

Extra 260 3D Profile

George Hicks



DESIGN



E-flite[®]
ADVANCING ELECTRIC FLIGHT

Assembly Manual

Available from: www.modelflight.com.au

Table of Contents

Introduction.....	3	Warranty.Inspection.and.Repairs.....	10
Specifications.....	3	Non-Warranty.Repairs.....	10
Using.the.Manual.....	3	Safety,.Precautions,.and.Warnings.....	11
Contents.of.Kit/Parts.Layout.....	4	Airframe.Assembly.....	1
Outrunner.Setup.....	4	Installing.the.Bracing.....	17
Variable.Prop.Outrunner.Setup.....	4	Radio.Installation.....	
Optional.Accessories.....	4	Motor.and.Battery.Installation.....	8
Required.Radio.Equipment.....	5	Landing.Gear.Installation.....	35
Warning.....	6	Control.Throws.....	38
Required.Tools.and.Adhesives.....	6	Center.of.Gravity.....	39
Note.on.Lithium.Polymer.Batteries.....	7	Range.Testing.the.Radio.....	39
Limited.Warranty.Period.....	7	Preflight.....	40
Limited.Warranty.&.Limits.of.Liability.....	8	Notes.....	41
Safety.Precautions.....	9	006.Official.AMA..	
Questions,.Assistance,.and.Repairs.....	9	National.Model.Aircraft.Safety.Code.....	4
Questions.or.Assistance.....	9		
Inspection.or.Repairs.....	9		

Introduction

The Extra 260 3D Profile was designed by Aerodynamicist and E-TOC champ George Hicks to give profile 3D foamie fans a great-looking, lightweight plane with competition-level performance. At the heart of its superb flight characteristics is a rigid, carbon reinforced Depron foam airframe. This unique design eliminates flex so control response is crisp and precise.

The Extra 260 is constructed from 3mm laser-cut Depron foam—the standard for durability and quality for pro 3D foamie pilots everywhere. All pieces come with a sharp-looking factory-applied color scheme.

Carbon Rod Reinforcement

Much of the Extra 260's exceptional flight performance comes from its carbon-reinforced airframe that eliminates flex so control response is crisp and precise. The leading and trailing edges of the wing come out of the box with factory-applied carbon strips. Carbon rods are also included that further strengthen the fuselage and tail.

Visit our web site at www.horizonhobby.com or www.E-fliteRC.com for George Hicks' flying tips.

Specifications

Wingspan:	32.5 in (825mm)
Length:	33 in (840mm)
Wing Area:	260 sq in (16.8 sq dm)
Weight w/o Battery:	6.5–7.75 oz (182–220 g)
Weight w/ Battery:	7.75–9.5 oz (220–270 g)

Using the Manual

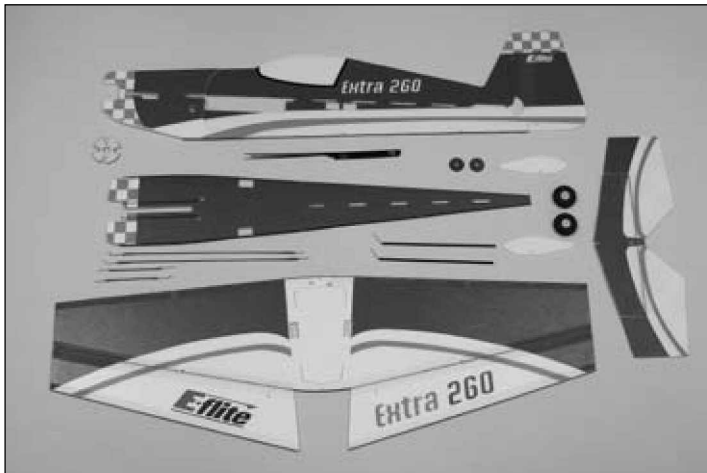
This manual is divided into sections to help make assembly easier to understand, and to provide breaks between each major section. In addition, check boxes have been placed next to each step to keep track of each step completed. Steps with a single circle () are performed once, while steps with two circles () indicate that the step will require repeating, such as for a right or left wing panel, two servos, etc.

Remember to take your time and follow the directions.

Contents of Kit/Parts Layout

Small Replacement Parts

EFL2305	Wheel Pants
EFL2306	Firewall Mount w/Hardware
EFL2307	Aileron Rods
EFL2308	Carbon Fiber Stiffeners
EFL2309	Landing Gear
EFLA200	Micro Control Horns
FLA203	Micro Control Connectors
EFLA221	Foam Park Wheels, 1.5"



Outrunner Setup

EFLM1150	Park 300 Brushless Outrunner Motor, 1380Kv
EFLA1010	10-Amp Pro Brushless ESC
APC08038SF	8x3.8 Slow Flyer Prop
THP4803SJPL	480mAh 3-Cell 11.1V Li-Po, JST
EFLC3005	Celectra™ 1–3 Cell Li-Po Charger

Variable Prop Outrunner Setup

EFLPVPP100	Showtime Variable Pitch Prop
EFLM1210HS	Park 370 BL Outrunner, 1200Kv w/4mm Hollow Shaft
LA1010	10-Amp Pro Brushless ESC
THP7303SJPL	730mAh 3-Cell 11.1V Li-Po, JST
EFLC3005	Celectra 1–3 Cell Li-Po Charger

Optional Accessories

EFLA110	Power Meter
---------	-------------

Required Radio Equipment

You will need a minimum 6-channel transmitter (for proper mixing and dual rate capabilities), crystals, micro receiver, and three sub-micro servos. You can choose to purchase a complete radio system that includes all of these items or, if you are using an existing transmitter, just purchase the other required equipment separately. We recommend the crystal-free, interference-free Spektrum® DX6 2.4GHz DSM® 6-channel system, which includes a micro receiver and 4 sub-micro 7.5 gram servos. If using your own transmitter, we recommend the use of a JR SPORT™ 6-channel UltraLite receiver and E-flite® S60 Super Sub-Micro servos.

Complete Radio System

SPM2460 DX6 DSM 6CH Park Flyer w/4-S75

Or Purchase Separately

JSP30610 6-Channel UltraLite Rx w/o Crystal,
Positive Shift JR/AIR (72MHz)

JSP30615 6-Channel UltraLite Rx w/o Crystal,
Negative Shift Fut/HRC (72MHz)

JRPXFR** FM Receiver Crystal (JR only,
not AR6000)

Or

SPM6000 AR6000 DSM 6-Channel Park Flyer
Receiver

And

EFLRS60 6.0-Gram Super Sub-Micro Servo (4)
(5 with optional Variable Pitch Propeller)

Available from: www.modelflight.com.au

Warning

An RC aircraft is not a toy! If misused, it can cause serious bodily harm and damage to property. Fly only in open areas, preferably at AMA (Academy of Model Aeronautics) approved flying sites, following all instructions included with your radio.

Keep loose items that can get entangled in the propeller away from the prop, including loose clothing, or other objects such as pencils and screwdrivers. Especially keep your hands away from the propeller.

Required Tools and Adhesives

Tools & Equipment

EFLA250 Park Flyer Tool Assortment, 5-piece

Or Purchase Separately

EFLA257 Screwdriver, #0 Phillips (or included with EFLA250)

Drill

Drill bit: 1/16" (1.5mm)

Cardstock

Foam Safe CA, Medium (EFLA209)

Foam Safe Accelerator (EFLA207)

Low Temperature Glue Gun w/Hot Glue

Hobby knife

Felt-tipped pen

Pliers

Square

Sandpaper

Note on Lithium Polymer Batteries



Lithium Polymer batteries are significantly more volatile than alkaline or Ni-Cd/ Ni-MH batteries used in RC applications. All manufacturer's instructions and warnings must be followed closely. Mishandling of Li-Po batteries can result in fire. Always follow the manufacturer's instructions when disposing of Lithium Polymer batteries.

Limited Warranty Period

Horizon Hobby, Inc. guarantees this product to be free from defects in both material and workmanship at the date of purchase.

Limited Warranty & Limits of Liability

Pursuant to this Limited Warranty, Horizon Hobby, Inc. will, at its option, (i) repair or (ii) replace, any product determined by Horizon Hobby, Inc. to be defective. In the event of a defect, these are your exclusive remedies.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than an authorized Horizon Hobby, Inc. service center. This warranty is limited to the original purchaser and is not transferable. In no case shall Horizon Hobby's liability exceed the original cost of the purchased product and will not cover consequential, incidental or collateral damage. Horizon Hobby, Inc. reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon Hobby, Inc. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HORIZON HOBBY, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

As Horizon Hobby, Inc. has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the purchaser or user are not prepared to accept the liability associated with the use of this product, you are advised to return this product immediately in new and unused condition to the place of purchase.

Safety Precautions

This is a sophisticated hobby product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision.

The product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the product has been started, you must contact Horizon Hobby, Inc. directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance.

Questions or Assistance

For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll-free to speak to a service technician.

Inspection or Repairs

If your product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon Hobby, Inc. is not responsible for merchandise until it arrives and is accepted at our facility. Include your complete name, address, phone number where you can be reached during business days, RMA number, and a brief summary of the problem. Be sure your name, address, and RMA number are clearly written on the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing warranty conditions have been met, your product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs

Should your repair not be covered by warranty and the expense exceeds 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. You will be billed for any return freight for non-warranty repairs. Please advise us of your preferred method of payment. Horizon Hobby accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly.

Electronics and engines requiring inspection or repair should be shipped to the following address (freight prepaid):

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other products requiring inspection or repair should be shipped to the following address (freight prepaid):

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Safety, Precautions, and Warnings

As the user of this product, you are solely responsible for operating it in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.

This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is necessary to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

- Always operate your model in an open area away from cars, traffic, or people.

- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model out into the street or populated areas for any reason.
- Never operate your model with low transmitter batteries.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.

Airframe Assembly

Required Parts

Vertical fuselage
Horizontal fuselage
Wing w/aileron
Stabilizer w/elevators
Motor mount

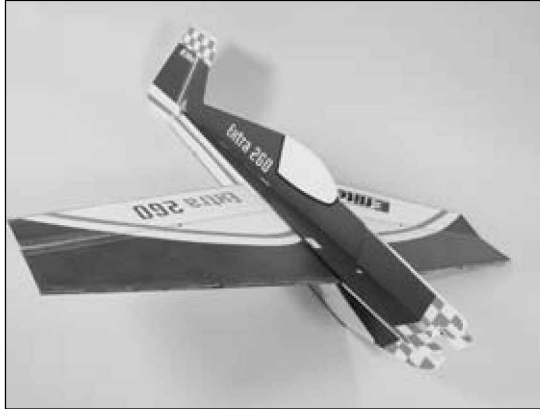
Required Tools and Adhesives

Foam-safe CA, Medium
Foam-safe accelerator (can be used to speed up cure time)
Square

1. Locate the vertical and horizontal fuselage pieces. Slide the horizontal fuselage into the vertical fuselage starting at the opening for the wing/radio equipment. Use care not to damage any of the alignment tabs on the vertical fuselage.

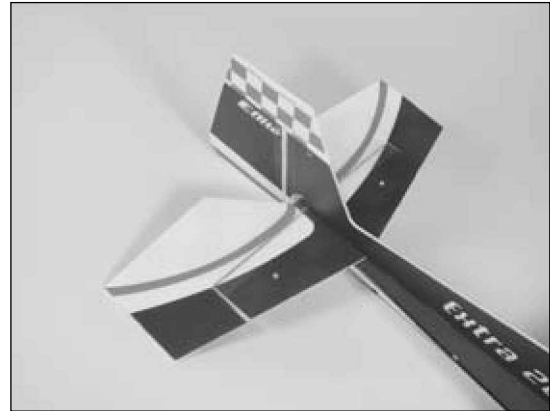


2. Locate the wing and slide it into the vertical fuselage underneath the horizontal fuselage. Use care not to damage either the vertical or horizontal fuselage pieces.

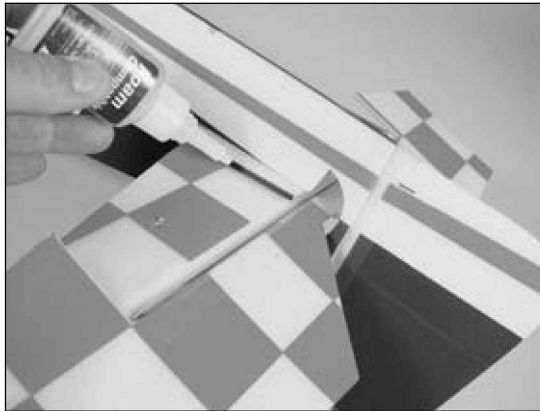


Hint. Fold one of the ailerons up and onto the wing to make it a little narrower to install into the fuselage. Push the wing past center to move the aileron back into position, then center the wing.

3. Slide the horizontal stabilizer into the fuselage, being careful not to damage any of the alignment tabs. You may need to move the horizontal fuselage out of the vertical fuselage slightly to get the stabilizer into position.



4. Align the stabilizer with the horizontal fuselage. Use foam-safe CA to glue the stabilizer to ONLY the horizontal fuselage.



5. Align the wing with the horizontal fuselage. Use foam-safe CA to glue the wing to ONLY the horizontal fuselage.



Hint: Use the holes for the aileron servos to aid in the alignment between the horizontal fuselage and wing.

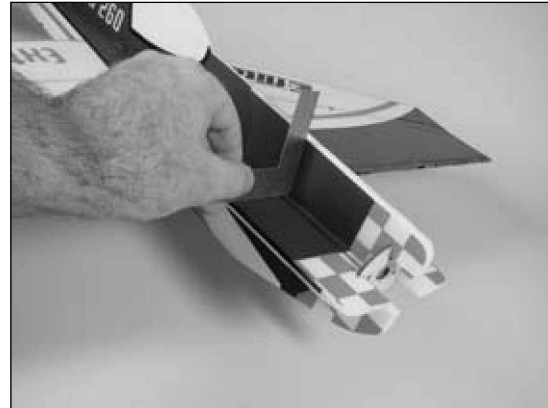
Note: There are slots at the front and rear of the wing. Lightly lift the area and apply CA underneath for a greater gluing area.

*Important..If.you.plan.on.using.CA.accelerator,.
make.sure.it.is.foam.compatible..Many.
accelerators.will.destroy.the.foam.used.on.this.
model.*

6. Place the motor mount in position to aid in the alignment of the vertical and horizontal fuselage pieces. DO NOT glue the mount until instructed to do so. Position the horizontal and vertical fuselage pieces until the mount rests flush against both.



7. Apply foam-safe CA to the joint between the vertical and horizontal fuselage pieces from the leading edge of the wing to the front of the fuselage. Use a square to make sure the two pieces are aligned. Apply CA to both the top and bottom of the vertical fuselage.



8. Complete gluing the vertical and horizontal fuselage pieces together. Continue to use a square to keep both pieces in alignment.



Installing the Bracing

Required Parts

Assembled airframe

Carbon rod, 9⁷/₈" (250mm) (2)

Carbon rod, 9¹/₂" (240mm) (2)

Carbon rod, 4³/₄" (120mm) (2)

Carbon rod, 4¹/₂" (113mm) (4)

Carbon rod, 4¹/₈" (105mm) (4)

Required Tools and Adhesives

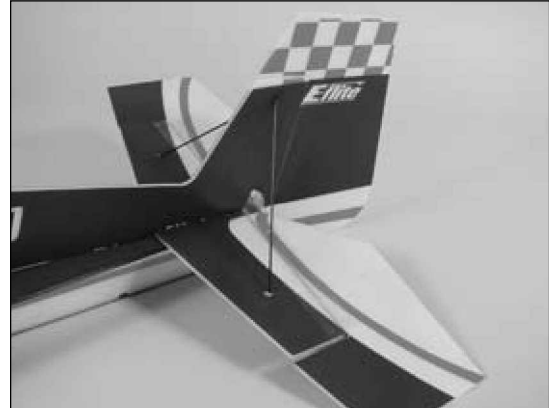
Foam-safe CA, Medium

Sandpaper

Hobby knife

Note:..It.is.important.that.each.carbon..
rod.attaches.to.the.next,..and.to.the..
carbon.blade.spars.on.the.edges.of.the..
foam..This.is.necessary.to.provide.the..
stiffest.airframe.possible.

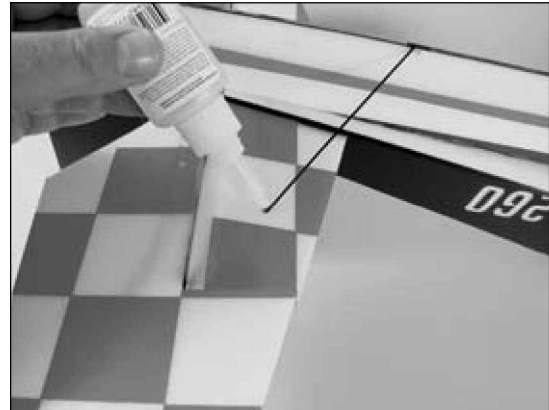
1. Locate the two 4³/₄" (120mm) carbon rods. Pass the rods through the fin and stabilizer. Use foam-safe CA to glue the rods to the fin **ONLY** at this time.



2. Place the 4 1/2" (113mm) carbon rods on the bottom of the stabilizer to the bottom of the vertical fuselage. There is a notch in the fuselage for the rods to rest in. Make sure the rods are touching each other as well as the carbon blade spar. Use foam-safe CA to glue the rods at the fuselage ONLY.



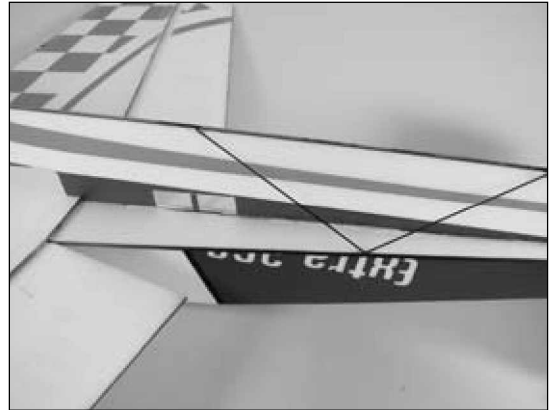
3. Check the alignment of the fin to the stabilizer. They should be perpendicular to each other. Check that the rods in the stabilizer are touching. Use foam-safe CA to glue the rods into position after checking alignment and that the rods are touching.



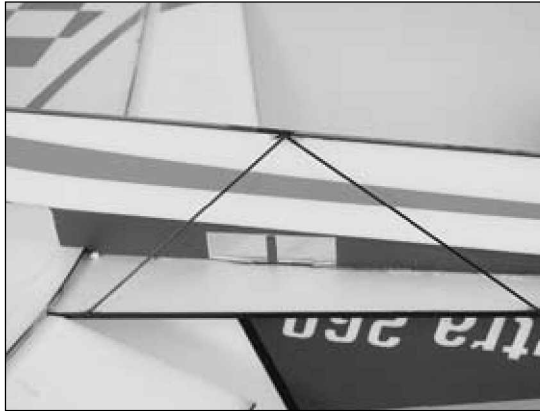
4. Locate two of the $4\frac{1}{8}$ " (105mm) carbon rods. Install these rods, like the rods installed in Step 3, to the horizontal fuselage. Again, there are notches for the carbon rods. Make sure the rods are touching the previously installed rods and the pre-installed carbon blade spars on the edges of the foam.



5. The next rod to install is the $4\frac{1}{2}$ " (113mm) rod from the rod in Step 4 to the bottom of the vertical fuselage.



6. To complete the fuselage bracing, install a $4\frac{1}{8}$ " (105mm) rod from the previous rod back down to the horizontal fuselage. You will need to trim the fuselage to expose the carbon support so the rod can be glued securely to the brace.



7. Check the joints in Steps 1 through 6 to ensure you have a nice fillet of CA at every junction where you have glued the carbon rods to each other and the fuselage. Apply additional CA if necessary to create this fillet.

8. Installing the wing bracing is similar to installing the fuselage bracing, as you want the rods to be glued to the carbon bracing that has been pre-installed on the wing and fuselage. The longer $9\frac{7}{8}$ " (250mm) rod is positioned toward the aileron, while the shorter $9\frac{1}{2}$ " (240mm) rod is toward the leading edge. The rods are staggered and fit into notches in the fuselage. Make sure the rods are straight and are not flexing the wing. Use foam-safe CA to glue the rods in position. The wing should be flat and parallel to the horizontal stabilizer, while also being perpendicular to the vertical fuselage.