

Super Curare™

Quality Line Kits

Building Instructions

Congratulations! You have become the owner of one of the finest pattern aircraft ever designed. It is winning the top pattern contest world-wide!

EPOXY FIBERGLASS PARTS:

The fuselage is made of a special light weight epoxy and fiberglass cloth. Epoxy glue should be used when gluing anything to it. Hobby Foxy Formula I and Devon 5 Minute Epoxy has proven to work very well along with other comparable brands. The fuselage should be cleaned with acetone and sanded before assembly.

The **Curare** has been designed to take advantage of the new generation radios that are capable of mixing elevator and flaps. This set up is shown on plans. If you do not wish to use flaps then glue trailing edge on out to where the aileron begins. Using flaps and spoilers necessitates more servos in the wing, which requires a larger cut out. In this case we recommend using the optional wing brace.

WING:

There are very important things to remember about the wing to keep it straight, strong and light:

1. Prepare the sheets of 3/32 x 4 balsa by joining the skins for top panels together with zap. Note the angled pieces you cut off will be used for the bottom wing-skins. Sand these smooth with a sanding block being careful not to sand off too much. Lightly sand foam cores where needed. Vacuum both cores and balsa sheets.
2. Sheeting may be applied with any contact cement that does not attack foam. Spray one wing skin and one side of foam core with spray adhesive (3M-77 a good choice). Allow it to dry until it is no longer wet to the touch (approximately 15 minutes).
Place core back in the foam packing block for support and lay skin on the core smoothing it out evenly with your hands. Repeat process until all form sides of cores are sheeted. Place cores back in packing blocks on a flat surface and put weights on top. Allow to dry over night if possible.
3. Trim the balsa sheeling flush with the leading and trailing edge of the foam core. Epoxy the 1/2x1 balsa leading edge and the 1/4x5/8 trailing edge to the cores. Glue the balsa trailing edge to the wing. If flaps are to be used, then only two 2-3/8" pieces will be used. See plans for flap details. Carefully mark the exact center line on cores, draw a center line on Balsa Leading Edge.
4. Use a plane or rasp to get leading and trailing edges roughly to shape. Use sanding block to finish sanding wings. See plans for leading edge shape.
5. Joining the wing panel. The wing panels are joined with each tip blocked up to 1 -5/8". Use 5 minute epoxy to join the panels together. *Be sure* the panels are properly aligned. Remember to cut holes in cores for servos and retract lines or push rods before joining. See instruction #17.
6. **Installing the Wing Hold-Downs.** To assure that the wing is properly aligned to the fuselage before the hold-downs are installed, you have some measuring to do. Put the fuselage in place on top of the wing on your workbench. Measure the distance from the wing tip to the fuselage side for both wing panels. It should be the same. Measure the distance from the T.E. of the wing tip/wing panel point to a point on the center of the tail of the fuselage for both wing panels to assure they are the same; that the wing is straight. Mark the location of the fuselage on the wing.

Turn the fuselage/wing upside down and mark the location of the 3/4" hardwood dowels to be drilled and installed into the wing. They should be located such that they are just inboard of the wing saddle and immediately behind the balsa leading edge. See the plans.

15. **Cleaning Up the Fuselage.** Wash down with acetone. Any imperfections in the fuselage can be filled with Hobbypoxy Stuff, auto body putty, etc.

16. **Installing Servo Rails.** Hardwood servo rails (not supplied) should be epoxied in the fuselage. Apply small pieces of cut up glass cloth for extra strength.

INSTALLATION OF RETRACTS. The **CURARE** will accept most retracts available. Brown's Southern R/C, Rhom, Giezendanner, I.M. Products.

We have not included landing gear wires, blocks or related accessories, for fixed gear use. Our survey shows that most of the pattern kits built, use retracts. Leaving these out has enabled us to keep the kit price lower. We do have the fixed landing package available for \$4.75 for those that require them.

17. **The Main Landing Gear Mounts.** To install the mounting plate for retract gear, prepare the 1/4 ply plate (not supplied in the kit) as shown on the plans. Mark and cut out the foam, just enough to set the plate down into the wing so the retract mechanism mounting flange will be flush with the balsa skin. Relieve the foam in the area between the arms of the plate as necessary to accept the retract mechanism. Glue the plate in place using epoxy. For added strength, drill a hole in each of the four corners of the plate and insert a wooden dowel down into the foam. Seal the exposed foam with epoxy or a coat of white glue.
Do not add the main gear struts yet.

18. **Installing the Nose Gear.** Cut out the necessary area on the bottom of the fuselage. The nose gear strut should be cut to length so the wheel will fold back short of the wing as shown on the plans. In this way the cut out area will stop short of the vertical piece of glass in the bottom of the fuselage just forward of the wing saddle. This piece is necessary to strengthen the fuselage sides.

19. **Installing the Main Gear Struts.** To install retract gear first mount the wing onto the fuselage. Bring the nose gear strut down and put a 2" wheel on it. Block up the plane so it rests in a slightly positive angle. Measure and cut both main gear struts so the plane will be in this position with the wheels down when the 2-1/4" wheels are installed. Install the struts into the retract gear mechanism to determine where the wheel well is to be cut out. Seal the foam inside the wheel well with some 5 Minute Epoxy or white glue.
The aileron and flap servo well can now be cut into the wing and servo rails added.

20. **Locating the CG.** All radio equipment, fuel tank, and the engine can now be installed.
While the specific location of the CG on a contest pattern ship is a matter of personal preference, we recommend locating it as shown on the plans.

DELUXE

PARTS LIST

Rudder		Fuselage	
1 each	..... Rudder	1 each	..... Epoxy Glass Fuselage
1 each	..... Rudder Guard	1 each	..... Firewall
1 each	..... Rudder Post	1 each	..... Front Wing Hold-Down Plywood
		1 each	..... Rear Wing Hold-Down Plate 1/8 Ply
		1 each	..... Rear Wing Hold-Down Block

Horizontal Stabilizer

2 each	..... Leading Edge		
1 each	..... Trailing Edge		
2 each	..... Tips		
6 each	..... Sheeting		
2 each	..... Elevator		
2 each	..... Foam Core		

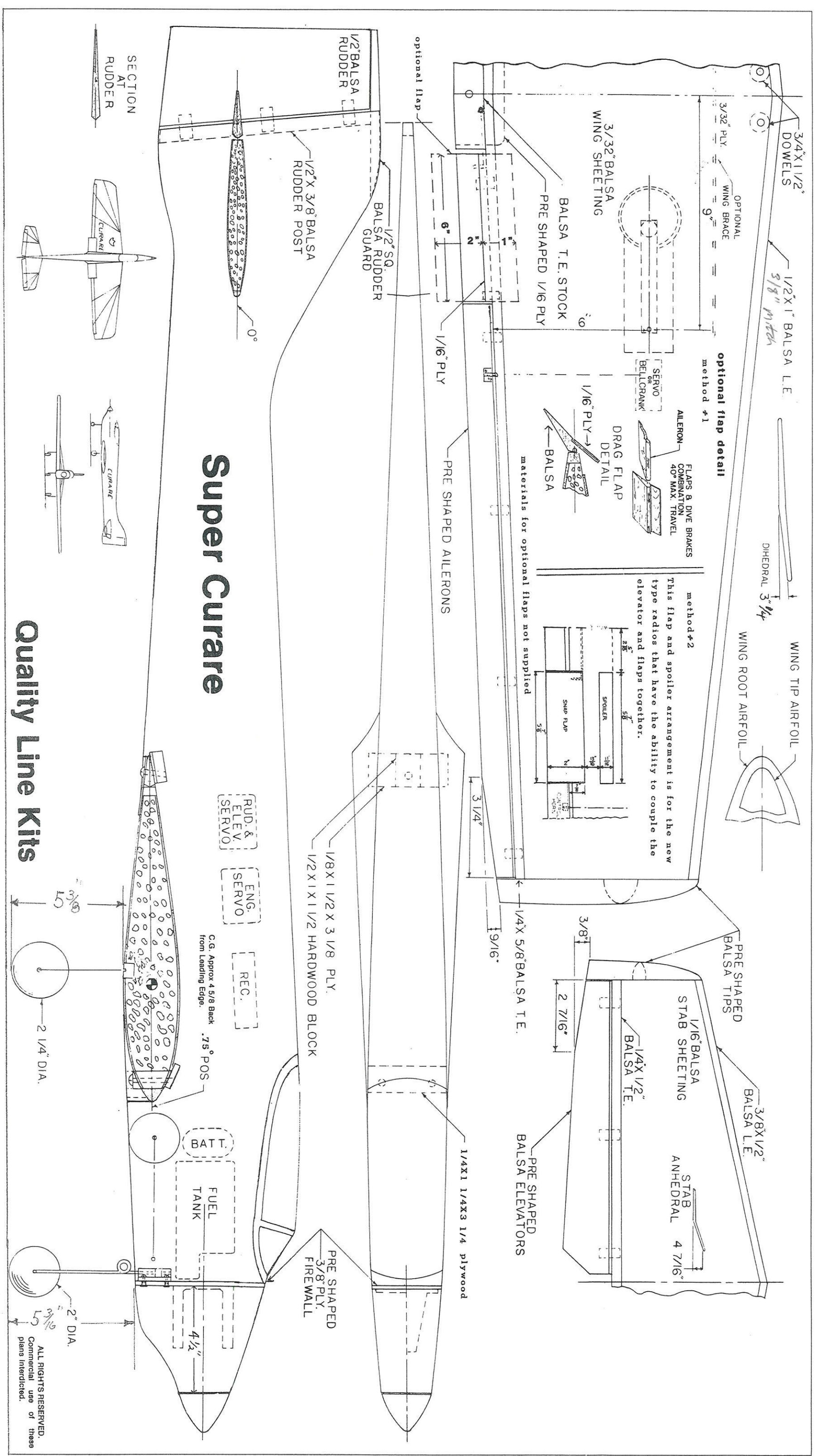
Wing

2 each	..... Foam Core		
2 each	..... Leading Edge		
2 each	..... Trailing Edge		
2 each	..... Aileron Center Section		
2 each	..... Aileron		
1 each	..... Plywood Rear Hold-Down	1 each	..... Epoxy Glass Fuselage
10 each	..... Wing Sheeting	1 each	..... Form Wing Core
		1 each	..... Stab Core

BASIC

PARTS LIST

1 each	..... Rudder Horn with Screws
2 each	..... Left and Right Elevator Horn
17 each	..... Hinges
2 each	..... Fiberglass Tape
3 each	..... Nylon Bolts



SUPER CURARE FULL SIZE FOR WOOD PARTS

OPTIONAL WING BRACE 3/32" plywood

WING TIP SIDE VIEW

WING TIP TOP VIEW

wing

fairings

rear nylon
bolt block

front wing support

hardwood

tank floor 1/16" plywood

FLAP 7/16 Balsa

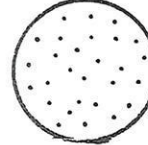
FLAP 1/16 PLYWOOD

hold down plate
under wing
1/16 plywood

1/8" balsa
one required

1/8" balsa
two required

1/2" x 1 1/8"
hardwood



FUSELAGE REAR POST 3/8"x1/2"

TOP RUDDER GUARD 1/2X1/2X5 1/2

STAB TOP VIEW

STAB TIP SIDE VIEW

3/8" PLYWOOD FIREWALL

front hold down plate
1/4 plywood

rear hold down plate
1/8 plywood

RUDDER 1/2" Balsa

AILERON CENTER SECTIONS 8 3/4"

AILERONS 23" O.A.L. FOR 60 SIZE 18" FOR 40 SIZE

ELEVATORS 1/2" Balsa

NOTE:

BEVEL
AILERONS
ONLY

