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INSTALLATION OF GLO-ENGINE AND FLIGHT INSTRUCTIONS

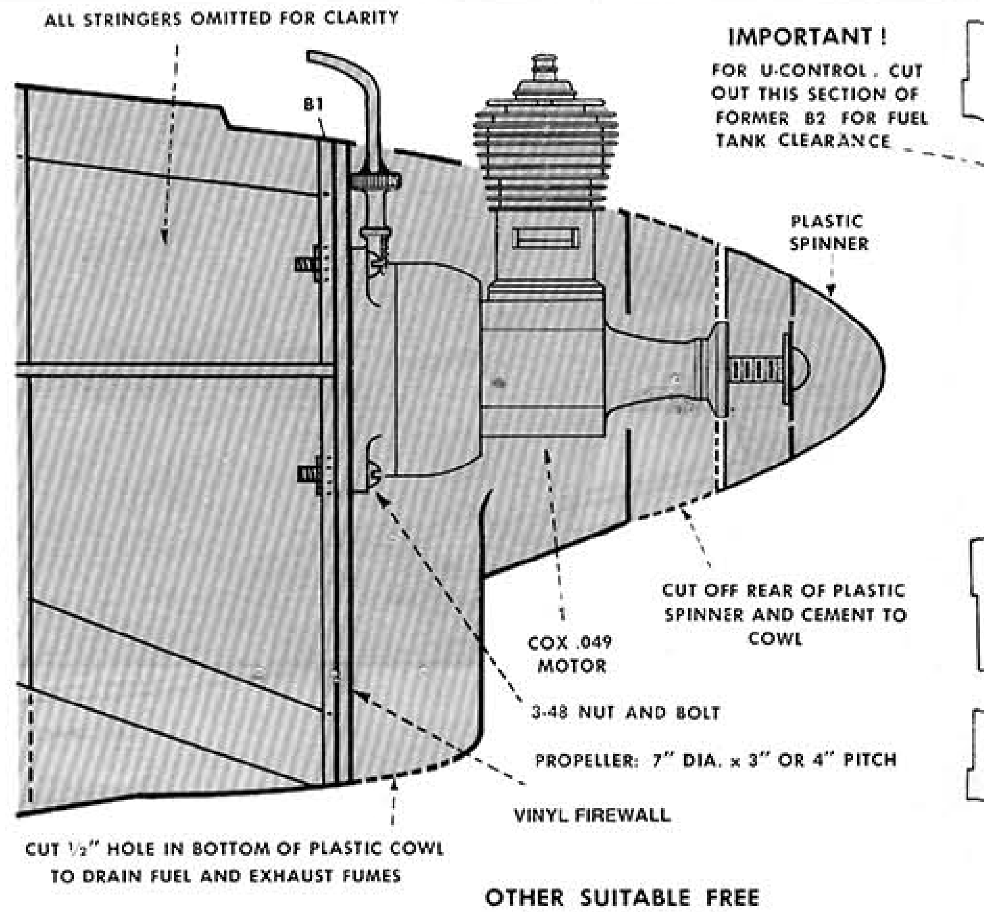
Sand the plywood firewall smooth and drill the four motor bolt holes with a 3 32" drill. Mount the motor to the firewall with ½" long No. 2 bolts and nuts. (Available at your hobby store). Thoroughly cement the nuts to the firewall. When dry, remove the motor and cement firewall to front of the model. The firewall area should be thoroughly doped before the motor is installed. If the plastic cowl is used, make cutout for motor cylinder, propeller shaft, venturi and needle valve. Add extensions of plastic tubing to the filler and overflow tubes on the tank. Also use a piece of plastic tubing as a needle valve extension. All these extensions must go through holes in the cowl. Locate and cut holes in the cowl for extensions and also cut a hole in the bottom of the cowl for oil drainage. Do not add clay to the inside of the cowl. The motor should be installed, extensions added and cowl cemented in place before painting.

1. Balance model as shown on plans by adding clay weight to the nose or tail.
2. Test glide the model as explained in "Adjusting and Flying the Model-Rubber Powered."
3. The propeller should either be installed backwards (with the flat of the blade forward) to reduce the thrust for testing or the venturi should be partially plugged with a sliver of wood placed between the inside of the venturi and the forward part of the needle valve body to reduce the power.
4. Using very short motor runs (10 seconds or less) launch the model gently into the wind. Correct any tendency to turn sharply to the left with small amounts of "right rudder" and correct any excessive climbing by small amounts of "down" elevator.
5. After the first flights with reduced power, increase the thrust by removing wood sliver and proceed to flight test still maintaining short motor runs. Continue to adjust model until it flys under power with a gentle climb and a large circle to the left. When engine quits, the model should then glide in a circle to the right. At no time should you ever completely fill the fuel tank since a properly adjusted model with a full tank of fuel will inevitably fly away and be lost. A 10 to 20 second motor run is usually ample for thrilling sport flights.

ALL "K" PLYWOOD PARTS HAVE BEEN REPLACED WITH WHITE VINYL PARTS

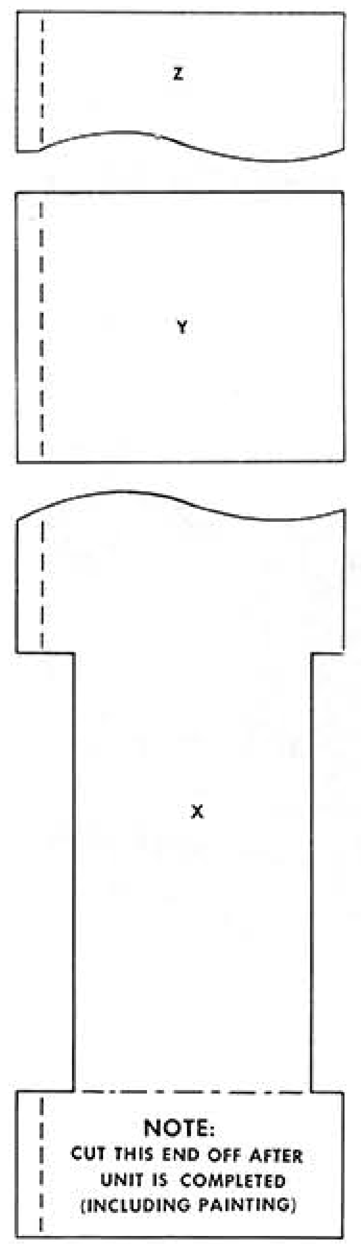
IMPORTANT NOTE ON PAINTS AND ADHESIVES

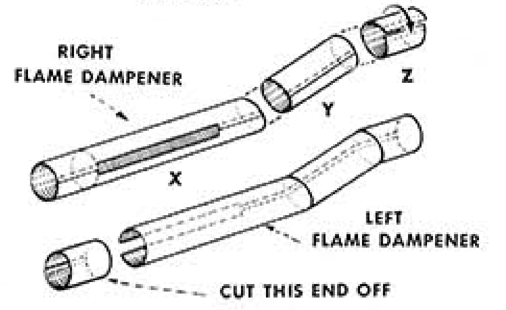
DO NOT USE CLEAR DOPE OVER THE DECALS BECAUSE IT WILL DAMAGE THEM. AFTER THE MODEL IS DOPED APPLY THE DECALS THEN A CLEAR FUEL PROOF ENAMEL FINISH AVAILABLE AT YOUR HOBBY SHOP. WE RECOMMEND THE USE OF PLASTIC CEMENT FOR BONDING PLASTIC PARTS TO BALSA WOOD. USE WOOD CEMENT FOR BONDING BALSA WOOD PARTS TOGETHER.



OTHER SUITABLE FREE FLIGHT ENGINES

FOX - .049 FAI
COX - RR-1
FOX - .07
K&B - .049
CUB - .049





FLAME DAMPENER

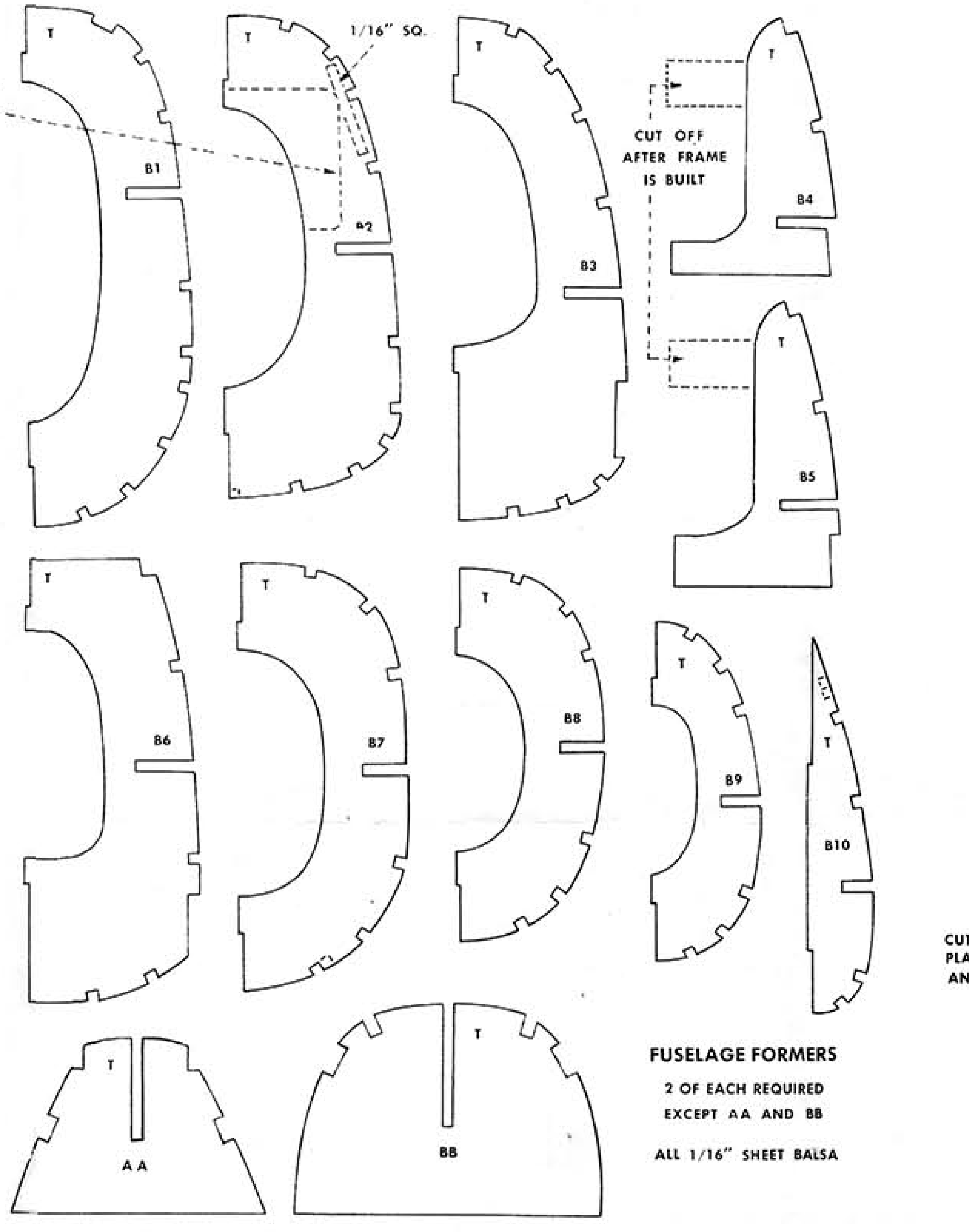
(OPTIONAL)

2 REQUIRED, 1 LEFT, 1 RIGHT

MAKE FROM STIFF PAPER OR VERY LIGHT CARDBOARD (MATERIAL NOT FURNISHED IN KIT) CURL PARTS OVER A DOWEL OR PENCIL AND MAKE TUBES AS SHOWN. CEMENT TUBES TOGETHER TO MAKE COMPLETED UNIT.

IMPORTANT!

FOR U-CONTROL. CUT OUT THIS SECTION OF FORMER B2 FOR FUEL TANK CLEARANCE

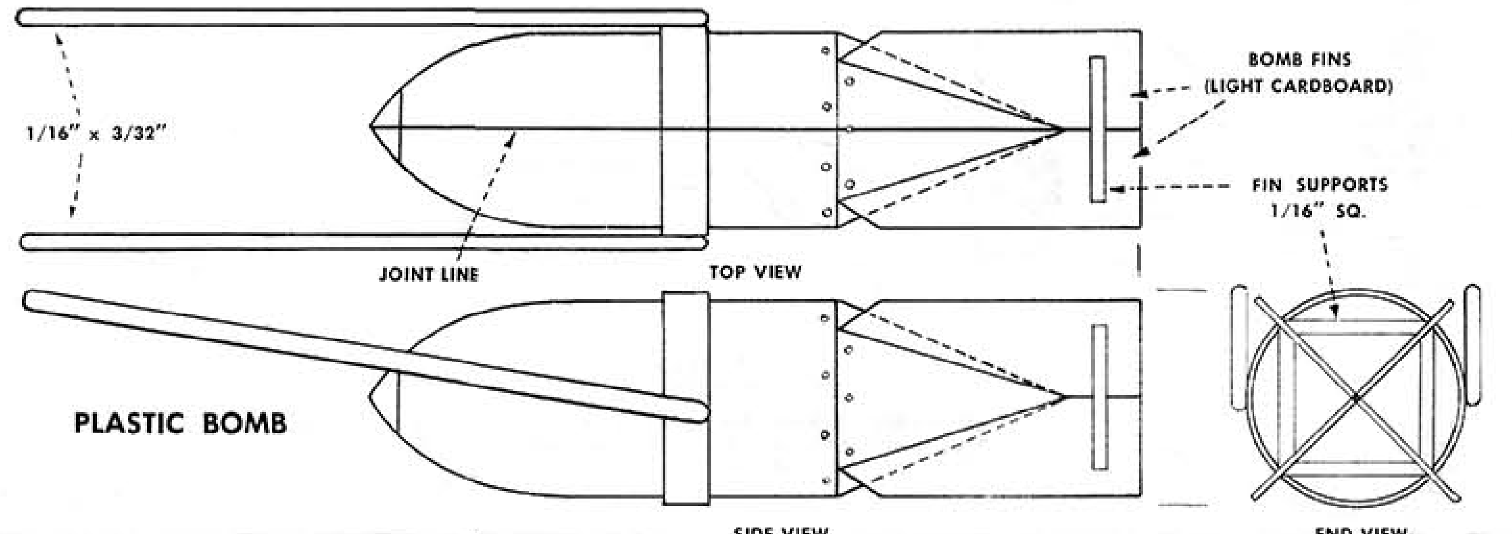


FUSELAGE FORMERS

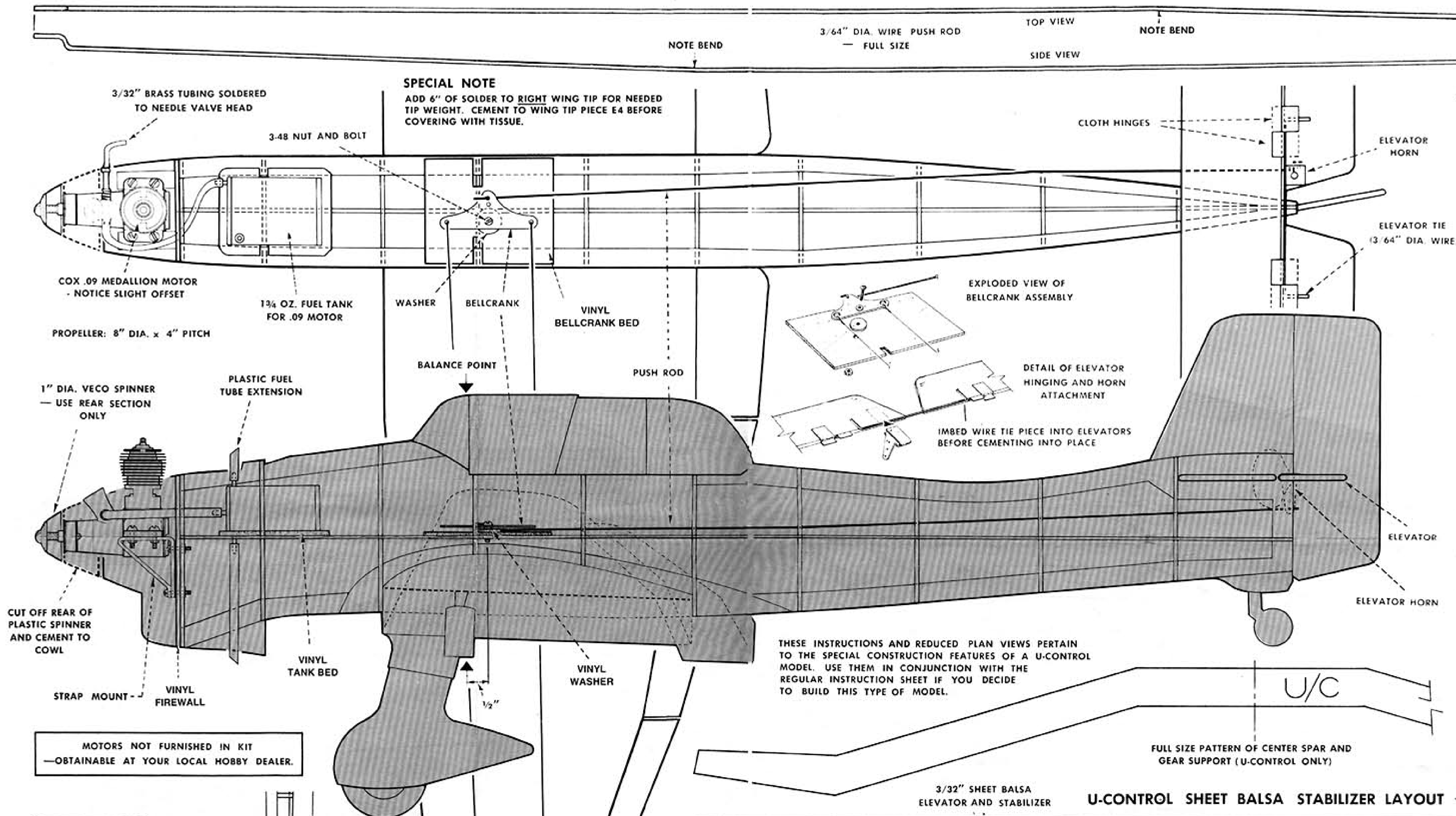
2 OF EACH REQUIRED EXCEPT AA AND BB

ALL 1/16" SHEET BALSA

THE PATTERNS FURNISHED HERE ARE FOR REFERENCE ONLY — USE FOR TRACING IN CASE OF LOSS OR DESTRUCTION OF DIE-CUT BALSA PARTS



PLASTIC BOMB



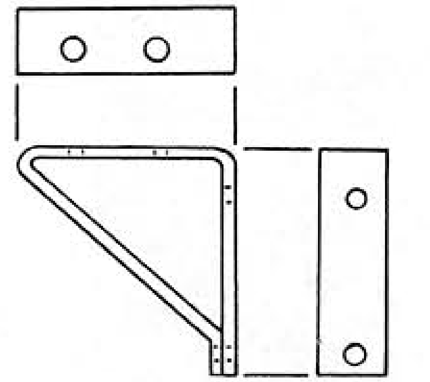
SPECIAL NOTE

ADD 6" OF SOLDER TO RIGHT WING TIP FOR NEEDED TIP WEIGHT. CEMENT TO WING TIP PIECE E4 BEFORE COVERING WITH TISSUE.

THESE INSTRUCTIONS AND REDUCED PLAN VIEWS PERTAIN TO THE SPECIAL CONSTRUCTION FEATURES OF A U-CONTROL MODEL. USE THEM IN CONJUNCTION WITH THE REGULAR INSTRUCTION SHEET IF YOU DECIDE TO BUILD THIS TYPE OF MODEL.

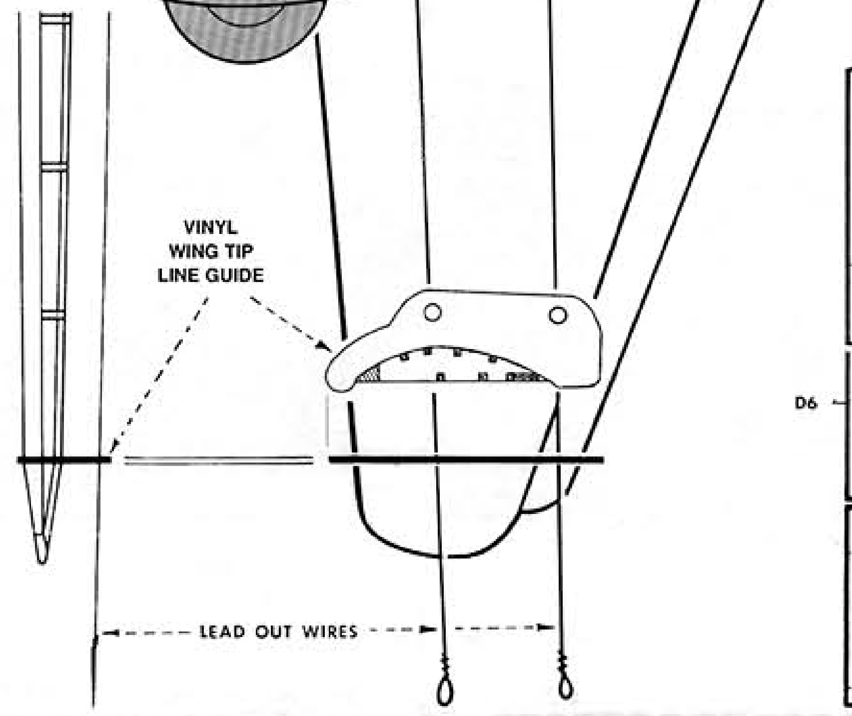
FULL SIZE PATTERN OF CENTER SPAR AND GEAR SUPPORT (U-CONTROL ONLY)

MOTORS NOT FURNISHED IN KIT —OBTAINABLE AT YOUR LOCAL HOBBY DEALER.

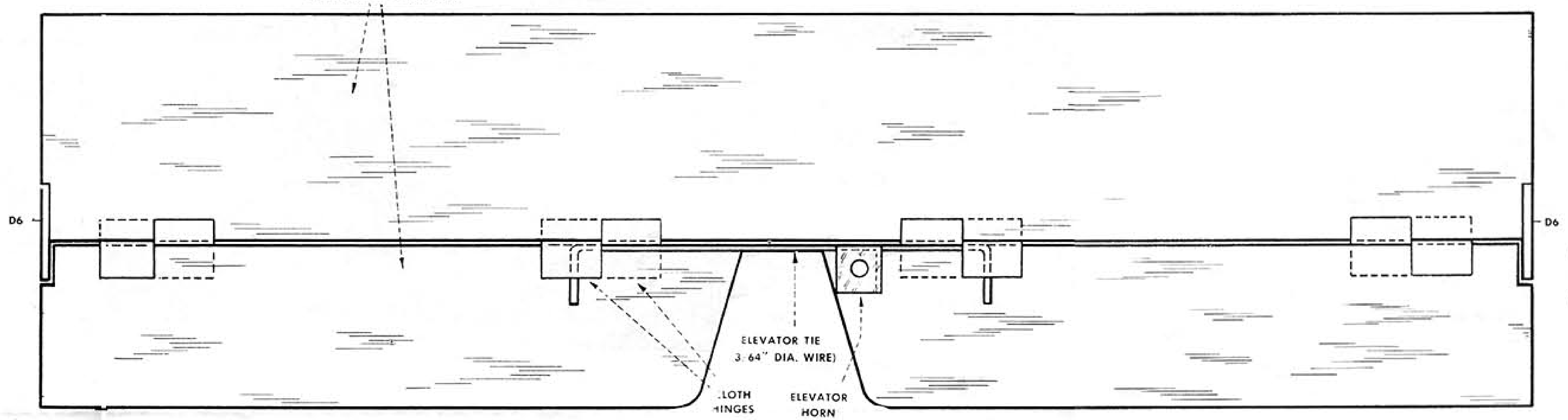


STRAP MOUNT FOR COX .09 MEDALLION MOTOR

MAKE FROM SHEET ALUMINUM 2 REQ. (MATERIAL NOT SUPPLIED IN KIT).



U-CONTROL SHEET BALSA STABILIZER LAYOUT — FULL SIZE



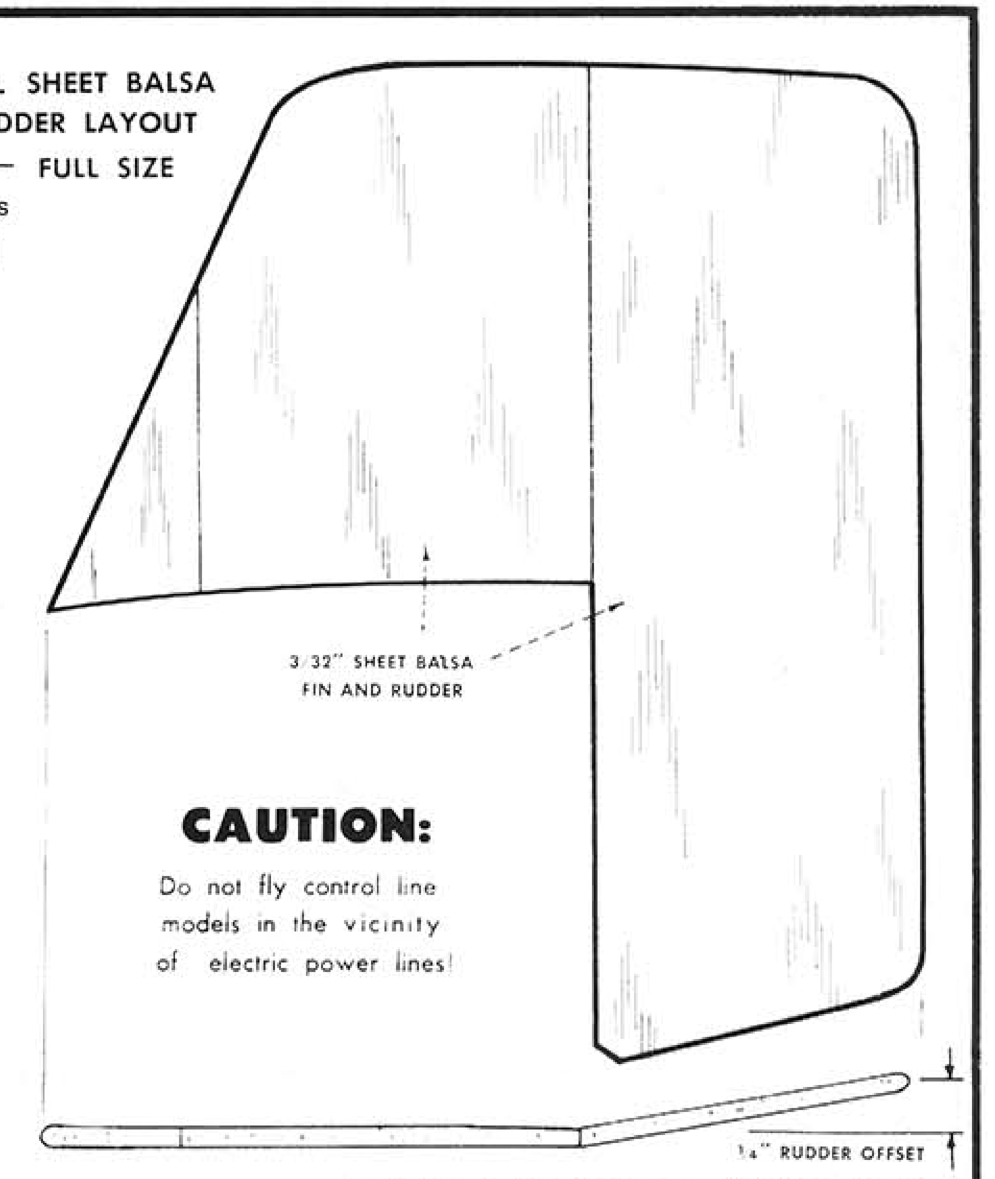
ALL "K" PLYWOOD PARTS HAVE BEEN REPLACED WITH WHITE VINYL PARTS

U-CONTROL INSTALLATION

— OPTIONAL

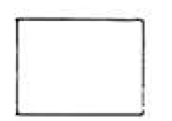
1. Drill a 3 32" hole in 1 16" plywood bellcrank bed and plywood washers. Trim former "B2" to dotted lines as shown on former templates at left.
2. After completing step 2 of "Building the Fuselage Frame," cement the bellcrank bed into position on top of side keel "A" before continuing onto step 3. When the other side of keel "A" is cemented into place, it is also cemented to the plywood bellcrank bed. Add the plywood fuel tank bed.
3. Bend the wire push rod to fit the drawing on the plan.
4. Either tie nylon string to the bellcrank to act as "lead-outs" or use .025 music wire (obtainable at your hobby store). Leave the "lead-outs" a few inches longer than needed at this time.
5. With the push rod in the bellcrank hole and the "lead-outs" on the bellcrank, slip the rod through all the formers towards the rear and out the fuselage side as shown on the drawing. Also slip the "lead-outs" out between the formers. Place the plywood washer on the bellcrank bed and bolt the bellcrank into place.
6. Proceed to finish the fuselage as you would for the rubber powered model.
7. Drill 4 strap mount bolt holes in the firewall. Bolt the mount into place as shown. If other motors are used, drill holes to fit the particular motor and cement nuts at rear of firewall. When cement is dry, remove motor and cement plywood firewall to nose of fuselage. Install the fuel tank as follows: drill ⅛" hole through firewall for fuel line. Add fuel line and filler tube extensions as shown and cement tank into place on plywood bed.
8. It is not necessary to sheet balsa the fuselage but its recommended for a stronger model.

U-CONTROL SHEET BALSA RUDDER LAYOUT — FULL SIZE



CAUTION:

Do not fly control line models in the vicinity of electric power lines!



FULL SIZE CLOTH HINGE 6 REQUIRED

Using the 1 20" sheet balsa furnished, fill in fuselage areas between formers and stringers back to the wing center section. After all the sheeting has dried, proceed to finish and cover the fuselage as per instructions on "Covering the Frames and Doping Model."

9. Install the motor and plastic cowl as per "Installation of Glo-Engine" instructions.
10. Make the stabilizer for the U Control model as shown on the full size drawing as follows: Using the material furnished, make up the elevator and wire tie piece. Cement the two elevators together with the wire tie piece and cement the horn into position. Hinge the elevator to the stabilizer as shown and then cover the stabilizer with tissue.
11. After the final doping, slip the push rod into the horn and cement the stabilizer to the fuselage.
12. The wing is built as instructed in "Building the Wing Frame." After covering and doping, drill the two 3 32" holes in the plywood line guide and cement onto the wing at tip in the position shown on top view of model. The opposite or outside wing requires weight at the tip to compensate for the drag of the flying lines. See note.
13. The model can now be painted and finished as per the instructions on "Painting the Model."
14. Tie or bend loops on the end of the nylon or wire lead-outs with about 2" hanging over the tip of the wing. Add the gas engine propeller and plastic spinner (obtainable at your hobby store). Balance the model as shown with clay. Use the nylon lines and handle furnished in the kit making the lines about 35 feet long for best flying results.