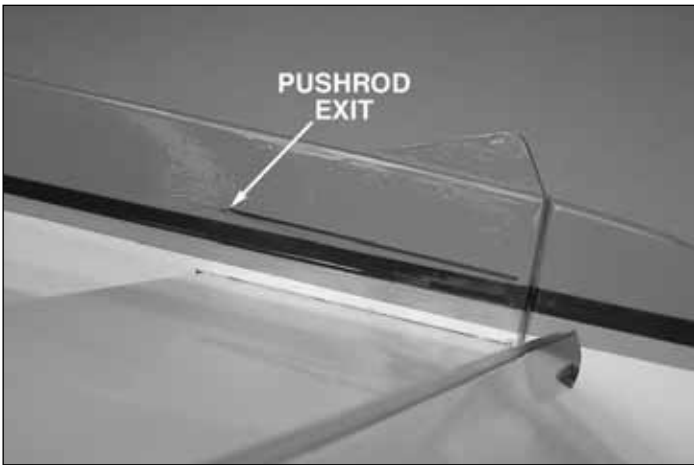
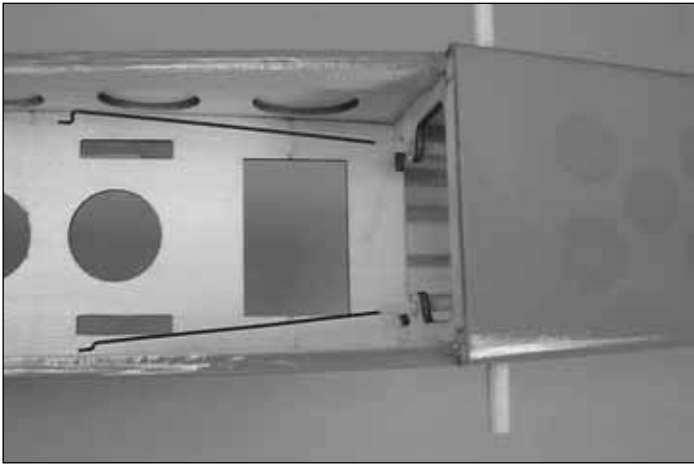
❑ 5. Drill two 1/32" [.8mm] holes through both sides of the cowl and the fuselage 1/8" [3mm] behind the front edge of the paper. Remove the cowl and the paper. Enlarge the holes **in the cowl only** with a 1/16" [2mm] drill. Then, mount the cowl with four 2x7mm washer-head screws.

❑ 6. Remove the screws and cowl. Apply a drop of thin CA in each hole to harden the wood. Reinstall the cowl and prop adapter after the CA has hardened.

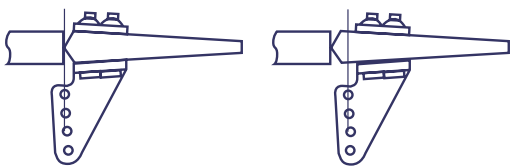
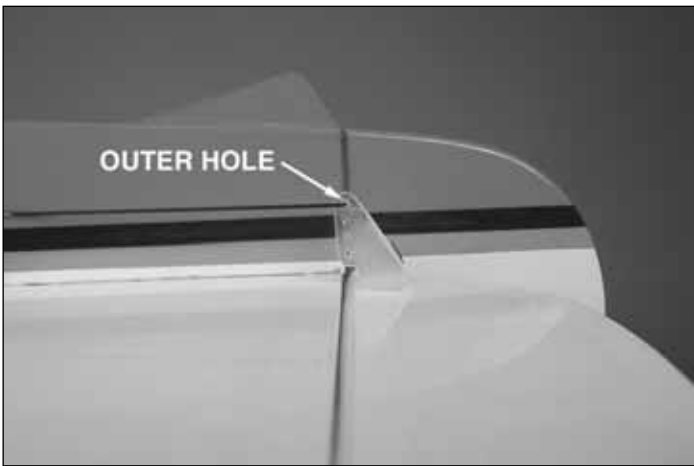
RADIO INSTALLATION

Install the Control Horns

Note: You will need to have your 8-cell motor battery charged later in this section. Start charging it now so you do not have to wait for it to charge later.



❑ 1. Insert the two wire pushrods into the outer pushrod tubes inside the fuselage. Using a sharp hobby knife, cut a small slot in the covering, where the pushrods press against the covering, to allow the pushrods to exit the fuselage.

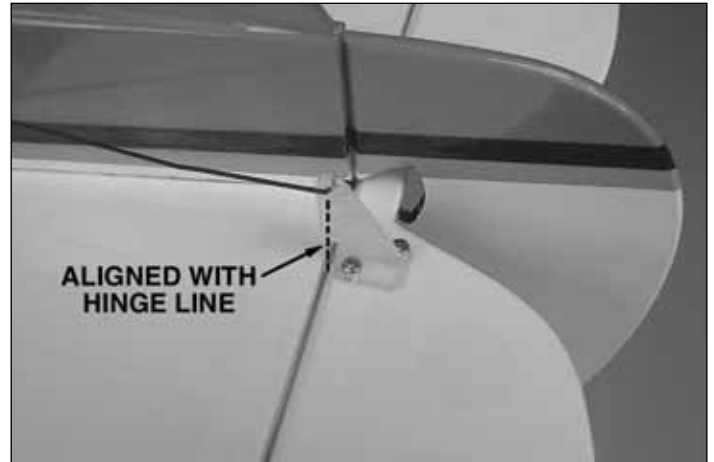


Correct

Incorrect

❑ 2. Remove and reinstall the pushrods so that the Z-bends are at the aft end of the fuselage. On the right pushrod,

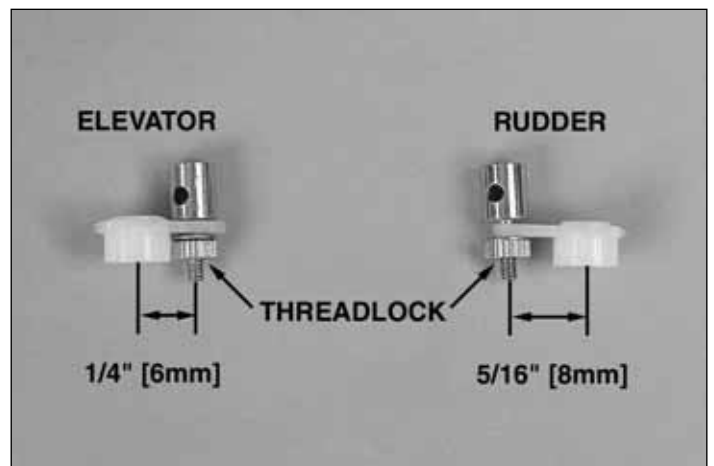
insert the Z-bend into the outer hole of a nylon control horn. This pushrod will be for the elevator. On the left pushrod, insert the Z-bend into the second hole from the end. Position the control horn on the elevator so that the attachment holes are aligned with the hinge line.



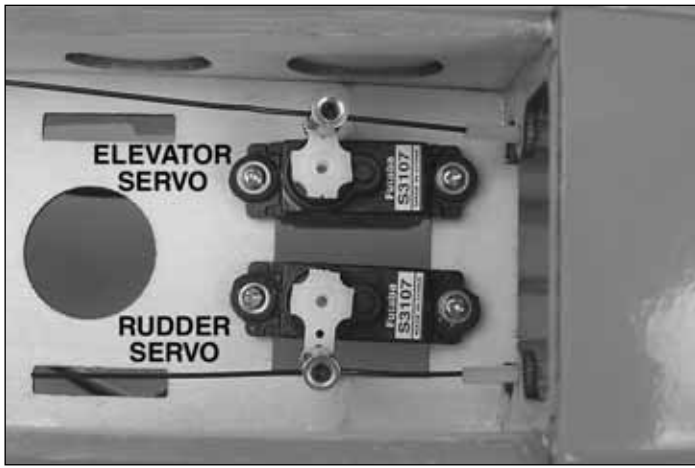
❑ 3. Mark the two control horn mounting holes on the elevator. Remove the control horn and drill 5/64" [2mm] holes through the elevator at the marks. Mount the control horn with two 2x9mm machine screws and the nylon mounting plate on the top of the elevator.

❑ 4. Install the rudder control horn following the same procedure. Make sure that the control horn does not interfere with the elevator.

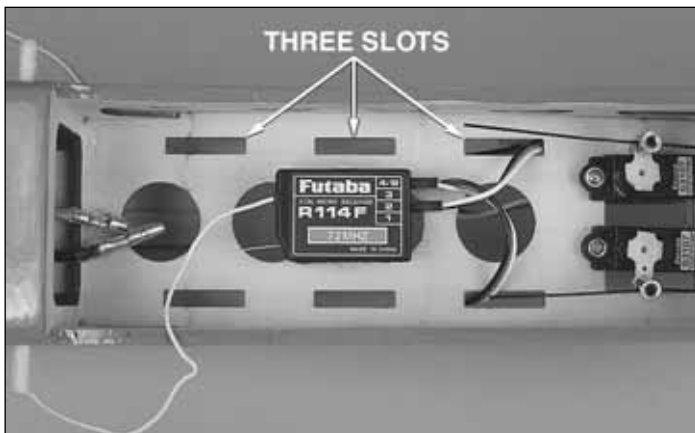
Install the Servos



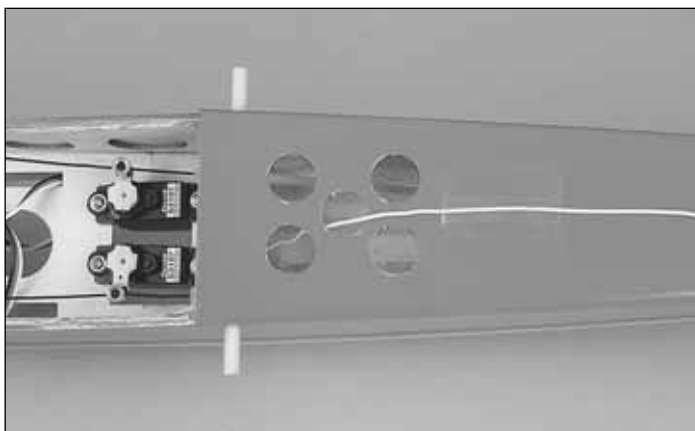
❑ 1. Install a pushrod connector on the elevator servo arm, 1/4" [6mm] from the center of the servo arm. Install a second pushrod connector on the rudder servo arm, 5/16" [8mm] from the center of the servo arm. First insert the pushrod connector through the horn, then install a 2mm washer and a 2mm nut on the connector. Install a 3mm set screw in the top of the pushrod connector.



❑ 2. Install the rudder and elevator servos in the servo tray. Insert the pushrods through the pushrod connectors and install the servo arms on the rudder and elevator servos. Align the pushrod connectors with the pushrods. Use the hardware included with the servos to mount the servos to the tray.



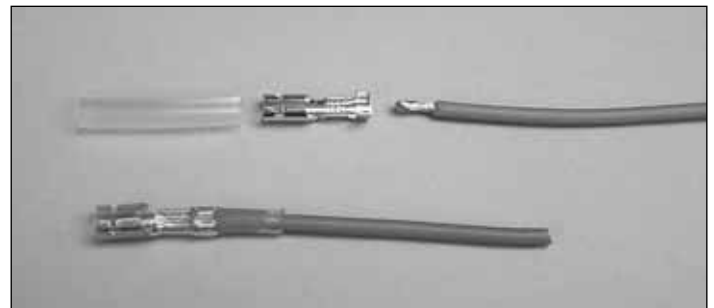
❑ 3. Cut a piece of soft hook-and-loop material and use CA to glue it to the bottom of your receiver. Cut an opposite piece of the hook-and-loop material and glue it to the bottom of the battery tray, centered between the three slots. Connect the rudder and elevator servos to the receiver and mount the receiver to the battery tray. **Optional:** Use double-sided foam tape (not included) to attach the receiver to the battery tray.



❑ 4. Trim the covering from the five cooling air exit holes aft of the wing saddle. Route the receiver antenna out one of the holes and tape it to the bottom of the fuselage.

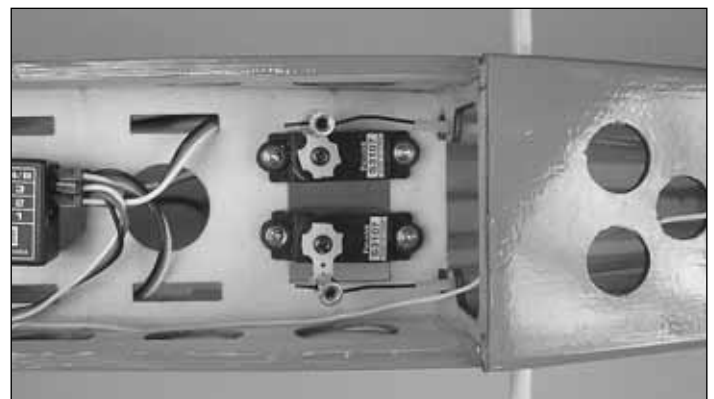


❑ 5. Connect the electronic speed control (not included) to the motor leads. If the ESC to be installed does not have bullet connectors, you will need to install the included connectors on the ESC. If the ESC has an on/off switch, mount it through the side of the fuselage. Connect the ESC to the throttle channel in the receiver.



❑ 6. Use a sharp knife to strip 3/16" [5mm] of the insulation from the end of the ESC wire. Insert the wire in the bullet connector and use pliers to crimp the connector around the wire. Place a piece of clear heat shrink around the connector and use a heat gun to shrink it.

❑ 7. Switch on the transmitter, connect the charged motor battery and switch on the ESC. Center the rudder and elevator trims. If necessary, remove the servo arms and reinstall them perpendicular to the centerline of the servo. Reinstall the servo arm screws.



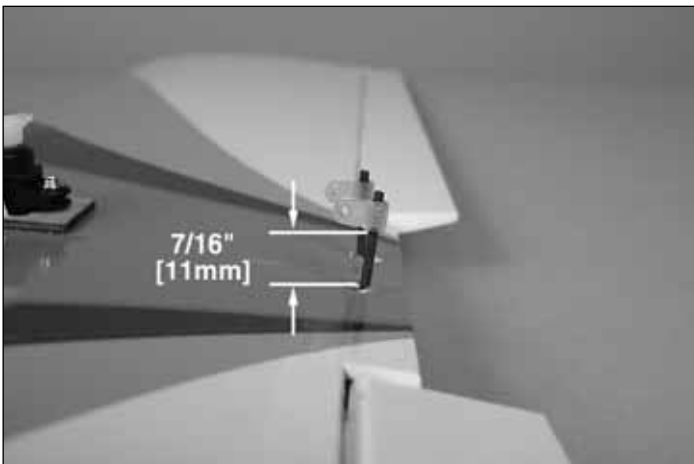
❑ 8. Center the elevator and rudder, then tighten the set screws in the pushrod connectors. Trim off the excess pushrod wires 1/4" [6mm] past the connectors.

MOUNT THE LANDING GEAR

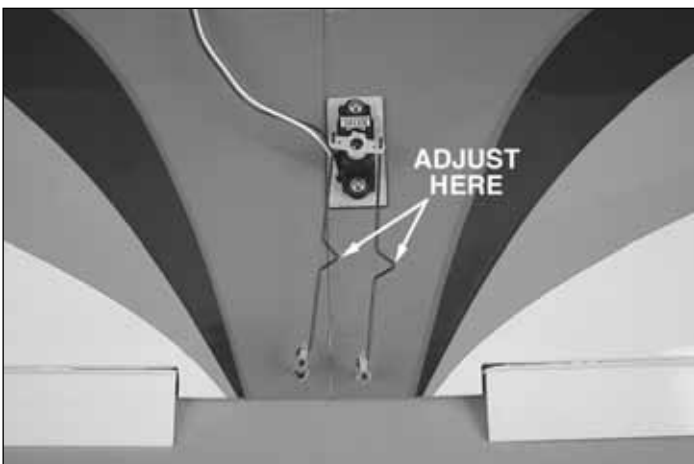


❑ 9. Mount the aileron servo in the wing. Connect a 6" [150mm] aileron servo extension to the receiver. Connect the aileron servo to the servo extension and switch on the transmitter and ESC. Center the aileron servo trim.

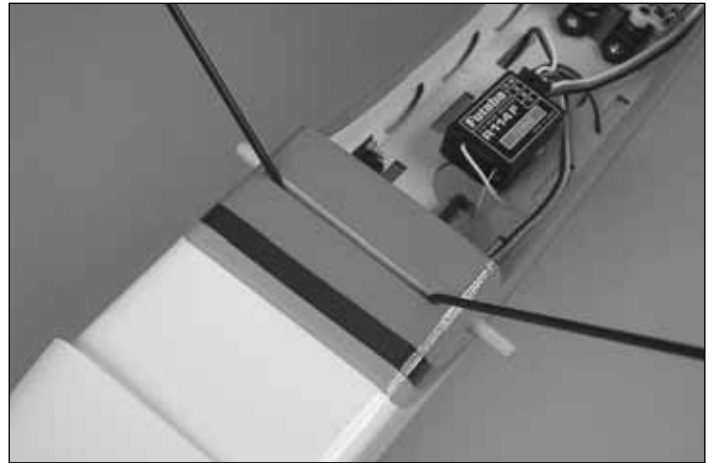
❑ 10. Install a two-arm servo arm with both holes 5/16" [8mm] from the center of the arm.



❑ 11. Thread the two nylon torque rod horns onto the aileron torque rods. The bottom of the horn should be approximately 7/16" [11mm] from the wing.



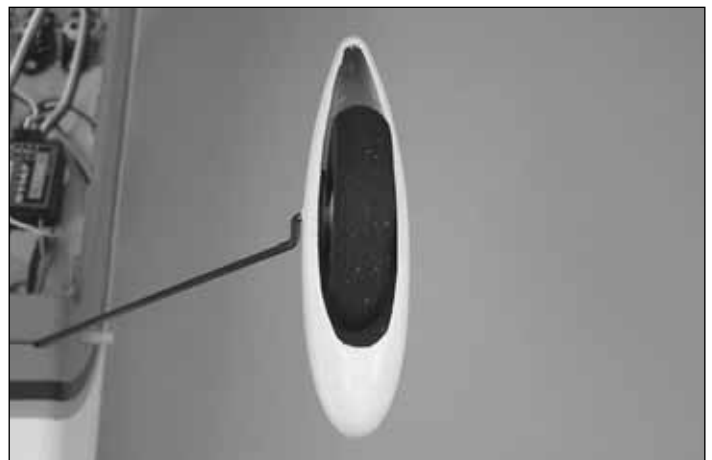
❑ 12. Insert one end of the aileron pushrods into the torque rod horns. Insert the other end into the servo arm. Install the servo arm on the aileron servo and install the servo arm screw. To adjust the ailerons, open or close the V-bends in the pushrods.



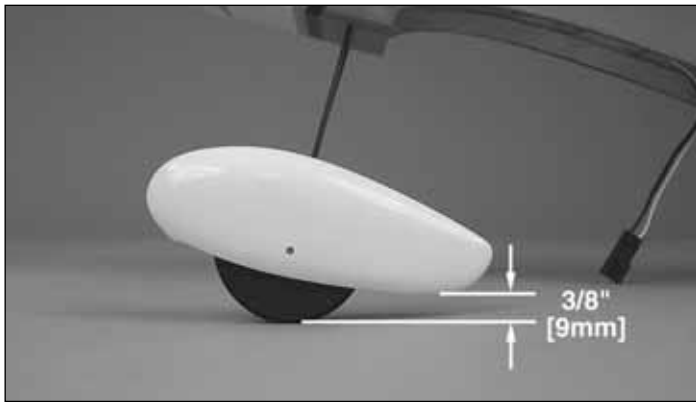
❑ 1. Trim the covering from the main landing gear slot in the bottom of the fuselage and insert the main landing gear wire.



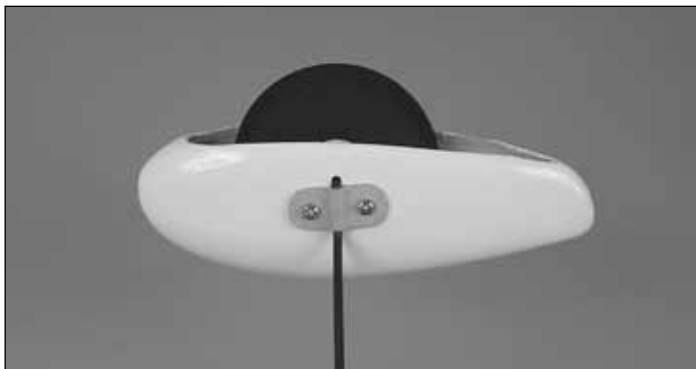
❑ 2. Insert the plywood landing gear retainer in the slot. It can either be glued in or held in place with clear tape.



❑ 3. Install both wheel pants and foam wheels by inserting the landing gear in one side of the wheel pant, then through the foam wheel and out the other side of the wheel pant.



❑ 4. With the plane sitting on the bench, adjust the wheel pant so that the bottom is 3/8" [9mm] from the bench.

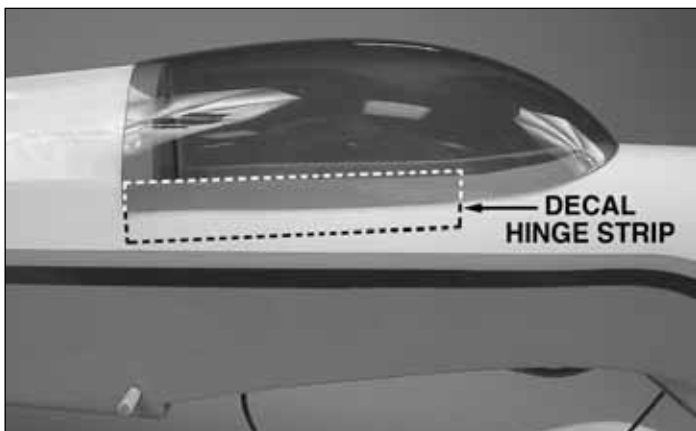


❑ 5. Position one of the metal landing gear straps over the main gear, against the wheel pant. Mark the screw holes, remove the strap and drill a 1/32" [.8 mm] pilot hole at each mark. Mount the straps to the wheel pants with 2x4mm sheet metal screws.

FINISH THE MODEL

Mount the Canopy

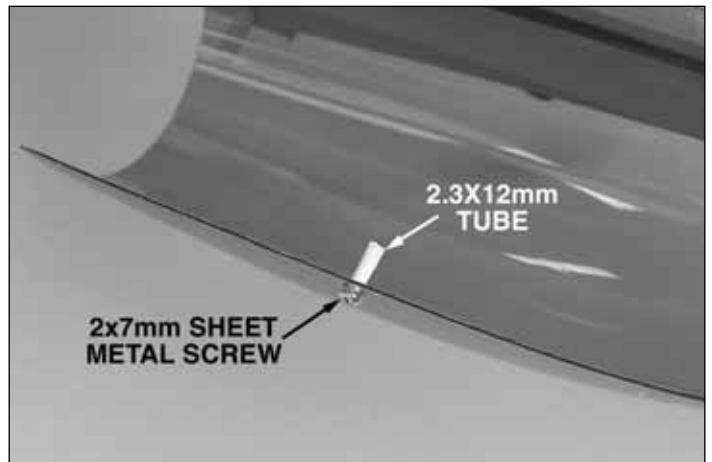
❑ 1. Use a scissors designed to cut plastic to carefully trim the canopy along the molded cut lines.



❑ 2. Center the canopy on the fuselage. Cut a canopy hinge strip from the decal sheet. Attach the canopy to the right side of the fuselage with the decal hinge strip.



❑ 3. Use a piece of tape to hold the left side of the canopy tight to the fuselage. Note the location of the plywood doubler inside the cockpit side wall. Drill a 1/16" [2mm] hole through the canopy and plywood doubler. Enlarge the hole in the fuselage to 7/64" [3.5mm]. Apply a drop of thin CA to the hole in the fuselage. After the CA has hardened, run the drill back through the hole to clean it out.



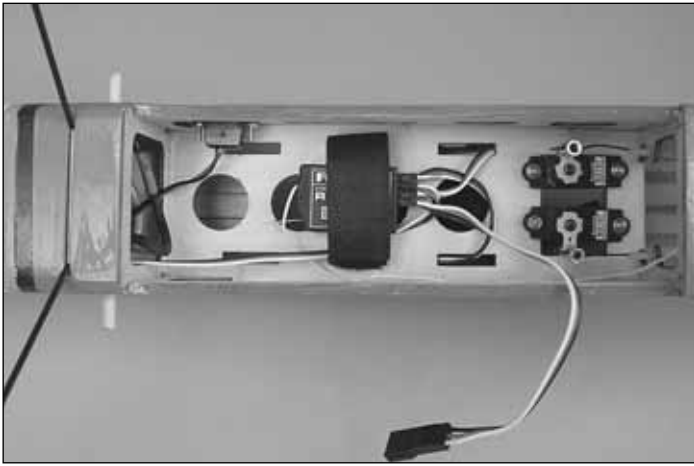
❑ 4. Attach the 2.3 x 12mm tube to the inside of the canopy with a 2x7mm sheet metal screw.

❑ 5. To close the canopy, insert the tube in the hole in the side of the fuselage.

Mount the Battery



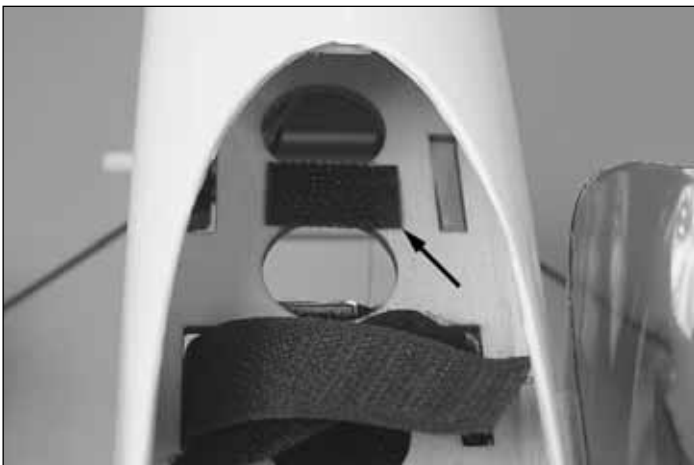
❑ 1. To make the battery strap, overlap the two pieces of hook-and-loop material as shown.



- ❑ 2. Insert the hook-and-loop strap through the middle slots from the bottom of the battery tray. Position the strap over the receiver to help hold it in place.



- ❑ 3. Insert the motor battery in the cockpit and trim the hook-and-loop strap so that it holds the battery secure.



- ❑ 4. To prevent the battery from sliding around, glue a piece of hook-and-loop material to the battery tray forward of the strap. Once the plane has been balanced and the battery location has been determined, glue a corresponding piece of hook-and-loop material to the battery.

Apply the Decals

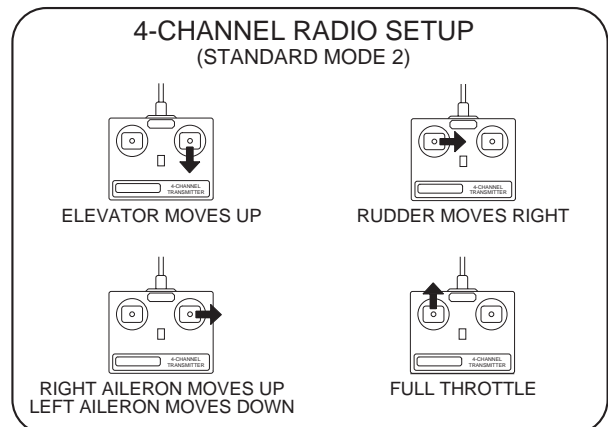
1. Use scissors or a sharp hobby knife to cut the decals from the sheet.
2. Be certain the model is clean and free from oily fingerprints and dust. Prepare a dishpan or small bucket with a mixture of liquid dish soap and warm water—about one teaspoon of soap per gallon of water. Submerge the decal in the soap and water and peel off the paper backing. **Note:** Even though the decals have a “sticky-back” and are not the water transfer type, submersing them in soap and water allows accurate positioning and reduces air bubbles underneath.
3. Position decal on the model where desired. Holding the decal down, use a paper towel to wipe most of the water away.
4. Use a piece of soft balsa or something similar to squeegee remaining water from under the decal. Apply the rest of the decals the same way.

GET THE MODEL READY TO FLY

Check the Control Directions

Warning: Once the motor battery is connected to the electronic speed control, stay clear of the propeller.

- ❑ 1. Switch on the transmitter and connect the motor battery to the electronic speed control. Move the throttle stick down to the off position. Switch on the speed control and center the trims. If necessary, remove the servo arms from the servos and reposition them so they are centered. Reinstall the screws that hold on the servo arms.
- ❑ 2. With the transmitter and receiver still on, check all the control surfaces to see if they are centered. If necessary, adjust the pushrods at the pushrod connectors to center the control surfaces.

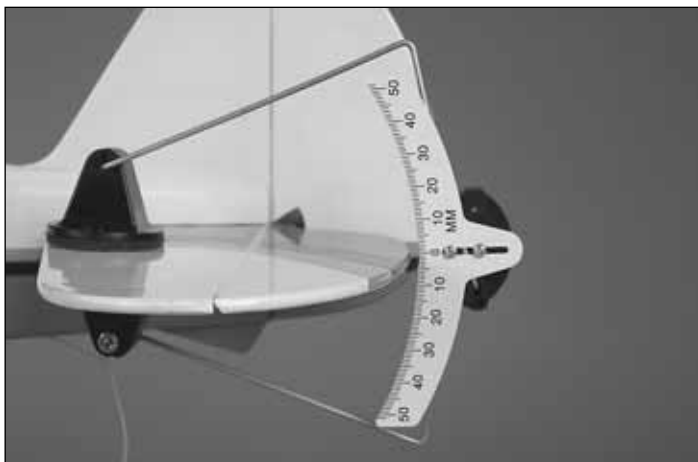


- ❑ 3. Make certain that the control surfaces respond in the correct direction as shown in the diagram. If any of the

controls respond in the wrong direction, use the servo reversing in the transmitter to reverse the servos connected to those controls. Be certain the control surfaces have remained centered. Adjust if necessary.

☐ 4. To operate or “arm” the motor, follow the instructions included with your electronic speed control.

Set the Control Throws



Use a Great Planes AccuThrow (or a ruler) to accurately measure and set the control throw of each control surface as indicated in the chart that follows. If your radio does not have dual rates, we recommend setting the throws at the low rate setting. **NOTE:** The throws are measured at the **widest part** of the elevators, rudder and ailerons.

These are the recommended control surface throws:

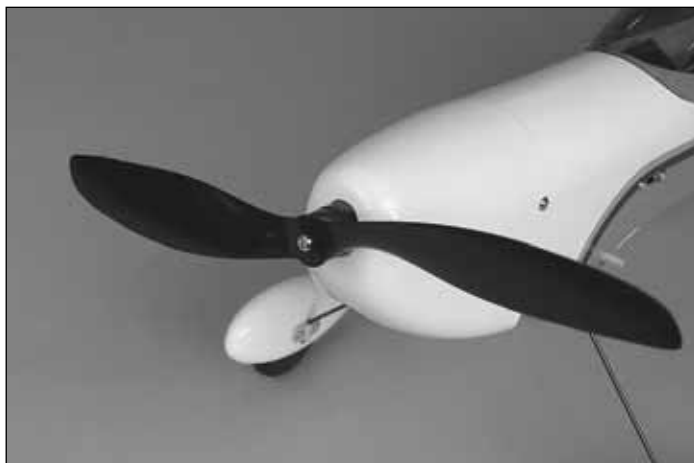
	High Rate	Low Rate
ELEVATOR:	5/16" [8mm] up 5/16" [8mm] down	3/16" [5mm] up 3/16" [5mm] down
RUDDER:	1" [25mm] right 1" [25mm] left	3/4" [19mm] right 3/4" [19mm] left
AILERONS:	1/4" [6mm] up 1/4" [6mm] down	1/8" [3mm] up 1/8" [3mm] down

IMPORTANT: The Mini Super Sportster EP 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 Mini Super Sportster EP 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.”

Mount the Propeller



☐ 1. Drag the edge of a hobby knife along the edge of the propeller to remove the sharp edges.



☐ 2. Remove the prop washer and screw from the prop adapter. Install the propeller on the prop adapter and secure it with the prop washer and screw.

☐ 3. Check the rotation of the prop by switching on the radio system and arming the ESC. Move the throttle stick to full power. If the prop is turning the wrong direction (no air blowing back towards the fuselage), switch the leads between the motor and the ESC.

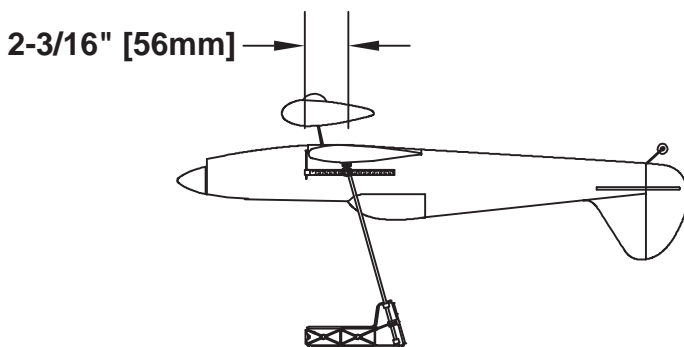
Balance the Model (C.G.)

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 close to ready-to-fly condition with all of the systems in place including the motor, landing gear, motor battery, and the radio system.

1. Use a felt-tip pen or 1/8" [3mm]-wide tape to accurately mark the C.G. on the top of the wing on both sides of the fuselage. The C.G. is located 2-3/16" [56mm] back from the leading edge of the wing.

This is where your model should balance for the first flights. Later, you may wish to experiment by shifting the C.G. up to 3/16" [5mm] forward or 3/16" [5mm] 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. With the wing attached to the fuselage, all parts of the model installed (ready to fly) and the motor battery installed, place the model upside-down on a Great Planes CG Machine, or lift it upside down at the balance point you marked.

3. If the tail drops, the model is "tail heavy" and the motor battery and/or receiver must be shifted forward or weight must be added to the nose to balance. If the nose drops, the model is "nose heavy" and the motor battery and/or receiver must be shifted aft or weight must be added to the tail to balance. If possible, move the motor battery and receiver forward or aft

to minimize or eliminate any additional ballast required. If additional weight is required, use Great Planes [GPMQ4485] "stick on" lead. A good place to add stick-on nose weight is to the firewall (don't attach weight to the cowl-it is not intended to support weight). Begin by placing incrementally increasing amounts of weight on the bottom of the fuse over the firewall until the model balances. Once you have determined the amount of weight required, it can be permanently attached. If required, tail weight may be added by cutting open the bottom of the fuse and gluing it permanently inside.

If moving the motor battery forward or aft will balance the plane without adding additional weight, mark the battery tray or the fuselage inside where the aft end of the battery should be placed. This will allow you to position the battery correctly before each flight.

4. **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. With the wing level lift the model by the prop shaft and the bottom of the fuse under the TE of the fin. Do this several times.

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

PREFLIGHT

Identify Your Model

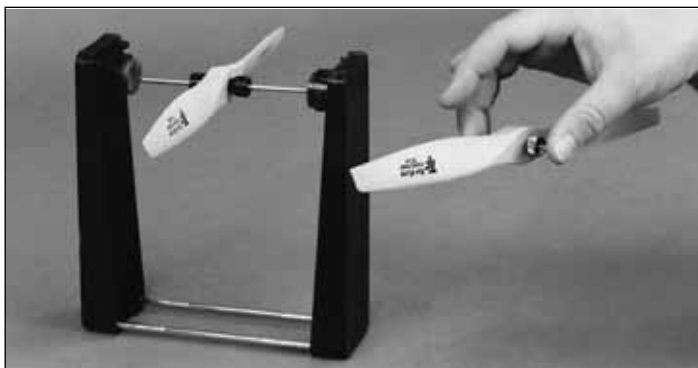
No matter if you fly at an AMA sanctioned R/C club site or if you fly somewhere on your own, you should always have your name, address, telephone number and AMA number on or inside your model. It is **required** at all AMA R/C club flying sites and AMA sanctioned flying events. Fill out the identification tag on page 23 and place it on or inside your model.

Charge the Batteries

Follow the battery charging instructions that came with your radio control system to charge the transmitter. 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.

Balance Propellers



Carefully balance your propeller and spare propellers before you fly. An unbalanced prop can be the single most significant cause of vibration that can damage your model. Not only will motor mounting screws and bolts loosen, possibly with disastrous effect, but vibration may also damage your radio receiver and battery.

We use a Top Flite Precision Magnetic Prop Balancer™ [TOPQ5700] in the workshop and keep a Great Planes Fingertip Prop Balancer [GPMQ5000] in our flight box.

PROPER CARE OF YOUR MOTOR

1. The included motor will benefit from a short “break-in” by running the motor at full throttle without the propeller for at least 15 minutes. It is best to run the motor in 5 minute intervals, allowing the motor to cool between runs. This will seat the motor brushes on the commutator, insuring that the motor will provide full power for your first flight and extend the life of your motor. If you notice a decrease in motor power after several flights, it may be due to carbon build-up on the brushes or commutator. To remove this build-up, repeat the above break-in procedure.

2. The bronze bushings in the motors are self lubricating, but their life may be extended by applying a very small amount of light machine oil to the point where the motor shaft contacts the bushings after every hour or two of run time. **Note:** A drop of oil is far too much. You should apply the oil with a toothpick. **Never oil the inside of the motor.**

3. Using multiple battery packs to run the motor for successive flights may cause the motor to become excessively hot. We recommend at least a 10-minute motor cool-down period between flights.

PERFORMANCE TIPS

1. A new battery pack should be “cycled” for best results. You should peak charge the battery, then discharge it almost completely by actually running your motor with the propeller attached until the auto cut-off stops the motor. To help cool the battery, remove the battery from the plane. Do this 2 or 3 times on the ground before actually flying. Be sure you remove the battery from the airplane between each cycle and allow it and the motor to cool before recharging.

2. Examine your propeller for irregularities caused by the injection molding process. Carefully remove the imperfections with fine sandpaper.

Ground Check

After you break-in the motor on the model, inspect the model closely to make sure all screws remained tight, the hinges are secure, the prop is secure and all pushrods and connectors are secure.

Range Check

Ground check the operational range of your 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 [30m] 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 connections or broken wires, corroded wires on old servo connectors, poor solder joints in your battery pack or a defective cell, or a damaged receiver crystal from a previous crash.

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 you run the motor.

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.

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.**

End of AMA Safety Code excerpts.

CHECK LIST

During the last few moments of preparation your mind may be elsewhere anticipating the excitement of the first flight. Because of this, you may be more likely to overlook certain checks and procedures that should be performed before the model is flown. To help avoid this, a check list is provided to make sure these important areas are not overlooked. Many are covered in the instruction manual, so where appropriate, refer to the manual for complete instructions. Be sure to check the items off as they are completed (that's why it's called a *check list!*).

- 1. Check the C.G. according to the measurements provided in the manual.
- 2. Be certain the motor battery and receiver are securely mounted in the fuse.
- 3. Extend your receiver antenna and make sure it has a strain relief inside the fuselage to keep tension off the solder joint inside the receiver.
- 4. Balance your model *laterally* as explained in the instructions.
- 5. Add a drop of oil to the axles so the wheels will turn freely.
- 6. Make sure all hinges are **securely** glued in place.

- 7. Reinforce holes for wood screws with thin CA where appropriate (servo mounting screws, cowl mounting screws, etc.).
- 8. Confirm that all controls operate in the correct direction and the throws are set up according to the manual.
- 9. Make sure that all servo arms are secured to the servos with the screws included with your radio.
- 10. Secure connections between servo wires and Y-connectors or servo extensions with vinyl tape, heat shrink tubing or special clips suitable for that purpose.
- 11. Make sure any servo extension cords you may have used do not interfere with other systems (servo arms, pushrods, etc.).
- 12. Balance your propeller (and spare propellers).
- 13. Tighten the propeller nut and spinner.
- 14. Place your name, address, AMA number and telephone number on or inside your model.
- 15. If you wish to photograph your model, do so before your first flight.
- 16. Range check your radio when you get to the flying field.

FLYING

The Mini Super Sportster EP is a great-flying model that flies smoothly and predictably. The Mini Super Sportster EP does not, however, possess the self-recovery characteristics of a primary R/C trainer and should be flown only by experienced R/C pilots.

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; Not mounting control horns solidly; Poor fit of clevis pin in horn; Side-play of wire pushrods caused by large bends; Excessive free play in servo gears; Insecure servo mounting; and one of the most prevalent causes of flutter; Flying an over-powered model at excessive speeds.

Takeoff

The Mini Super Sportster EP will ROG (rise off ground) very easily from a smooth runway. Point the plane into the wind and apply power. Once the plane gains some speed the rudder can be used to control the direction. Because the plane does not have a steerable tail wheel, taking off in a cross-wind is very difficult and a hand launch is recommended. Once the plane has gained speed, **gently apply** up elevator, lifting the model into the air. Be smooth on the elevator stick, allowing the model to establish a **gentle** climb to a safe altitude before turning into the traffic pattern.

If you do not have a smooth runway to take-off from, the Mini Super Sportster EP can easily be hand launched. For the first flight we recommend that the plane be hand launched by an assistant. This will allow you to make quick control corrections if the plane is out of trim. The plane only requires a gentle level toss straight out. Do not throw the plane hard. This usually results in a plane being thrown at a poor angle requiring sudden drastic control corrections. Once the plane has been trimmed to fly straight and level, it is very easy for the pilot to hand launch the plane.

Flight

For reassurance and to keep an eye on other traffic, it is a good idea to have an assistant on the flight line with you. Tell him to remind you to throttle back once the plane gets to a comfortable altitude. While full throttle is usually desirable for takeoff, most models fly more smoothly at reduced speeds.

Take it easy with the Mini Super Sportster EP for the first few flights, gradually getting acquainted with it as you gain confidence. Adjust the trims to maintain straight and level flight. After flying around for a while, and while still at a safe altitude with plenty of battery power remaining, practice slow flight and execute practice landing approaches by reducing the throttle to see how the model handles at slower speeds. Add power to see how she climbs as well. Continue to fly around, executing various maneuvers and making mental notes (or having your assistant write them down) of what trim or C.G. changes may be required to fine tune the model so it flies the way you like. Mind your battery power and use this first flight to become familiar with your model before landing.

Landing

To initiate a landing approach, lower the throttle while on the downwind leg. Allow the nose of the model to pitch downward to gradually bleed off altitude. Continue to lose altitude, but maintain airspeed by keeping the nose down as you turn onto the crosswind leg. Make your final turn toward the runway (into the wind) keeping the nose down to maintain airspeed and control. Level the attitude when the model reaches the

runway threshold, modulating the throttle as necessary to maintain your glide path and airspeed. If you are going to overshoot, smoothly advance the throttle (always ready on the right rudder to counteract torque) and climb out to make another attempt. But, if your battery power is low do not attempt to go around again. It is better to land long than risk stalling the plane by flying too slow because the motor battery is low on power. When you're ready to make your landing flare and the model is a foot or so off the deck, smoothly increase up elevator until it gently touches down.

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!

OTHER ITEMS AVAILABLE FROM GREAT PLANES



ElectriFly™ Slinger™ ARF (GPMA1180)

Wingspan: 47.4 in

Wing Area: 463 sq in

Weight: 27 oz

Requires: 3-4 channel "mixing" radio (or radio and electronic mixer), 2 mini or micro servos, ESC W/BEC (15A min.), 8-cell battery and charger.

Sized for easy transport, the Slinger requires only quick final assembly before you're ready to fly. The wings are EPS foam, precovered and ready to be taped to the plastic center section. Install the included Speed 400 motor and your radio gear, and head for the field! A cockpit and simulated engine nacelles combine with the delta wing to mimic the B2 Bomber's futuristic looks. Includes all hardware. A blast for intermediates and experts!

OTHER ITEMS AVAILABLE FROM GREAT PLANES

Futaba®



Futaba® S3107 Micro Servo (FUTM0025)

Dimensions: 0.9 x 0.4 x 0.8 in
(20 x 10 x 20mm)

Weight: 3 oz (85g)

Speed: @ 4.8V: 0.12 sec/60°

Torque: @ 4.8V: 16.7 oz/in

No matter what the application, there's a quality Futaba servo with the right size, strength and speed to master it. For small aircraft, the S3107 micro servo is a new favorite, designed to fit easily inside small spaces. It weighs only 9 grams, yet delivers excellent torque and speed!



ElectriFly™ by Great Planes® Triton Peak Charger (GPMM3150)

Computer-controlled for the ultimate in charging versatility and precision.

Imagine a charger so versatile it can be used with lithium-ion and lead-acid batteries as effectively as NiCd and NiMH cells. A unit that can peak charge tiny park flyer packs and 24V car batteries alike. A charger that can discharge as well as charge, cycle packs from 1 to 10 times automatically, memorize peak and average battery voltages for each cycle - and constantly display battery capacity, voltage, current and time as each cycle progresses. Then, imagine that the charger, which can do all this, is about the size of a thick paperback book, and weighs just over a pound. The advanced computer technology in the Triton Peak Charger makes it possible to accomplish all this and more, through controls and menus so simple that programming is a breeze. For more information, log on at www.electrifly.com - and be amazed. 1-year warranty.



ElectriFly™ 1100mAh 8-Cell NiMH Battery (GPMP0251)

Measuring 5.3" long x 1.1" wide x .50" high, this 1100mAh NiMH battery pack provides long, reliable flight times. Conveniently preassembled, it comes shrink-wrapped with a two-pin connector already in place.

This model belongs to:

Name

Address

City, State Zip

Phone number

AMA number

