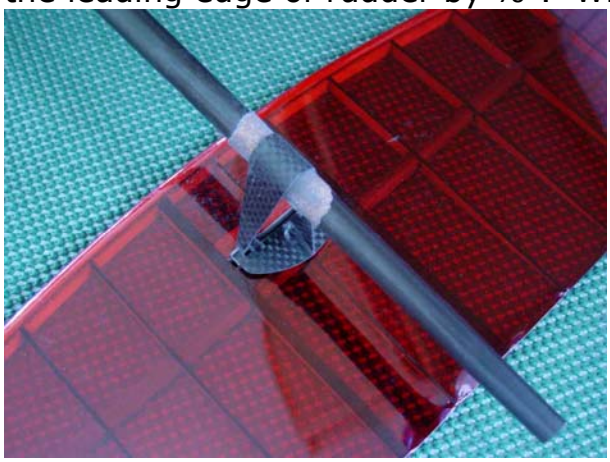
KENNEDY Composites

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, receiver and battery in pod. Decide on details of pushrod installation, internal, external or combination.
4. Cut opening and epoxy in tow hook.
5. Install pushrods your favorite method.
6. Glue rudder fittings to boom with CA.
7. Align stab perpendicular to rudder and glue v-mount with CA
8. 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.
9. Cut a hole for the optional ballast tube and epoxy in fuse.
10. Cut Oracover on bottom of wing and install spoiler servo.

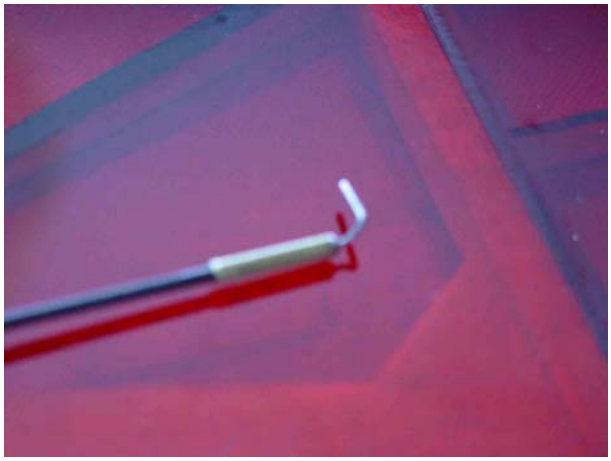
Fitting v-mount to boom. The trailing edge of stabilizer should clear the leading edge of rudder by ⅛". Wrap a layer of 320 wet/dry



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.

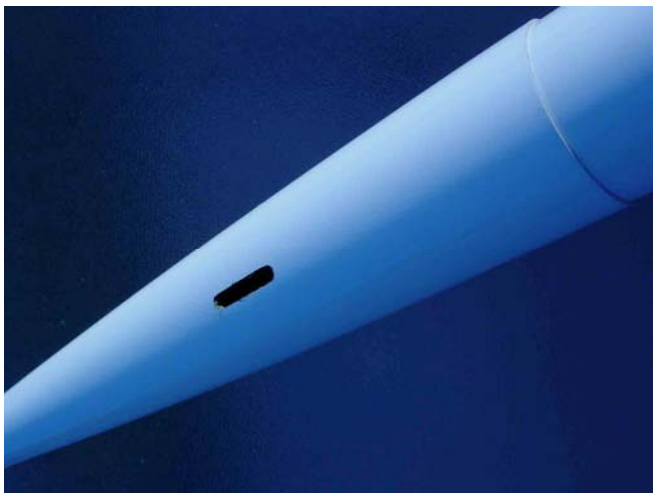
Version A. Push rods are designed to run internally in boom. The rudder pushrod exits midway between hinge line and leading edge of rudder for version A. The elevator pushrod exits ½" in front of and off center the boom.

Elevator connector is a piece of 0.030 music wire soldered into a 1/16” dia. brass tube which is slipped over the carbon pushrod.



Version B: uses the carbon fittings that slide on boom and rudder and elevator push rods run down outside the boom.

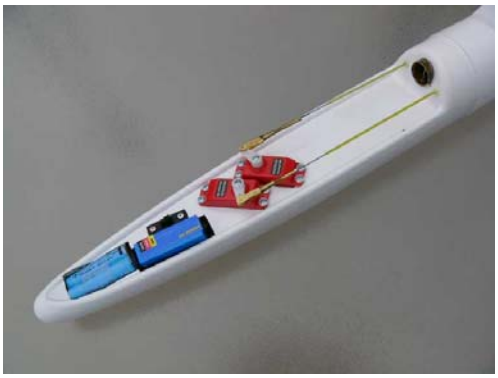
New Teflon pushrods housing are included for running externally on boom. This method allows tighter controls set up and ease of installation. The Teflon housings have been etched so they are glue able. Elevator connector is a piece of 0.030 music wire soldered into a 1/16” dia. brass tube which is slipped over the carbon pushrod. Version B uses the carbon fittings that slide on boom.



The backside of tow hook is 18” from nose. This is measured with nose cone on. The hole for tow hook is 3/16” by 1 1/8“ long. Lightly epoxy tow hook in place.

Locate your radio equipment on fuselage deck keeping the servos approximately ½ forward on flat deck. Cut the appropriate holes for batteries, servos and receiver.

The optional Kevlar ballast tube is located between pushrods on rear bulkhead.



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.

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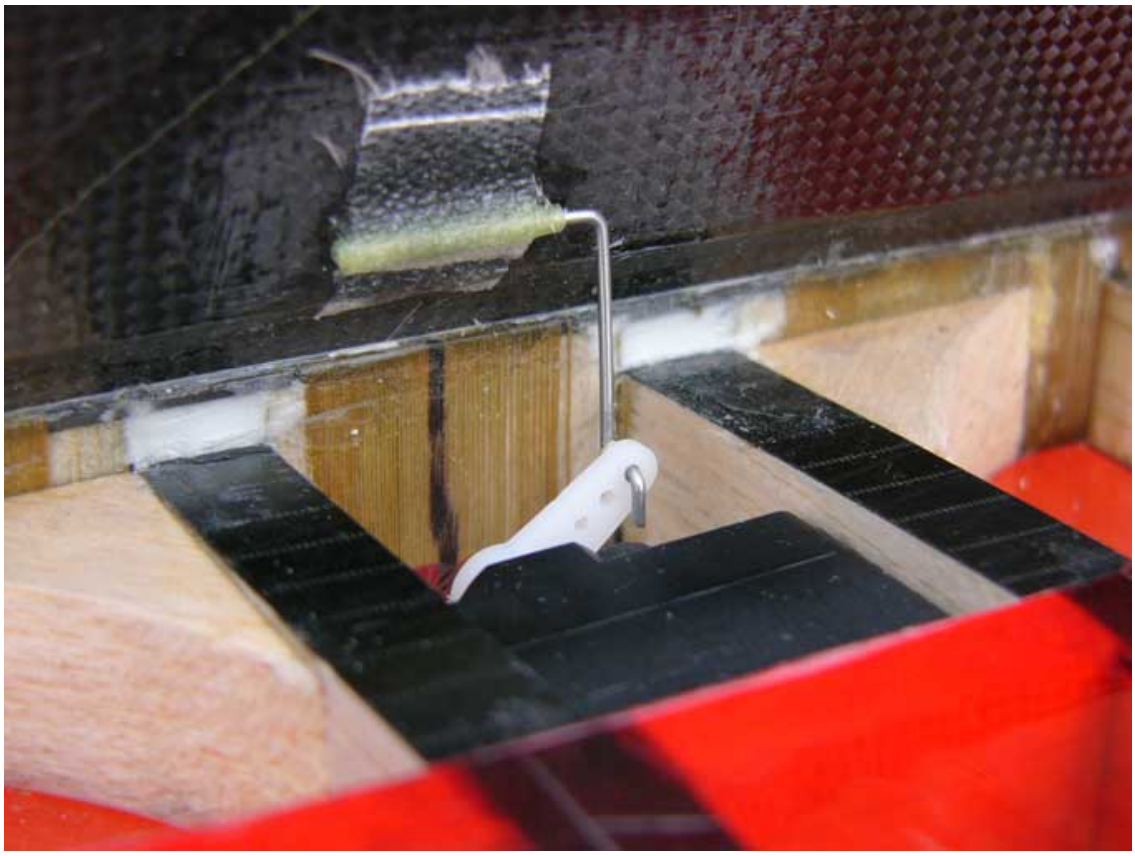
Spoiler installation



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 fiberglass. 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.

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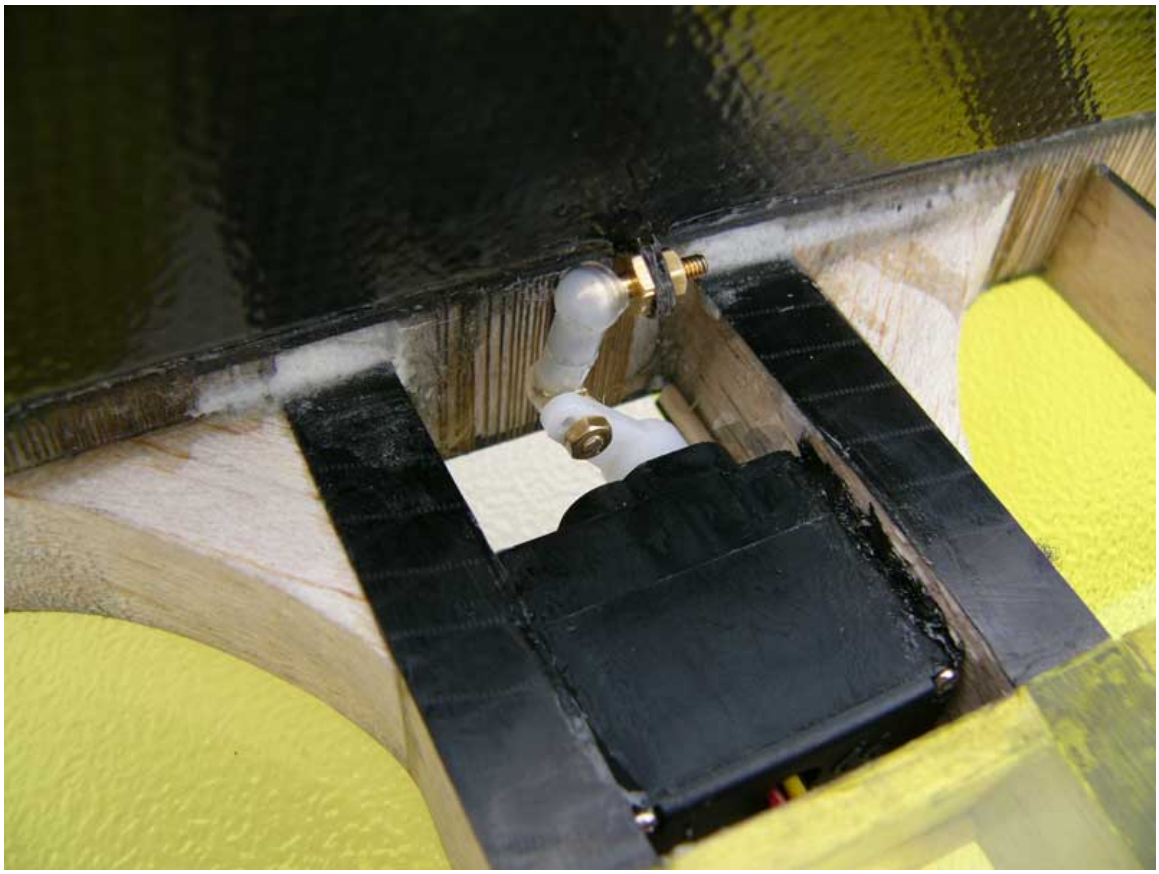
Optional spoiler installation

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. The shank on ball links need to be shortened. Note the servo leads exiting bottom servo case.



Tips

Tow hook can be located back from nose 18-1/8” for aggressive launching. This measurement is to rear side of tow hook. For initial launches move adjustable tow hook ¼” forward. When you are comfortable launching at this point, move tow hook rearward to fit your flying style.

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 degrees for more up elevator control throw.

Suggested balance, control throws and mixer

Balance: 400 mm or ~ 4“ from leading edge of wing

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 % mix.

Decalage: Align centerline of stabilizer parallel with bottom of wing.