



ESCAPADETM .61

INSTRUCTION MANUAL

SPECIFICATIONS

Wingspan: 68 in [1725mm]	Length: 58.5 in [1485mm]	Electric Motor: RimFire TM .80, 60A ESC
Wing Area: 813 in ² [52.4 dm ²]	Weight: 8.25–9 oz [3740–4080 g]	Battery: Two 3S 5000mAh 11.1V LiPo
Wing Loading: 23–26 oz/ft ² [70–79 g/dm ²]	Radio: 4-channel radio system with 5 servos	Engine: .61–.95 in ³ [10–15.5cc] two-stroke, .91–1.20 in ³ [15–20 cc] four-stroke

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

For the latest technical updates or manual corrections to the Escapade .61 ARF visit the Great Planes web site at www.greatplanes.com. Open the "Airplanes" link, then select the Escapade .61 ARF. 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.

Academy of Model Aeronautics

If you are not already a member of the AMA, please join! The AMA is the governing body of model aviation and membership provides liability insurance coverage, protects modelers' rights and interests and is required to fly at most R/C sites.

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.

SAFETY PRECAUTIONS

**Protect Your Model, Yourself & Others...
Follow These Important Safety Precautions**

1. Your Escapade 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 Escapade could possibly cause injury to yourself or spectators and damage to property if not assembled and operated correctly.
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 good condition, a correctly sized engine, and other components as specified in this instruction manual. All components must be correctly installed so that the model operates correctly on the ground and in the air. You must check the operation of the model and all components before **every** flight.
5. 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.

6. 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 an engine larger than one in the recommended range is used, the modeler is responsible for taking steps to reinforce the high stress points and/or substituting hardware more suitable for the increased stress.
7. **WARNING:** The cowl and 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, cowl) 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

This is a partial list of items required to finish the Escapade that may require planning or decision making before starting to build. Order numbers are provided in parentheses.

ESCAPADE OPTIONS

If powering your Escapade with an **electric motor**:

Motor Battery Recommendations

If powering your Escapade with an **electric motor**, it performs superbly on a:

- RimFire™ .80 motor (GPMG4740)
- Two 3S 5000mAh 11.1V LiPo batteries. (FlightPower® EONX™ 30 5000 mAh 3s 11.1V 30C LiPo FPWP6698)
- ElectriFly® Series 2 Deans® Male Ultra Plug®/1 Deans Female Ultra Plug Adapter

If experimenting with different batteries, make certain they are rated for at least a 30C discharge.

A 60A ESC (electronic speed controller) is also required. The ElectriFly Silver Series 60A Brushless ESC (GPMM1850) is recommended.

Following are the other suggested items if powering your Escapade with an electric motor:

- Suitable propeller and spare propellers (APC 15" x 8E" APCQ4013)
- 8mm prop reamer (for propellers and included spinner – GPMQ5007)

IMPORTANT: The Escapade requires two 3S battery packs. Before experimenting with different battery combinations and connecting multiple battery packs with adapter plugs, refer to the **Battery Precautions** on page 22.

Radio Equipment

4-channels are required to fly the Escapade. However, the number of servos required is five. Only four servos will be required if flying the Escapade with an electric motor. If powering the model with a glow engine, a servo will be required for the throttle. And in either case (glow or electric), two servos will be required for the aileron. In all cases, standard-size servos with standard output torque (40 – 50 oz-in torque) are suitable.

Following is the specific radio gear required:

- 4-channel radio system w/4.8V 500-600mAh flat Rx battery back, on/off switch
- (1) ea. standard size/40 oz-in torque elevator and rudder servo
- (2) standard size/40 oz-in torque aileron servos
- (2) 12" [305mm] servo extension wires (HCAM2711 for Futaba®)
- (1) Dual servo extension (FUTM4130 for Futaba)

ESCAPADE OPTIONS

If powering your Escapade with an **engine**:

Engine Recommendations

The recommended engine size range for the Escapade is .61 to .95 two-stroke or .91 to 1.20 four-stroke. If an engine in the upper end of the size range is used, responsible throttle management should be practiced.

- O.S.® 61FX ABL w/Muffler (OSMG0561)
- O.S. 95AX Ringed w/Muffler (OSMG0580)
- O.S. FS-91III Surpass™ 4-Stroke Engine (OSMG0896)
- O.S. FS-1.20 Surpass 4-Stroke Engine (OSMG0930)

ADDITIONAL ITEMS REQUIRED

Required Hardware and Accessories

This is the list of hardware and accessories required to finish the Escapade. Order numbers are provided in parentheses.

- 1/2 oz. [15g] Medium Pro™ CA+ (GPMR6007)
- 1/2 oz. [15g] Thin Pro CA (GPMR6001)
- CA applicator tips (HCAR3780)
- #1 Hobby knife (HCAR0105)
- #11 Blades (5-pack, HCAR0211)
- Power drill
- Drill bits; 1/16" [1.6mm], 3/32" [2.4mm], #29 (or 9/64" [3.6mm]). #48 (.076" [1.9mm]) drill or hobby knife
- Great Planes Pro Threadlocker (GPMR6060)
- 21st Century® sealing iron (COVR2700)

Optional Supplies and Tools

Here is a list of optional tools mentioned in the manual that will help you build the Escapade.

- 21st Century iron cover (COVR2702)
- 21st Century trim seal iron (COVR2750)
- Stick-on segmented lead weights (GPMQ4485)
- 2 oz. [57g] Spray CA activator (GPMR6035)
- Dead Center™ Engine Mount Hole Locator (GPMR8130)
- C.G. Machine™ (GPMR2400)
- Precision Magnetic Prop Balancer (TOPQ5700)

IMPORTANT BUILDING NOTES

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

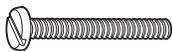
Sheet Metal Screws are designated by a number and a length. For example #6 × 3/4" [19mm].

This is a number six screw that is 3/4" [19mm] long.



Machine Screws are designated by a number, **threads per inch**, and a length. For example 4-40 × 3/4" [19mm].

This is a number four screw that is 3/4" [19mm] long with forty threads per inch.



Socket Head Cap Screws (SHCS) are designated by a number, **threads per inch**, and a length. For example 4-40 × 3/4" [19mm].

This is a 4-40 SHCS that is 3/4" [19mm] long with forty threads per inch



- 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 Escapade is factory-covered with Top Flite® MonoKote® film. Should repairs ever be required, MonoKote can be patched with additional MonoKote purchased separately. MonoKote is packaged in six-foot rolls, but some hobby shops also sell it by the foot. If only a small piece of MonoKote is needed for a minor patch, perhaps a fellow modeler would give you some. MonoKote is applied with a model airplane covering iron, but in an emergency a regular iron could be used. A roll of MonoKote includes full instructions for application. Following are the colors used on this model and order numbers for six foot rolls.

Jet White TOPQ0204
Orange TOPQ0202
Sapphire Blue TOPQ0226

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 Ph: (217) 398-8970, ext. 5
Champaign, IL 61822 Fax: (217) 398-7721

E-mail: airsupport@greatplanes.com

ORDERING REPLACEMENT PARTS

Replacement parts for the Great Planes Escapade .61 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. Select "Where to Buy" in the menu across the top of the page and follow the instructions provided 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.

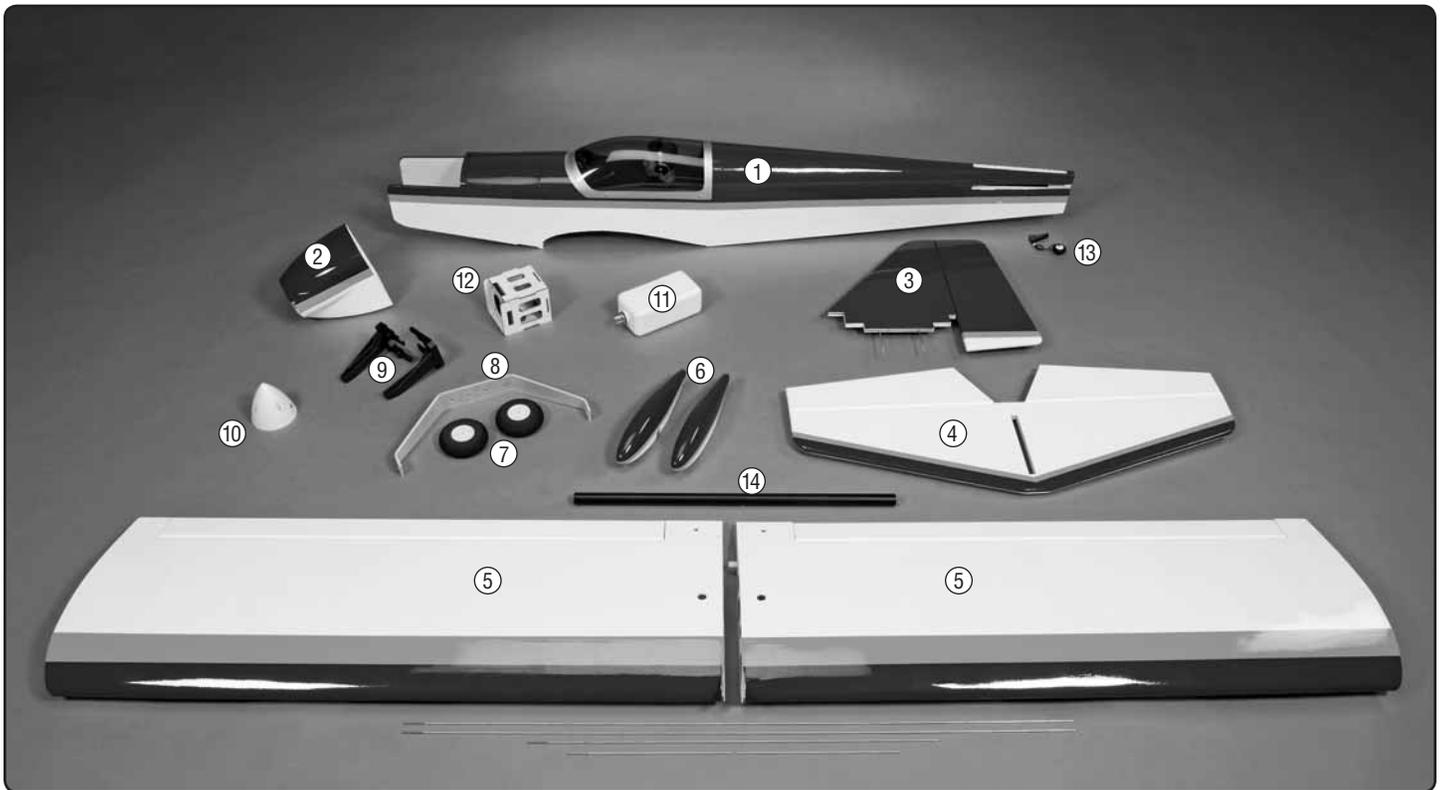
Mail parts orders **Hobby Services**
and payments by 3002 N Apollo Drive, Suite 1
personal check to: Champaign IL 61822

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	
Order No.	Description
GPMA4135	Fuselage Escapade .61 ARF
GPMA4136	Wing Escapade .61 ARF
GPMA4137	Horizontal Stabilizer Escapade .61 ARF
GPMA4138	Vertical Stabilizer .61 Escapade ARF
GPMA4139	Canopy Escapade .61 ARF
GPMA4140	Cowl Escapade .61 ARF
GPMA4141	Wheelpants Escapade .61 ARF
GPMA4142	Landing Gear Escapade .61 ARF
GPMA4143	Decals Escapade .61 ARF
GPMA4144	Wing Tube Escapade .61 ARF
GPMA4145	Hatch Escapade .61 ARF

KIT CONTENTS



- | | | |
|----------------------------|-----------------------|--------------------------|
| 1. Fuselage | 6. Wheel Pants | 11. Fuel Tank |
| 2. Cowl | 7. Wheels | 12. Electric Motor Mount |
| 3. Fin and Rudder | 8. Landing Gear | 13. Tail Wheel Assembly |
| 4. Stabilizer and Elevator | 9. Nylon Engine Mount | 14. Wing Tube |
| 5. Right and Left Wings | 10. Spinner | |

TIGHTEN THE COVERING

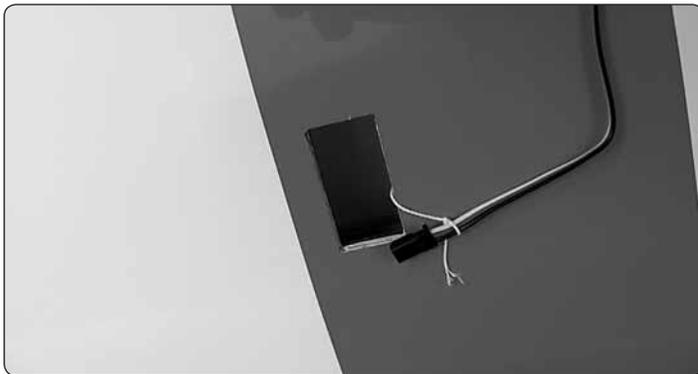
Refer to the separate instruction sheet titled *How To Tighten Covering On ARF Models*. Follow the instructions to tighten the covering. If you prefer to get started on assembly right away, the tightening process could be done later (but it is usually easiest to do while the model is still in separate pieces).

ASSEMBLE THE WINGS

Install the Aileron Servos



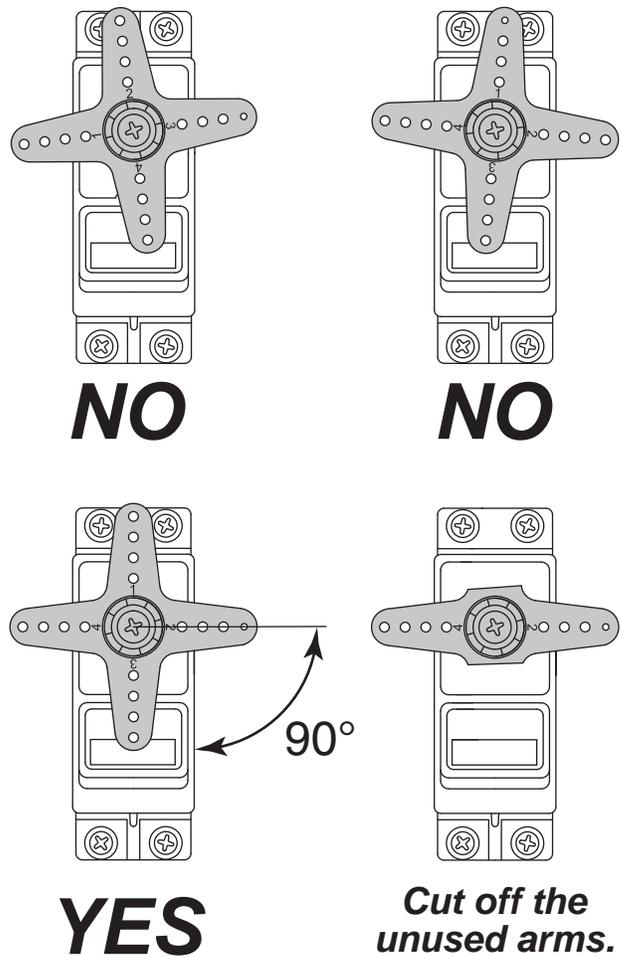
□ □ 1. Connect a 12" [300mm] servo extension to the aileron servo and secure the connection with a 1-1/2" [40mm] piece of heat shrink tubing included with this kit—shrink the tubing with a heat gun, match or a hobby torch—use care not to scorch the wires!



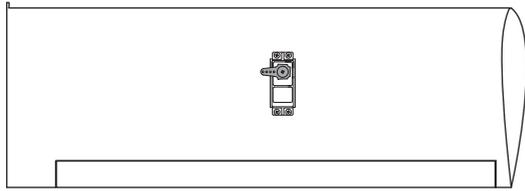
□ □ 2. Use the string in the wing to pull the servo extension out the end and place the aileron servo in the wing.



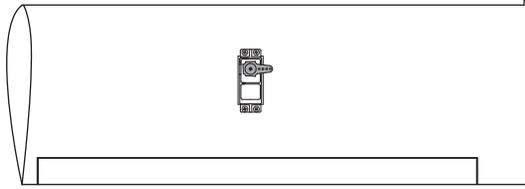
□ □ 3. Temporarily mount the servo with the screws that came with it. Drill 1/16" [1.6mm] holes for the servo mounting screws. Remove the screws and take out the servo. Add a few drops of thin CA to each screw hole. Wait a minute for the CA to harden and remount the servo. Don't over tighten the servo mounting screws—just make sure the heads of the screws apply a little pressure to the grommets and that the servo is secure.



□ □ 4. Temporarily connect the servo to the receiver with the battery and switch. Turn on the transmitter and receiver and center all the trims on the transmitter. With the radio on, fit the servo arm onto the splined output shaft so it will be 90-degrees as shown in the sketch.

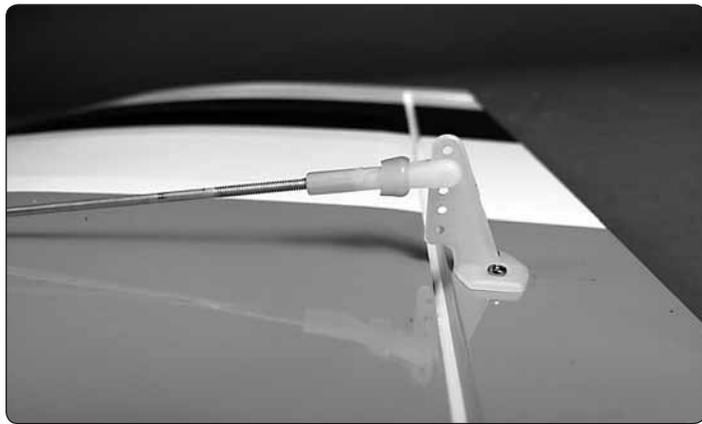
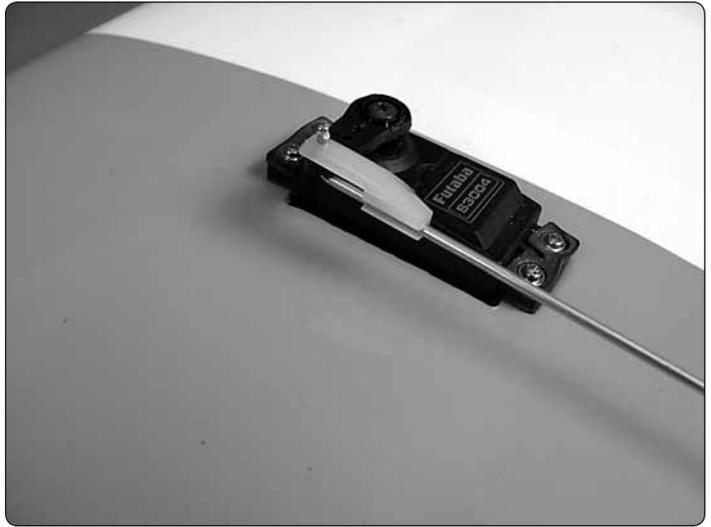


Left Wing

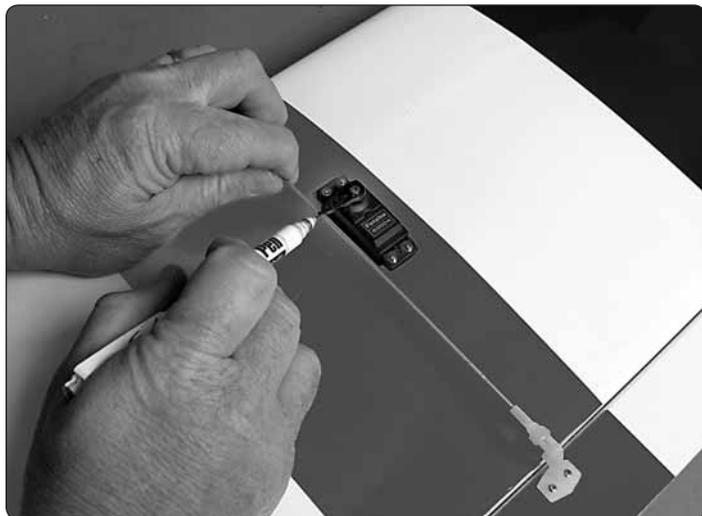
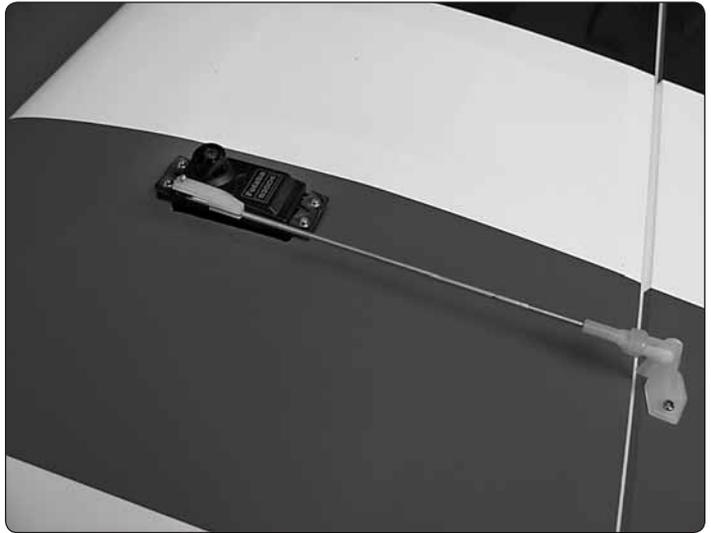


Right Wing

□ □ 5. Note the position of the servo arms in the sketch. Cut off the other three unused arms from the aileron servo arm.



□ □ 6. Thread a nylon clevis approximately 20 turns onto the threaded end of the 2-56 x 6" [152mm] wire and then slide a silicone clevis keeper onto the wire. Install the clevis into the control arm as shown in the photograph. Slide the clevis keeper over the clevis.



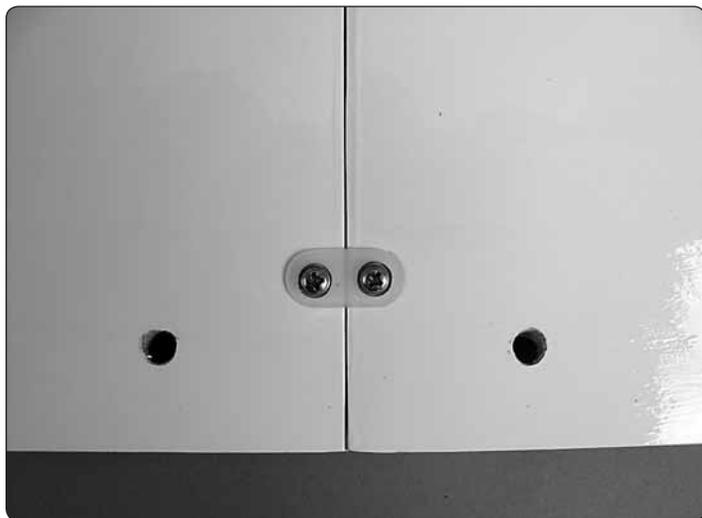
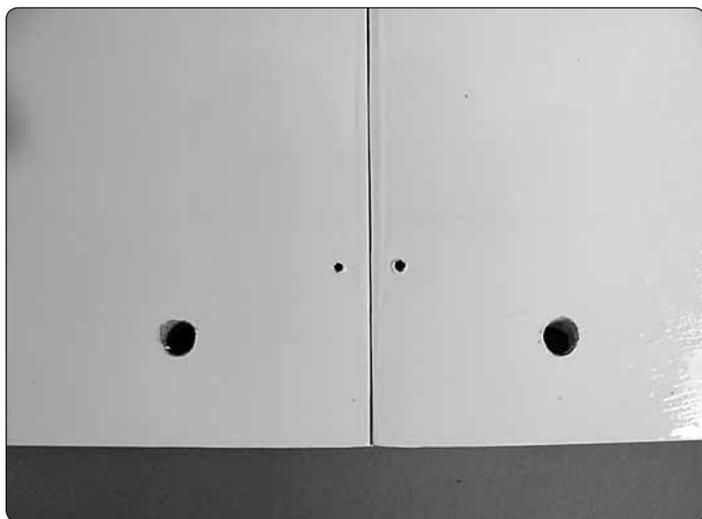
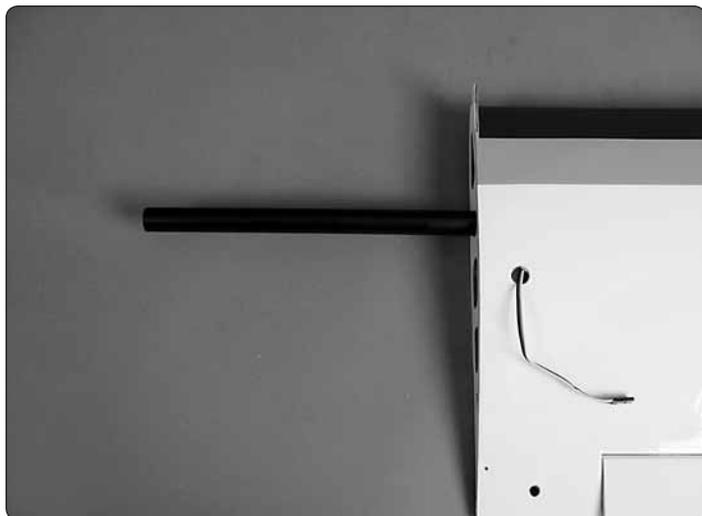
□ □ 7. Making sure the servo and the aileron are centered, use a fine-point felt-tip pen to mark the pushrod wire where it crosses the outer hole in the servo arm.

□ □ 8. Make a 90° bend in the wire at the mark. Enlarge the holes in the aileron servo arm with a #48, 5/64" (.076" [1.9mm]) drill or a hobby knife. Fit the pushrod into the outer hole in the servo arm and then attach a 90° pushrod connector to the assembly. Cut the excess wire 1/16" [2mm] above the connector. Install the servo arm screw and slip the silicone retainers over the pushrod.

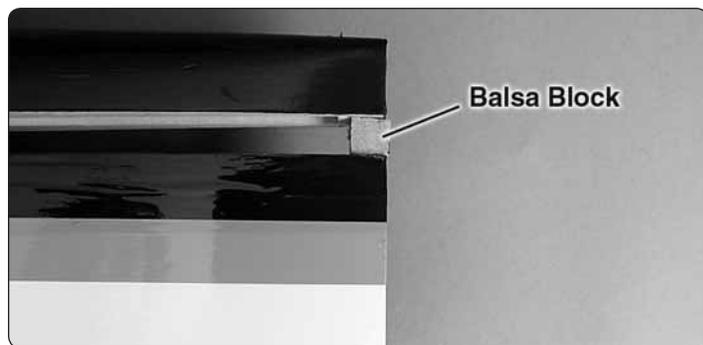
□ □ 9. Repeat steps 1–8 for the other wing.

ASSEMBLE THE FUSELAGE

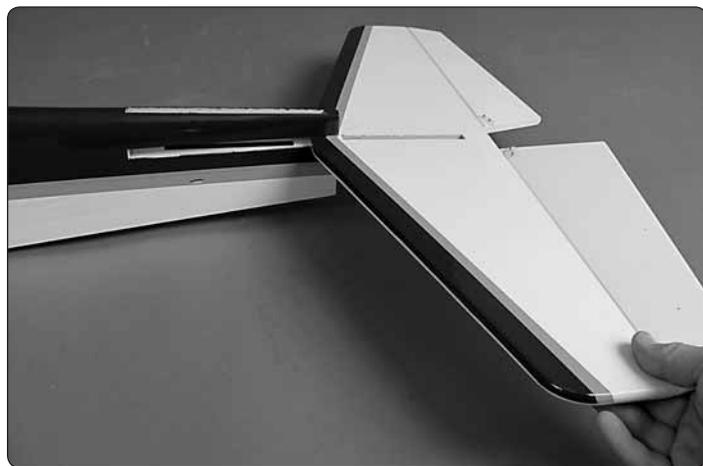
Install the Elevator and Rudder



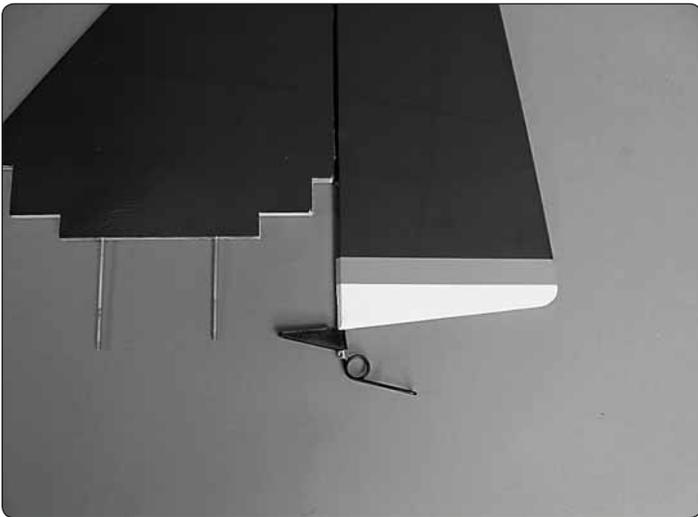
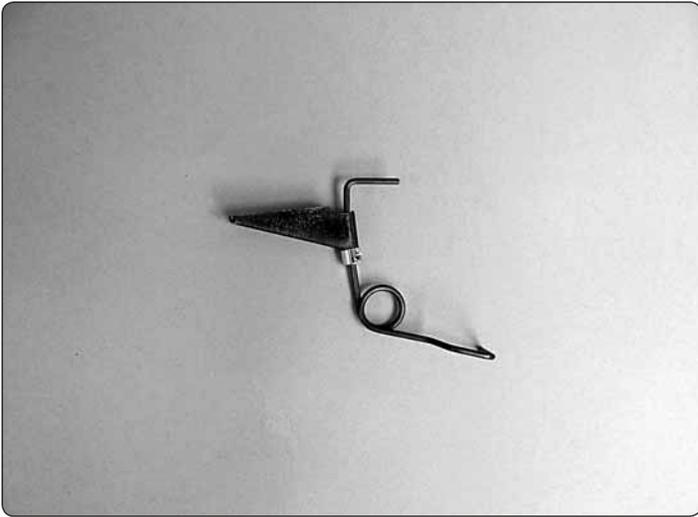
❑ 10. Slide the wings together on the wing tube. Temporarily mount the nylon strap to the wings with two #4 x 3/8" [9.5mm] Phillips screws. Remove the screws from the strap, harden the holes with a few drops of thin CA and allow it to harden before putting the wings together and installing the screws. Later, during final radio and control throws set up, the pushrods will be adjusted so the ailerons are centered when the radio is on (or, you could reconnect your aileron servo to the radio and do this now).



❑ 1. Cut the balsa block free from the stabilizer opening with a hobby knife.



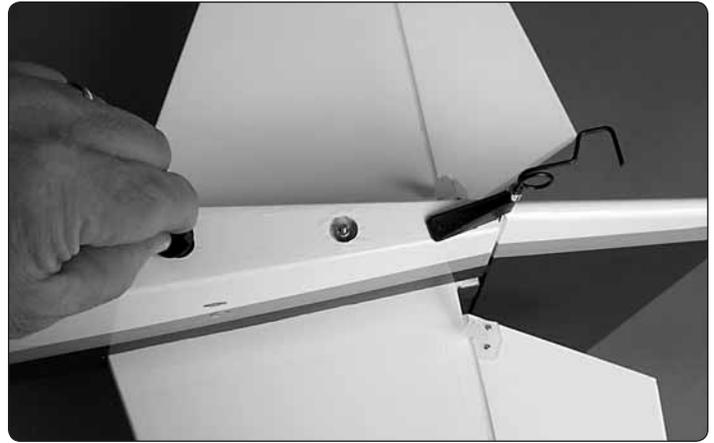
❑ 2. Slide the horizontal stabilizer (stab) into the stab opening in the back of the fuselage.



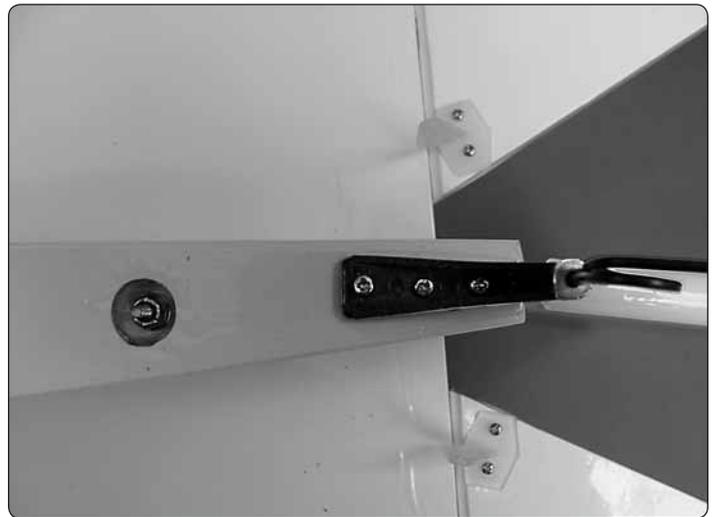
❑ 3. Locate the wire tail wheel assembly; slide it into the rudder as shown.



❑ 4. Slide the vertical fin (fin) into the opening in the top of the fuselage, guiding the threaded wires into the holes in the bottom of the fuselage. Make sure the fin is fully seated in the fuselage and in the stab.



❑ 5. Even though the nuts used on the fin wires are locking nuts, a drop of threadlocker on the threads is recommended. Add a drop of threadlocker to the threads of the wires. Then, tighten the assembly to the fuselage with a #4 flat washer, a #4 lock washer and a 4-40 lock nut on each rod. The included socket tool may be used to tighten the nuts.



❑ 6. Secure the tail wheel bracket to the fuselage with three #2 x3/8" [9.5mm] sheet metal screws.



❑ 7. Slide the tail wheel onto the wire and secure it with a 3/32" [2.4mm] wheel collar and a 1/8" [3mm] set screw. Install the remaining set screw in the wheel collar that was installed on the wire by the factory. Be sure to apply a drop of thread locker when installing them.



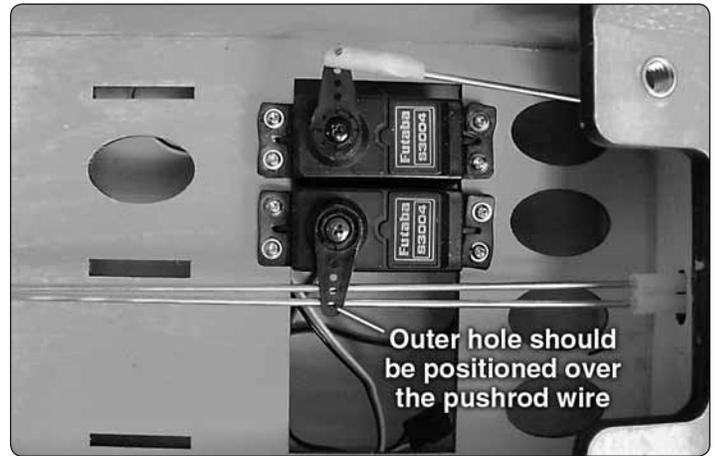
❑ 8. Thread the nylon clevis onto the pushrod wire 20 turns. Slide the elevator and rudder pushrods into the guide tubes in the fuselage. Connect the clevises to the second-from-the-outer holes of the horns. Slide the silicone retainers over the clevises.

❑ 9. Place the rudder servo in the servo tray in the fuselage. Same as you did with the aileron servos, connect the rudder servo to your receiver and battery and turn on the radio. Center the trims and find the correct orientation for the servo arms that will be 90-degrees. Cut off the unused arms.

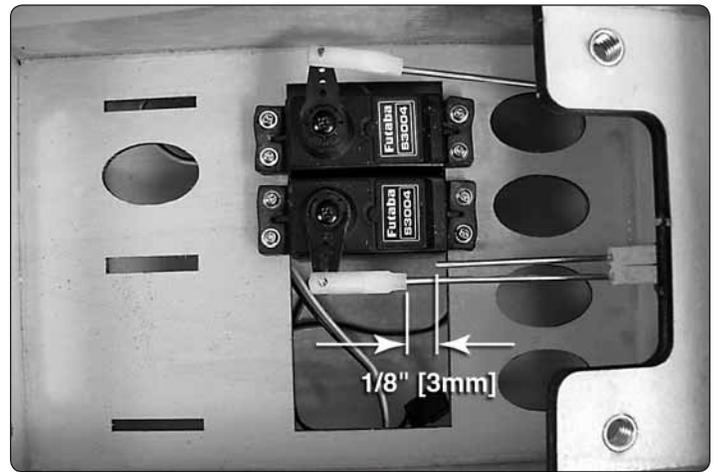


❑ 10. Mark, cut, bend and connect the pushrod to the servo the same way you did for the ailerons. After you mark the pushrods, it will be easier to bend and cut them if you disconnect the clevises from the horns on the other end.

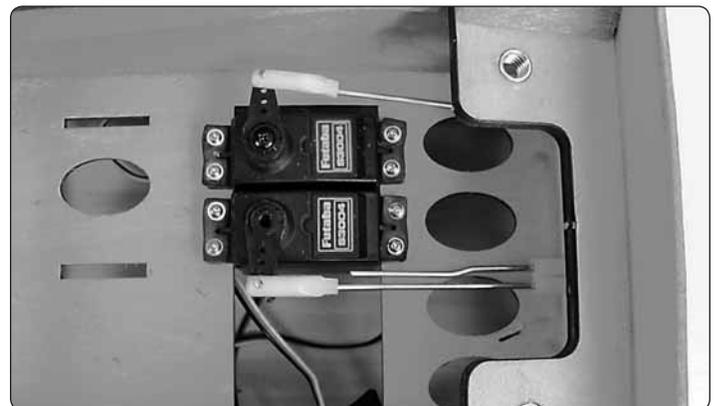
❑ 11. The same way you mounted the aileron servo(s), mount the rudder servo with the servo screws that came with them. Don't forget to harden the screw holes with a few drops of thin CA after installing, then removing the screws.



❑ 12. Place the elevator servo into the servo tray in the fuselage. Orient it as shown in the photo. Same as you did with the rudder servo, connect the elevator servo to your receiver and battery and turn on the radio. Center the trims and find the correct orientation for the servo arms that will be 90-degrees. Cut off the unused arms. Position the servo arm so that the outer hole of the servo arm is positioned over the elevator pushrod for the right elevator half.



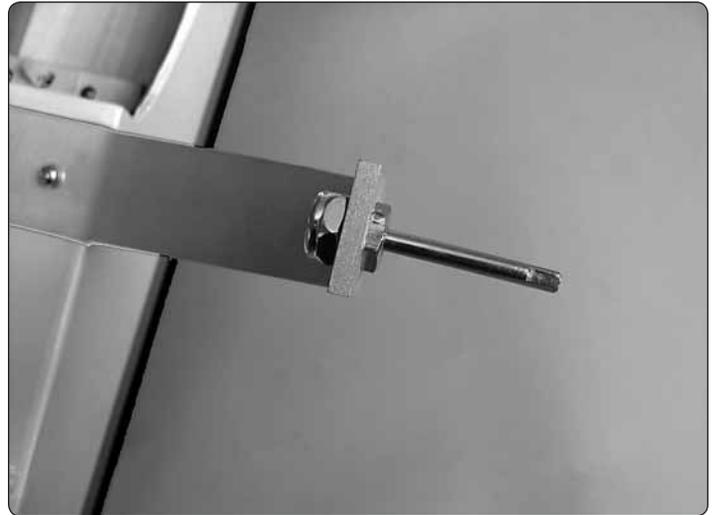
❑ 13. Center the right elevator half. Mark, cut, bend and connect the pushrod to the servo. Secure the pushrod to the servo arm with a nylon Faslink. Center the left elevator half. Cut the left elevator pushrod wire 1/8" [3mm] from the back of the Faslink.



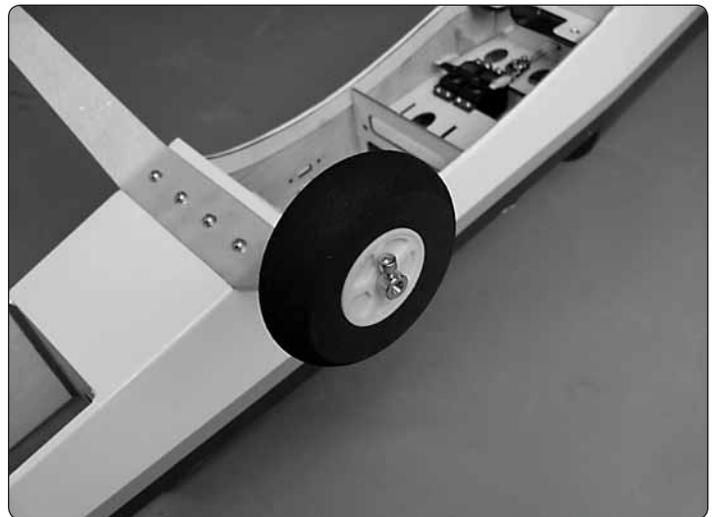
❑ 14. Bend the left pushrod wire as shown in the photo.



❑ 15. Remove the nylon Faslink from the pushrod wire and remove the wire from the servo arm. Slide two 5/32" [4mm] wheel collars over both elevator pushrod wires. Reinstall the pushrod wire to the servo arm and the Faslink. Center the elevator servo and both the left and right elevator halves. Apply a drop of thread locker to each of the 6-32 x 1/2" [13mm] socket head cap screws and then screw them into the wheel collars, securing the pushrod wires together.



❑ 2. Mount an axle to each landing gear, securing it with the axle nut. Be sure that the flat spot on the end of the axle is towards the bottom of the model.



❑ 3. Mount the wheels to the axles with a 5/32" [4mm] collar on both sides held on with the 6-32 x 1/4" [6mm] socket head cap screws and threadlocker on the threads.

Mount the Main Landing Gear



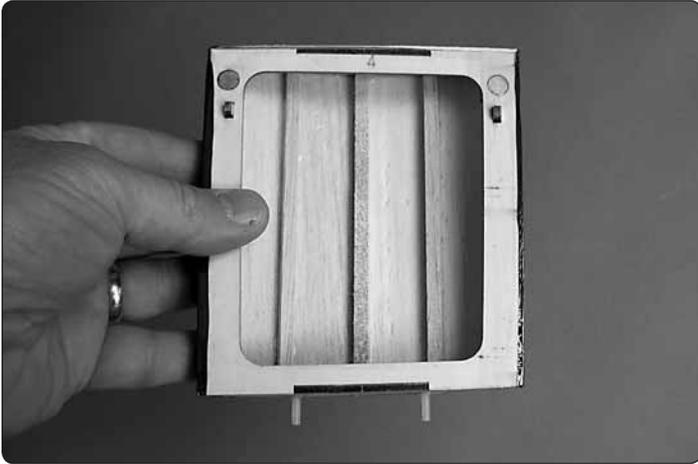
❑ 1. Mount the landing gear to the fuselage with four 6-32 x 1/2" [13mm] Philips screws, #6 flat washers and #6 lock washers.



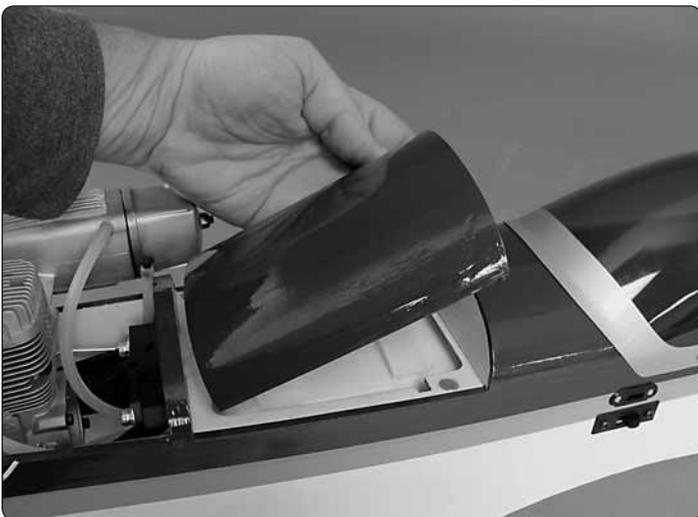
❑ 4. Mount each wheel pant to the landing gear with two 4-40 x 3/8" [10mm] Phillips screws, #4 flat washers and lock washers. Be sure to use threadlocker on the threads.

Removing the Fuselage Hatch

Some of the assembly that follows may require that you remove the hatch on the top of the fuselage. The following explains removing it.



❑ 1. The front of the hatch has two pins and the back has three magnets. These magnets match with the magnets in the fuselage.

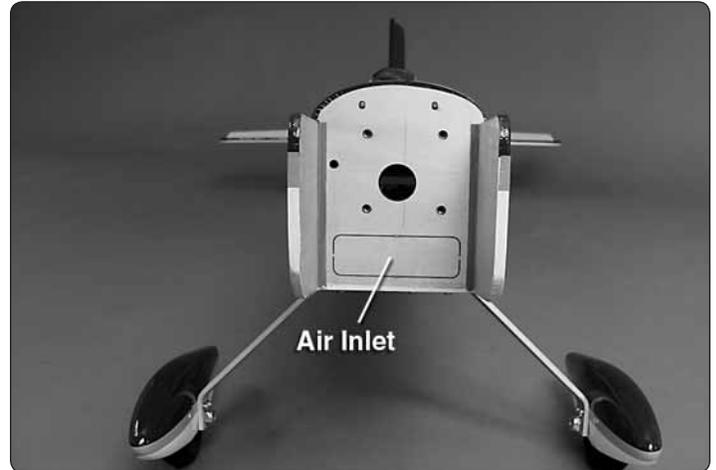


❑ 2. Slide your fingernails under the hatch on both sides of the fuselage and lift the hatch.

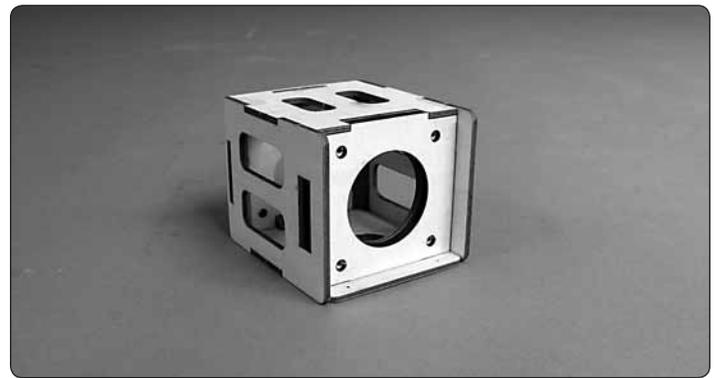
ESCAPE OPTIONS

Proceed to "Mount the Glow Engine" if you will not be installing the electric motor.

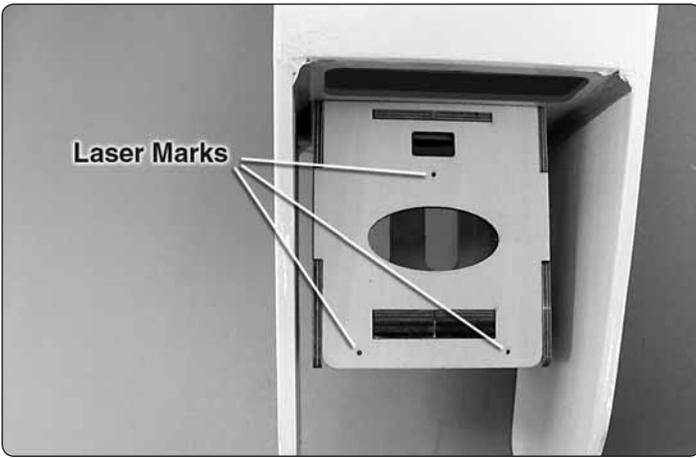
Mount the Electric Motor



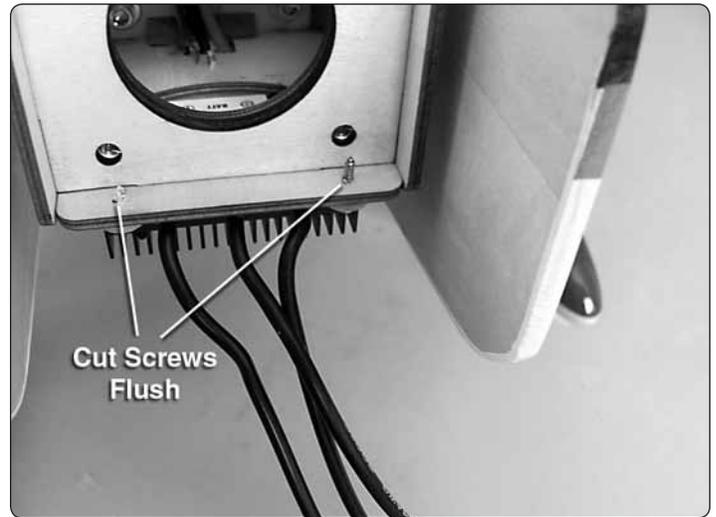
❑ 1. Use a large, flat-blade screwdriver to "knock out" the air inlet in the firewall for the electric motor mount installation.



❑ 2. Mount the plywood electric motor mount to the front of the fuselage with four 8-32 x 3/4" [19mm] socket head cap screws, #8 lock washers and #8 flat washers. Be sure to use a few drops of threadlocker on the threads of each screw.



❑ 3. On the bottom of the plywood electric motor mount you will find three laser engraved marks that are the location for the mounting holes for the Great Planes 60 amp ESC (GPMM1850). Drill a 1/16" [1.6mm] hole through each of the marks. Insert and then remove a #2 x 3/8" [10mm] screw through each hole and then harden the threads with a couple of drops of thin CA glue. If you are using a different brand ESC, then drill mounting holes as needed for your brand of ESC.



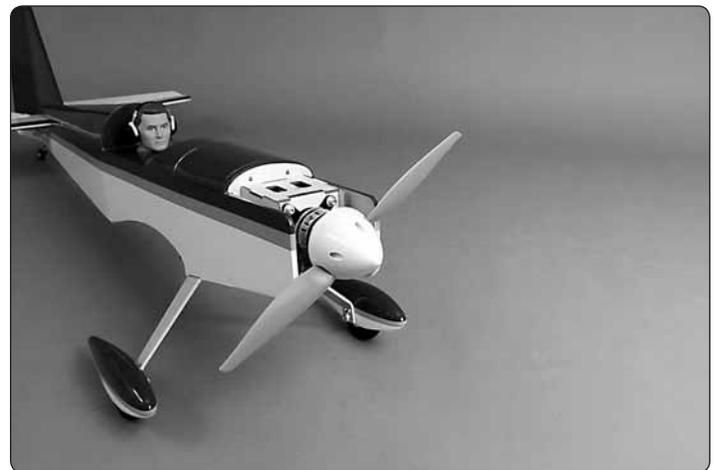
❑ 5. Use a side cutter or moto-tool to cut the screws flush with the surface of the plywood.



❑ 6. Mount the motor to the motor mount with four 8-32 x 1/2" [13mm] socket head cap screws, #8 washers and #8 lock washers. Be sure to apply a drop of threadlocker to each screw. Plug the motor into the ESC. Use a tie wrap or tape to secure the motor leads together.



❑ 4. Mount the ESC with #2 x 3/8" [10mm] screws and #2 flat washers. Feed the connectors through the hole in the bottom of the motor mount and the firewall so that the connectors are inside the fuselage.



❑ 7. Mount the spinner backplate and a balanced propeller to the motor with the washer and nut included with the motor. Then, mount the spinner cone with the screws that came with the spinner.

❑ 8. If you will be installing the cowl (*optional*) over the motor, skip ahead to **INSTALL THE COWL (optional)**, step 1 and step 7.



❑ 9. Use a hobby knife with a sharp #11 blade to cut the covering from the rounded air exit slots in the bottom of the fuselage behind the wing.

ESCAPADE OPTIONS

Proceed to *Mount the Fuel Tank (or Motor Battery)*.

Mount the Glow Engine

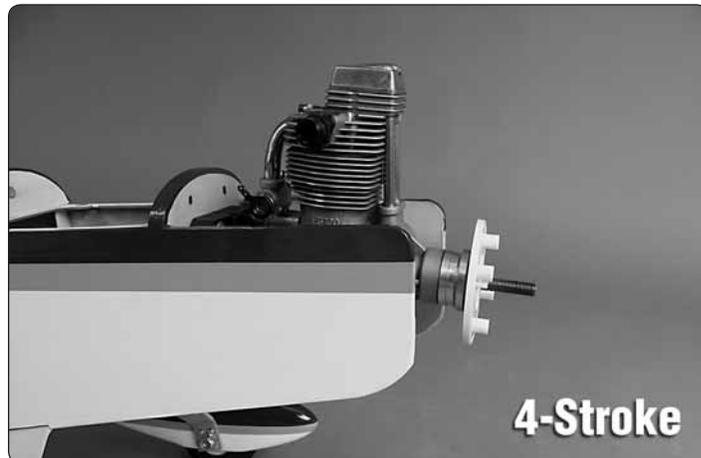
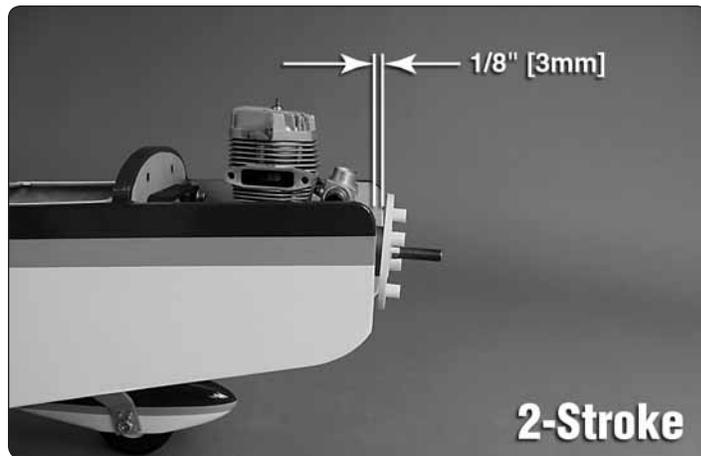
ESCAPADE OPTIONS

*Before following these mounting instructions you should determine your engine or motor of choice and familiarize yourself with the instructions. If you will be installing the optional cowl, skip ahead to **INSTALL THE COWL (optional)** on page 15. Read through the instructions, decide which method you will use and then proceed to mount the engine. The instructions for mounting the engine are slightly different with the cowl.*

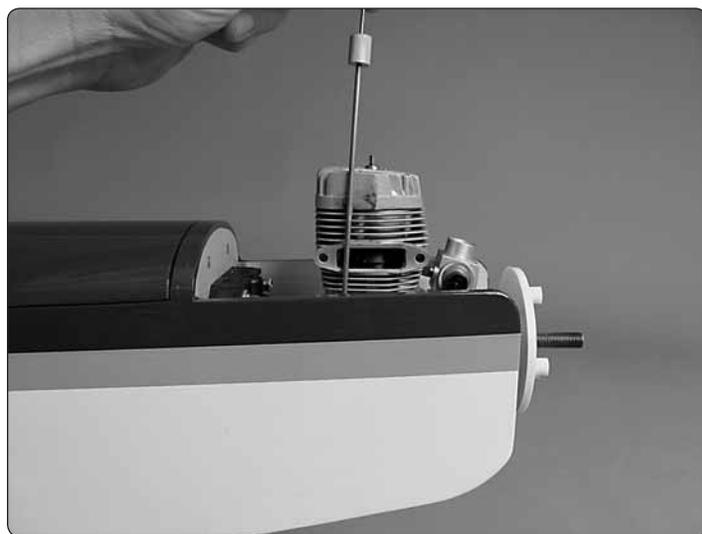
Mount the Engine (without the cowl)

❑ 1. Temporarily mount the two-piece engine mount to the fuselage with four 8-32 x 1-1/4" [32mm] Phillips screws, four #8 lock washers and #8 flat washers, but don't tighten the screws all the way yet.

❑ 2. Place your engine on the mount, sliding the mount halves together or apart to fit the engine. Now you may tighten the mount bolts the rest of the way.

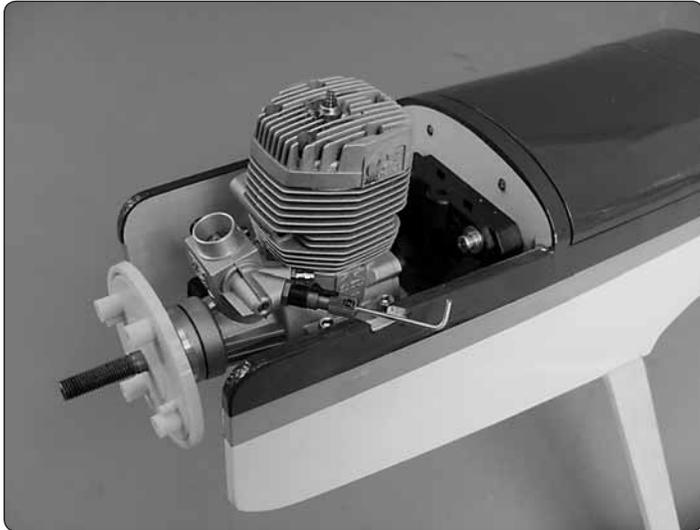


❑ 3. Use a propeller reamer or correctly sized drill to enlarge the hole in your propeller and in the spinner backplate. Place the backplate of the spinner on the engine and position the engine on the mount so there will be a 1/8" [3mm] space between the backplate of the spinner and the front of the fuselage. **Note:** Most 4-stroke engines will not be able to be positioned far enough aft on the mount to achieve this spacing, so just move the engine as far back as possible.



❑ 4. Use a Great Planes Dead Center™ Hole Locator (GPMR8130) or a sharpened wire to mark the location of the engine mounting holes onto the mount.

- ❑ 5. Drill #29 (or 9/64" [3.6mm]) holes through the engine mount at the marks you made for the mounting screws. Mount the engine with four 8-32 x 3/4" [19mm] Phillips screws and #8 lock washers. Use an 8-32 tap to tap threads into the holes after drilling them. Then, use 8-32 x 3/4" socket-head cap screws (SHCS) and #8 lock washers for mounting the engine. Note: Four-stroke engines may have to be temporarily dismantled later while hooking up the throttle.



- ❑ 6. Some engines, like the OS 95AX, may need to have clearance for the needle valve. Cut clearance in the fuselage as needed for your engine.

INSTALL THE COWL (optional)

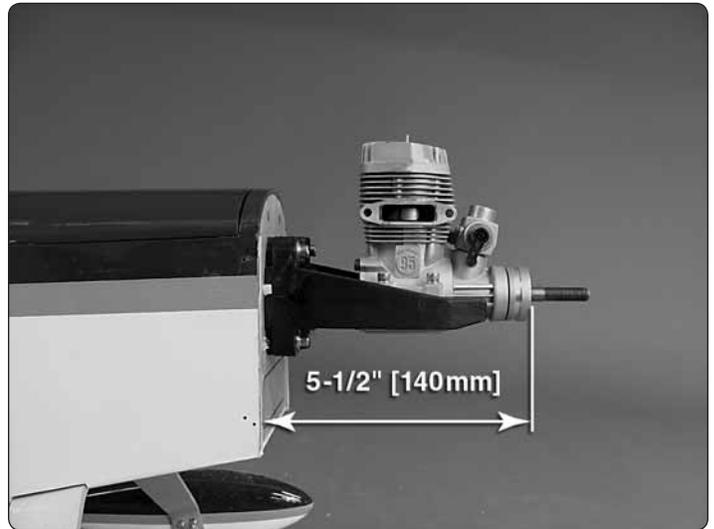
The Escapade comes with a fiberglass cowl that can be installed as an option. The following instructions explain the installation and show it complete with the two-stroke engine. The method may need slight modification depending on your radio. Please review these instructions before determining if you will install the cowl.



- ❑ 1. Draw a line down the fuselage in line with the firewall. Using a sharp hobby knife, cut the fuselage on this line, removing the front portion of the fuselage.

- ❑ 2. Temporarily mount the two-piece engine mount to the fuselage with four 8-32 x 1-1/4" [32mm] Phillips screws, four #8 lock washers and #8 flat washers, but don't tighten the screws all the way yet.

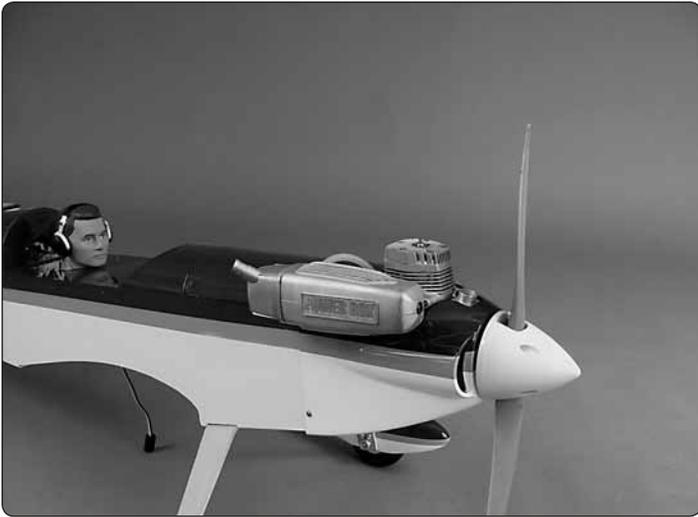
- ❑ 3. Place your engine on the mount, sliding the mount halves together or apart to fit the engine. Now you may tighten the mount bolts the rest of the way.



- ❑ 4. Position the engine on the mount so that the distance from the firewall to the engine drive washer is 5-1/2" [140mm] **Note:** Most 4-stroke engines will not be able to be positioned far enough aft on the mount to achieve this spacing without removing some of the engine mount. Using a high speed moto tool with a sanding drum remove material from the engine mount where the back of the engine contacts the mount. Remove the material as needed to achieve the proper dimension.

- ❑ 5. Use a Great Planes Dead Center Hole Locator (GPMR8130) or a sharpened wire to mark the location of the engine mounting holes onto the mount.

- ❑ 6. Drill #29 (or 9/64" [3.6mm]) holes through the engine mount at the marks you made for the mounting screws. Mount the engine with four 8-32 x 3/4" [19mm] Phillips screws and #8 lock washers. Use an 8-32 tap to tap threads into the holes after drilling them. Then, use 8-32 x 3/4" socket-head cap screws (SHCS) and #8 lock washers for mounting the engine. Note: Four-stroke engines may have to be temporarily dismantled later while hooking up the throttle.



❑ 7. Cut the fiberglass cowl as needed to allow the cowl to fit over the engine and the muffler. Once you are satisfied with the fit of the cowl, drill two 1/16" [16mm] holes into each side of the cowl and into the fuselage. Be sure when drilling the holes that you drill into the plywood firewall. This will provide a secure attachment point for the screws. Attach the cowl with # 2 x 3/8" [10mm] screws and #2 flat washers. Remove the screws and the cowl. Apply a couple drops of thin CA into the holes to harden the threads.

MOUNT the FUEL TANK or BATTERY

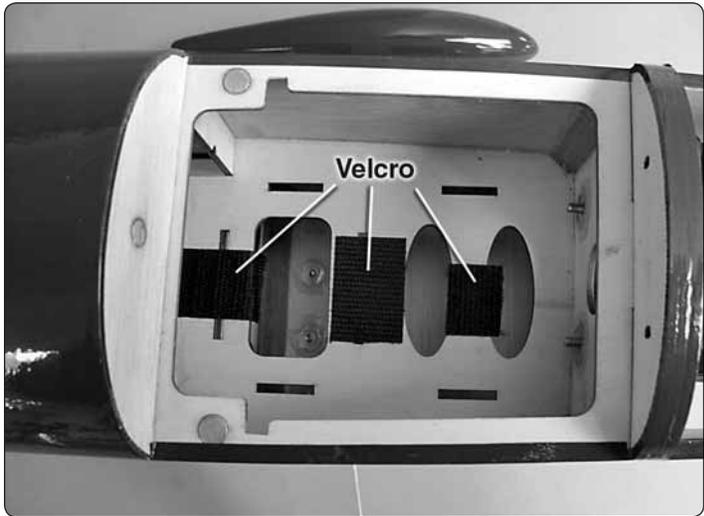
ESCAPE OPTIONS

IMPORTANT: If powering your Escapade with an electric motor, before experimenting with different motor battery combinations and connecting multiple battery packs with adapter plugs, refer to the **Battery Precautions** on page 22.

Mount the Battery



❑ 1. Inside the fuselage, remove the two screws that hold the balsa block in place and remove the block. For the electric installation this block is not needed and can be discarded.



❑ 2. Cut pieces of self-adhesive Velcro® (not included) and place them as shown. Each of your battery packs should have the a strip of the opposite Velcro on them to hold the battery in place.



☐ 3. Slide the Velcro straps into the slots in the tray as shown. When you insert the battery into the fuselage, place the battery against the Velcro you installed on the tray and tighten the Velcro straps around the battery.

ESCAPE OPTIONS

Skip the following step if mounting a battery.

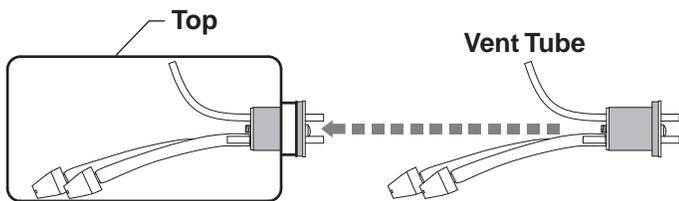
Mount the Fuel Tank



☐ 1. Inside the fuselage, remove the two screws that hold the balsa block in place and remove the block. Set the block and screws aside. They will be reinstalled during the fuel tank installation.



☐ 2. Slide the Velcro straps into the slots in the tray as shown.



❑ 3. Use a fine-point felt-tip pen to write "TOP" on the same side of the fuel tank that has the molded-in label "420cc" (or, just remember that the surface that has the "420cc" is the top). Loosen the Phillips screw in the stopper assembly a few turns and temporarily remove the stopper assembly from the tank. Be certain the vent tube is toward the top of the tank. Then, reinsert the stopper assembly and tighten the screw to squish the rubber stopper and seal the tank.

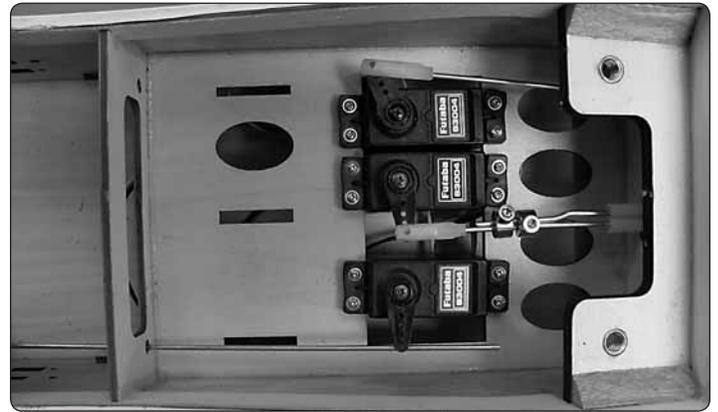


❑ 4. Mount the fuel tank with the straps. The fuel lines will be connected later.

❑ 5. Re-install the balsa block with the screws. This block will keep the tank from sliding out of position.

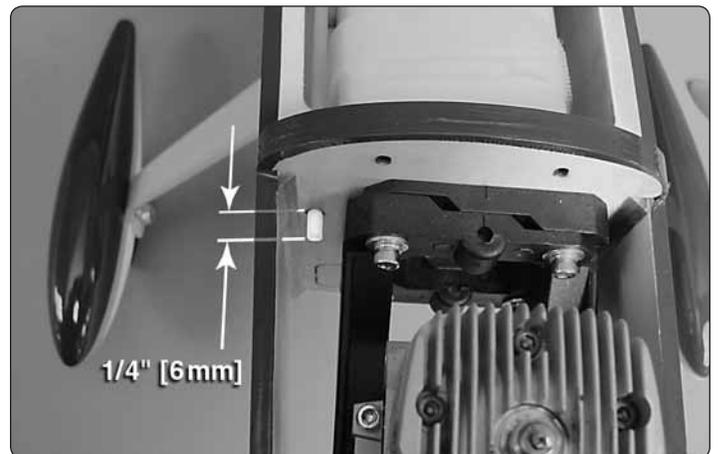
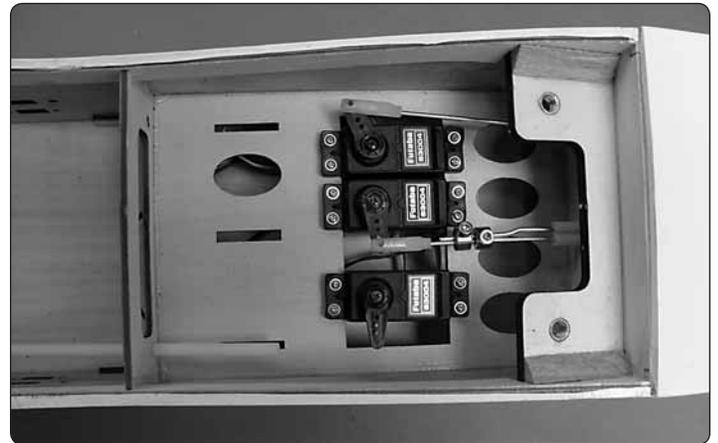
Don't worry about connecting the fuel lines at this time. We will be installing them later in the assembly process.

HOOK UP THE THROTTLE



❑ 1. Install a servo arm onto the throttle servo. Place the throttle servo into the fuselage. Slide the 20" [508mm] pushrod wire through the hole in the firewall and into the fuselage. Align the hole at the end of the arm with the pushrod wire. Using the hardware that came with your servo, mount the servo to the tray. Once the throttle is installed remove the pushrod wire.

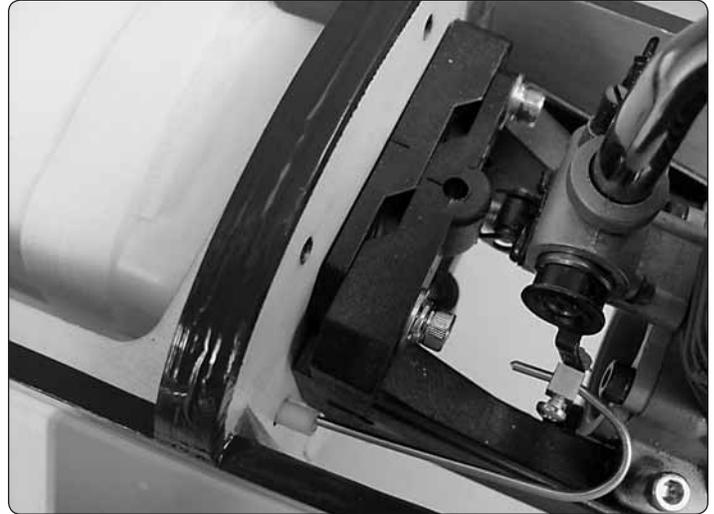
Two-Stroke Hookup



❑ 1. Install the 17-3/4" [450mm] nylon pushrod tube through the hole in the firewall, along the side of the fuel tank and into the servo bay. Cut the nylon pushrod tube so it extends from the firewall 1/4" [6mm]. Roughen the end of the tube with 180 grit sandpaper. Apply a couple of drops of CA glue where the tube passes through the firewall and formers.

Proceed to "Final Assembly" on page 20

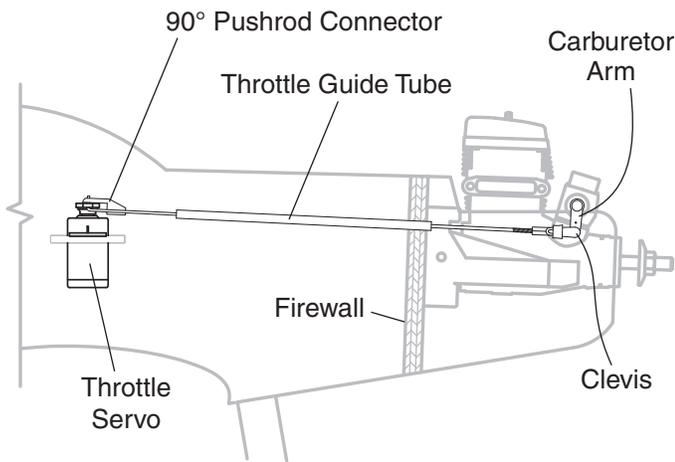
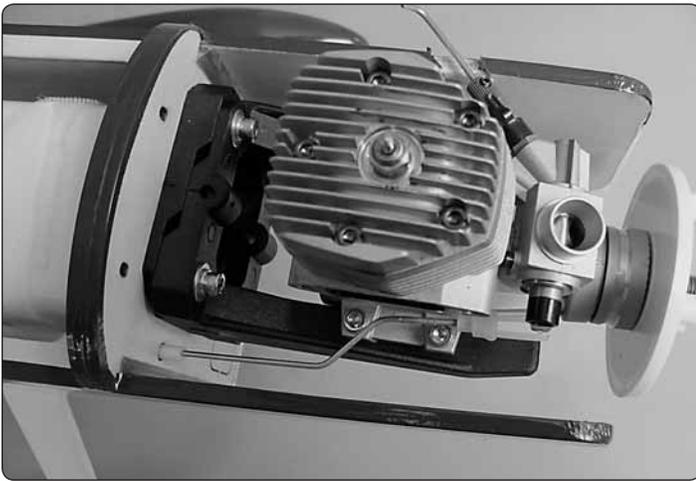
Four-Stroke Hookup



1. Install the screw-lock connector onto the throttle arm as shown. Cut the threaded portion off of the 20" [508mm] pushrod and then bend a 3/4" [19mm] radius loop on one end of the wire. Slide the wire into the pushrod tube and the screw lock connector. Secure the wire to the screw lock connector with the set screw. NOTE - The location of the carburetor arm may vary between engine brands so you may need to cut a new hole in the firewall for the guide tube that aligns with your carburetor arm. If you do, mark the location of the new hole, remove the engine if necessary, and then use an extended 3/16" [4.8mm] drill (available at hardware or home improvement stores) or a 3/16" [4.8mm] brass tube sharpened on the end to cut a new hole in the firewall.



2. Connect the throttle pushrod to the throttle servo using a nylon Faslink in the same way as you did with the ailerons.



2. Hook up the throttle using the 20" [508mm] pushrod and a nylon clevis on the carburetor arm. The location of the carburetor arm may vary between engine brands so you may need to cut a new hole in the firewall for the guide tube that aligns with your carburetor arm. If you do, mark the location of the new hole, remove the engine if necessary, and then use an extended 3/16" [4.8mm] drill (available at hardware or home improvement stores) or a 3/16" [4.8mm] brass tube sharpened on the end to cut a new hole in the firewall. Install a nylon clevis onto the threaded end of the pushrod wire approximately 20 turns. Slide a silicone clevis keeper over the clevis. Bend the pushrod wire as shown and then install the pushrod wire into the pushrod tube and attach the clevis to the carburetor arm.

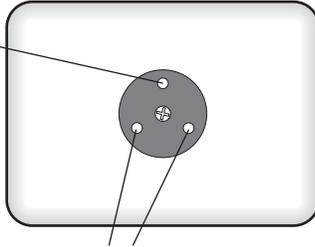


3. Connect the throttle pushrod to the throttle servo using a nylon Faslink in the same way as you did with the ailerons.

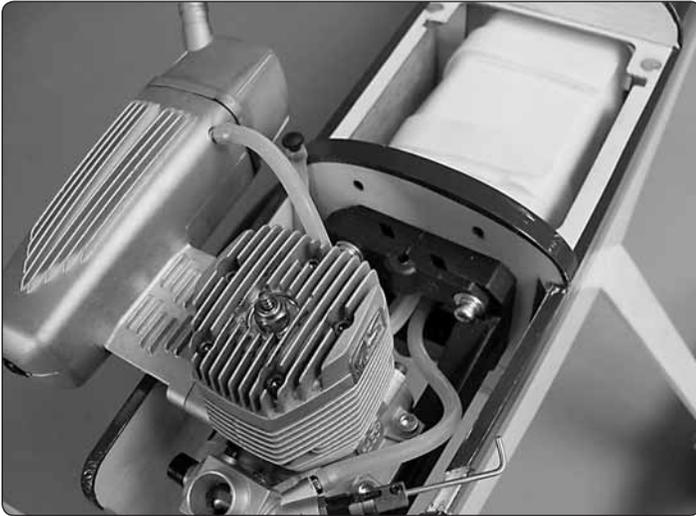
FINAL ASSEMBLY

Install the Fuel Line

Vent/Overflow
(Connect to fitting on Muffler)

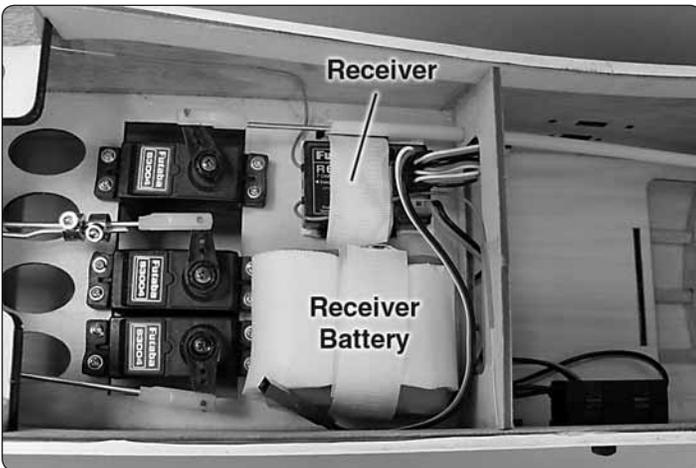


One line is for **Fueling and Defueling**. The other line goes to the **Carburetor**. It doesn't matter which line goes where because they are both the same inside the fuel tank.

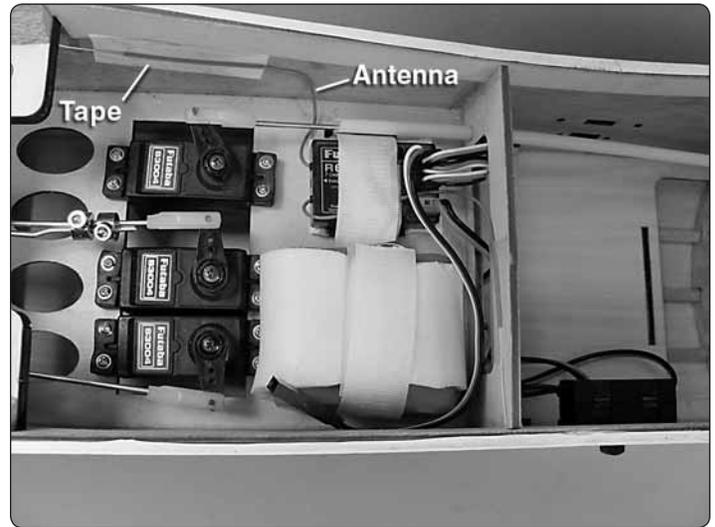


❑ 1. Mount the muffler to your engine and connect the fuel lines to the fuel tank as shown in the diagram. The line with the fuel line plug goes to either of the “clunk” lines on the fuel tank that will be used for fueling and defueling the tank.

Final Radio Installation



❑ 1. Wrap both the Rx battery and the receiver in 1/4" [6mm] R/C foam rubber using tape to hold the halves together. Make two straps from the included hook-and-loop material to mount the battery and the receiver to the receiver tray as shown.



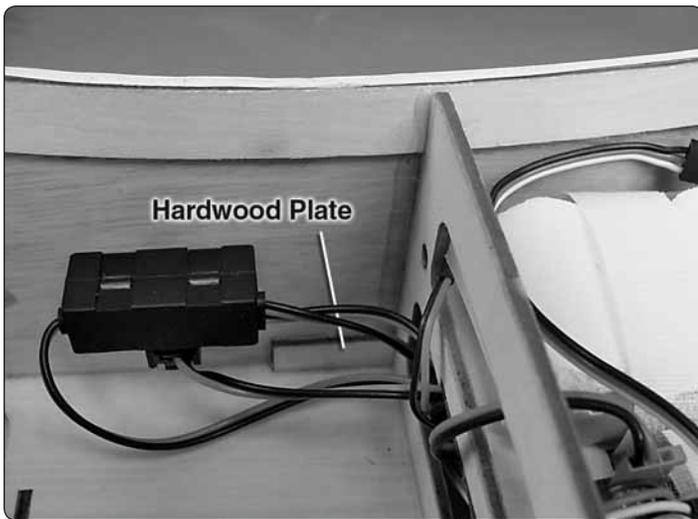
❑ 2. If using a 2.4GHz receiver, tape the antenna to the formers as shown. If using a 72MHz receiver, guide the antenna down through the fuselage.



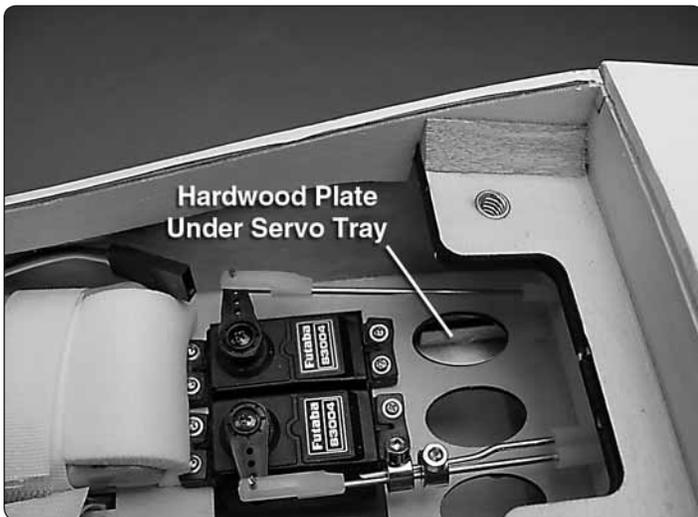
❑ 3. Of the four switch mounting locations pre-cut into the fuselage sides, determine which one you will use for mounting the on/off switch for the receiver as well as the battery charge jack (or, if none of these is suitable, use the switch mounting plate that came with your switch as a template for cutting new holes). **Note:** For glow engines the switch should be mounted on the side of the fuselage **opposite** the muffler. Cut the covering from the switch mount holes and mount the on/off switch. Then connect the switch to the radio and battery.

Install the Canopy

❑ 1. There are two options for installing the canopy to the fuselage. The canopy can be glued to the fuselage with RC 56 canopy glue. If gluing the canopy to the fuselage, tape the canopy to the fuselage with masking tape until the glue completely dries.



Hardwood Plate



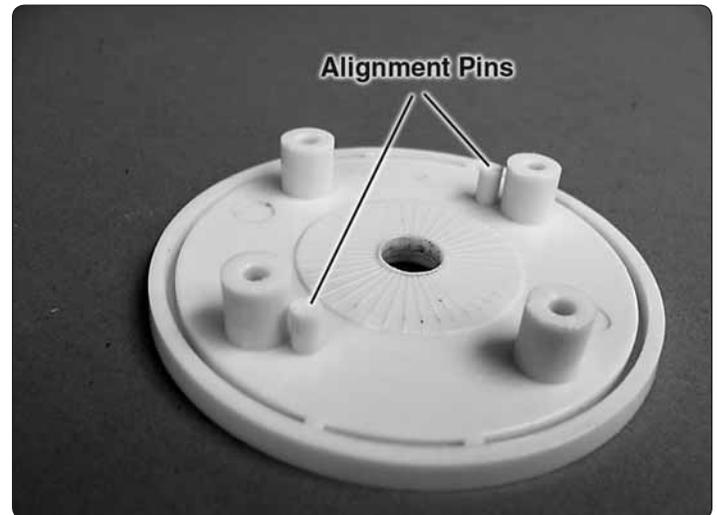
Hardwood Plate Under Servo Tray

□ 2. The other method is to secure the canopy to the fuselage with four #4 x 1/2" [13mm] washer head screws. Inside the fuselage you will find four hardwood plates for the screws. Transfer the location of these plates to the outside of the fuselage.



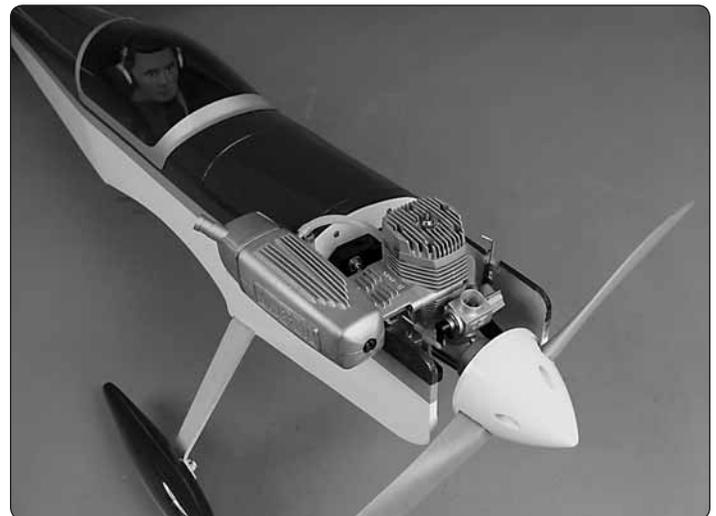
□ 3. Place the canopy onto the fuselage and then drill a hole through the canopy, into the fuselage and through the plates. Secure the canopy with the four #4 x 1/2" [13mm] washer head screws.

Install the Propeller and Spinner



Alignment Pins

□ 1. Install the spinner back plate and propeller onto the engine. Temporarily install the prop washer and prop nut. Fit the spinner cone to the spinner back plate. The screws for the spinner cone need to align with the screw holes in the back plate. Depending on your choice of engine and propeller the holes will most likely not align correctly. If this is the case, cut the alignment pins from the spinner back plate with a sharp hobby knife.



□ 2. Install the modified back plate, propeller and spinner cone. Secure the spinner cone to the back plate with the four screws included with the spinner.

Apply the Decals

□ 1. 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 & water allows accurate positioning and reduces air bubbles underneath.

❑ 2. Position decal on the model where desired. Holding the decal down, use a paper towel to wipe most of the water away.

❑ 3. 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

Install & Connect the Motor Battery

Before you can power the radio system and set up the controls, the motor batteries will need to be charged.

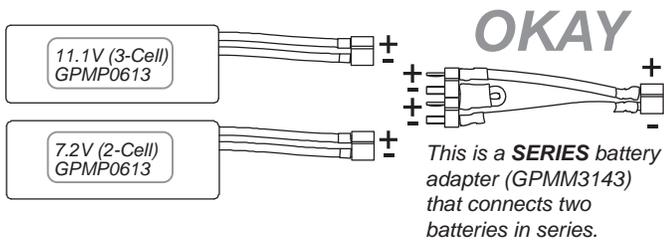
IMPORTANT: If using multiple battery packs that are connected with an adapter, never charge the batteries together through the adapter. Always charge each battery pack separately. Charge the batteries, then read the following precautions on how to connect multiple packs for flying the model:

Battery Precautions

There are two ways to connect multiple battery packs: In **Series** and in **Parallel**.

1. Connecting batteries in “**Series**” means to connect the +’s to the –’s and the –’s to the +’s. This combines the battery’s Voltages, but the capacity remains the same.

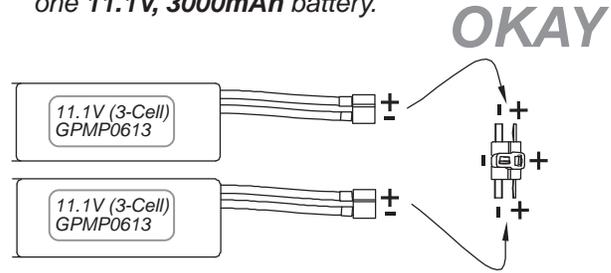
*These are two 3200mAh batteries (one 11.1V and the other 7.4V). When joined in **SERIES**, the result will be an 18.5V, 3200mAh battery.*



It’s okay to connect batteries with different voltages in series to achieve the new, desired voltage.

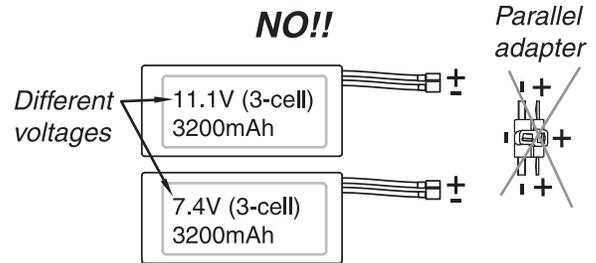
2. Connecting batteries in “**Parallel**” means to connect the +’s to the +’s and the –’s to the –’s. This combines the battery’s capacities, but the Voltage remains the same.

*These two 1500mAh batteries (both 11.1V) are being joined in **PARALLEL**. The result will be one **11.1V, 3000mAh** battery.*

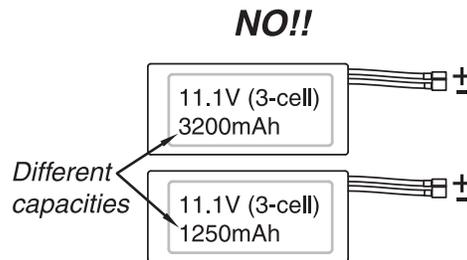


*This is a **PARALLEL** battery adapter (GPMM3142) that connects two batteries in parallel.*

NEVER connect battery packs with different Voltages in Parallel—only combine in Series. Otherwise, the batteries will try to “equalize” with the larger one trying to “charge” the smaller one, thus causing heat and likely a fire.



Also NEVER connect battery packs with different capacities in Series or in Parallel.

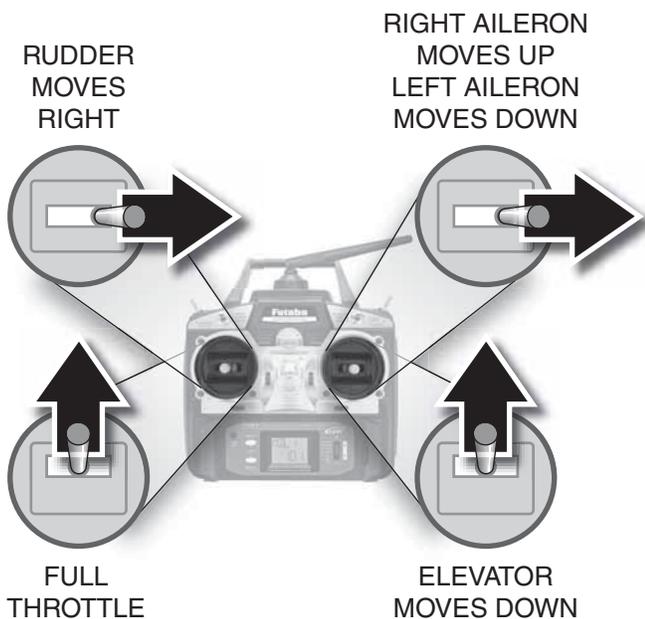


Check the Control Directions

❑ 1. Turn on the transmitter and receiver 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 clevises on the pushrods to center the control surfaces.

4-CHANNEL RADIO SETUP (STANDARD MODE 2)



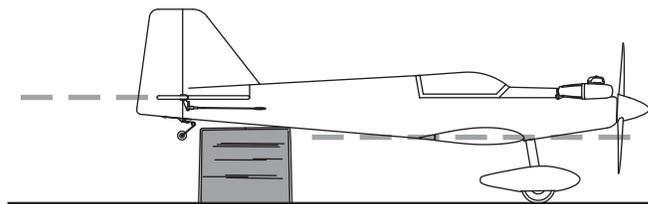
- ❑ 3. Make certain that the control surfaces and the carburetor respond in the correct direction as shown in the diagram. If any of the controls respond in the wrong direction, use the servo reversing in the transmitter to reverse the servos connected to those controls. Be certain the control surfaces have remained centered. Adjust if necessary.

Set the Control Throws

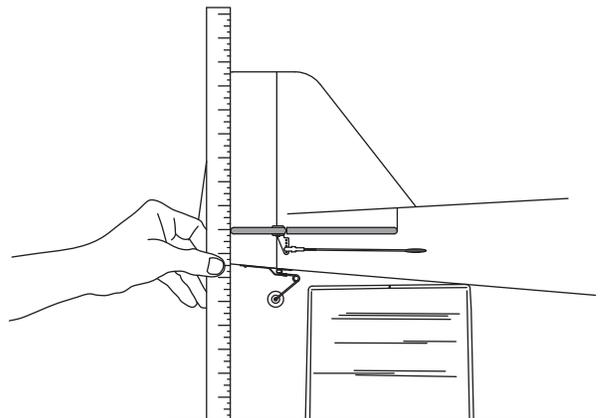
To ensure a successful first flight, set up your Escapade according to the control throws specified in this manual. The throws have been determined through actual flight testing and accurate record-keeping, allowing the model to perform in the manner in which it was intended. If, after you have become accustomed to the way the Escapade flies, you would like to change the throws to suit your taste, that is fine. However, too much control throw could make the model too responsive and difficult to control, so remember, "more is not always better."

- ❑ 1. Use a box or something similar to prop up the bottom of the fuselage so the horizontal stabilizer and wing will be level.

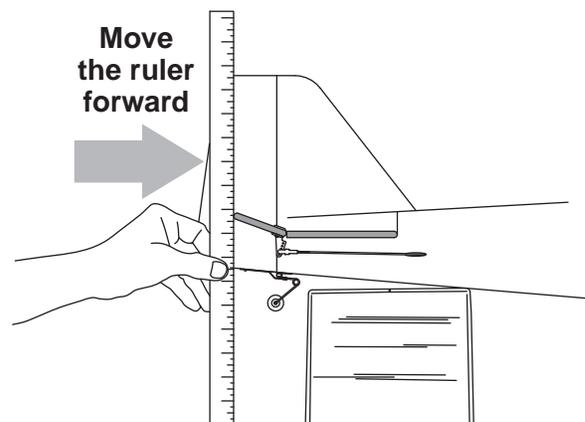
Measure the **high rate** elevator throw first...



- 1 Use a small box or something similar to prop up the fuselage until the wings and horizontal stabilizers are level.



- 2 Take the reading of the surface you are measuring at the widest part of the control surface at the trailing edge.



- 3 Move the control surface and move your ruler forward. Read the measurement to get the throw.

- ❑ 2. Hold a ruler vertically on your workbench against the widest part (front to back) of the trailing edge of the elevator. Note the measurement on the ruler.

- ❑ 3. Move the elevator up with your transmitter and move the ruler forward so it will remain contacting the trailing edge. The distance the elevator moves up from center is the "up" elevator throw. Measure the down elevator throw the same way.

- ❑ 4. If necessary, adjust the location of the pushrod on the servo arm or on the elevator horn, or program the ATVs in your transmitter to increase or decrease the throw according to the measurements in the control throws chart.

❑ 5. Measure and set the **low rate** elevator throws and the high and low rate throws for the rest of the control surfaces the same way.

These are the recommended control surface throws:		
	LOW RATE	HIGH RATE
ELEVATOR	Up & Down 7/8" [22mm] 14°	Up & Down 1-1/2" [38mm] 25°
RUDDER	Right & Left 1-3/4" [44mm] 19°	Right & Left 2-1/2" [64mm] 28°
AILERONS	Up & Down 3/8" [10mm] 12°	Up & Down 3/4" [19mm] 25°

If your radio does not have dual rates, we recommend setting the throws at the low rate settings until you become familiar with the airplane. You might later consider to set them to the high rate settings.

NOTE: The throws are measured at the **widest part** of the elevators, rudder and ailerons.

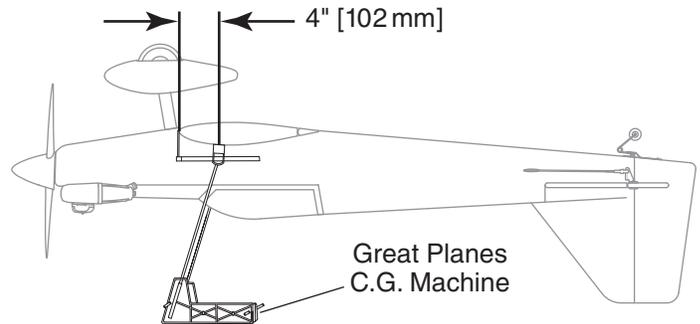
Balance the Model (C.G.)

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

At this stage the model should be in ready-to-fly condition with **all** of the components in place including the complete radio system, engine, muffler, propeller, spinner and pilot. If you've built the electric version, install the motor battery. If you've built the glow version the fuel tank should be empty.

❑ 1. If using a Great Planes C.G. Machine™, set the rulers to 4" [102mm]. If not using a C.G. Machine, use a fine-point felt tip pen to mark lines on the top of wing on both sides of the fuselage 4" [102mm] back from the leading edge. Apply narrow (1/16" [2mm]) strips of tape over the lines so you will be able to feel them when lifting the model with your fingers.

This is where your model should balance for the first flights. Later, you may experiment by shifting the C.G. 3/16" [4.8mm] forward or 1" [25mm] back to change the flying characteristics. Moving the C.G. forward will improve the smoothness and stability, but the model will then be less aerobatic (which may be fine for less-experienced pilots). Moving the C.G. aft makes the model more maneuverable and aerobatic for experienced pilots. 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 an empty fuel tank, 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." If possible, move the battery pack and/or receiver forward to get the model to balance. If the nose drops, the model is "nose heavy." If possible, move the battery pack and/or receiver aft. If the receiver and/or battery cannot be moved, or if additional weight is still required, nose weight may be easily added by using "spinner weight" (GPMQ4645 for the 1 oz. [28g] weight, or GPMQ4646 for the 2 oz. [57g] weight). If spinner weight is not practical or is not enough, or if tail weight is required, use Great Planes "stick-on" lead (GPMQ4485). To find out how much weight is required, place incrementally increasing amounts of weight on the bottom of the fuselage over the location where it would be mounted inside until the model balances. A good place to add stick-on nose weight is to the firewall. Do not attach weight to the cowl—this will cause the mounting screws to open up the holes in the cowl. 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.

Note: If mounting weight where it may be exposed to fuel or exhaust, do not rely upon the adhesive on the back to permanently hold it in place. Over time, fuel and exhaust residue may soften the adhesive and cause the weight to fall off. Instead, permanently attach the weight with glue or screws.

❑ 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, have an assistant help you lift the model by the engine propeller 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

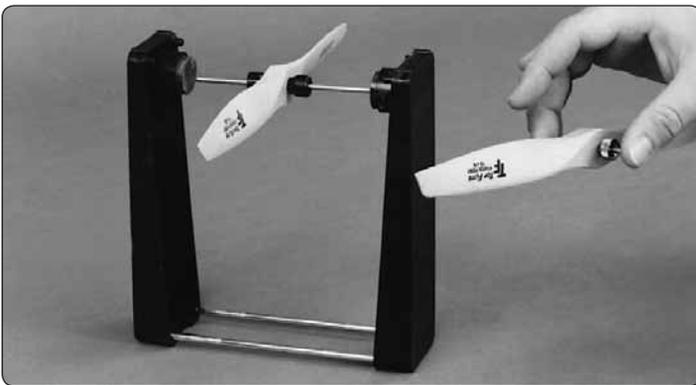
No matter if you fly at an AMA sanctioned R/C club site or if you fly somewhere on your own, you should always have your name, address, telephone number and AMA number on or inside your model. It is **required** at all AMA R/C club flying sites and AMA sanctioned flying events. Fill out the identification tag on page 28 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 batteries. You should always charge your transmitter and receiver batteries 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 the 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 engine mounting screws and bolts loosen, possibly with

disastrous effect, but vibration may also damage your radio receiver and battery. Vibration can also cause your fuel to foam, which will, in turn, cause your engine to run hot or quit.

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.

Ground Check and Range Check

Run the engine for a few minutes, making sure it idles reliably, transitions smoothly and maintains full power indefinitely. Afterward, shut the engine off and inspect the model closely, making sure all fasteners, pushrods and connections have remained tight and the hinges are secure. Always ground check the operational range of your radio before the first flight of the day following the manufacturer's instructions that came with your radio. This should be done once with the engine off and once with the engine running at various speeds. 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.

ENGINE SAFETY PRECAUTIONS

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

Keep all engine fuel in a safe place, away from high heat, sparks or flames, as fuel is very flammable. Do not smoke near the engine or fuel; and remember that engine exhaust gives off a great deal of deadly carbon monoxide. Therefore **do not run the engine in a closed room or garage.**

Get help from an experienced pilot when learning to operate engines.

Use safety glasses when starting or running engines.

Do not run the engine 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 start and run the engine.

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.

Use a “chicken stick” or electric starter to start the engine. Do not use your fingers to flip the propeller. Make certain the glow plug clip or connector is secure so that it will not pop off or otherwise get into the running propeller.

Make all engine adjustments from behind the rotating propeller.

The engine gets hot! Do not touch it during or right after operation. Make sure fuel lines are in good condition so fuel will not leak onto a hot engine, causing a fire.

To stop a glow engine, cut off the fuel supply by closing off the fuel line or following the engine manufacturer's recommendations. Do not use hands, fingers or any other body part to try to stop the engine. To stop a gasoline powered engine an on/off switch should be connected to the engine coil. Do not throw anything into the propeller of a running engine.

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

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. Fuelproof all areas exposed to fuel or exhaust residue such as the cowl ring, cowl mounting blocks, wing saddle area, etc.
- 2. Check the C.G. according to the measurements provided in the manual.
- 3. Be certain the battery and receiver are securely mounted in the fuse. Simply stuffing them into place with foam rubber is not sufficient.
- 4. 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.
- 5. Balance your model *laterally* as explained in the instructions.
- 6. Use threadlocking compound to secure critical fasteners such as the set screws that hold the wheel axles to the struts, screws that hold the carburetor arm (if applicable), screw-lock pushrod connectors, etc.
- 7. Add a drop of oil to the axles so the wheels will turn freely.
- 8. Make sure all hinges are **securely** glued in place.
- 9. Reinforce holes for wood screws with thin CA where appropriate (servo mounting screws, cowl mounting screws, etc.).
- 10. Confirm that all controls operate in the correct direction and the throws are set up according to the manual.
- 11. Make sure there are silicone retainers on all the clevises and that all servo arms are secured to the servos with the screws included with your radio.
- 12. Secure connections between servo wires and Y-connectors or servo extensions, and the connection between your battery pack and the on/off switch with vinyl tape, heat shrink tubing or special clips suitable for that purpose.
- 13. Make sure any servo extension cords you may have used do not interfere with other systems (servo arms, pushrods, etc.).
- 14. Secure the pressure tap (if used) to the muffler with high temp RTV silicone, thread locking compound or J.B. Weld.
- 15. Make sure the fuel lines are connected and are not kinked.

- 16. Balance your propeller (and spare propellers).
- 17. Tighten the propeller nut and spinner.
- 18. Place your name, address, AMA number and telephone number on or inside your model.
- 19. Cycle your receiver battery pack (if necessary) and make sure it is fully charged.
- 20. If you wish to photograph your model, do so before your first flight.
- 21. Range check your radio when you get to the flying field.

FLYING

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

Fuel Mixture Adjustments

A fully cowled engine may run at a higher temperature than an un-cowled engine. For this reason, the fuel mixture should be richened so the engine runs at about 200 rpm below peak speed. By running the engine slightly rich, you will help prevent dead-stick landings caused by overheating.

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

Before you get ready to takeoff, see how the model handles on the ground by doing a few practice runs at **low speeds** on the runway. Hold “up” elevator to keep the tail wheel on the ground. If necessary, adjust the tail wheel so the model will roll straight down the runway. If you need to calm your nerves before the maiden flight, shut the engine down and

bring the model back into the pits. Top off the fuel, then check all fasteners and control linkages for peace of mind.

Remember to takeoff into the wind. When you’re ready, point the model straight down the runway, hold a bit of up elevator to keep the tail on the ground to maintain tail wheel steering, then gradually advance the throttle. As the model gains speed decrease up elevator allowing the tail to come off the ground. One of the most important things to remember with a tail dragger is to always be ready to apply **right** rudder to counteract engine torque. Gain as much speed as your runway and flying site will practically allow before gently applying up elevator, lifting the model into the air. At this moment it is likely that you will need to apply more right rudder to counteract engine torque. Be smooth on the elevator stick, allowing the model to establish a **gentle** climb to a safe altitude before turning into the traffic pattern.

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 Escapade 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 fuel, 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 fuel level, but 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. 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. Once the model is on the runway and has lost flying speed, hold up elevator to place the tail on the ground, regaining tail wheel control.

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