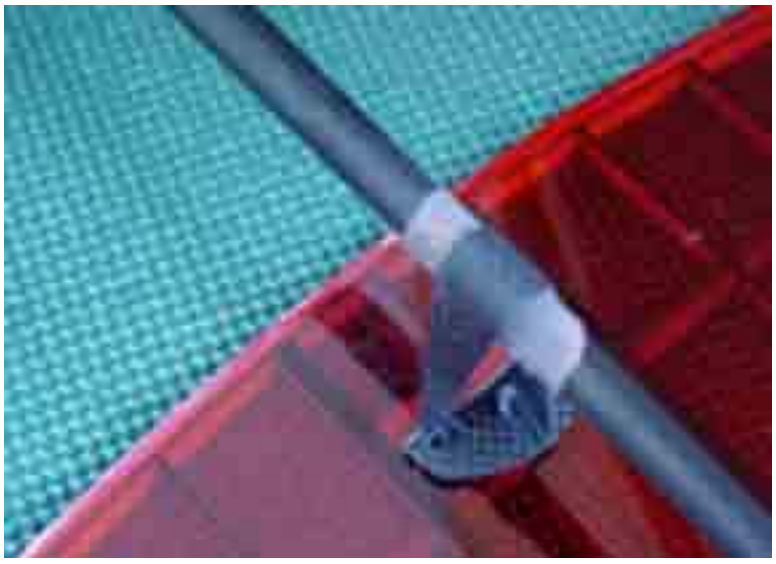
KENNEDY Composites

AVA Building Instructions

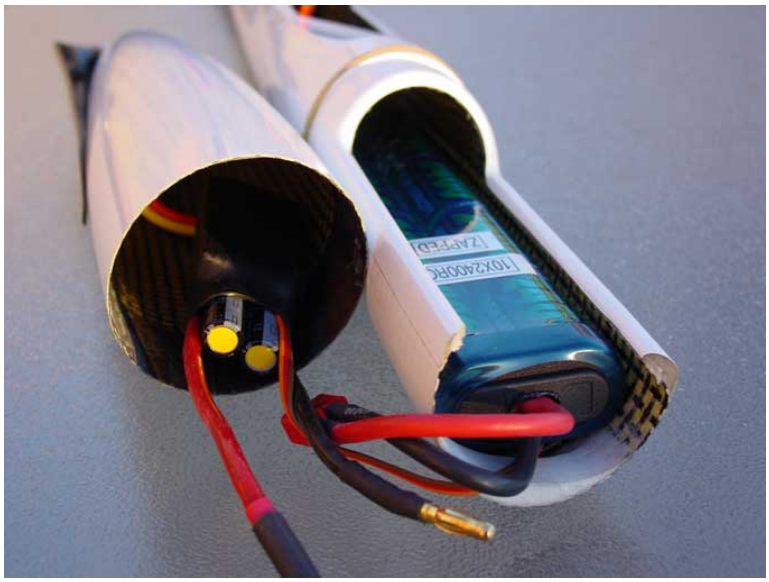
Suggested Assembly Sequence:

1. Insert fittings in rudder and trial fit rudder on boom
2. Attach stab to v-mount and position ahead of rudder ¼", sanding the v-mount as needed.
3. Trial fit servos in rudder. The receiver and battery fit in back of pod behind wing opening.
4. Glue rudder fittings to boom with CA
5. Align stab perpendicular to rudder and glue v-mount with CA
6. Mount center panel on fuselage and glue boom on pod. Mix epoxy and micro balloons and glue boom aligning trailing edge of stab parallel with bottom of wing.
7. Cut Oracover on bottom of wing and install spoiler servo.

Fitting v-mount to boom. The trailing edge of stabilizer should clear the leading edge of rudder by 1/8".



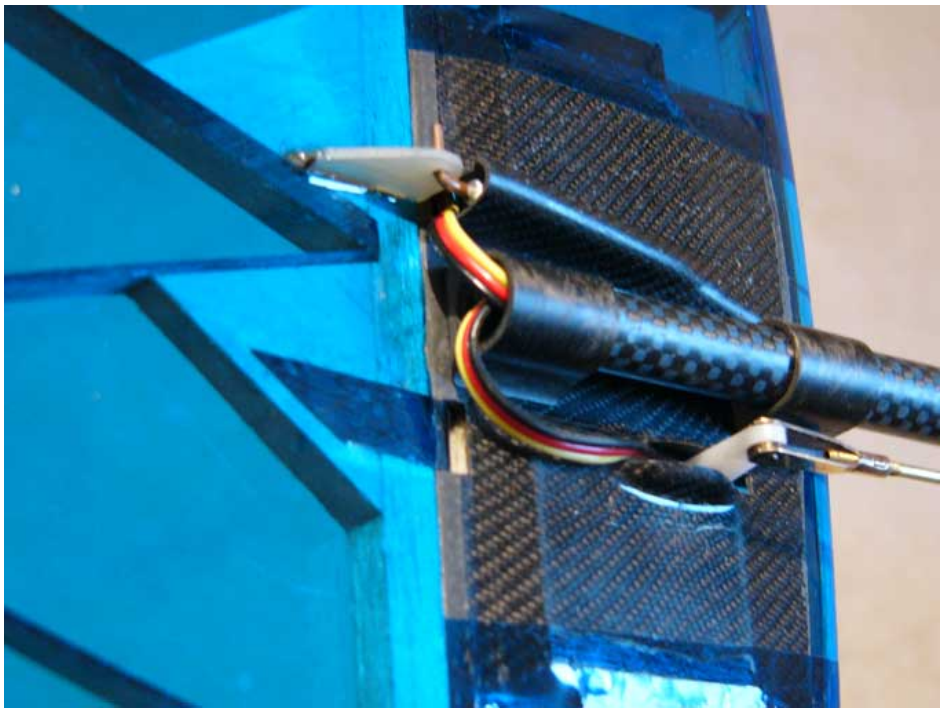
Wrap a layer of 320 wet/dry sandpaper around boom with abrasive side to v-mount. Wet sandpaper and work v-mount around boom gently sanding the v-mount. Check fit on boom frequently for correct placement on boom. The V – mount should be ~ 6" from end of boom to rear side of v-mount.



Locate your radio equipment in fuselage behind the rear wing opening. An optional wiring harness for the rudder/elevator servos is available from Kennedy Composites. Or fabricate you can fabricate your own wiring harness.

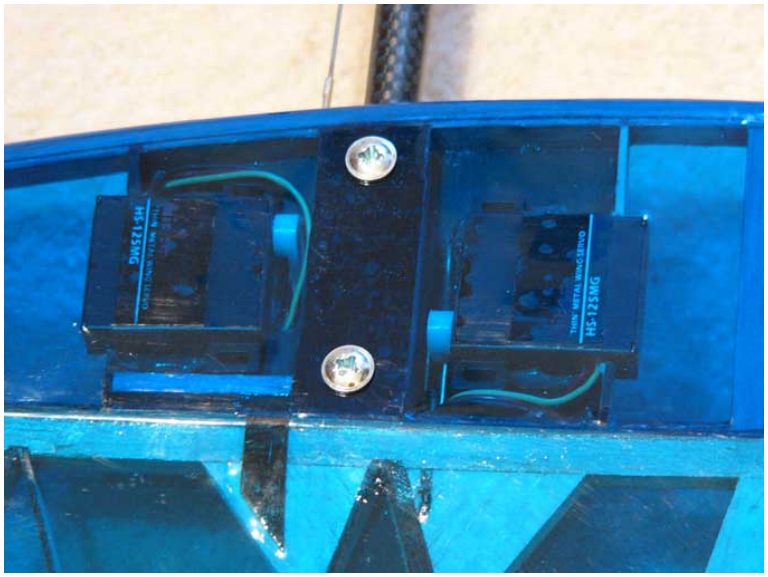
Version A: Fixed rudder. Cut leading edge or rudder for boom. Use hobby knife wrapped with sandpaper for shaping inside cut to match outside radius of tail boom.

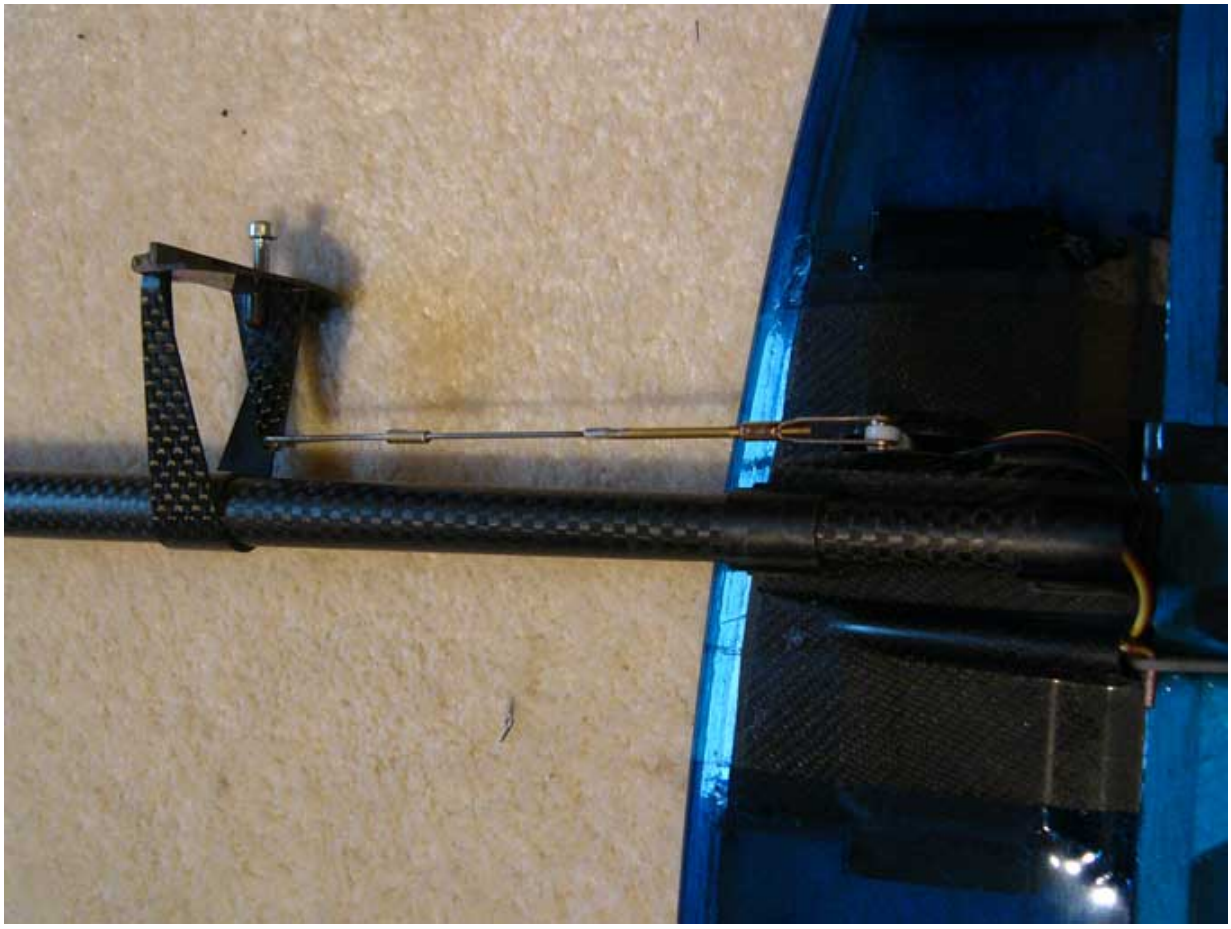
Version B: This version allows the rudder to be easily removed for storage and transport. Use the supplied carbon fittings that slide on boom. The larger diameter fitting goes toward the nose. The back of boom should line up 1/16“ ahead of carbon rudder post. After the rudder horn is installed, notch tail boom for free movement of rudder horn.



The servo leads exit tail boom.

Typical servo installation





V-mount hooked up to elevator servo and rudder servo set up. Note servo wires exiting carbon housing.

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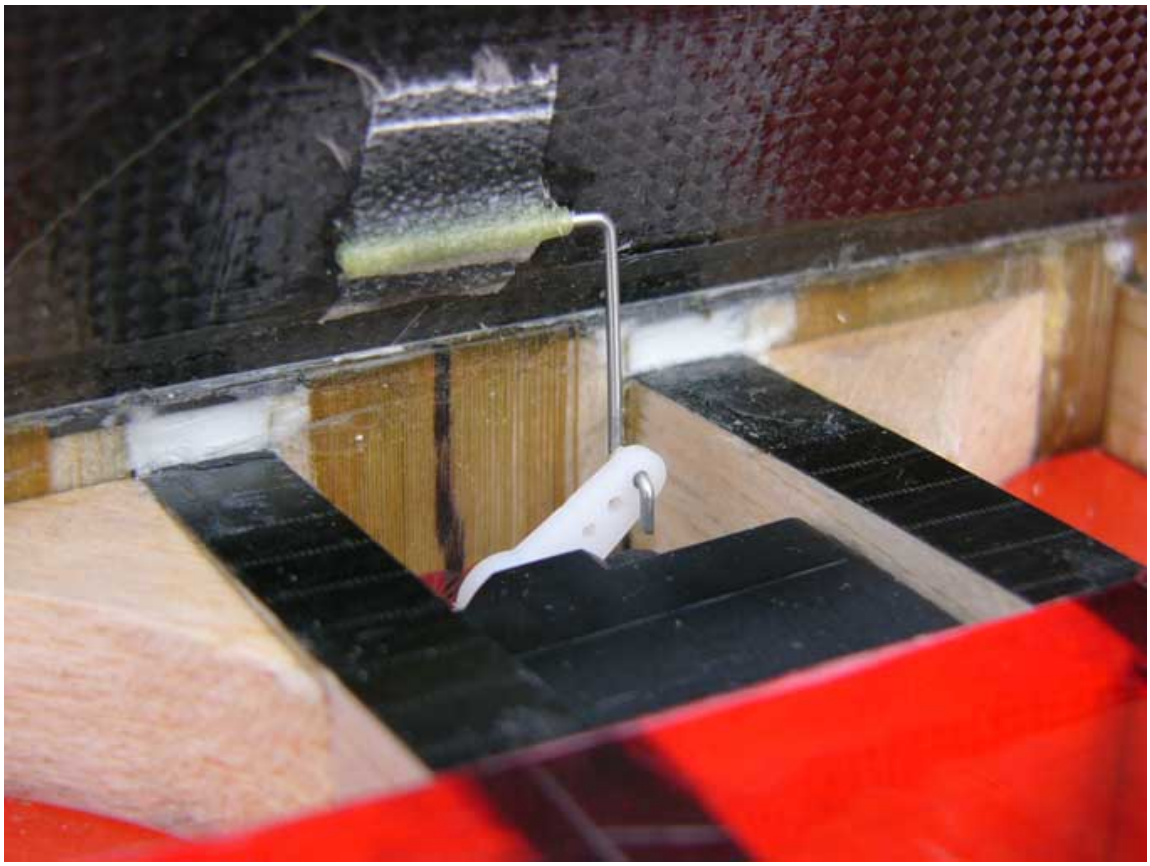
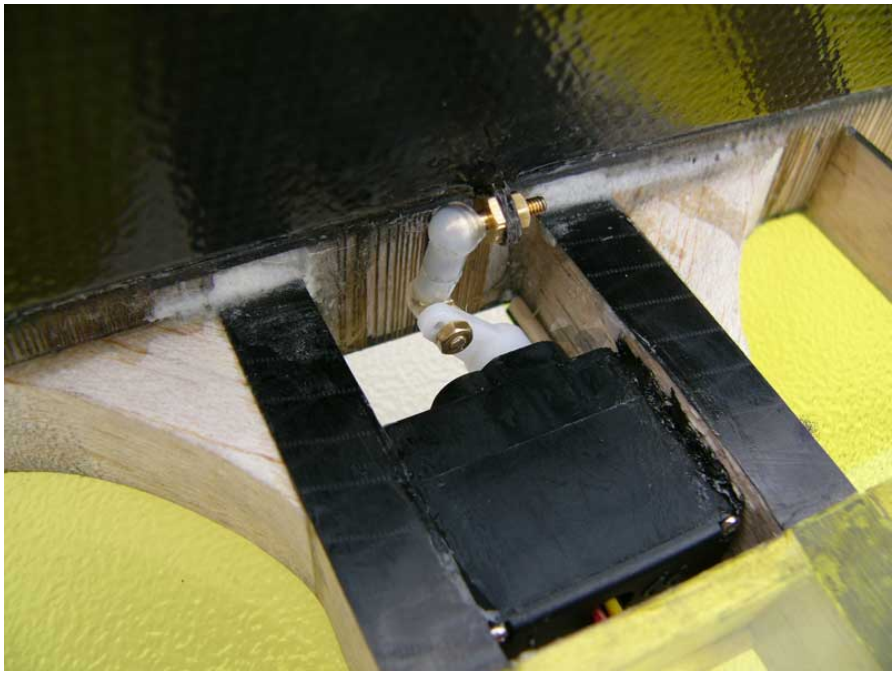
Spoiler installation



Spoiler servo is mounted between the 2 center ribs directly under the spoiler. I cut the tabs off a HS-81 and drill 3 - 3/16” holes in bottom of servo case. Take off bottom of servo case and reroute lead through hole in bottom of case. Glue the bearing directly above servo arm and reinforce with a small piece of fiber glass. Measure the correct length in wire form servo arm to spoiler. The Z bend goes into spoiler servo and then bend a right angle in wire that inserts into bearing.

Optional spoiler installation



Parts for the optional installation are not provided but are available from local hobby shop. Two ball links and a short piece of threaded rod are needed. Note servo wire exiting bottom of case.

Tips

To set up decalage, mount center wing section and stabilizer. Hold model from the rear and set the imaginary line that goes through trailing edge and leading edge of stabilizer parallel with bottom of wing.

Cant the elevator servo arm forward 15 ° for more up elevator throw.

Install a shorting plug on nose cone for safety A Deans no. 1301 is shown .

Suggested balance, control throws and mixer

Balance: 400 mm or ~ 4“ from leading edge for both glider and elec.

Rudder throw: + / - 2“ each way.

Elevator throw: + ¾ “ - ½ “

Spoiler: 7/8” up measured at trailing edge of spoiler

Elevator mix: Up elevator to spoiler 70 %

Decalage: Align centerline of stabilizer with bottom of wing