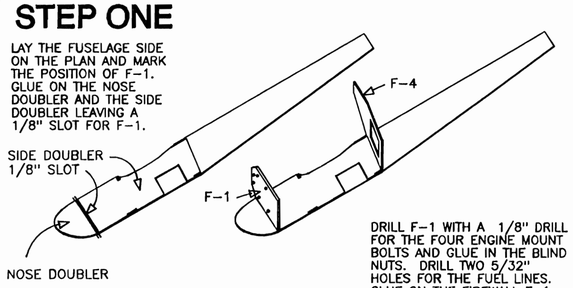
STEP ONE

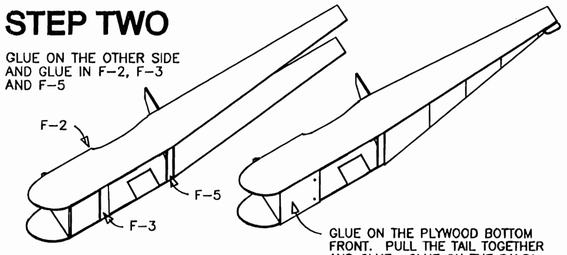
LAY THE FUSELAGE SIDE ON THE PLAN AND MARK THE POSITION OF F-1. GLUE ON THE NOSE DOUBLER AND THE SIDE DOUBLER LEAVING A 1/8" SLOT FOR F-1.



DRILL F-1 WITH A 1/8" DRILL FOR THE FOUR ENGINE MOUNT BOLTS AND GLUE IN THE BLIND NUTS. DRILL TWO 5/32" HOLES FOR THE FUEL LINES. GLUE ON THE FIREWALL F-1 AND BULKHEAD F-4.

STEP TWO

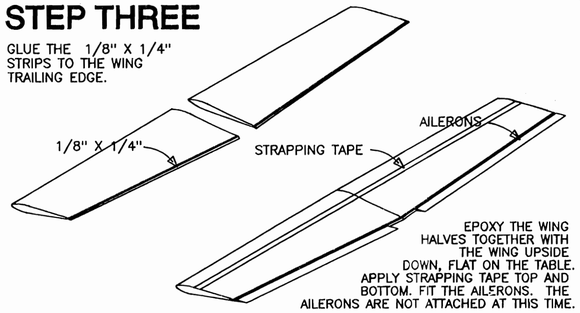
GLUE ON THE OTHER SIDE AND GLUE IN F-2, F-3 AND F-5



GLUE ON THE PLYWOOD BOTTOM FRONT. PULL THE TAIL TOGETHER AND GLUE. GLUE ON THE BALSA CROSSGRAIN BOTTOM SHEETING, CUT FROM SHEETSTOCK. GLUE ON THE TAIL SKID.

STEP THREE

GLUE THE 1/8" X 1/4" STRIPS TO THE WING TRAILING EDGE.



EPOXY THE WING HALVES TOGETHER WITH THE WING UPSIDE DOWN, FLAT ON THE TABLE. APPLY STRAPPING TAPE TOP AND BOTTOM. FIT THE AILERONS. THE AILERONS ARE NOT ATTACHED AT THIS TIME.

INSTRUCTIONS

TOOLS AND ADHESIVES; TOOLS NEEDED TO BUILD THIS MODEL ARE; X-ACTO KNIFE, PLIERS, SCREWDRIVERS, DRILL WITH A 1/16", 1/8" AND 5/32" DRILL BITS, BOTH MEDIUM AND FINE SANDPAPER. FOR GLUE WE RECOMMEND THE MEDIUM VICOSITY CYA GLUE FOR ALL WOOD TO WOOD JOINTS. JOIN THE WING PANELS WITH EPOXY ONLY. WHITE GLUE OR EPOXY CAN BE USED FOR OTHER WOOD TO FOAM JOINTS.

BUILDING HINTS; STEP ONE; BUILD THE MODEL USING THE PICTURE SEQUENCE AS A GUIDE. LAY THE FUSELAGE SIDES OVER THE PLAN AND NOTE THE TWO MARKS VISIBLE ON THE PLAN, ABOVE AND BELOW F-1. USE THESE MARKS TO MARK THE FUSELAGE SIDES FOR THE DOUBLER POSITIONS. THE NOSE DOUBLER GOES AHEAD OF THE FORWARD MARKS AND THE SIDE DOUBLER GOES BEHIND THE REAR MARKS. THIS LEAVES A 1/8" SLOT FOR THE FIREWALL, F-1 BETWEEN THE DOUBLERS. DRILL F-1 FOR THE ENGINE MOUNT AND GLUE IN THE BLIND NUTS. GLUE F-1 AND F-4 TO ONE OF THE FUSELAGE SIDES.

STEP TWO; GLUE ON THE OTHER FUSELAGE SIDE. GLUE IN F-2, F-3, AND F-5. PULL THE FUSELAGE SIDES TOGETHER AT THE TAIL AND GLUE, KEEPING THE FUSELAGE STRAIGHT. GLUE ON THE PLYWOOD BOTTOM FRONT AND THE CROSSGRAIN BOTTOM REAR SHEETING. DRILL TWO 1/8" HOLES IN THE LANDING GEAR FOR THE MOUNTING BOLTS. USE THESE HOLES AS A GUIDE TO DRILL THROUGH THE BOTTOM OF THE FUSELAGE. ENLARGE THE HOLES IN THE FUSELAGE TO 5/32" AND GLUE IN THE BLIND NUTS.

STEP THREE; GLUE THE 1/8" X 1/4" BALSA STRIPS TO THE TRAILING EDGE OF THE WING PANELS. EPOXY THE WING PANELS TOGETHER, UPSIDE DOWN ON A FLAT SURFACE. FIT THE AILERONS LEAVING A 1/8" GAP BETWEEN THE AILERONS AND THE FUSELAGE SIDE. LIGHTLY SAND OFF THE FLASHING ALONG THE LEADING EDGE AND THE LITTLE BUMPS ON THE SURFACE OF THE WING WITH FINE (220 GRIT) SANDPAPER. APPLY A STRIP OF 3/4" WIDE NYLON FILAMENT STRAPPING TAPE FROM WING TIP TO WING TIP, TOP AND BOTTOM ALONG THE THICKEST SECTION OF THE WING.

STEP FOUR; FIT AND EPOXY THE WING TO THE FUSELAGE. GLUE IN F-8 BETWEEN THE TRAILING EDGE AND F-4. F-8 FITS DOWN ONTO A LEDGE FORMED BY THE SIDE DOUBLERS. GLUE F-6 ON TOP OF F-8 AND TO F-4. MAKE THE AILERON LINKAGE ACCORDING TO THE PLAN AND GLUE THEM INTO THE FUSELAGE ON TOP OF F-8 AND AGAINST THE TRAILING EDGE OF THE WING. THE BRASS TUBE SHOULD BE EVEN WITH THE OUTSIDE OF THE FUSELAGE.

STEP FIVE; BEVEL SAND THE BOTTOM EDGES OF THE TOP SIDES TO BETTER FIT THE FUSELAGE, THEN GLUE IN PLACE. BEVEL SAND THE TOP EDGES AND GLUE ON THE TOP CROSSGRAIN SHEETING. AFTER SANDING AND COVERING, CUT AWAY THE COVERING WHERE THE COCKPIT FLOOR WILL BE GLUED. GLUE THE COCKPIT FLOOR IN PLACE. COVER THE TOP OF THE FLOOR BUT LEAVE THE EDGES RAW SO THE CANOPY CAN BE GLUED IN PLACE. USE EPOXY TO GLUE ON THE CANOPY. COVER THE WING WITH LOW TEMPERATURE FILM. HIGH TEMPERATURES WILL MELT THE FOAM WING. USE DIFFERENT COLORED FILMS FOR DECORATION AND TRIM.

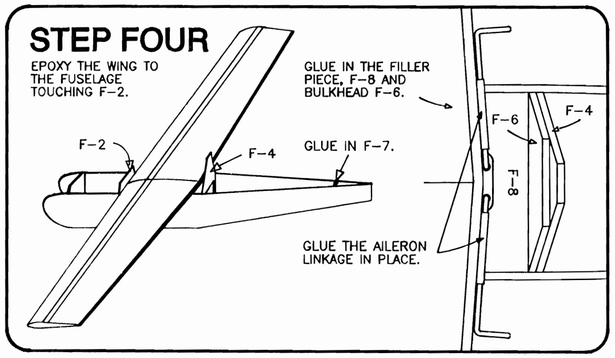
STEP SIX; USE TWO STANDARD SIZED SERVOS FOR AILERON AND ELEVATOR CONTROL OR TWO OR THREE MICRO SIZED SERVOS, AS SHOWN ON THE PLAN FOR RUDDER, ELEVATOR, AND AILERON CONTROL. THERE IS ROOM FOR A STANDARD BATTERY PACK IN THE NOSE. USA A SMALLER PACK IF NOSE HEAVY. WE USED A STANDARD PACK IN THE TEST MODELS. MOUNT THE SWITCH AND CHARGE PLUG ON THE REMOVABLE HATCH TO TAKE ADVANTAGE OF THE AVAILABLE SPACE.

ENGINE; ANY OF THE COX .049 ENGINES CAN BE USED TO POWER THE SIMPLE EXTRA, BUT WE PREFER THE TD .049 WITH A SEPARATE FUEL TANK TO GIVE THE MOST RELIABLE PERFORMANCE. USE 6 X 3 COX GRAY COMPETITION PROP AND COX SUPER POWER FUEL FOR THE BEST PERFORMANCE.

FLYING; SET THE CONTROL MOVEMENTS OF THE AILERONS FOR 5/32" UP AND DOWN, ELEVATOR FOR 3/8" UP AND DOWN, RUDDER TO MOVE 3/4" RIGHT AND LEFT. USE THESE SETTINGS FOR INITIAL FLIGHT TESTING AND ADJUST IF NEEDED. THE MODEL WILL TAKE OFF FROM A SMOOTH SURFACE. GENTLY APPLY RIGHT RUDDER TO KEEP THE MODEL RUNNING STRAIGHT. A LITTLE UP ELEVATOR WILL GET IT FLYING. TAKE IT UP, ADJUST THE TRIMS AND WRING IT OUT. THE SIMPLE EXTRA WILL DO ALL THE TRICKS IN THE BOOK AND MORE.

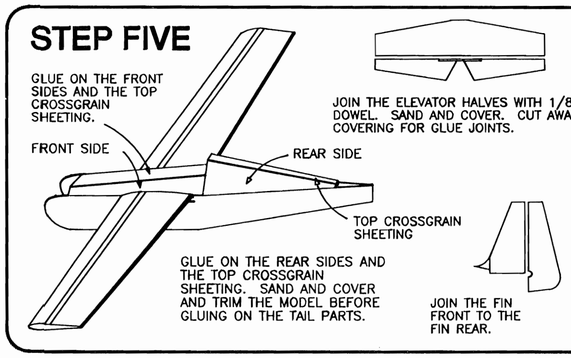
STEP FOUR

EPOXY THE WING TO THE FUSELAGE TOUCHING F-2.



STEP FIVE

GLUE ON THE FRONT SIDES AND THE TOP CROSSGRAIN SHEETING.



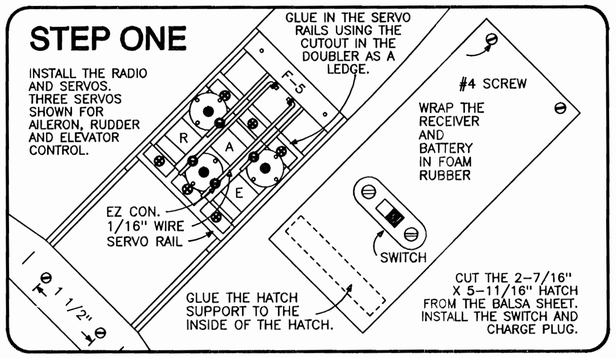
JOIN THE ELEVATOR HALVES WITH 1/8" DOWEL. SAND AND COVER. CUT AWAY COVERING FOR GLUE JOINTS.

GLUE ON THE REAR SIDES AND THE TOP CROSSGRAIN SHEETING. SAND AND COVER AND TRIM THE MODEL BEFORE GLUING ON THE TAIL PARTS.

JOIN THE FIN FRONT TO THE FIN REAR.

STEP ONE

INSTALL THE RADIO AND SERVOS. THREE SERVOS SHOWN FOR AILERON, RUDDER AND ELEVATOR CONTROL.



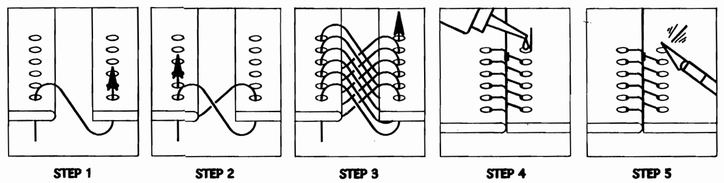
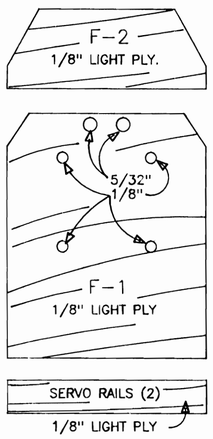
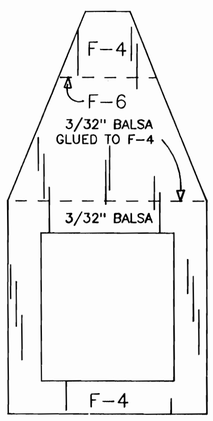
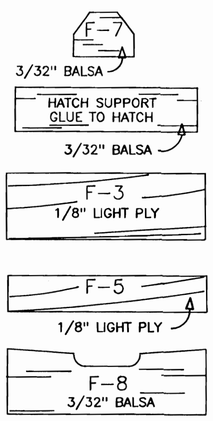
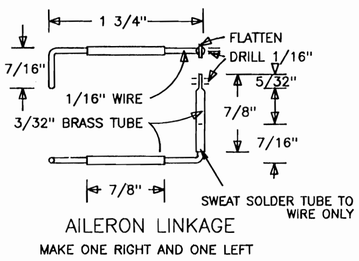


FIGURE 8 HINGE TECHNIQUE



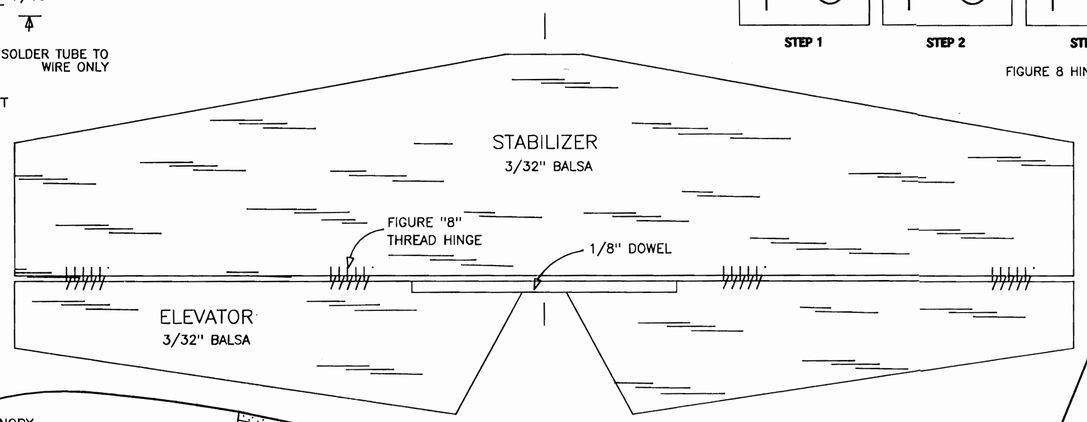


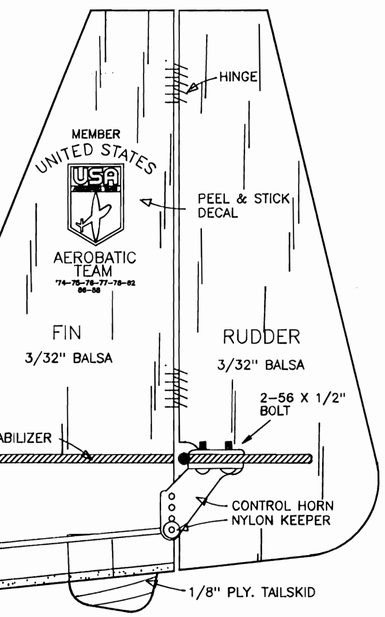


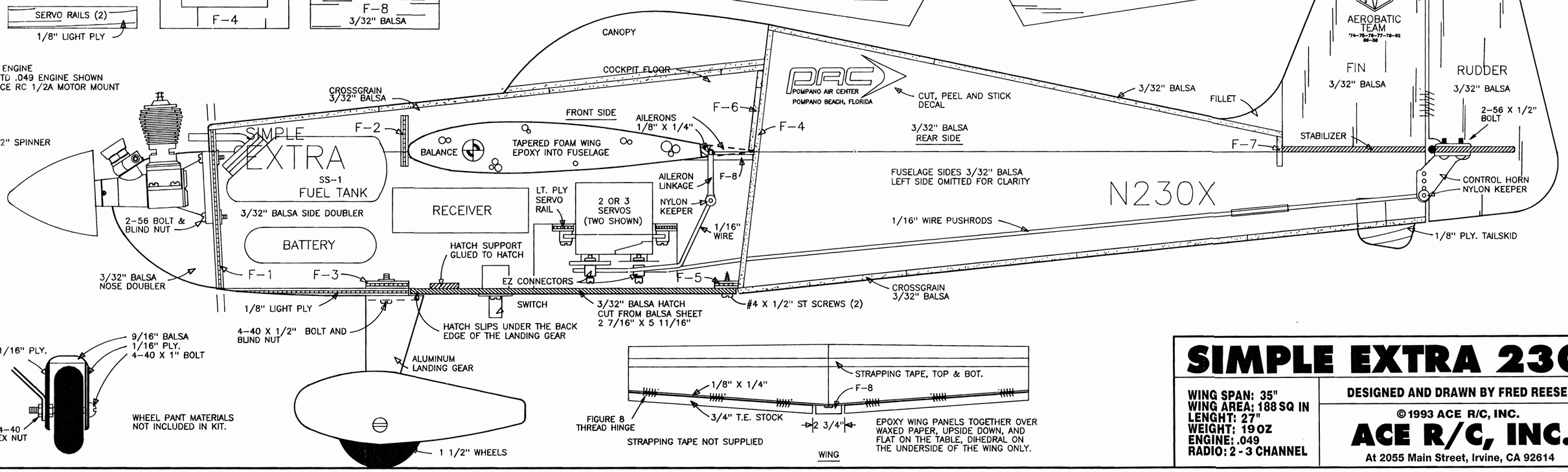


AILERON LINKAGE

MAKE ONE RIGHT AND ONE LEFT







WHEEL PANT MATERIALS NOT INCLUDED IN KIT.

STRAPPING TAPE NOT SUPPLIED

EPOXY WING PANELS TOGETHER OVER WAXED PAPER, UPSIDE DOWN, AND FLAT ON THE TABLE, DIHEDRAL ON THE UNDERSIDE OF THE WING ONLY.

WING

SIMPLE EXTRA 230

WING SPAN: 35"
WING AREA: 188 SQ IN
LENGHT: 27"
WEIGHT: 19 OZ
ENGINE: .049
RADIO: 2 - 3 CHANNEL

DESIGNED AND DRAWN BY FRED REESE

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