



42% Extra 260

Thank you for purchasing a Bill Hempel Team Edge aircraft. We strive to build high quality and great flying aircraft. We have used our years of experience in the hobby to design and build aircraft that are competitive at the highest levels of aerobatic competitions and that will last for many flying seasons.

We suggest that you read through the manual before starting the assembly. If you have any questions or concerns please don't hesitate to e-mail us at teamedge@billhempel.com

Thank you

Bill Hempel

Billhempel.com assumes no liability for any damage resulting from the user assembled product. By the act of using the assembled product, the user accepts all resulting liability. The purchaser or designated person flying this aircraft accepts all liability associated with the use of this product. This product is sold as is and the purchaser accepts any and all responsibility for structural or mechanical failures. Because of the stresses that are associated with aerobatic flight there is no warranty provided and bill.hempel.com cannot be held liable.

WARNING:

Radio Control Model aircraft are not toys. If improperly used, it can cause serious injury or death. Fly only in open areas, and at AMA (*Academy of Model Aeronautics*) approved flying sites. The AMA Safety Code must be followed. Follow all instructions included with your plane, radio, and engine. The purchaser accepts all liabilities.

SPECIFICATIONS:

Wingspan - 123"
Length - 112"
Weight - 35 pounds
Engine - 150cc-170cc

Miscellaneous Needed:

Various Hand tools
Drill and drill bits
Rotary tool & sanding drum
Thread locker
Silicone Adhesive
Hobby Knife
3/8" Heat Shrink Tubing
Heat Gun
30 Minute Epoxy
Canopy Adhesive
Masking Tape
Rubbing Alcohol
Paper Towels

Additional Items Needed:

150cc to 170cc twin cylinder engine
Factory Mufflers, Canister Mufflers, or Tuned Pipes
Propeller (Engine manufacturer recommended)
Appropriate sized spinner bolt

Electronic Equipment Needed:

Radio 8 channel minimum

1 or 2 - 2.4 GHz receivers

2-4 - Elevator servos 330 ounce of torque (minimum)

4-6 - Aileron servos 330 ounce of torque (minimum)

2 - Rudder servos 330 ounce of torque (minimum)

8-10 – 1.5” or 2” Aluminum Servo Arms (Ailerons & Elevators)

1- Throttle servo

2 receiver battery packs (2300 mAH minimum)

1 x ignition battery 1600 to 2600 mAH

2 or 3 - Voltage Regulators (if needed)

3- Switches: 2 for receiver, and 1 for ignition.

Servo extensions required:

Ailerons: 2 x 12”, 2 x 36”

Elevators: 2 x 48”

Rudder: 2 x 48”

Throttle: 18”

Unpacking:

Carefully remove the aircraft from the boxes and inspect for any damage. If you have any damage it must be reported to the freight company immediately. Billhempel.com is not responsible for any

shipping damage. You must contact the carrier. We will work with the purchaser and the freight company to resolve any issues. However a claim must be filed before we can begin the process.

Re-shrink the Covering:

Before doing any assembly or installation it is very important to re-shrink or re-tighten the already applied covering. Due to the shipping process, heat and humidity changes from different climates, the covering may become loose and wrinkle in the sun. If you take the time to re-tighten the covering, you will be rewarded with a long lasting beautifully covered model. Using your covering iron with a soft sock, gently apply pressure and rub in the covering. If any bubbles occur, your iron may be too hot. Reduce heat and work slowly. You should be able to just see the wood grain under the covering when proper adhesion has occurred.

IMPORTANT:

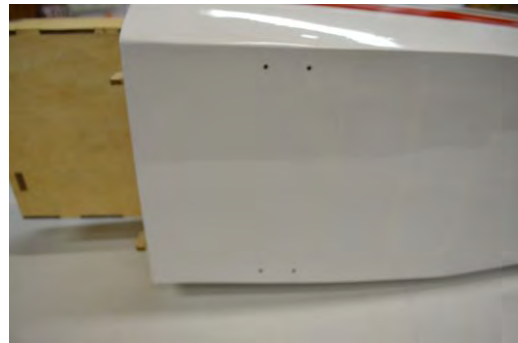
Go over any and all seams and color overlaps with your iron to assure good adhesion of the covering to the wood. This is especially important at the Leading edges of the wings and stabs and all overlapping material.

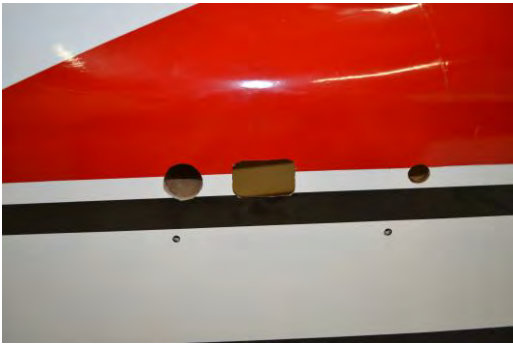
Once all seams have been ironed down, then use a heat gun with extreme caution. Be careful; don't apply too much heat to one area for long periods of time. This may cause the trim colors to over shrink and pull away leaving unsightly gaps on the color lines. The trim stripes are especially vulnerable to

over shrinking. Tightening and re-shrinking the covering is now complete.

Getting Started:

Using a hobby knife or soldering iron, carefully remove the covering from the areas shown below.

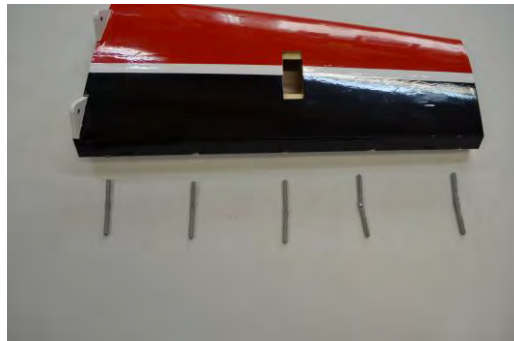






Hinging the Control Surfaces:

The airframe has been pre-drilled with hinge point style hinges. 30 minute epoxy is used to glue the hinges in place in the control surfaces. Be careful to not get any epoxy in the hinge joint. Vaseline placed in a small glass jar or shot glass will turn to liquid when heated with a heat gun. Dip the hinge in the Vaseline and set it aside to dry. Once the Vaseline has hardened in the hinge joint; clean the hinge with rubbing alcohol and paper towels. Make sure that there is no Vaseline on the gluing surface. Sandpaper can be used to lightly scuff the hinges to provide for a better gluing surface. After scuffing the hinges re-clean them with rubbing alcohol and paper towels.



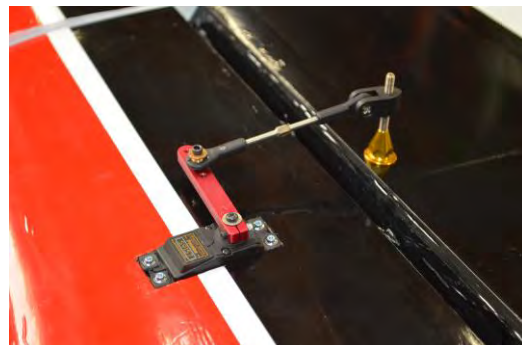
Locate the four hinges that have had the ends slightly shortened. Two of the shortened hinges are installed in the horizontal stabilizer closest to the root. This insures that the hinge doesn't interfere with the stab tube.

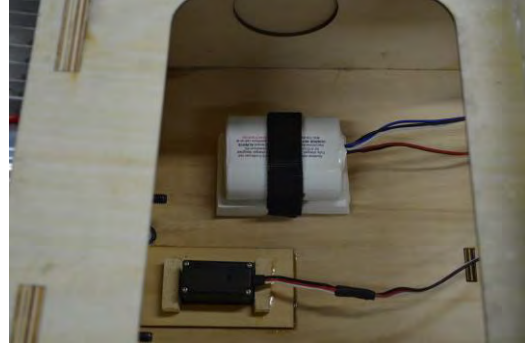


Once the epoxy has fully cured in the horizontal stabilizer the elevator can be glued in place. Masking tape is used to hold the control surface in place while the epoxy cures. Paper Towels and rubbing alcohol can be used to clean up any excess epoxy.

Repeat this hinging process on the ailerons and rudder.

Servo Installation:



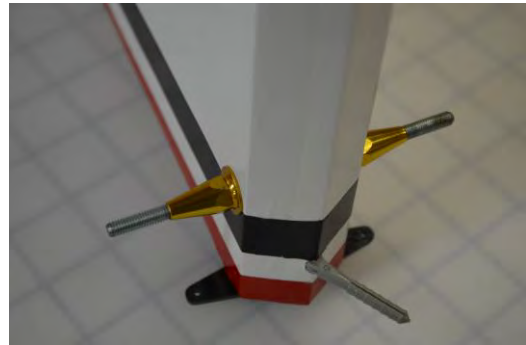
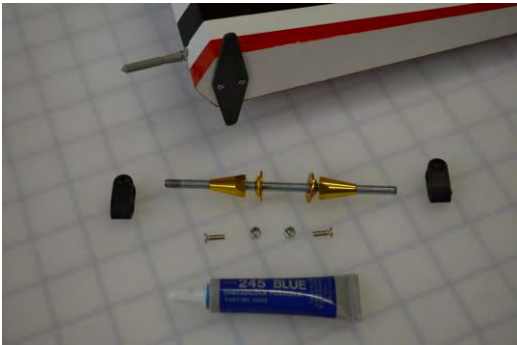


Connect a 36" servo extension to the outboard aileron servo and a 12" servo extension to the inboard aileron servo. The elevator and rudder servos each require a 48" servo extension. The throttle servo requires an 18" servo extension. Slide 3/8" heat shrink tubing over the servo connectors and shrink it with a heat gun.

Install the servos and secure them with the servo screws that are supplied with the servos, or use 9/16" socket head servo screws.

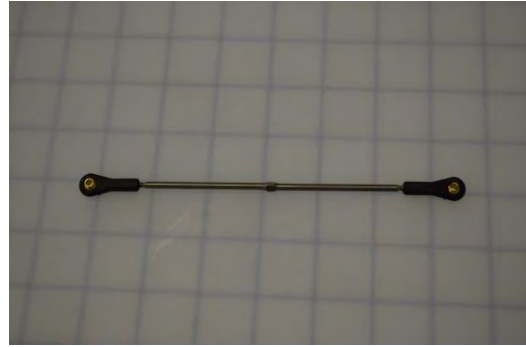
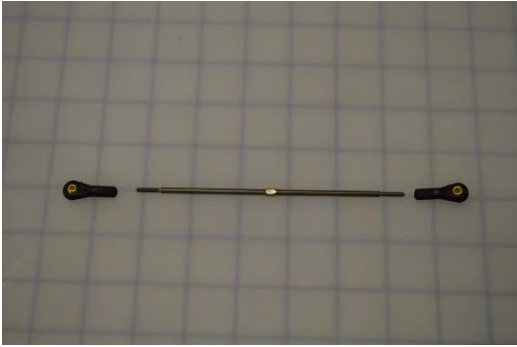
Control Horn & Pushrod Installation:



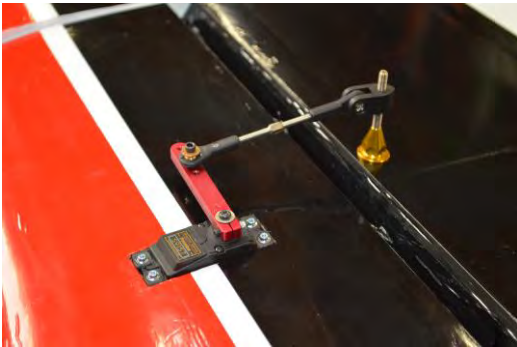


Install the control horns as shown above. Use medium (blue) thread locker on the control horn bolts. Because the aileron is thicker at the root than at the tip; the outboard control horn arm should be mounted near the top of the threaded rod, and the inboard

control horn arm should be 1/8" lower on the threaded rod. This helps to keep the servo travel the same, and keeps the two servos from twisting the aileron.

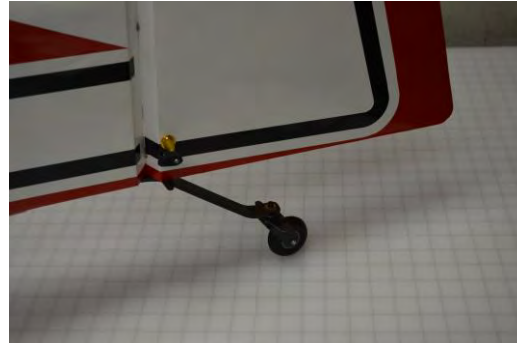


Assemble the pushrods. The pushrods are right hand thread on one end and reverse threaded on the other. This allows for easy pushrod length adjustment.



Use medium (blue) thread locker on the servo screws.

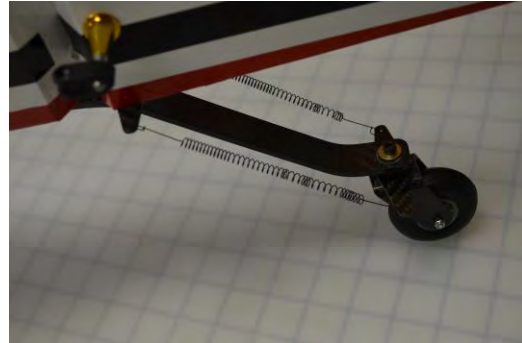
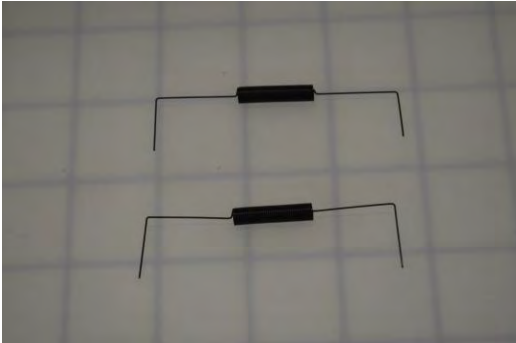
Tail wheel Bracket Installation:



Place a flat washer on each screw and then apply thread locker to the screws. Mount the carbon fiber tail wheel bracket on the fuselage.

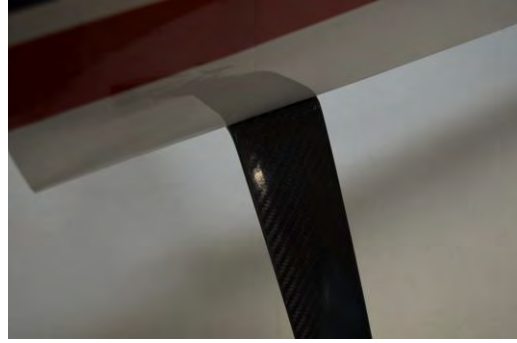


Mount the rudder steering arm on the rudder with the supplied wood screws and the install the tail wheel springs as shown.



Landing Gear Installation:

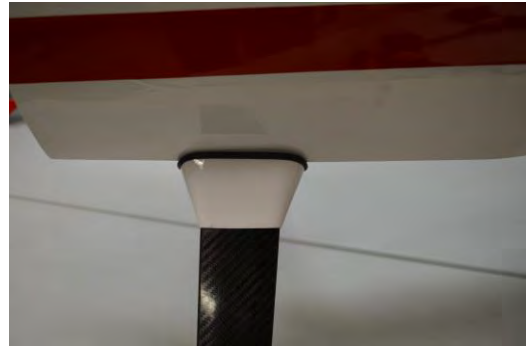




In the landing gear hardware bag you will find four socket head cap screws and flat washers for mounting the landing gear. The landing gear is installed with the gear swept slightly forward.

Landing Gear Cuff Installation:





The Landing Gear Cuffs can be installed as they come in the kit or for a more scale effect you can install some black rubber tubing on the cuffs. Use clear silicon adhesive to glue the cuffs in place, clamp the cuff in place until the adhesive has fully cured.

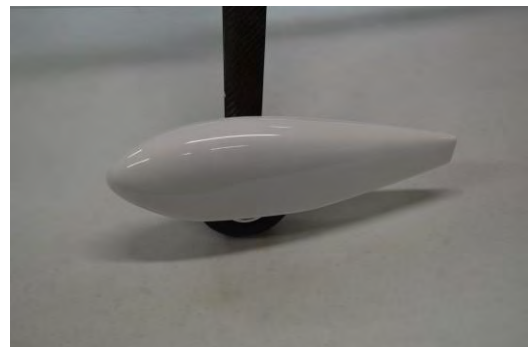
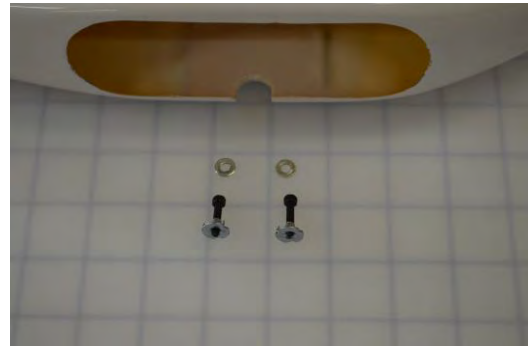
Axle and Wheel Installation:





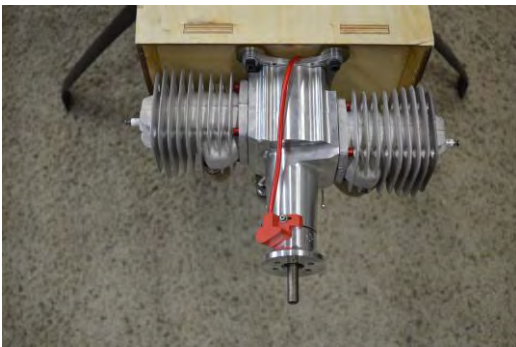
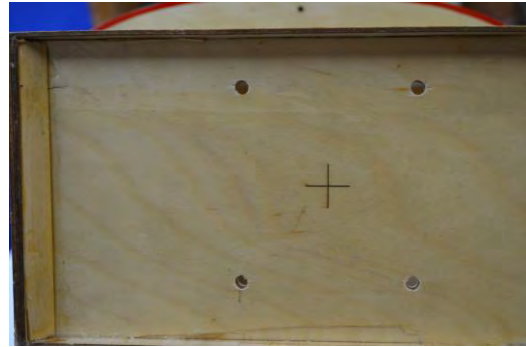
Install the axles and wheels as shown.

Wheel Pant Installation:

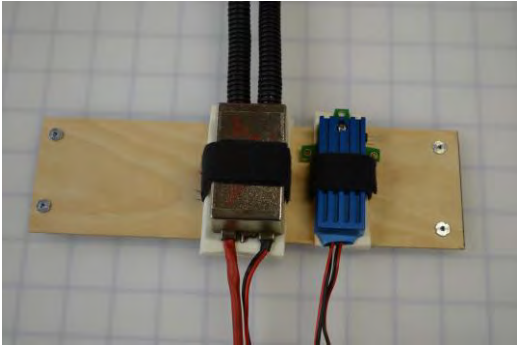


Install the blind nuts in the wheel pants as shown, apply medium thread locker to the attachment screws. Make sure that the wheels are centered in the wheel pant, and that they don't rub on the edges of the wheel pant.

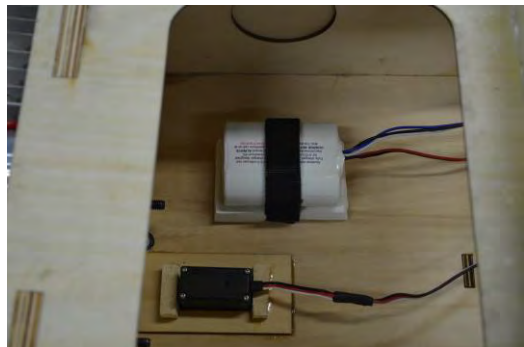
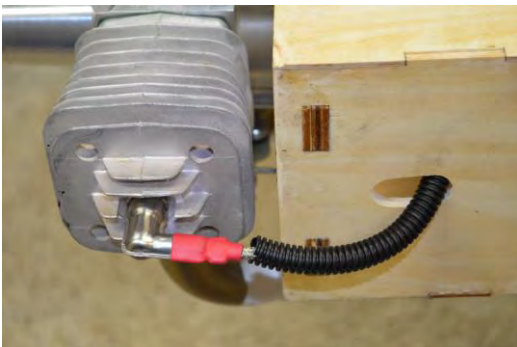
Engine Installation:



Tape the engine mounting template in place on the firewall. Drill four 1/4" holes for mounting the engine. 1/4 x 20 x 2" socket head cap screws and large flat washers were used to secure the engine.

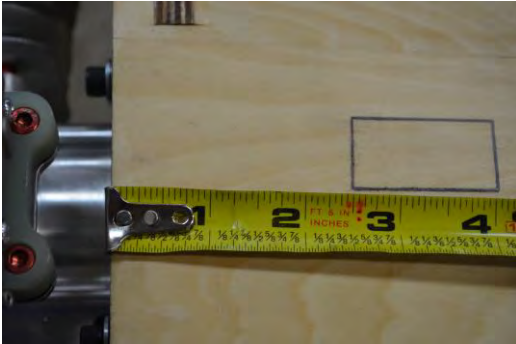


We built a simple tray out of light plywood to hold the ignition unit and ignition regulator. The ignition unit and regulator were secured with hook and loop material. Place foam rubber under both the ignition unit and regulator.



Cut a slot on each side of the motor box for the spark plug wires to exit. Place some plastic conduit over the spark plug wire to help prevent chaffing. We mounted the ignition battery in the bottom of the motor box. Place foam rubber under the battery, and secure it with hook and loop material.

Throttle Servo Installation:



Because there are so many different engine options available for the Extra 260, the throttle servo location has not been pre-opened in the bottom of the motor box. The location shown is for a Desert Aircraft DA-150 engine. If you're using a different engine; mount your engine in place on the firewall, and then mark a throttle servo location that will work for your particular engine.

Attach an 18" servo extension to the throttle servo and mount the servo as shown.

Cowling Installation:



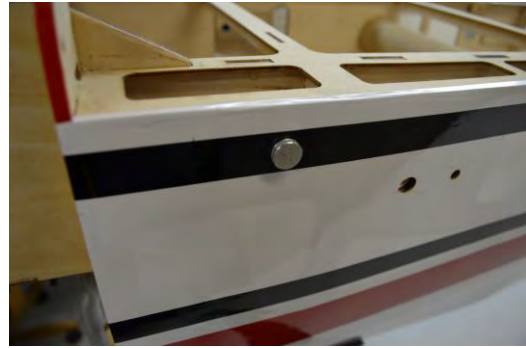
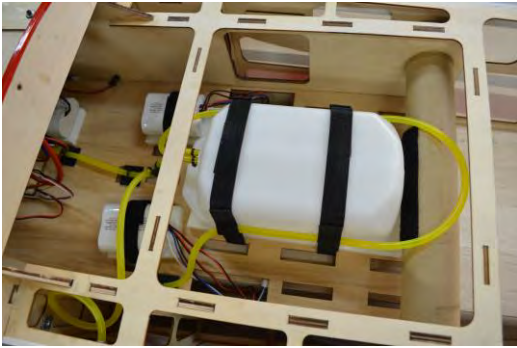


The cowling is large enough to allow standard mufflers to fit inside the cowl with only the down pipes exiting the bottom of the cowling. Use cardboard or card stock to make a template for the muffler openings. Once the template is made; remove the mufflers from the engine, install the cowling, and then use the template to mark the openings on the cowl. Remove the cowl and use a rotary tool with a sanding drum to make the openings for the muffler exits. A similar template can be made for marking the openings for the choke lever and a hole for making needle valve adjustments.

If a quieter exhaust system is needed: the Extra is equipped with an exhaust tunnel in the fuselage that will allow mounting of canisters mufflers or tuned pipes.

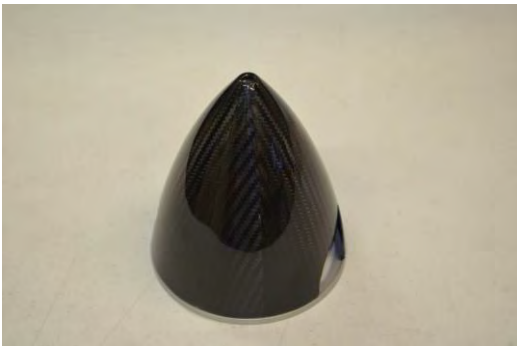
The bottom half of the cowl is secured to the fuselage by two tabs that are built into the bottom of the firewall and one screw located on each side. Secure the top half of the cowl to the bottom half by installing 6 screws on each side of the cowl. Three additional screws attach to the top half of the cowl from inside the fuselage. Apply blue thread locker to all of these screws.

Fuel Tank and Fuel Dot Installation:



There is plenty of room in the Extra 260 for up to a 60 ounce fuel tank, a 50 ounce tank is shown. Follow the fuel tank manufactures instructions for assembling the fuel tank.

Spinner Installation:





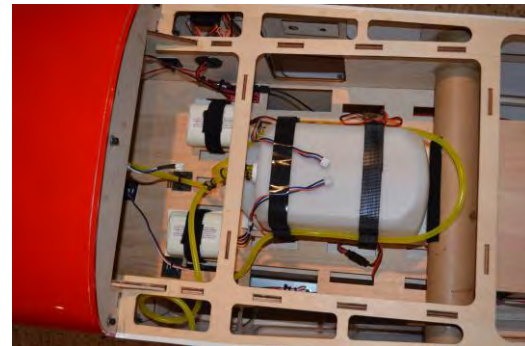
A Carbon Fiber Spinner has been included with the Extra. If needed the opening in the spinner can be enlarged with a rotary tool and a sanding drum. Make sure to use the appropriate Personal Protective Equipment when cutting or sanding carbon fiber. You will need to purchase the correct spinner bolt for your particular engine. Use a propeller drill guide to drill the spinner's back plate for your engine. Apply blue thread locker to the prop and spinner bolts.

Switch, Receiver, and Battery Installation:





Four locations are pre-cut in the fuselage for mounting the switches. Install the receiver switches so that the leads can reach the receiver and the receiver battery. Mount the ignition switch toward the front part of the fuselage.



Place foam rubber under the batteries and receivers to protect them from shock and vibration. Use hook and loop material to secure the batteries and receivers.

Wing and Stab Attachment:

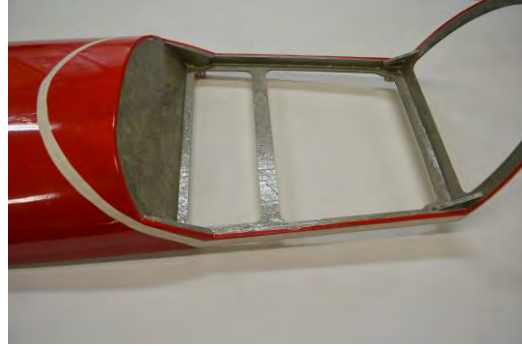


The horizontal stabilizers slide onto the carbon fiber tail tube, two socket head cap screws and flat washers secure them in place. Apply blue thread locker to the screws.



The wings slide onto a carbon fiber wing tube, each wing panel is secured from inside the fuselage with two nylon wing bolts.

Canopy Installation & Attachment:



If you choose to install a pilot figure and instrument panel do so before the canopy is installed on the hatch. Trial fit the canopy on the hatch; make sure that the canopy is centered on the hatch with an even amount overlapping on both sides. Included with the kit are screws to hold the canopy in place. If you choose to glue the canopy in place mark the edges of the canopy on the hatch. Carefully remove a 1/4"- 3/8" wide strip of covering where the canopy attaches to the hatch. Then use canopy glue to attach the canopy to the hatch. Use masking tape to hold the canopy in place until the adhesive is fully cured. The hatch assembly is held in place with 4 socket head cap screws.

Balancing:

Assemble the airplane ready to fly (minus fuel.) For the initial flights balance the aircraft at the front edge of the wing tube. Mark the locations at the wing tip and have a friend help you lift the aircraft by the wing tips at this location. The aircraft should balance level or slightly nose down. After initial flights the C.G. can be adjusted to accommodate your flying style.

Control Surface Throws:

Place the airplane on a flat surface. Make sure all control surfaces are centered at neutral. Measure the control throws using a degree meter or a straight edge; measurements are made at the trailing edge of the control surface. We used 35% expo on all control surfaces both on low and high rates. Remember that Futaba radios use a negative number on expo, and JR/Spektrum radios use a positive number. Adjust the amount of expo and control surface throws to your personal preference. These are the settings that we use.

ELEVATOR:

Low Rate: 15 degrees each direction (1 3/4" each direction)

High Rate: 45 degrees each direction (5" each direction)

AILERON:

Low Rate: 17 degrees each direction (2 1/4" each direction)

High Rate: 40 degrees each direction (4 1/2" each direction)

RUDDER:

Low: 20 degrees each direction (3" each direction)

High: 40 degrees each direction (5" each direction)

Pre-flight:

Recheck all electrical connections and fasteners on the aircraft

Make sure that the spinner and propeller have been balanced.

The engine should be properly adjusted and running smoothly and should have a good throttle transition. If the engine isn't running properly don't try flying the plane.

Perform a range check with the engine running. Make sure the range check meets or exceeds the radio manufactures recommendations.

Set the Fail Safe on the radio and the throttle cut per the radio manufactures instructions.

Make sure control surfaces are moving in the proper direction.

Check the batteries to make sure they are fully charged, and re-check the batteries after each flight.

Make sure that you have used thread locker on all nuts and bolts.

We recommend using low rates for the initial test flights.

Have Fun, Enjoy your aircraft, and fly safe.