Slinger™

Speed 400 Electric Fun Fly ARF

INSTRUCTION MANUAL

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 buyers are not prepared to accept the liability associated with the use of this product, they are advised to return this kit immediately in new and unused condition to the place of purchase.

READ THROUGH THIS INSTRUCTION MANUAL FIRST. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.

GREAT PLANES® MODEL MANUFACTURING COMPANY
1610 Interstate Drive Champaign, IL 61822
(217) 398-8970, Ext. 2
airsupport@greatplanes.com

TABLE OF CONTENTS

INTRODUCTION

Thank you for purchasing the Great Planes Slinger ARF. The Slinger is a lightweight, high performance model that can be flown just about anywhere there is an open area clear of obstacles. Ultimately, it is the modelers responsibility to select a suitable, safe flying area. Since the Slinger is constructed mostly of molded plastic foam, it is durable and can be easily repaired. The performance of the Slinger is excellent with the included motor.

For the latest technical updates or manual corrections to the Slinger, visit the web site listed below and select the Great Planes Slinger 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.

http://www.greatplanes.com/airplanes/index.html

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

1. Your Slinger should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Although the Slinger is a light-weight model, just the same as any R/C plane, it should still be flown with care. Even while gliding at slow speeds, the Slinger could possibly cause injury to yourself or spectators and damage property.

2. You must assemble the Slinger **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 the time to **build straight, true** and **strong.**

4. You must use an R/C radio system that is in excellent 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 connections often and replace them if they show signs of wear or fatigue.

7. If you are not already an experienced R/C pilot, you should fly the model only with the help of a competent, experienced R/C pilot.

NOTE: We, as the kit manufacturer, provide you with a top quality kit and great instructions, but ultimately the quality 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.

If you 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 an R/C club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots.

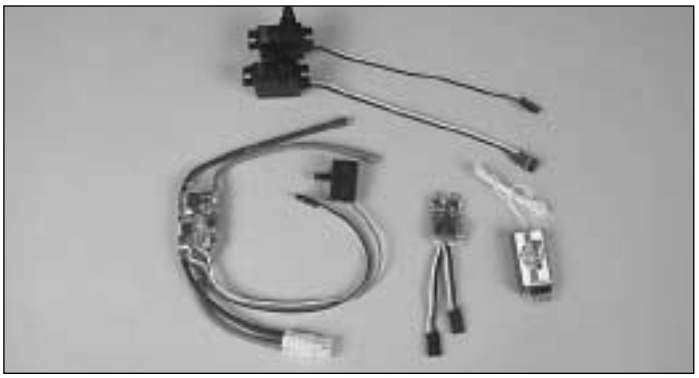
In addition to joining an R/C club, we strongly recommend you join the AMA (Academy of Model Aeronautics). AMA

membership is required to fly at AMA sanctioned clubs. There are over 2,500 AMA chartered clubs across the country. Among other benefits, the AMA provides insurance to its members who fly at sanctioned sites and events. Additionally, training programs and instructors are available at AMA club sites to help you get started the right way. 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

ADDITIONAL ITEMS REQUIRED

Flight Equipment



The Slinger requires a three-channel radio with two servos, a receiver, mixer and a speed control. A small receiver and mini servos are required, and smaller radio equipment designed for park flyer models can be used. The servos must have a minimum of 15 oz-in torque.

Servos:
(HCAM0110) CS-12, 35 oz in torque
(FUTM0033) S3101, 34.7 oz in torque
(HCAM0090) CS-5, 16.7 oz in torque
(FUTM0041) S3106, 16.7 oz in torque

Receivers:
(GPML0044) 4-channel FM, low band
(GPML0045) 4-channel FM, high band
(GPML0056) 5-channel FM, low band
(includes 30 amp ESC)
(GPML0057) 5-channel FM, high band
(includes 30 amp ESC)
(FUTL0442) 4-channel FM, low band
(FUTL0443) 4-channel FM, high band
low band - channels 11-35
high band - channels 36-60

Receiver crystal:
(FUTL62**) for GPM or FUT low band
(FUTL63**) for GPM or FUT high band
** desired channel

Speed Control:
(GPMM2010) C-10, 12 amp
(GPMM2020) C-20, 20 amp
(GPMM2429) Slinger speed control

Mixer:
A mixer (GPMM2428) is required that gives “elevon” or “ailevator” mixing. Most computer transmitters include this type of mixer. There are also several mixers available that plug into the receiver and servos.

Additionally, an 8-cell (9.6 volt) 1100 mAh or larger battery pack is required. The battery compartment is sized for a 4/5 AA size battery. (GPMP0310) – 1100 mAh Nicd

For charging the battery at the flying field, the Great Planes ElectriFly™ Peak Charger (GPMM3000) is recommended. The Great Planes ElectriFly Triton™ Computerized Charger (GPMM3150) is recommended for shop and field charging and discharging.

Building Supplies

In addition to common household tools, here is the list of items used to build the Slinger.

- ❏ 6-minute epoxy (GPMR6042)
- ❏ Hobby knife (HCAR0105)
- ❏ #11 blades (HCAR0211)
- ❏ Double-sided foam tape (GPMQ4440) for mounting receiver and speed control
- ❏ Sandpaper and sanding block
- ❏ Small Phillips screwdriver (#1)
- ❏ Small T-pins (HCAR5100) or craft pins
- ❏ 5/64” drill bit

IMPORTANT BUILDING NOTES

Since the Slinger is made mostly of foam, and since CA adhesives commonly used to build R/C model airplanes dissolve foam, CA should not be used when gluing foam parts. Therefore, 6-minute epoxy, which is compatible with foam, is used for construction. Unless otherwise specified in the instructions, 6-minute epoxy is to be used for gluing all parts of the model together.

For the strongest bond apply epoxy to **both** parts being joined.

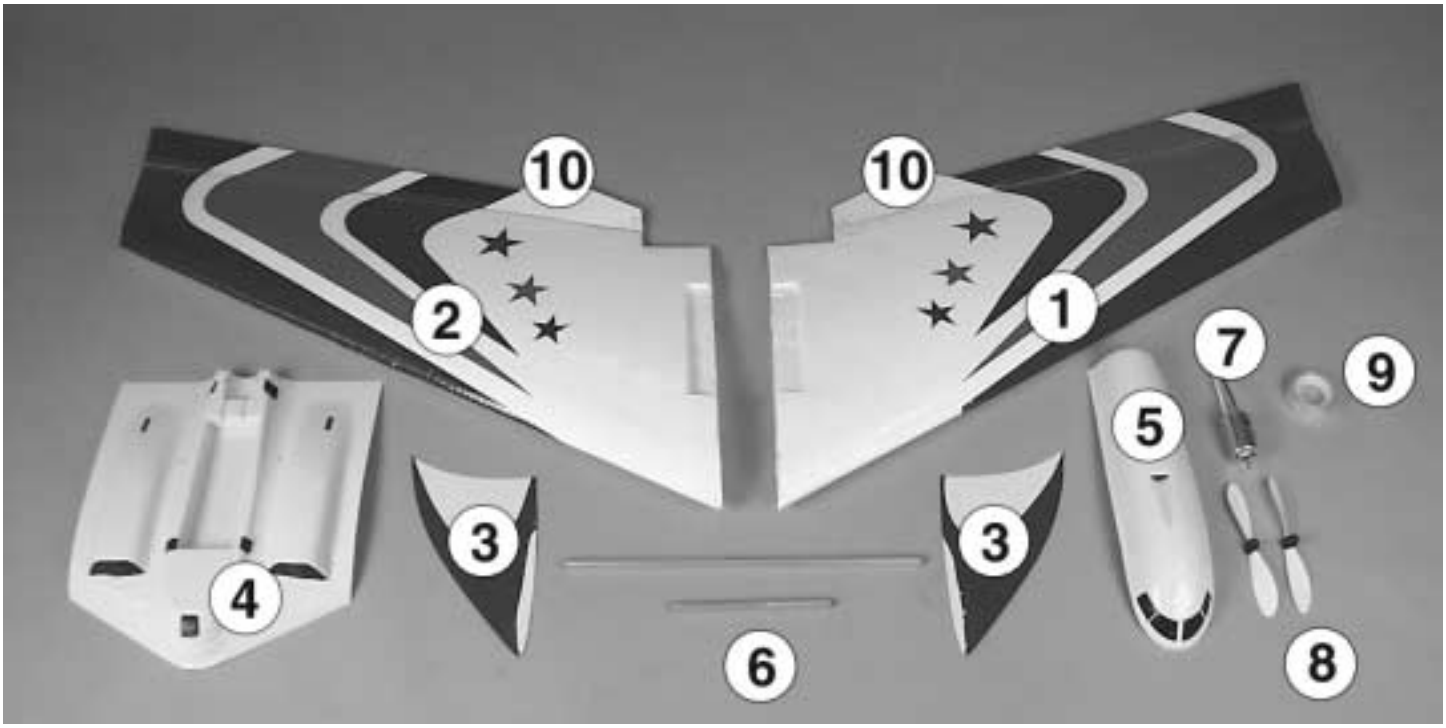
Photos and **sketches** are placed **before** the step they refer to. Frequently you can study photos in following steps to get another view of the same parts.

KIT CONTENTS

Before starting to build, use the **Kit Contents** list to take an inventory of this kit to make sure it is complete, and inspect 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 **Great Planes Product Support.** When reporting defective or missing parts, use the part names exactly as they are written in the Kit Contents list on this page.

Great Planes Product Support
Telephone: (217) 398-8970
Fax: (217) 398-7721
E-mail: productsupport@greatplanes.com

You can also check our web site at www.greatplanes.com for the latest Slinger updates.



Kit Contents (Photographed)

1. Left Wing Panel
2. Right Wing Panel
3. Wing Tips (2)
4. Plastic Center Section
5. Plastic Canopy
6. Wing Joiner Tubes
7. Motor
8. Propellers
9. Tape
10. Ailevators

Kit Contents (Not Photographed)

Nylon Control Horns (2)
12” Pushrods (2)
Nylon Tie Strap (1)
Hook and Loop Tape (1)
2-56 x 1/2” Machine Screw (4)
Nylon Clevis (2)
Silicone Retainer (2)

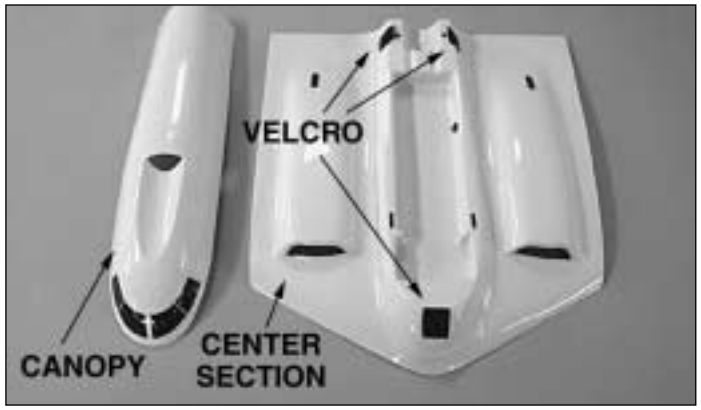
ORDERING REPLACEMENT PARTS

To order replacement parts for the Great Planes Slinger ARF, use the order numbers shown below. Replacement parts are available only as listed. Not all parts are available separately. Replacement parts are not available from Product Support, but can be purchased from hobby shops or mail order/Internet order firms. Hardware items (screws, nuts, bolts) are also available from these outlets. If you need assistance locating a dealer to purchase parts, visit and click on “Where to Buy”. If this kit is missing parts, contact **Great Planes Product Support.**

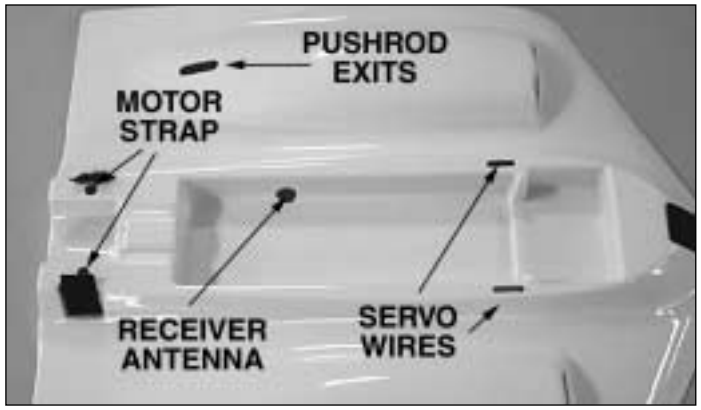
Part #	Description	How to Purchase
GPMA2423	WING SET	Contact Your Hobby Dealer
GPMA2424	Center wing cover	Contact Your Hobby Dealer
GPMA2425	WING TIPS	Contact Your Hobby Dealer
GPMA2426	WING JOINERS (2)	Contact Your Hobby Dealer
GPMA2427	380 MOTOR	Contact Your Hobby Dealer
GPMA2428	FLAPERON MIXER	Contact Your Hobby Dealer
GPMA2429	SPEED CONTROL	Contact Your Hobby Dealer
GPMA2430	DECAL SET	Contact Your Hobby Dealer
GPMA2431	BATTERY PACK	Contact Your Hobby Dealer
GPMA2432	CANOPY	Contact Your Hobby Dealer
GPMA2433	PROPELLER	Contact Your Hobby Dealer
	Missing pieces	Contact Product Support
	Instruction manual	Contact Product Support
	Full-size plans	Not available

ASSEMBLY

Assemble the Center Section



❏ 1. Apply the decals to the front of the dummy engine inlets on the plastic center section. Also, apply the windshield decals to the canopy. Install the Velcro® tape where shown above on the plastic center section and on the inside of the canopy (battery cover).

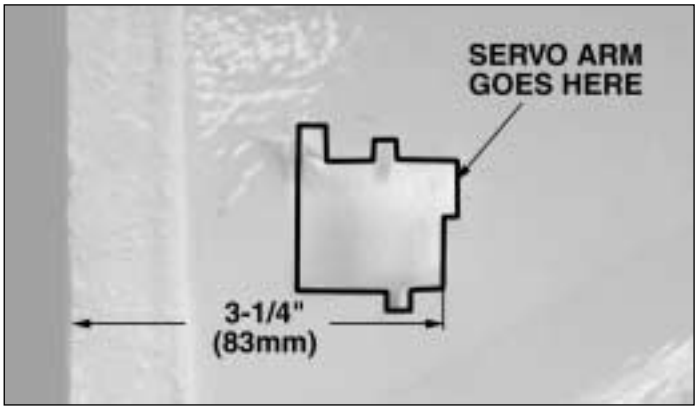


❏ 2. Make any needed cutouts in the center section for the motor strap, pushrod exits, receiver antenna and servo wires where shown in the photo above.
Caution: The best tool for this is a Dremel® type high speed tool with a 1/8" carbide cutter. If you use a model knife with a #11 blade, use extreme care not to cut yourself.

❏ 3. Secure the motor to the center section with the included nylon tie strap. Notice that the wires have already been soldered to the motor.

Install the Servos

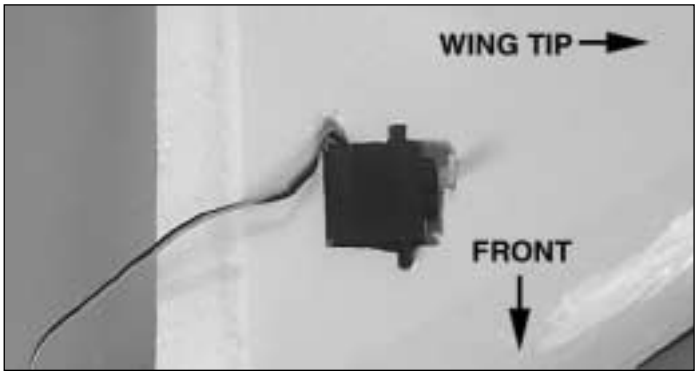
Start with the left wing panel so that your progress will match the following photos.



❏ ❏ 1. Find the cutout in the wing, under the plastic film covering, for the servo. Remove the covering from over the cutout. Your servo should fit tightly into the cutout. If it does not fit tightly, or if you are using a smaller servo, glue some scrap foam or balsa shims (not included) into the cutout as needed.

❏ ❏ 2. Remove the screw from the servo holding the servo control arm in place and remove the arm as well. Trim the arm so that there is only one arm remaining.

❏ ❏ 3. Plug the servo into the proper receiver channel (or mixer if used. See the photo on page 7.) Center the trims on the transmitter and then turn on the transmitter. Plug the ESC into the receiver and connect a charged battery to the ESC. Turn on the receiver according to the instructions supplied with the ESC. With the controls in neutral, reinstall the servo control arm and screw. The arm should be perpendicular to the servo. Turn off the receiver and transmitter and unplug the servo.

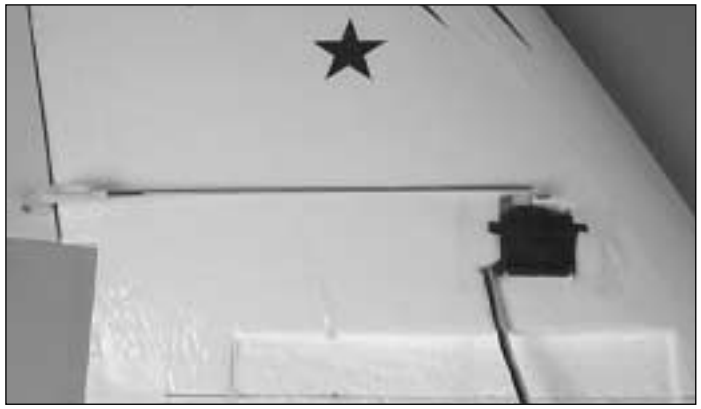


❏ ❏ 4. Insert the servo in the cutout. The servo should be **even with the top of the wing**. If it isn't, deepen the cutout as required. Use clear tape to hold the servo in the wing. An unused clear part of the decal sheet may also be used.

❏ 5. Return to step one and install the other servo.

Install the Ailevators

❏ ❏ 1. Install a control horn on the top of the ailevator with two 2-56 x 3/8" [9.5mm] screws and the nylon backplate. The control horn should be in line with the servo arm as shown in Step 2. Drill 5/64" [2mm] holes for the screws. Note that the holes in the front of the control horn (for the clevis) are in line with the hinge line.



❏ ❏ 2. Thread a nylon clevis twelve turns onto a 12" [305mm] pushrod. Install a silicone retainer on the clevis. Connect the clevis to the second hole from the top on the control horn. With the servo and ailevator centered, mark the pushrod where it meets the outer hole in the servo arm. Make a Z-bend in the pushrod at the mark. If necessary, enlarge the hole in the servo arm with a #48 drill bit (or a 5/64" [2mm] drill). Remove the pushrod from the control horn and insert the Z-bend into the servo arm. Connect the clevis to the control horn.
Note: See page 8, Step 2 for an explanation of centering the ailevators.

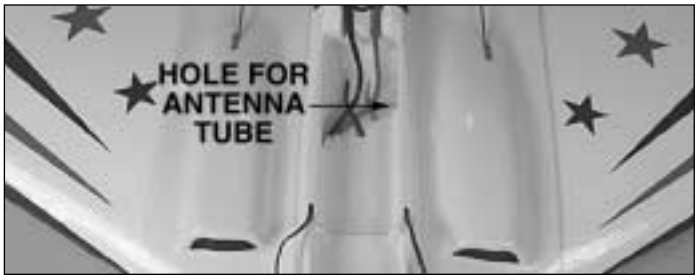
❏ 3. Return to step one for the other wing panel.

Join the Wings

❏ 1. Insert the aluminum joiner tubes into the left wing panel. The longer tube goes in the rear hole.

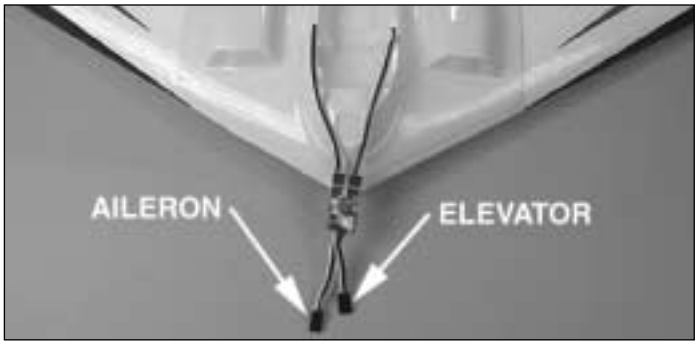
❏ 2. Join the right wing panel onto the joiner tubes in the left panel. Use the white tape on the bottom of the wing to hold the wing panels together.

Install the Center Section

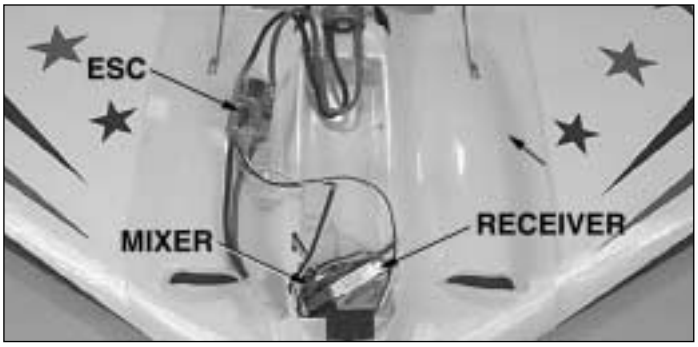


❏ 1. Remove the pushrods from the control horns. Insert the pushrods through the holes in the center section. Route the servo wires through their respective holes. Position the center section onto the wing and check that the hole for the receiver antenna is aligned with the antenna tube in the left wing panel. Adjust the hole in the center section as needed.

❏ 2. Attach the center section to the wing with clear tape. Tape all of the edges securely.
Caution: The center section must be securely taped to the center section. It contains the heavy battery and motor. The center section also generates considerable lift in flight.

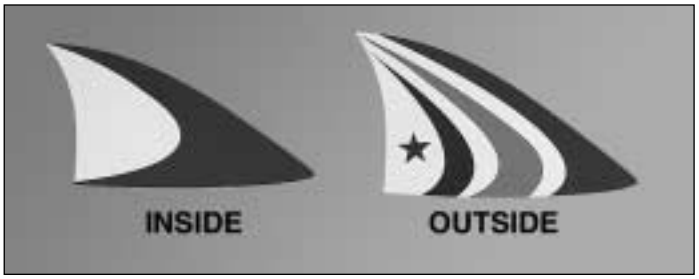


❏ 3. Plug the ailevator servos into the optional mixer (if used) as shown in the photo. Note the aileron and elevator plugs that go to the receiver. You may need to reverse the plugs to the receiver if the ailevators do not respond correctly. The elevator stick should move both ailevators in the same direction while the aileron stick should move them in opposite directions.

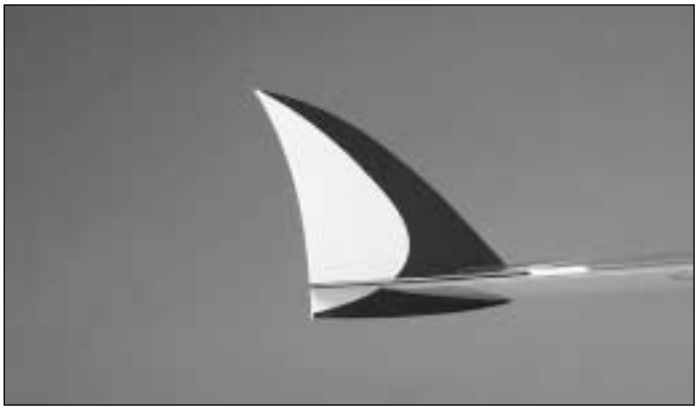


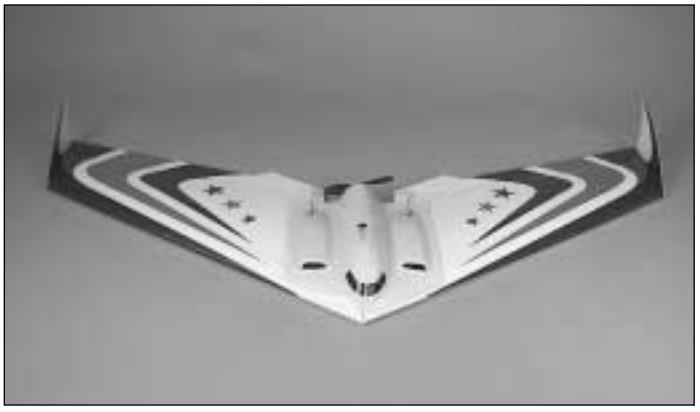
❏ 4. Plug the motor wires into the ESC and plug the ESC into the receiver. Plug the servos into the proper receiver channel (or mixer if used). Insert the receiver antenna into the antenna tube in the top of the left wing panel until it comes out the other end. In the above photo the mixer is held to the receiver with double-sided foam tape. The receiver is held in the receiver compartment, also with double-sided tape. The ESC will go on the top of the battery after it is placed in the battery compartment.

Install the Wing Tips



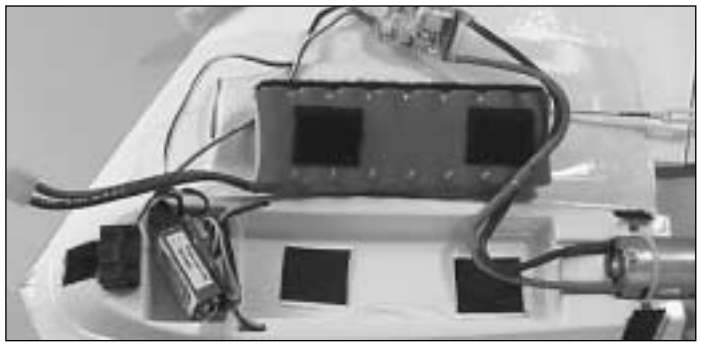
❏ 1. Apply the decals onto the wing tips as shown in the photo. Position the wing tip onto the wing panel and mark the tip where it meets the wing. Cut and remove the decal from the wing tip about 1/16" [1.6mm] inside the marks you made. Roughen the exposed surface with sandpaper. **Warning**: The wing tip is glued to the wing. Failure to remove the decal material from the mating surface of the tip may allow the tip to separate in flight. **Note**: The wing tips should extend below the bottom of the wing enough so that the ailevators do not snag on the tips when the ailevators are down. See the photo that follows.





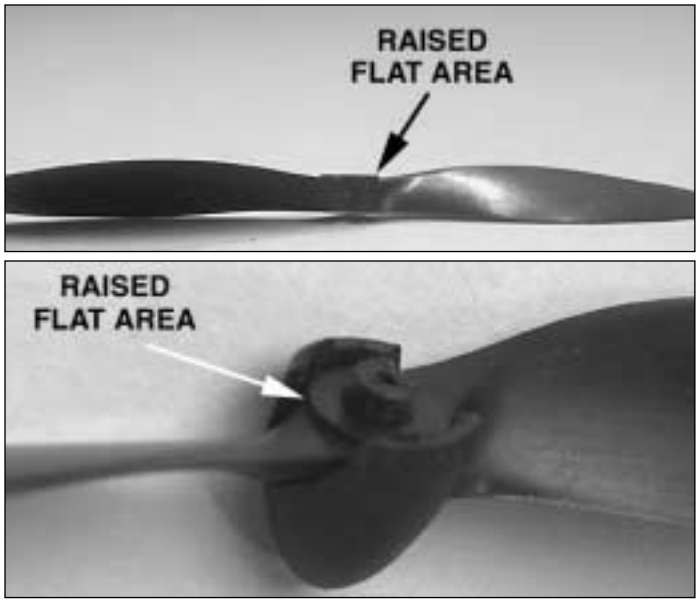
❏ 2. Glue the wing tips to the wing with 6-minute epoxy.

Final Assembly



❏ 1. Install the battery in the battery compartment. The supplied strip of Velcro tape can be used to hold the battery in place.

❏ 2. Fit the canopy (battery cover) to the center section. The ESC can be held to the top of the battery with some Velcro tape.



❏ 3. The prop has a raised flat area at the center of the prop on one side. This is the front of the prop, which must face the front of the model when the prop is installed on the motor. Install the spinner hub on the prop as shown in the above photo.

❏ 4. Install the prop on the motor. Make sure the prop is clear of any obstacles. Turn on the transmitter and receiver. Slowly advance the throttle and make sure the prop turns in the proper direction. If not, reverse the wires to the motor.
IMPORTANT: Read the note that follows.

Note: If you are using the optional ESC be sure to follow this arming procedure:

1. Turn on the transmitter and move the throttle to idle power.
2. Turn on the switch for the ESC.
3. Wait one second, then advance the throttle to full power.
4. Wait one second, then move the throttle to idle power.
5. The ESC is now armed. Moving the throttle to a higher power setting will cause the propeller to rotate.

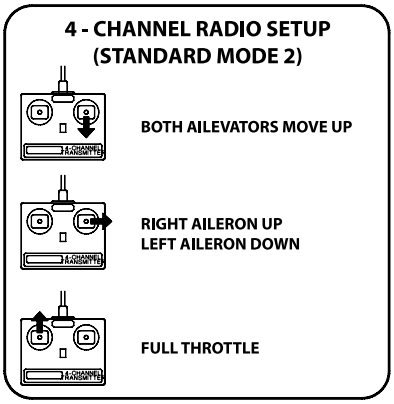
❏ 5. Apply the decals to the model as desired. Use the box cover as a guide in applying any decals. You can also use colored felt tip marking pens to color areas of the model without adding any weight.

PREPARE THE MODEL FOR FLYING

Set the Control Throws

IMPORTANT: Whenever connecting the battery always hold on to the fuselage incase the motor accidentally receives power and the propeller turns.

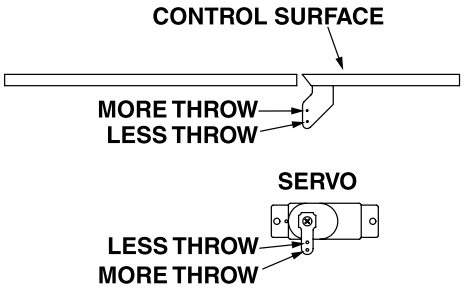
❏ 1. Turn on the transmitter, connect the battery to the speed control and turn on the receiver. Be certain the ailevators and motor respond as shown in the chart. If required, use the reversing function in the transmitter to reverse any controls necessary so they respond correctly.



NOTE: Unless you are specifically checking the operation of the motor, for safety remove the propeller from the model while setting it up on your workbench.

❏ 2. Check the ailevators to see if they are centered. Use a straightedge to align the bottom of the ailevators with the bottom of the wing as shown above. If necessary, adjust the clevises on the pushrods to center the ailevators.

❏ 3. Use the ATV function in the transmitter or adjust the position of the pushrods on the servo arms and the control horns on the ailevators to get the control surface throws shown in the chart that follows. The throws are measured at the widest part of the control surface.



To **increase** the control surface throw, move the pushrod to the hole that is farther in on the control horn on the control surface, or move the pushrod to the hole that is farther out on the servo arm. To decrease the control surface throw, do the opposite.

Set up the Slinger so it has the following control surface throws:

	High Rate	Low Rate
ELEVATOR:	1/2" [13mm] up and down	3/8" [10mm] up and down
AILERONS:	3/4" [19mm] up and down	1/2" [13mm] up and down

Second to the C.G., the control throws have the greatest effect on the way a model flies. Set the throws as close to these settings as possible. If you have too much control throw the model may respond too quickly. If you do not have enough throw you may not be able to maneuver the model or have enough control to land it when the motor is off.
Caution: With more than 1/2" [12.7mm] elevator throw, the Slinger may snap roll unexpectedly during aerobatic maneuvers.

EXPERT TIP

The recommended control throws for the Slinger require that the ailevators have more throw for aileron travel than for elevator travel. If your radio transmitter does not have Adjustable Travel Volume (ATV) or Dual Rates (D/R), which will enable you to set the recommended throws, you should carefully consider how to proceed. ATV will allow you to reduce the elevator throw while keeping a higher aileron throw. D/R normally is used to set reduced throws, but many transmitters also allow this function to set increased throws as well. This would allow you to increase the aileron throw while keeping a lower elevator throw.

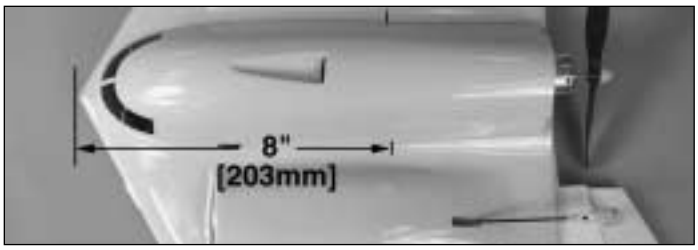
If you are using a very basic radio that does not allow you to independently adjust the elevator and aileron travel, you should set both throws to 1/2" [12.7mm].

We do not recommend that you set the elevator travel higher than 1/2" [12.7mm] on high rate as doing so could cause the Slinger to snap roll at unexpected times. Without the ATV or D/R functions, this will restrict the aileron throw to 1/2" [12.7mm] as well. Sacrificing some aileron authority is preferable to having too much elevator sensitivity.

Balance the Model (C.G.)

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

The C.G. (center of gravity) must be checked when the model is ready to fly with the propeller, canopy and battery installed.



❏ 1. Use a felt-tip pen or narrow strips of tape to mark the balance point on the **top** of the wing 8" [203mm] from the forward most part of the model.

❏ 2. Lift the model, upside down, at the balance point you marked on the top of the wing. In the photo, we are using a Great Planes CG Machine™. If the nose drops the model is nose-heavy and you must add weight to the tail. If the tail drops, the model is tail-heavy and you must add weight to the nose. In most cases you can relocate the receiver to achieve the correct balance without adding more weight.

❏ 3. If additional weight is required to balance the model, use small pieces of Great Planes stick-on weight (GPMQ4485). If weight is required in the tail, it can be stuck to the top of the wing next to the motor. If weight is required in the nose, a slot can be cut in the nose where the weight can be inserted. The slot can then be covered with tape. Our prototype model required 1 oz. of weight on the nose.

❏ 4. After placing weight on the model where necessary, recheck the C.G. to confirm that it is correct.

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. Photocopy and fill out the identification tag on the last page and place it on or inside your model.

Charge the Transmitter Batteries

Be certain the transmitter batteries are fully charged. Follow the battery charging instructions that came with your radio control system to charge the batteries.

Ground Inspection

Before you fly you should perform one last overall inspection to make sure the model is truly ready to fly and that you haven't overlooked anything. If you are not thoroughly familiar with the operation of R/C models, ask an experienced modeler to perform the inspection. Check to see that you have the radio installed correctly and that all the controls are connected properly. The motor must also be checked by confirming that the prop is rotating in the correct direction and the motor sounds like it is reaching full power. Make certain the ailevators are secure, the pushrods are connected, the controls respond in the correct direction, radio components are securely mounted, and the C.G. is correct.

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 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.

Performance Tips

Use fine sandpaper to remove imperfections along the edges of the propeller. For the best performance, use a Top Flite Precision Magnetic Prop Balancer™ (TOPQ5700) to balance the propellers (this is a necessity on glow-powered engines, and should be done with electric models as well).

Using multiple battery packs for successive flights may cause the motor to become excessively hot, thus causing damage. Allow the motor to cool for at least 10 minutes between flights.

Motor Safety Precautions

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

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

Use safety glasses when running motors.

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 path of the propeller as you start and run the motor.

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

The electric motor and motor battery used in the Slinger are very powerful and the spinning propeller has a lot of momentum; therefore, if you touch the propeller while it is spinning it may inflict severe injury. Respect the motor and propeller for the damage they are capable of and take whatever precautions are necessary to avoid injury. Always disconnect and remove the motor battery until you are ready to fly again and always make sure the switches are turned off before connecting the battery.

AMA SAFETY CODE (excerpts)

Read and abide by the following Academy of Model Aeronautics Official Safety Code:

GENERAL

1. I will not fly my model aircraft in competition or in the presence of spectators 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 to 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.

7. I will not fly my model unless it is identified with my name and address or AMA number, on or in the model.

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 flyer, unless assisted by an experienced helper.

3. I will perform my initial turn after takeoff away from the pit, spectator and parking areas and I will not thereafter perform maneuvers, flights of any sort or landing approaches over a pit, spectator or parking area.

4. I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission.

FIND A SAFE PLACE TO FLY

Though the Slinger is a "Park Flyer," the **best** place to fly **any** model is at an AMA chartered club field. Club fields are set up for R/C flying, making your outing safer and more enjoyable. We recommend that you join the AMA and a local club so you can have a safe place to fly and have insurance to cover you in case of a flying accident. The AMA address and telephone number are in the front of this manual.

If there is no club or R/C flying field in your area, find a suitable site that is clear of trees, telephone poles, buildings, towers, busy streets and other obstacles. Since you are not flying at a sanctioned AMA site, be aware that there may be others like yourself who could be flying nearby. If both of your models happen to be on the same frequency, interference will likely cause one or both of the models to crash. An acceptable minimum distance between flying models is five miles, so keep this in mind when searching for a flying site.

In addition to obstacles, it is important to be aware of people who may wander into the area once you begin flying. At AMA club flying sites it is a severe rule infraction to fly over others, and this is a good practice if flying elsewhere. R/C models tend to attract onlookers whose numbers can soon multiply, forming small, uncontrolled crowds. Onlookers pose two main problems. First is the danger of actually crashing your model into a person, causing injury. Second is the distraction from those who ask you questions while you are trying to concentrate on flying. To minimize or avoid this problem, have an assistant standing by who can spot people who wander into your flying site (so you can avoid flying over them) and who can perform "crowd control" if people start to gather.

FLYING

IMPORTANT: If you are an inexperienced modeler we strongly urge you to seek the assistance of a competent, experienced R/C pilot to check your model for airworthiness AND to teach you how to fly. No matter how stable or "forgiving" the Slinger is, attempting to learn to fly on your own is dangerous and may result in destruction of your model or even injury to yourself and others. Therefore, find an instructor and fly only under his or her guidance and supervision until you have acquired the skills necessary for safe and fully controlled operation of your model.

Takeoff

We recommend flying the Slinger when the wind is no greater than ten miles per hour. Less experienced flyers should fly the Slinger only in calm (less than one mile per hour) conditions. Frequently, winds are calm in the early morning and early evening. Often these are the most enjoyable times to fly anyway!

Until you have the Slinger properly trimmed for level flight, we recommend having an assistant hand-launch the model instead of launching it yourself.

Turn on the transmitter and plug the battery into the speed control. Turn on the receiver by following the instructions that came with your speed control. Secure the canopy in place.
IMPORTANT: Confirm that the transmitter operates the controls properly by moving the sticks and watching the surfaces respond.

When ready to launch, the assistant should hold the Slinger by the leading edges of the wing, with the model in front of him and pointed **into the wind**. With the pilot *(that would be you!)* standing behind the plane, fully advance the throttle to start the motor. As soon as the motor is at full power, the hand launcher should gently push the plane into the air at a **level** or **slightly** nose-up attitude. Be certain the model is being launched **into** the wind and be immediately ready to make corrections to keep the airplane flying straight, level and into the wind.

When the model has gained adequate flying speed under its own power, **gently** pull the elevator stick back until the airplane starts a gradual climb. Many beginners tend to pull too hard causing the model to stall, so be gentle on the elevator and don't panic. If you do pull too hard and you notice the model losing speed, release the elevator stick and allow the model to regain airspeed.

Continue a **gradual** climb and establish a gentle turn (away from yourself and others) until the airplane reaches an altitude of 75 to 100 feet.

Flight
The main purpose of the first few flights is to learn how the model behaves and to adjust the trims for level flight. After the model has climbed to a safe altitude reduce the throttle slightly to slow the model, yet maintain altitude. The Slinger should fly well and maintain adequate airspeed at about 3/4 throttle.

Adjust the elevator trim so the model flies level at the throttle setting you are using. Adjust the aileron trim to level the wings. It may take a few minutes to get the trims adjusted, but this should be your first priority once at a comfortable altitude. Continue to fly around, executing turns and making mental notes (or having your assistant take notes for you) of what additional adjustments or C.G. changes may be required to fine tune the model so it flies the way you like.

Landing
Begin the landing approach by flying downwind at an altitude of approximately 20 feet [6 meters]. When the airplane is approximately 50 to 100 feet [15 to 30 meters] past you, gradually reduce power and make the "final" 180-degree turn into the wind aligning the airplane with the runway or landing area. Do not dive the airplane, as it will pick up too much speed. Instead, allow the airplane to establish a gradual descent. Concentrate on keeping it heading into the wind toward the runway. When the plane reaches an altitude of about 3 feet [1 meter], gently apply a little "up elevator" to level the plane, but be careful as too much up elevator will cause it to stall. While holding a slight amount of up elevator the airplane will slow and descend as it loses flying speed, thus touching-down on the runway.

Until you are able to accurately judge how far the Slinger can glide, it may be helpful to reserve some battery power to run the motor so the plane can be flown back to the runway.

Best of luck and happy flying!

Identification Tag

Use this tag or photocopy it and use the copy. Please fill in the indicated information and place the tag in your model.

This model belongs to:

_____
Name

_____
Address

_____
City, State Zip

_____
Phone number

_____
AMA number

Printed in China