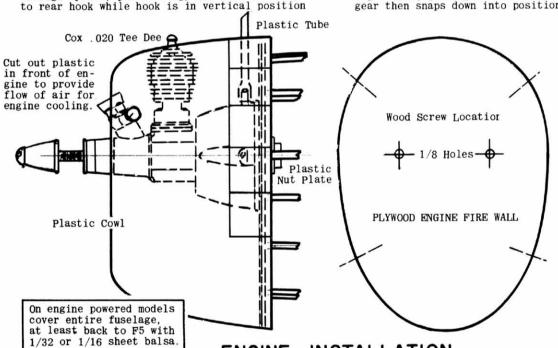


LANDING

Landing gears are operational in flight, on rubber with cement. Install wheels as described in Final Assembly. This completes mechanism. To operate, wind rubber motor. This will pull rear powered models only. Installation is simple and action is positive, if directions are followed_ carefully. Cut out center keel L3 from F2 to F5, and at the same time cut off bottom of F3, leavhook forward from a vertical to a horizontal poing sides intact. Make hole and cement eyelet in center of bulkhead F6, directly above keel. Assition, loosening thread. With tension released wheels are then retracted manually (by hand) by semble landing gear Tee slide track as shown and bending up into place in wing and slipping strut under 1/32 wire landing gear retainers. BE CER described in detail note. Track (with landing TAIN THAT WHEEL AXLES ARE BEHIND TEE ON LANDING gear release inserted) is now cemented securel GEAR RELEASE. Landing gear is now locked in place. Model is hand launched and towards the to top of center ribs. Front of track is 5/16' back of front 1/16 square spar. Use two heavy coats of cement on this installation and allow end of the flight when motor unwinds, rear hook to dry thoroughly, making sure release Tee slides pulls back to a vertical position, tightening This pulls landing gear release Tee, mov freely inside track. Rear thread is inserted through eyelet, pulled snug, and tied securely ing landing gears past retaining wires. Landing gear then snaps down into position for landing.



over plywood fire wall and F1. Trim out top

INSTALLATION ENGINE Engine is used if model is being built for control line, free flight or radio. Engine and installathree cylinders in front of cowl, and also top front of cowl, for cooling. Make needle valve extension by forcing a length of 1/8 I.D. plastic fuel tubing over head of needle valve, then forction material not provided in kit. Drawing shows installation of Cox .020 Tee Dee Engine, however any other similar engine may be used. Obtain a ing a length of 1/8 dowel into end of tubing Dowel should protrude at least 1/2" past cowl. Cut 1/16 I.D. plastic tubing for filler and over piece of 1/16 plywood and cut engine fire wall as shown on full size drawing, drilling holes indi-cated. Mount engine to fire wall with #2 nuts flow, and force tubing on metal tubes on top of and bolts. Cut plastic nut plates from molded fuel tank. Tubing should extend about 1/2" past cowl and top should be cut at angle facing for sheet and securely cement to back of fire wal ward for easy admission of air stream. Slot cowl for plastic tubes. Slots extend to rear of cowl so it can be removed. Make four tiny holes at over nuts, drilling holes through, so that bolts can protrude. Use cement generously. Nut plate keeps nuts from turning, so engine can be removed by just unscrewing bolts from front. When dry, rear of cowl (between fire wall and F1) at locaremove engine. Notch F1 if necessary to clear tion shown on fire wall drawing for wood screws, nut plates, then securely cement engine fire wall to front of F1. Cut molded engine cowl from which hold cowl in place. Remove needle valve plastic sheet as described in detail note and fit

NUT PLATES

SUPERCHARGER EXHAUST

CANOPY

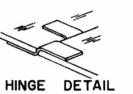
after model is painted and replaced on model. For best results, follow instructions carefully. COWL: Cut from sheet leaving about 1/16 of material for trim. Plastic trims easily. cess of material on cowl is now trimmed and sanded away carefully. Cowl may be placed on bulkhead F1 for support while sanding. SUPER-CHARGER EXHAUST: Leave about 1/8 excess material when cutting both halves from sheet. Carefully trim out slots about 1/8" wide on top & bottom and ends, right to the edge of the supercharger exhaust as shown. This will permit accurate assembly. Cement halves together, lining up carefully at slots. Since plastic is Polystyrene, regular plastic cement can be used, or model air plane cement can also be used. Use sparingly however since excessive use of cement may distort the plastic. After assembly, allow to dry thoroughly, them trim and sand off smooth. PILOT: Cut halves from plastic sheet, leaving about 1/8 material. Cut 1/8 slots on all four sides as

shown, then carefully cement together in same

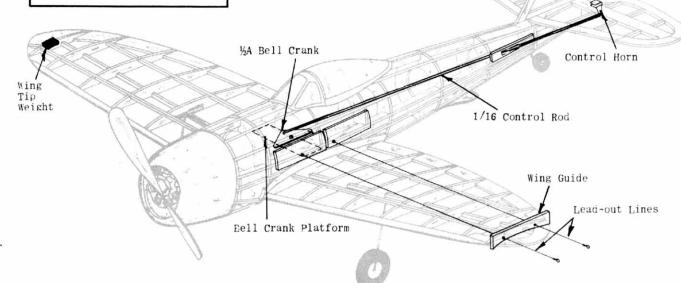
PLASTIC PARTS DETAIL manner as supercharger exhaust. When dry, trim and sand smooth. NUT PLATES: Cut from sheet in Engine Installation. PAINTING: Regular plastic model paint or enamel can be used. del airplane dope can be used only if applied in LIGHT spray coats, allowing plastic to dry thoroughly between coats. Excessive use of dope may deform plastic. Parts may be used red as provided or if painting parts a lighter color than red, apply a light coat of silver, followed by a light coat of white before painting final color. Darker paints may be applied directly to red plastic. When cementing parts in place on model, use light coats of cement applied sparingly. If necessary, use more than one coat, but DO NOT APPLY A THICK COAT AT ANY TIME. Install cowl as described in either Final Assembly Note or Engine Installation. Cement finished supercharger exhaust to bottom of fuselage behind F6, and pilot against back of cockpit, as shown on side view.

Rubber Band Bend from 1/32 Wire Escapement Base SE-2 Escapement 1/8 Holes PLYWOOD ESCAPEMENT MOUNT F5A For R/C- Make 1 from 1/16 Balsa 1/8 Hold-Down Dowel Batteries

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



Use cloth tape for hinges. Cement only on top and bottom, alternating hinges as shown above. Keep cement



INSTALLATION

two slide track covers 1/16 x 3/8 x 3/4 from

REPUBLIC THUNDERBOLT

Drab; bottom of airplane light

livered natural aluminum. Star

fuselage sides, blue and white.

grey. Later models were de-

and bar insignia on wing and

Individual squadron markings

dded when received. Box lic

shows all aluminum Thunderbolt

with dark green anti-glare strip at top of fuselage.

COLOR SCHEME: Entire top of airplane Olive

Wire Landing Gear Release

SLIDE RELEASE DETAIL

Slide Track Cove

Make main landing gear slide release by cutting scrap balsa, grain running as shown. Cut a strip of plastic (from plastic parts sheet) 1/8 wide, and cement a double layer to each side and bet-ween track covers to form tunnel as shown. Long U section of Tee shaped wire-landing-gear release should slide snugly yet freely in tunnel between plastic spacers. Allow to dry thoroughly. Cement a 1/4" length of 1/16 square balsa between wire on open end of wire-landing-gear release as shown. Allow to dry thoroughly, then trim flush on top and bottom. Wrap two or three turns of thread around very end to keep it together, coating knot with cement. When dry, insert into slide, and tie a 12" length of thread to rear. Use good grade of strong thread (not supplied in kit). Cement assembly into fuselage and complete installation of system as described in Operational

Test models used, and drawing shows, Citizen-Ship MDL Receiver, SE2 Escapement; used with SPX Trans mitter. This equipment and other material neces-sary is not provided in kit. On radio models wing is removed. Pin. BUT DO NOT CEMENT, wing into position. Make F2A & F5A using patterns. Cement F2A

Length

Height

For R/C- Make 1 from 1/16 Balsa

P-47D SPECIFICATIONS AND COLOR SCHEME

- 36 Ft. 1-3/16 In - 13 Ft. 8-3/16 In

(at 30,000 Ft.) Maximum Altitude - Over 40,000 Ft.

Maximum Speed - 433 M.P.H.

to bottom of leading edge, and PIN it to F2.

Note, however all stringers are cut through at

Engine - Pratt & Whitney R-2800

2,000 H.P.

Weight Loaded - 1400 Lbs. Armament - 8 - 50 Cal. Mach. Guns

- 2 - 1000 Lb.

Propeller - 12 Ft. 2 In. Dia.

Rockets - 3 to 5 on each side

INSTRUMENT PANEL

Cut from plan and cement to front of F3

Landing Gear Installation.

RADIO CONTROL INSTALLATION

install on rudder with 2/56 nut and bolt. Cut escapement base from 1/16 plywood and cement to front of F4. When dry, install escapement with likewise with F5A on trailing edge. Since wing is removable, be sure cement is not accidentally placed on adjoining bulkheads. Complete bottom of wing installation as described in Final Assembly seams between double bulkheads. Cement a 2-3/4" length of 1/8 dowel across front of F2 and rear of F5 on top of stringer in line with bottom of L6. Dowels protrude evenly from fuselage on both sides Remove center keel L3 between F2 and F3. For strength and durability, it is recommended that front half or entire fuselage be covered with 1/32 sheet balsa. Balsa is also covered with silkspan of rudder. Bring antenna out of cockpit and as described in note. Cut rudder apart at location shown by dotted lines, then assemble together with cloth hinges. Bend wire yoke from 1/32 wire and been completely finished, it must balance 1"

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2/56 nuts and bolts. Insert a long length of 1/16 wire through slot made in rear of L3 for torque rod. Bend II in front of rod. according to R/C manufacturer's instructions and shown above, ther pull back and engage in escapement as shown. Bend rear as shown. Cut off excess wire, then engage in yoke. Raising and lowering yoke will increase or decrease the amount of rudder movement. Batteries are stored vertically in section between F1 and F2. Receiver is located between F2 and F3 Wire radio equipment in accordance with manufacturer's instructions. After unit is wired, line front compartment with foam rubber and insert batteries, followed by receiver which is also surrounded in foam rubber. Insert into compartment being careful not to break any wire connections. Bend small hook for antenna and cement to front fasten to hook with rubber band. When model has

R.C. WINDING HOOK DOOR Cut out stringer above side keel between

Start engine and THROTTLE DOWN TO LOW SPEED,

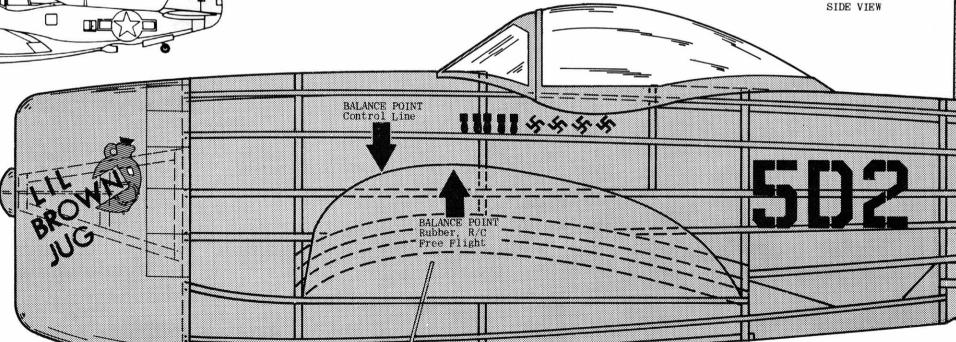
F7 and F8 and inset 1/16 balsa flush. Cut out section to shape of part A (see sketch) and cement it to a piece of 1/16 balsa cut to shape of section B, grain running crosswise, to form door. Bend half of hook shown from 1/32 wire and push straight end through door. Bend hook in other end and cement securely to door position shown. Place loop of rubber bet ween escapement and inner door hook.

from wing leading edge at rib W7 as shown on side If necessary, add weight but DO NOT ATTEMPT TO FLY UNTIL BALANCE HAS BEEN ACHIEVED. Check wings and tail for warps, if any have developed, remove with steam method as described in Covering Instructions. Wait for calm weather for test lights. Field test R/C equipment before flying, as described in manufacturer's instructions. then launch model with nose pointed slightly down at a point 50 or 60 feet in front of you and release at approximate flying speed. Mode should fly in a straight line and either maintain or slightly lose altitude. If model turns to either side, rudder or engine may be off set to opposite side to achieve a straight flight, which is how it should glide and fly. If model glides well but stalls under power, point front of engine down (down thrust) by placing washers under top mounting bolts. Increase engine RPM as adjustments are made, checking R/C controls before each flight. GOOD LUCK AND GOOD FLYING!!

> 1/32 Wire Hook Part A Part B +=-==

LINE INSTALLATION CONTROL

Materials required are not provided in kit. Inbell crank. Control rod should be in line with stall controls after Fuselage Step 4 has been completed. Obtain 1/16 plywood and cut out bell elevator horn, if not, bend accordingly so that rod slips through slot freely. Make a right crank platform using drawing provided, drilling hole indicated. Fill in area between F2 and F4, angle bend at rear end of rod at precisely the location of hole in elevator horn, with bell crank in neutral position as shown. Clip of from side keel L5 to stringer above it, with scrap 1/16 sheet balsa, flush with outside of frame; excess and insert into horn. Solder washer on also area from F7 to F8, between L5 and stringer above, in same manner. Cut 1/8 slot in rear for end to prevent rod from coming off. Controls are now in neutral position and must work freely control rod as shown. Mount 1/2A bell crank to and easily. Cement rudder to top of stabilizer plywood platform as described in installations against rear of fuselage, at angle so that rear of rudder is off-set ½" towards outside of cirhat come with bell crank. Cut two 15" lengths of lead-out lines and fasten them to bell crank. cle flown. Assemble wing to fuselage as des-Cement platform securely in fuselage against cribed in final assembly detail. Make wing guide from 3/32 balsa, drilling holes indicated. Cefront of F3, and top of L5's. Lead-out lines come through fuselage at holes drilled for them ment securely to wing over rib W7 as shown. as shown. Use cement generously, applying at inforce fuselage and wing guide holes with washers least two coats on installation. Cover fuselage or eyelets. Thread lines through holes in wing with tissue as described in detail note. Cut guide and tie loops in end of lines at least : stabilizer in half through wide main spar, as past wing tip. Lines must be of equal length indicated by dotted lines. Round edges and in when elevator is in neutral position. Control stall control horn at location shown on drawing, then join together with cloth hinges shown. Cesystem must operate freely and easily. CAUTION: Model must balance (or slightly nose down) at ment stabilizer horizontally to top rear of fuse point where front control line comes out of the lage. Tape elevators in neutral position (in line with stabilizer, neither up or down). Obfuselage. If necessary, add weight. Use regular 1/2A control lines and handle when flying your tain a piece of 1/16 music wire at least 15" Thunderbolt P47. GOOD LUCK AND GOOD FLYING! long for control rod, and bend 1/4" of one end at right angle. Loosen bell crank and insert rod from bottom with spur vertical, then secure



When model has been completed, it must balance 1" from front of wing at wing tip ribs W7 as shown on side view. DO NOT ATTEMPT TO FLY MODEL UNTIL BALANCE HAS BEEN ACHIEVED, add weight if necessary Model is now ready. Pick a calm day for test flying. Wind propeller clockwise approximately 100 turns and launch into any prevailing wind slightly nose down at a point on the ground approximately 50 feel ahead of you. If model noses up and then falls off and stalls, (AFTER MODEL WAS BALANCED) then bend elevators down slightly using hot breath in same manner as steam. If model dives, bend elevators up. If model veers too much to one side, bend rudder to opposite side. Take offs require more power and therefore more turns in rubber motor. For longer flights and competition it is recommended that the loops of rubber be lubricated

with model lubricant (available at most hobby shops) or Castor Oil. Apply sparingly AND KEEP OFF KNOT OR IT WILL COME UN-DONE! Use winder which you can make by tightening hook into hand To store winds in motor, stretch rubber out three to five times original length, then proceed to wind, moving slowly back to model. Feeling rubber from time to time to be certain it does not get so taut that it breaks. Upon reaching the nose, motor should be completely wound. When replacing rubber motor, purchase contest grade T56 brown rubber at your favorite hobby shop. Engine powered free flight models are tested and flown in same basic manner as above and is described in Flight Instructions at end of Radio Control Installation Note. GOOD LUCK AND GOOD FLYING!!!





PHILA. PA. USA

KIT A-4 WING SPAN 22"

