

# *ELECTRISTAR*<sup>™</sup> *Select*

## READY-TO-FLY RADIO CONTROLLED MODEL AIRPLANE

### INSTRUCTION MANUAL



**Wingspan:** 63 in [1600mm]  
**Wing Area:** 709 sq in [45.7dm<sup>2</sup>]  
**Weight:** 6 lb [2722g]  
**Wing Loading:** 19.2 oz/sq ft [59g/dm<sup>2</sup>]  
**Length:** 53 in [1346mm]  
**Radio:** Included  
**Motor:** Included  
**Electronic Speed Control:** Included  
**Motor Battery:** Not Included  
**Charger:** Not Included

#### WARRANTY

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

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

**If for any reason you think that this model is not for you, return it to your local dealer immediately. PLEASE NOTE: Your hobby dealer cannot accept a return on any model after assembly has begun.**

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



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## INTRODUCTION

Thank you for purchasing the Hobbico ElectriStar™ EP Select Trainer! You've made the right decision by purchasing a "real" full-functioning model airplane complete with a state-of-the-art brushless electric motor and 4-channel radio. Once assembled and set-up, there will be no fiddling with a temperamental engine or constant troubleshooting to figure out how to get the model into the air. Under the guidance of a flight instructor, all you have to do is concentrate on learning to fly. After you've mastered the ElectriStar EP Select, the motor, ESC (electronic speed control), and radio may be installed in your next electric model!

We at Hobbico know how exciting a new airplane purchase can be and we know you're anxious to get started, but please take the time to read these instructions before

attempting to build and operate your model. This manual contains the instructions you need to properly build and safely operate your airplane. As with any hobby, there is the possibility of injury. Arming yourself with knowledge is the best way to prevent accidents.

## AMA

If this is your first endeavor into the world of radio-controlled flight, we strongly recommend that you join the AMA (Academy of Model Aeronautics) and a local R/C club. The AMA is the governing body of model aviation and membership is required to fly at AMA clubs. Joining the AMA provides many benefits but one of the primary reasons to join is liability protection. The AMA can also direct you to the closest R/C club whose membership includes qualified instructors.

The best thing you can do to insure success is to find a flight instructor who will inspect your model for air-worthiness and provide flying lessons. It cannot be stated strongly enough that, if you do not already know how to fly an R/C airplane, you will probably not be able to fly this model by yourself. It may appear to be easy, but over-controlling and disorientation quickly overcome inexperienced flyers, swiftly ending their first flight. Many have tried to teach themselves, but most become discouraged and end up quitting the hobby, or destroy several models before they are ready to solo. Contact your local hobby shop and ask them to introduce you to an instructor or R/C club representative. There are over 2,500 AMA chartered clubs across the USA. If there is no club or experienced R/C pilot nearby, it would be worth even a long drive to find one – if only for just a few flight lessons (then you'll have an idea of what to expect). If there is no hobby shop in your area, contact the AMA at the address or toll-free phone number below.



### Academy of Model Aeronautics

5151 East Memorial Drive

Muncie, IN 47302

Tele: (800) 435-9262

Fax (765) 741-0057

Or via the Internet at:

<http://www.modelaircraft.org>

Insurance coverage provided by the AMA is not limited to flying at contests or on the club field, but even applies to flying at public demonstrations and air shows. Failure to comply with the AMA Safety Code (excerpts can be found on page 12 of this manual), may endanger insurance coverage.

**IMPORTANT!!!** Two of the most important things that 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.

## **SPECIFICATION & DESCRIPTION CHANGES**

All pictures, descriptions, and specifications found in this instruction manual are subject to change without notice. Hobbico maintains no responsibility for inadvertent errors in this manual.

For the latest technical updates or manual corrections for the ElectriStar EP Select, visit the Hobbico web site listed below and select the Hobbico ElectriStar EP Select. A "Tech Notice" box will appear in the upper left corner of the page if there is new technical information or changes to this kit.

<http://www.hobbico.com/airplanes/index.html>

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

- Your ElectriStar EP Select 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 ElectriStar EP Select, if not assembled correctly, could cause injury to yourself, spectators, and/or damage to property.
- 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 correct.
- 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 linkage connections and electrical connections often and replace them if they show any signs of wear or fatigue.
- 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.

We, as kit manufacturer, provide you with a top quality kit and instructions, but ultimately the quality and flyability of your finished model depends on how well you built 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.

- Before starting to build, inspect the parts in this kit to make sure that they are of acceptable quality. If any parts are not of acceptable quality, or if you need assistance with assembly, contact:

Hobbico Product Support  
Phone: (217) 398-8970, Ext 5  
Fax: (217) 398-7721  
E-Mail: [airsupport@hobbico.com](mailto:airsupport@hobbico.com)

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

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 in new and unused condition to the place of purchase.

## **ADDITIONAL ITEMS REQUIRED**

### **Hardware & Accessories**

The following is a list of accessories required to make the ElectriStar EP Select operational. Order numbers are in parentheses.

- (2) 7-Cell 8.4V 3000mAh NiMH (Nickel-Metal Hydride) battery packs (GPMP0355)
- Hobbico Dual Peak NiMH charger (HCAP0255 – Optional)

If you prefer to use Lithium-Polymer (LiPo) batteries, you will need the following items:

- (2) 7.4V 3200mAh 20C Discharge battery with balance (GPMP0632)
- PolyCharge™ LiPo DC charger (GPMM3010)

### **Adhesives & Building Supplies**

In addition to common household tools, this is the "very short list" of the most important items required to finish the ElectriStar EP Select.

- 1 oz. [28g] Thin Pro™ CA adhesive (GPMR6002)

### **Optional Supplies & Tools**

Here is a list of optional tools mentioned in the manual that will help you prepare the ElectriStar EP Select for flight.

- CG Machine™ (GPMR2400)
- Precision Magnetic Propeller Balancer™ (TOPQ5700)
- Stick-on segmented lead weights (GPMQ4485)

- Top Flite® MonoKote® sealing iron (TOPR2100)
- Top Flite Hot Sock™ iron cover (TOPR2175)
- 2oz. [57g] Spray CA Activator (GPMR6035)
- CA Applicator tips (HCAR3780)
- CA De-bonder (GPMR6039)
- Robart Super Stand II (ROBP1402)

## ORDERING REPLACEMENT PARTS

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

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

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

If ordering via mail, send parts orders and payments by personal check to:

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

Be certain to specify the order number exactly as listed in the **Replacement Parts List** and indicate quantity of each item. Payment accepted 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@hobbico.com](mailto:productsupport@hobbico.com), or by telephone at (217) 398-8970.

Description	How to Purchase
Missing pieces	Contact Product Support
Instruction manual	Contact Product Support
Full-size plans	Not available
Kit parts (see Replacement Parts List)	Hobby Supplier

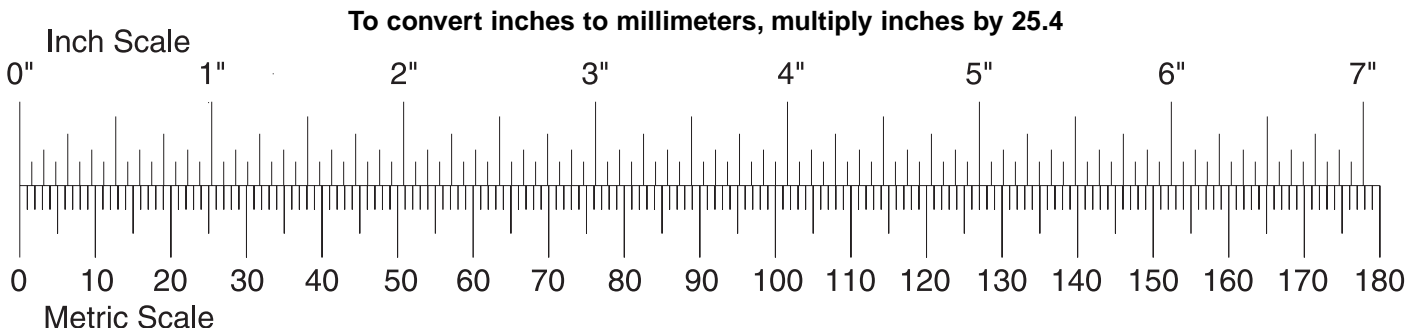
### Replacement Parts List

- HCAA3125 .....Wing Kit
- HCAA3126 .....Fuse Kit
- HCAA3127 .....Tail Set
- HCAA3128 .....Landing Gear
- HCAA3130 .....Decal
- HCAA3131 .....Prop
- HCAA3132 .....Spinner
- HCAA3133 .....Wing Joiner Tube
- HCAG3740 .....Brushless Motor
- GPMM1841 .....ESC

**Warning:** The motor, ESC, and propeller supplied with the ElectriStar EP Select are a matched set and must be used together. Should you choose to change one or more of the supplied components, you will void your warranty on this product.

## COMMON ABBREVIATIONS

- Fuse = Fuselage
- Stab = Horizontal Stabilizer
- Fin = Vertical Fin
- LE = Leading Edge
- TE = Trailing Edge
- LG = Landing Gear
- " = Inches
- mm = Millimeters
- ESC = Electronic Speed Control
- mAh = Milliamp Hour
- NiMH = Nickel-Metal Hydride
- NiCd = Nickel-Cadmium
- Prop = Propeller
- C.G. = Center of Gravity



## KIT CONTENTS

Before starting to build, use the **Kit Contents** list shown below to 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 **Hobbico 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.

Hobbico Product Support  
Phone: (217) 398-8970, Ext 5  
Fax: (217) 398-7721  
E-Mail: [airsupport@hobbico.com](mailto:airsupport@hobbico.com)



### Kit Contents

- |   |                                      |
|---|--------------------------------------|
| 1. Fuselage                                       | 11. Stabilizer & Elevator            |
| 2. Nose Gear                                      | 12. Left Wing Half                   |
| 3. 4-Channel Transmitter                          | 13. Right Wing Half                  |
| 4. Charger (for transmitter & receiver batteries) | 14. Main Landing Gear (Left & Right) |
| 5. Spinner  |                                      |
| 6. 11x7 Propeller                                 |                                      |
| 7. Wing Dowels (2)                                |                                      |
| 8. Rubber Bands                                   |                                      |
| 9. Hook & Loop Material                           |                                      |
| 10. Vertical Fin & Rudder                         |                                      |

## BUILDING EQUIPMENT

*The following items are required to complete assembly:*

- #2 Phillips screwdriver (HCAR1024)
- Long-nose pliers (HCAR0625)
- Hobby knife (HCAR0109)
- 3mm Hex wrench (for prop)

## ASSEMBLY

Carefully remove the various components from the package. Be sure to inspect all pieces to verify that there is no damage.

### Charge the Batteries

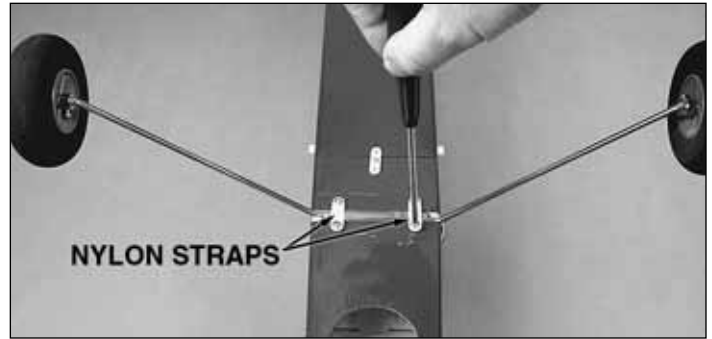
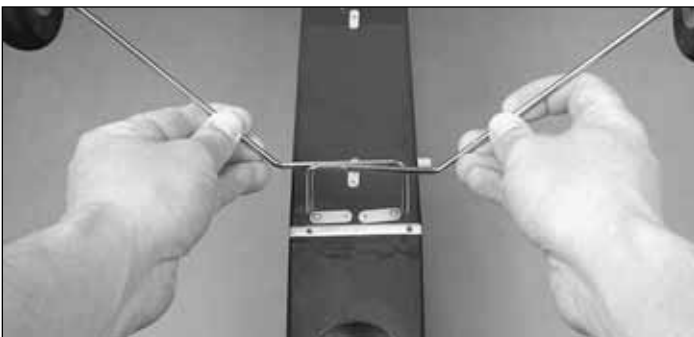
*Refer to your charger's manual for proper charging information for the motor batteries.*

You will need to refer to the radio system manual for proper charging information for the receiver and transmitter. Generally transmitter and receiver batteries are shipped with a partial or "residual" charge. This will probably be enough of a charge to set-up your airplane, but you will need to give them a full charge before attempting to fly (usually an overnight charge).

This would be a good time to charge the motor batteries as well as the NiCd battery packs that power your transmitter and receiver (the radio system).

While the batteries are charging, feel free to continue to **Assemble the Fuse**.

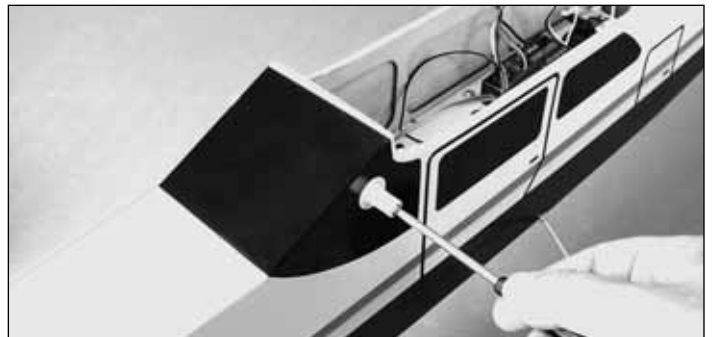
### Assemble the Fuse



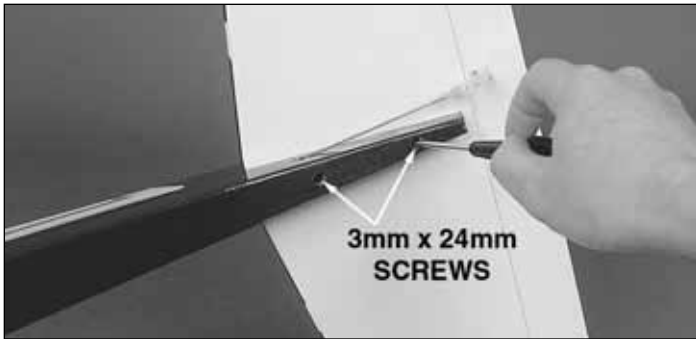
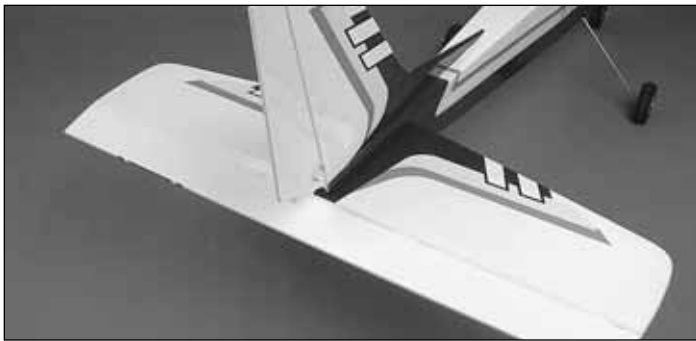
1. Insert the main landing gear wires into the holes in the landing gear blocks in the bottom of the fuselage as shown. Secure the gear with the two supplied nylon straps and four 2.5 x 10mm screws.



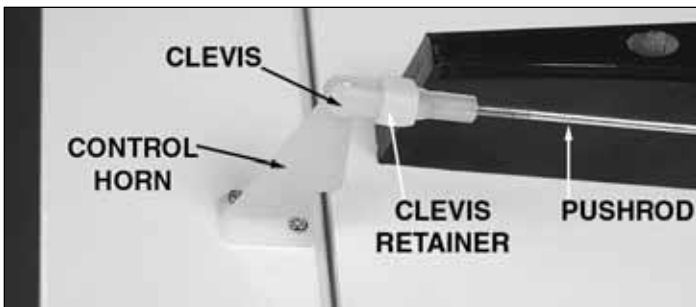
2. Locate the 8mm x 109mm and 8mm x 103mm dowel rods. Insert them through the fuselage as shown with the longer of the two toward the front of the plane. When satisfied with their fit and placement, use CA to secure them in place.



3. Locate the four plastic dowel rod caps and place them on the ends of the dowel rods that you just installed. Secure each of them with a 2.3mm x 10mm self-tapping washer head screw.



❑ 4. Insert the stabilizer and center it in the stabilizer slot as shown. Use a Phillips screwdriver to install the two 3mm x 24mm screws into the bottom of the fuselage as shown to secure the stabilizer.

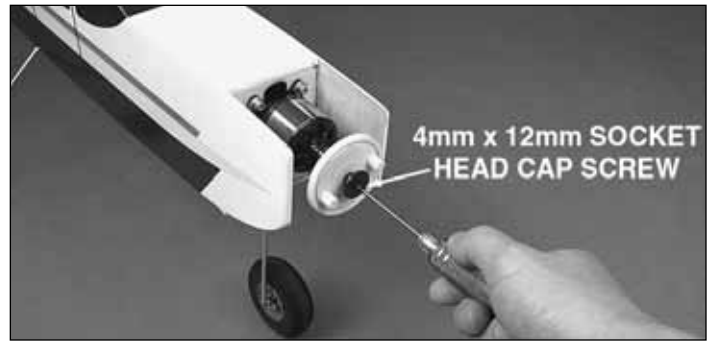


❑ 5. Connect the elevator pushrod into the fourth hole out from the base of the control horn as shown. Slide the silicone clevis retainer in place to help secure the linkage.

### ***Install the Propeller***



❑ 1. Use a Phillips head screwdriver to remove the two 3mm x 12mm screws from the spinner assembly and gently remove the spinner cone as shown.



❑ 2. Remove the 4mm x 12mm socket head cap screw and propeller washer from the shaft of the motor.

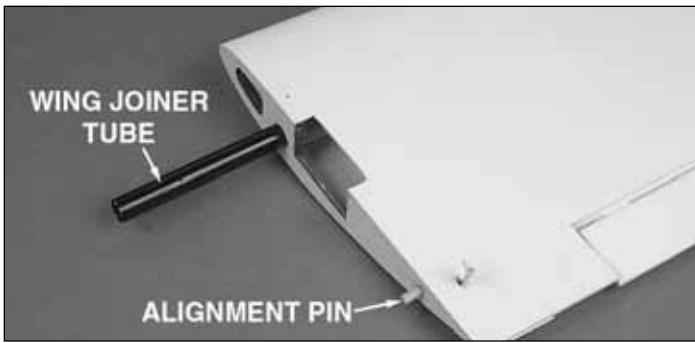


❑ 3. Place the propeller onto the shaft so that the blades are perpendicular to the spinner screw receptacles on the backplate as shown.

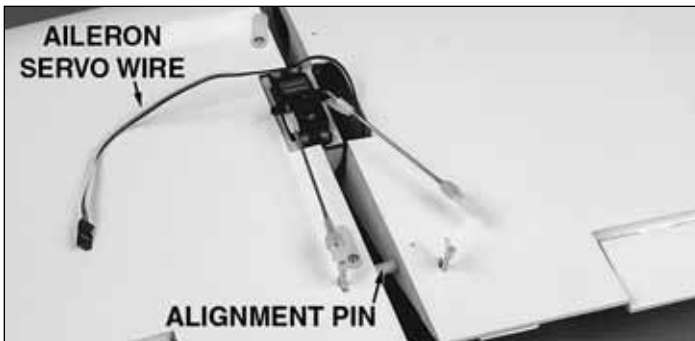
❑ 4. Place the prop washer on the shaft against the propeller and re-insert the 4mm x 15mm socket head cap screw. **IMPORTANT: Tighten the 4mm x 12mm socket head cap screw firmly.**

❑ 5. Place the spinner cone over the prop so that the blades of the prop fit into the notches of the cone. Replace the two spinner assembly screws. The cone should sit flush against the backplate. If you see a gap, check to make sure that the prop is installed correctly. The spinner cone must not touch the prop at any place around the notches.

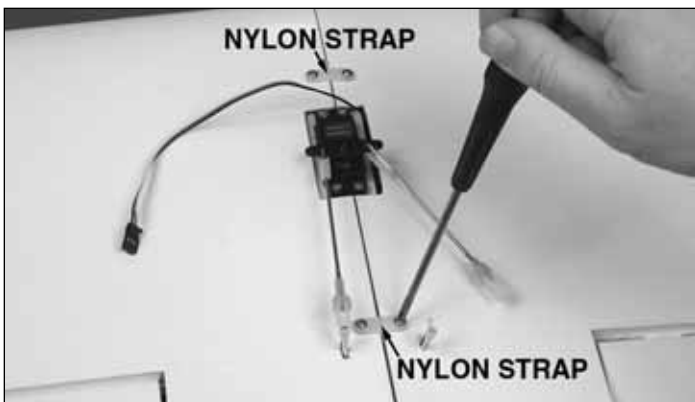
## Assemble the Wing



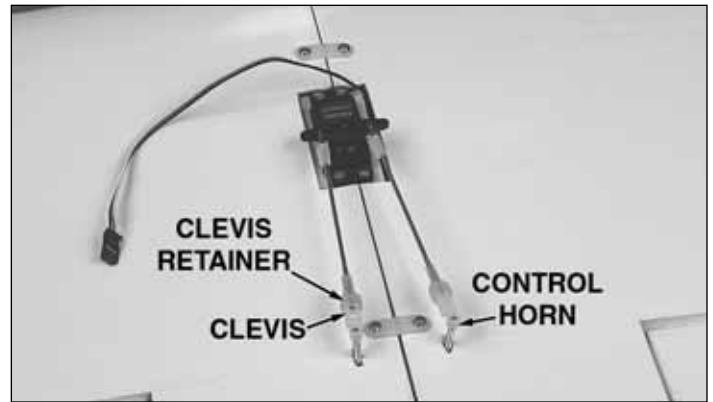
1. Insert the aluminum wing joiner tube in the forward hole in the wing root rib of the left wing half as shown.



2. Join the left and right wing halves together making sure that the alignment pin inserts into the opposite wing half. Gently push the wing halves together. Be careful not to crimp or otherwise damage the aileron servo wire.



3. Using a small Phillips screwdriver, secure the wing halves together by installing the two nylon straps with the two 2.3mm x 10mm washer head screws as shown.



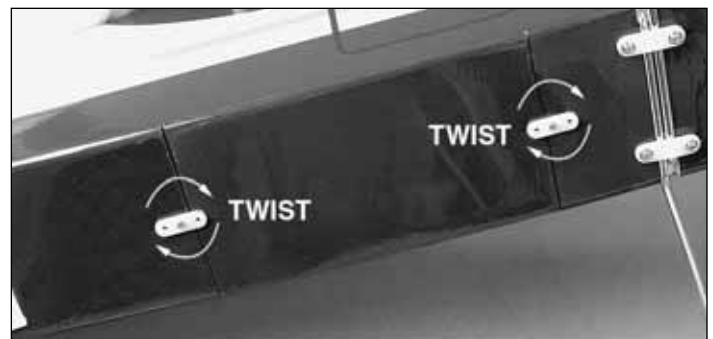
4. Attach the unconnected pushrod to the control horn via the clevis and slide the silicone clevis retainer in place as shown.

You may use epoxy to permanently join the wing halves together if you wish. If you do permanently join the wing halves, make sure that you have room to store and most importantly, transport them to and from the field safely.

**Warning: Never transport the ElectriStar EP Select with the batteries connected. The only time the batteries should be connected is when you are preparing the model for flight.**

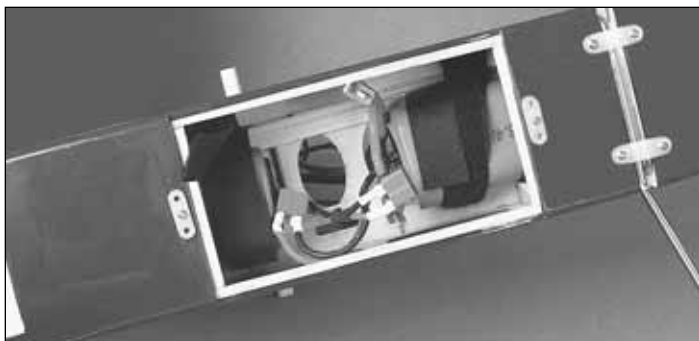
## INSTALL THE MOTOR BATTERIES

By now, it is likely that the motor batteries are done charging. Let's install them.



1. The battery compartment is underneath the fuse, just to the rear of the nose wheel. Gently twist the nylon latches to release the battery door.





❑ 2. Slide two 7-cell motor battery packs into the battery saddles and secure them with the hook & loop material as shown.

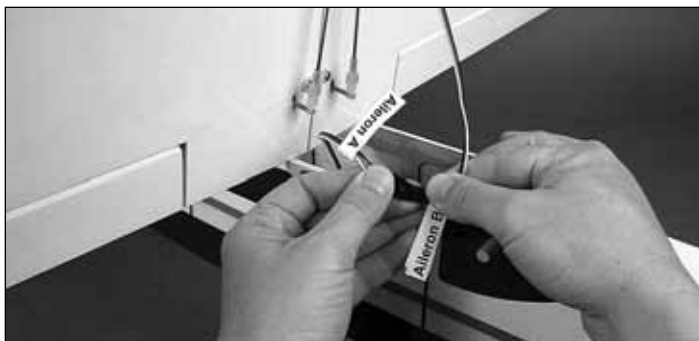


❑ 3. Plug the two 7-cell battery packs into the battery connectors. Though it is highly unlikely that the motor will start, stay away from the propeller once the batteries have been plugged in.

❑ 4. Replace the battery door and twist the nylon latches to secure it in place.

Always leave the batteries unplugged unless you are preparing to fly. Assume that whenever the batteries are plugged in that the motor and propeller could start at any time.

## INSTALL THE WING



❑ 1. Connect the aileron servo plug labeled "Aileron A" to the plug labeled "Aileron B" coming from the receiver inside the fuselage. Do not force them together; they are designed to fit together only one way.



❑ 2. Center the wing atop the "wing saddle" and secure it in place with the included rubber bands. Twelve rubber bands are suggested. It is a good idea to "crisscross" the final two rubber bands. This will help to hold the others in place. Be sure that the electrical wiring is tucked neatly inside the fuse and is not interfering with any of the linkages.

## FINAL PREPARATIONS

Now the plane is assembled, but there are a few things that must be done before it will be ready to fly. You must carefully perform all of the following procedures.

### Center the Controls

Turn the transmitter "ON," followed by the receiver. The receiver's power is activated by the ON/OFF switch located on the right side of the fuselage. **Never** have the receiver (airplane) "ON" by itself.

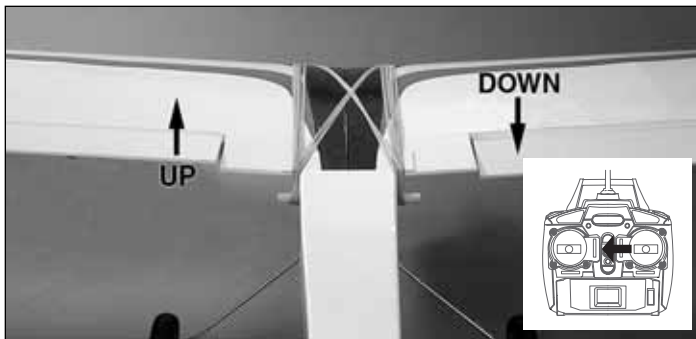
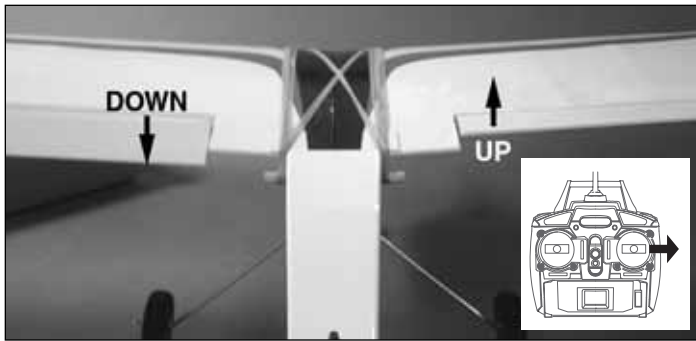
With the transmitter and receiver "ON," check all the control surfaces to see if they are centered. If necessary, adjust the pushrods at the pushrod connectors to center the control surfaces. The radio "trim" levers should be used only to fine tune the control surfaces. (Refer to the radio instruction manual for the location of the trims.)

### Check the Control Directions

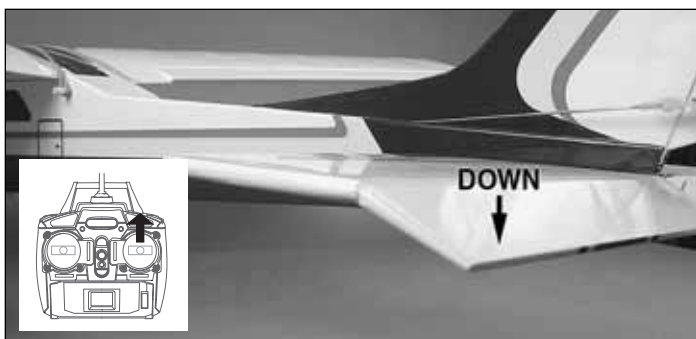
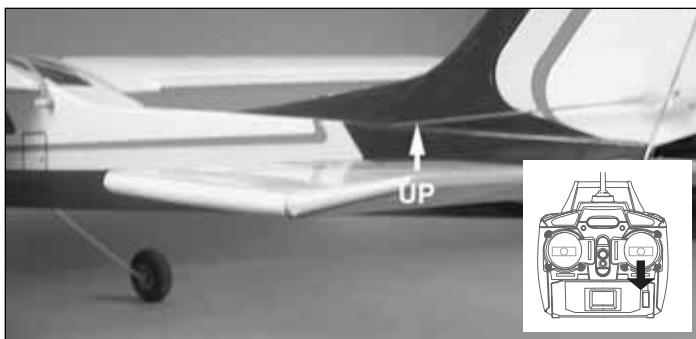
**WARNING:** Run the motor outside only and do not run the motor in an area of loose gravel or sand; the propeller may throw such material in your face or eyes. Keep these items away from the prop: loose clothing, shirt sleeves, ties, scarves, long hair or loose objects such as pencils, or screwdrivers that may fall out of shirt or jacket pockets into the prop.

Stand behind the airplane and make certain that the control surfaces respond in the correct direction as shown in the diagrams. If any of the controls respond in the wrong direction,

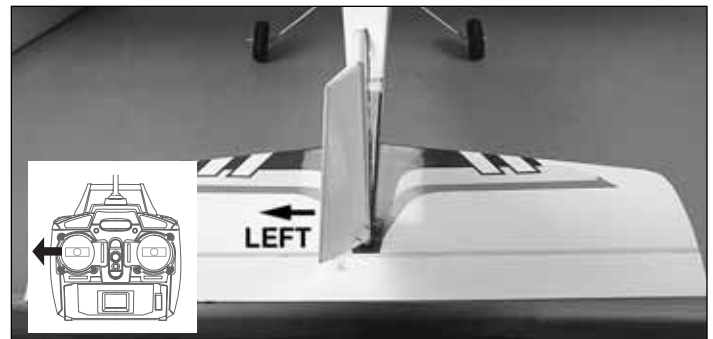
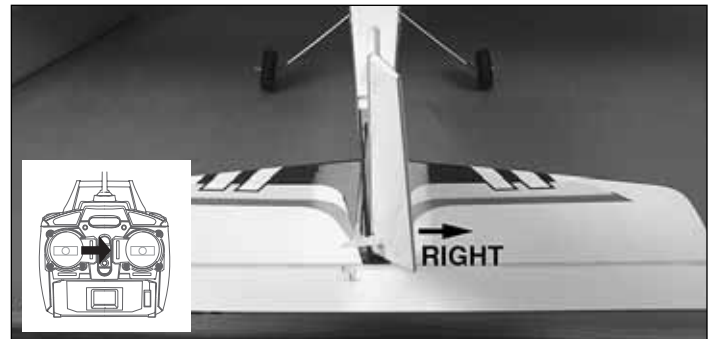
use the servo reversing in the transmitter (consult the radio system instructions included with this kit), to reverse the servos connected to those controls. Be certain the control surfaces have remained centered. Adjust if necessary.



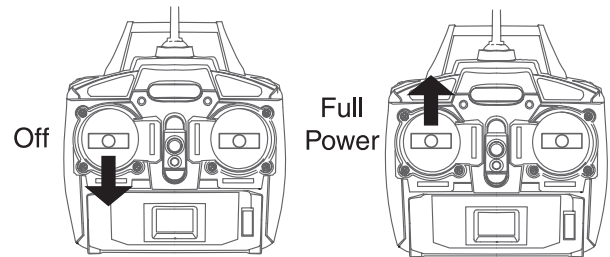
1. Moving the right control stick on the transmitter to the right, observe the direction the ailerons move. The right aileron should move up and the left aileron should move down. Moving the control stick to the left should make the ailerons move the opposite way.



2. Move the right stick down and observe the direction the elevator moves. Moving the right stick down should make the elevator move up.



3. Move the left stick to the right and observe the rudder. Moving the left stick to the right should make the rudder (and nose wheel) move to the right. Moving the left stick to the left should make the rudder and nose wheel move in the opposite direction.



To operate or “arm” the motor, the throttle stick must be in the down or “OFF” position. When the plane’s power is switched “ON,” you will hear a “beep.” Move the throttle stick to full power and you will hear another “beep.” Move the throttle back to the “OFF” position and you will hear four “beeps.” **Caution:** This indicates that the motor is now armed and when you advance the throttle stick, the propeller will begin spinning and thus, propelling the plane forward. If it does not, the throttle reversing switch may be set incorrectly. **Disconnect the motor batteries** and change the throttle reversing switch. Retry the throttle arming procedure. If the prop is turning the wrong direction (no air blowing back towards the fuse), disconnect and switch any two of the black wires between the motor and speed control.

The ESC will remain armed until you disconnect the motor battery packs.

The ESC provided with the ElectriStar EP Select features a brake function that is useful for some aircraft, but is unnecessary for this model. The factory default setting is “BRAKE OFF” but if you notice that the motor stops abruptly when you shut down the throttle, the ESC will need to be

re-programmed. This is something that you can easily do by following these simple steps:

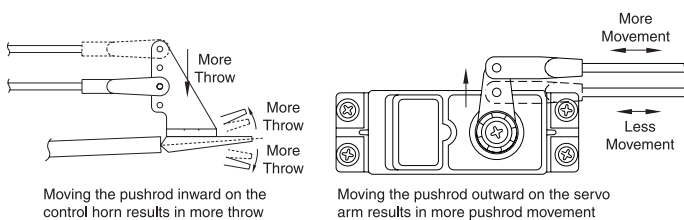
- ❑ 1. With the power "OFF" to both the transmitter and airplane, move the transmitter throttle stick to full throttle position.
- ❑ 2. Turn the transmitter "ON," connect the motor batteries to the ESC, and turn the plane's receiver "ON."
- ❑ 3. After 5 seconds the motor will beep once.
- ❑ 4. Move the transmitter throttle stick toward you to the "throttle down" position. The motor will beep once.
- ❑ 5. Again, move the transmitter throttle stick to full throttle, the motor will beep once more to confirm the brake is now "OFF."

Once the brake is set, it does not require resetting once the ESC has been switched "OFF."

### Set the Control Throws

Use a Great Planes Accu-Throw™ or a ruler to accurately measure and set the control throw of each control surface as indicated in the chart that follows. **Note:** The throws are measured at the **widest part** of the elevators, rudder, and ailerons.

Control Throws Chart		
	High Rate	Low Rate
<b>ELEVATOR:</b>	5/8" [16mm] up 5/8" [16mm] down	3/8" [9.5mm] up 3/8" [9.5mm] down
<b>RUDDER:</b>	1" [25mm] right 1" [25mm] left	3/4" [19mm] right 3/4" [19mm] left
<b>AILERONS:</b>	3/8" [9.5mm] up 3/8" [9.5mm] down	1/4" [6.4mm] up 1/4" [6.4mm] down



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

When turning off the system, always turn the receiver "OFF" first, followed by the transmitter. Once the motor is "armed" always remain behind the arc of the propellers until the batteries are disconnected.

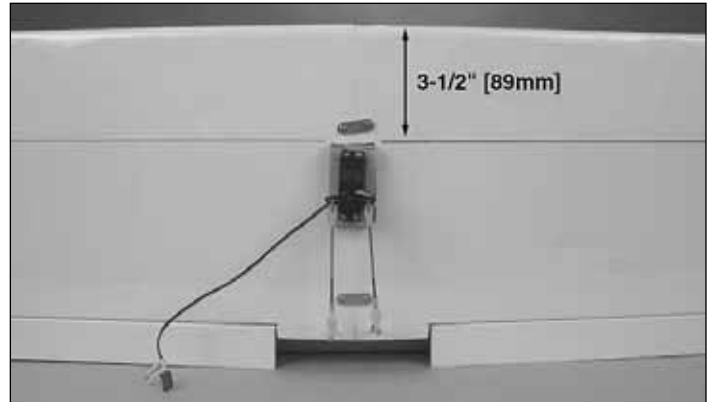
### Identify Your Model

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 14 of this manual and place it on or inside your model.

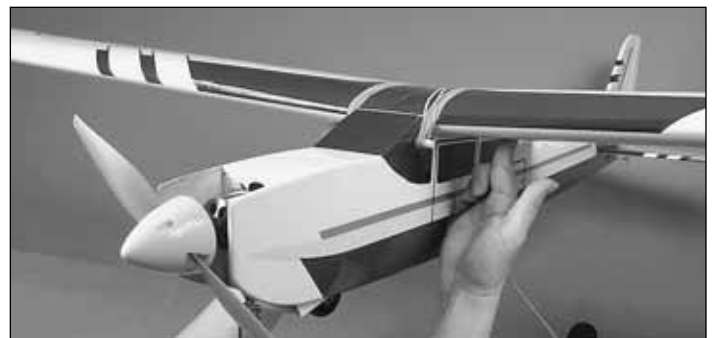
### Balance the Model (C.G.)

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

At this stage the model should be in ready-to-fly condition with all of the systems in place including the motor batteries.



- ❑ 1. Take the wing off of the fuse and use a felt-tip pen or 1/8" [3mm]-wide tape to accurately mark the balance point located 3-1/2" [89mm] back from the LE as shown in the photo.



- ❑ 2. Mount the wing on the fuse with just four rubber bands. Lift the model on both sides of the model with your fingertips

on the line on the bottom of the wing. You may also use a Great Planes C.G. Machine (GPMR2400).

This is where your model should balance for the first flights. Later, you may wish to experiment by shifting the C.G. up to 3/8" [9.5mm] forward or 3/8" [9.5mm] back to change the flying characteristics. Moving the C.G. forward may improve the smoothness and stability, but the model may then require more speed for takeoff and make it more difficult to slow for landing. Moving the C.G. aft makes the model more maneuverable, but could also cause it to become too difficult to control. In any case, **start at the recommended balance point** and do not at any time balance the model outside the specified range.

3. With the plane resting on your fingertips, note whether the nose or tail drops. If the nose drops, the plane is "nose heavy" and weight must be added to the tail. If the tail drops, the plane is "tail heavy" and weight must be added to the nose. If neither the nose nor tail drops, the C.G. is good. If additional weight is required, use Great Planes "stick-on" lead weight (GPMQ4485).

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

1. With the wing level, have an assistant help you lift the model by the prop shaft and the bottom of the fuse under the TE of the vertical 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.**

### ***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 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 close 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 of AMA number, on or in the model. **Note:** This does not apply to models while being flown indoors.

9) 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 flyer, unless assisted by an experienced helper.

3) I will perform my initial turn after takeoff away from the pit or spectator areas and I will not thereafter fly over pit or spectator areas, unless beyond my control.

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

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).

### ***PREFLIGHT***

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

If you have not already done so, charge your transmitter and receiver batteries as well as your two 7-cell 3000mAh motor batteries.

#### ***Gather the Necessary Tools***

Basically any tool that you used to assemble the plane should accompany you to the flying field as well as the following tools and accessories:

- Standard and metric hex drivers
- #64 Rubber bands (HCAQ2000)
- Hook & loop material (GPMQ4480)
- Tie straps
- Thread-locking compound
- CA glue and de-bonder

### ...And If You Really Want to Go Nuts

- Cooler filled with ice and soda
- Folding table
- Lawn chairs
- EZ-up or canopy for shelter
- First-aid kit
- Paper towels
- Spray-on glass cleaner
- Sunglasses
- Sun block

## 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. Look over the following check list and complete all items before attempting to fly.

- Check the C.G. according to the measurements provided in the manual.
- Be certain that the motor batteries, ESC, and receiver are securely mounted in the fuse.
- Balance your model *laterally* as explained in the instructions.
- Make sure all hinges are damage-free and **securely** glued in place.
- Confirm that all controls operate in the correct direction and the throws are set up according to the manual.
- Make sure that all servo arms are secured to the servos.
- Make sure that any servo extension wires that you have do not interfere with other systems (servo arms, pushrods, etc.)
- Balance your propeller (and spare propellers).
- Make sure that the hex head cap screw that holds the propeller on is tight.
- Place your name, address, AMA number, and telephone number on or inside your model.
- If you wish to photograph your model, do so before your first flight.
- Range check your radio when you get to the flying field.

## FLIGHT PREPARATION

*Flight preparation is to be done at the flying field.*

### Range Check

Whenever you go to the flying field, check the operational range of the radio before the first flight of the day. First, make sure no one else is on your frequency (channel). Have an assistant hold the model, staying clear of the propeller. With your transmitter on, you should be able to walk at least 100

feet away from the model and still have control. While you work the controls, have your assistant tell you what the control surfaces are doing. Repeat this test **with the motor running** at various speeds. If the control surfaces are not always responding correctly, **do not fly!** Find and correct the problem first.

Interference can be caused by many factors; here are some things to look for:

- Loose servo connections
- Corrosion
- Loose hardware that may cause vibration
- Defective radio gear
- Low battery voltage
- Damaged receiver antenna or receiver crystal

If the radio appears to only be affected when the motor is running, try moving your receiver farther away from the motor battery and motor.

## FLYING

The following flying instructions are in no way an endorsement for learning to fly on your own, but are printed so you can know what to expect and what to concentrate on while learning under the tutelage of your instructor. Further, these flight instructions may be referenced once you begin flying on your own.

**IMPORTANT:** If you do insist on learning to fly on your own, you must be aware of your proximity to R/C club sites. If there is an R/C site within six (6) miles of where you are flying and if you are operating on the same frequency and at the same time as somebody else, there is a strong possibility that one or both models will crash due to radio interference. There is great potential for an out-of-control model to cause property damage and/or severe personal injury. We strongly urge you to fly at an R/C club site where frequency control is in effect so you can be assured you will be the only one flying on your channel.

### Taxiing

**Remember, it is assumed that your instructor is operating the model for you.**

Before the model is ready for takeoff, it must be first set up to roll straight down the runway. Place the plane on the runway and slowly advance the throttle just enough to get the model rolling. If the model does not roll straight down the runway, pull the throttle back completely and adjust the nose gear pushrod as necessary. Do not use the rudder trim to correct the nose wheel because this will also affect the

rudder. **Note:** Crosswinds may affect the direction the model rolls, so this test should be done in calm conditions, or with the model facing directly into the wind.

## Takeoff

If possible, takeoff directly into the wind. If you are experienced, taking off in a crosswind is permissible (and sometimes necessary—depending upon the prevailing wind conditions and runway heading). Taking off into the wind will help the model roll on a straight path and also reduces ground speed for takeoff. Taxi the model onto the runway or have an assistant carry it out and set it down pointing into the wind down the runway. When ready, gradually advance the throttle while simultaneously using the **left stick** (rudder/nose wheel) to steer the model. Gain as much speed as the runway and flying site will practically allow before gently applying up elevator, lifting the model in the air. A good method to remember is to apply slight pressure to the sticks rather than pushing or pulling on them. Be ready to make immediate corrections with the ailerons to keep the wings level and be smooth on the elevator stick, allowing the model to establish a **gentle** climb to a safe altitude before making the first turn (away from yourself).

## Flight

Once airborne, maintain a steady climb and make the initial turn away from the runway. When at a comfortable, safe altitude, throttle back to slow the model. This will give you more time to think and react. The ElectriStar EP Select should fly well at half or slightly less than half-throttle. Adjust the trims so that the plane flies straight and level. After flying around for awhile still at a safe altitude with plenty of battery power, practice slow flight and execute practice landing approaches by reducing the throttle further to see how the model handles when coming in to land. Add power to see how the model climbs as well. Continue to fly around while learning how the model responds. Mind your battery power level, but use the first flight to become familiar with the model before landing.

## Landing

With electric planes it's best to land with some battery power remaining. This will allow you to abort the landing and go around again if needed. 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 landing area, 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 are ready to make your landing flare and the model is a foot or so above the ground, smoothly increase up elevator until it gently touches down.

If you are performing practice landings, it is best to practice these during the first 6 minutes of flying.

After you have landed and shut the motor down, adjust the pushrods on the ailerons, elevator, and rudder as necessary so the trim levers on the transmitter can be returned to center (this will not be required on any of the channels that did not need trim adjustments).

After your flight, the motor batteries will be hot. Allow them to cool down before attempting to re-charge them.

**Good luck and remember to have fun!**

This model belongs to:

_____	Name
_____	Address
_____	City, State Zip
_____	Phone number
_____	AMA number

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

**ALSO AVAILABLE FROM HOBBICO**



### ElectriFly™ 7-Cell, 8.4V 3600mAh NiMH Battery Pack

The sub-C NiMH cells in this flat pack are affordably priced and deliver incredible power. High-capacity cells mean extended flight time and less frequent charging. Each pack features a Deans® Female Ultra™ connector on 4" long, 12AWG flexible silicone-insulated wire, along with heavy-duty silver battery bars. Perfect for large electric models where weight is not critical, or for converting glow-powered planes to electric power. **GPMP0361**



### Hobbico DC QuickPeak™ Peak Charger

With QuickPeak, you can peak a radio pack in as little as 25 minutes! Just set the switch for a 4.8V Rx or 9.6V Tx pack, hook up the pack and a 12V battery and you're charging! Advanced circuitry switches from a 750mA charge rate to trickle charge at peak, but also stops charging after 90 minutes even if peak hasn't been reached. Includes

overload and reverse polarity protection, banana plugs, cord w/alligator clips and two-year warranty. **HCAM3005**



### ElectriFly Ultra E-Box™

Prebuilt from laser-cut ply parts, the Ultra E-Box is small enough to keep in the car, but large enough for two chargers and 12V batteries, your radio and virtually all electric flight accessories: battery packs, props, adhesives, small tools, voltmeter, leads and more. A unique handle ensures easy, balanced carrying whether your radio's in the tray or in your hands. **GPMP1004**

### ElectriFly Compact E-Box™

Created specifically for electric flight, the Compact E-Box is factory-finished and factory-built from light, strong, laser-cut 1/8" ply parts. The Compact E-Box is ready for use as soon as the handle is installed. And once the handle is installed, your charger can't fall out, even if the E-Box is tipped on its side. An easy-access compartment below the

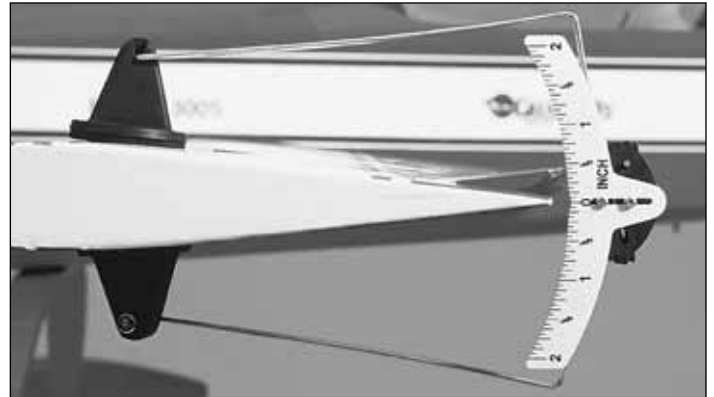
deep drawer holds most 12V maintenance-free hobby batteries and features a vented faceplate that allows heat to escape and cooler air to enter. **GPMP1006**



### Great Planes C.G. Precision Aircraft Balancer™

Accurate balancing makes trainers more stable, low-wings more agile, and pylon planes move at maximum speed. The innovative C.G. Machine helps you achieve optimum balance easily, without measuring or marking—and without the errors that fingertip balancing can cause. You'll quickly pinpoint your plane's exact center of gravity. Then you'll know at a

glance whether weight should be added, removed or relocated. The C.G. Machine works with kits and ARF models of any size and wingspan. Its slanted wire balancing posts support models weighing up to 40 pounds. **GPMR2400**



### Great Planes Accu-Throw™ Control Surface Deflection Meter

One leading cause of crashes is flying an airplane with its control throws set differently from those recommended in the instructions. The Great Planes AccuThrow lets you quickly and easily measure actual throws first, so you can make necessary corrections before you fly. Large, no-slip rubber feet provide a firm grip on covered surfaces without denting or marring the finish. Spring tension holds AccuThrow's plastic ruler steady by each control surface. Curved to match control motions, the ruler provides exact readings in both standard or metric measurements. **GPMR2405.**



