PILATUS PC-6 PORTER [A334 Kit]

Wing Span	:	125 in / 3175 mm
Wing Area	:	2009 sq in / 130 sq dm
Flying Weight	:	29.5 lbs / 13400 g
Fuselage Length	:	90.5 in / 2300 mm
Requires	:	5-channel radio w/8 high torque servos 50-80 c.c. gasoline engine

Specifications are subject to change without notice.

Warning! This model is not a toy.
It is designed for maximum performance. Please seek advice if one is not familiar with this kind of engine powered precision model. Operating this model without prior preparation may cause injuries. Remember, safety is the most important thing. Always keep this instruction manual at hand for quick reference.

The World Models
Manufacturing Co., Ltd.
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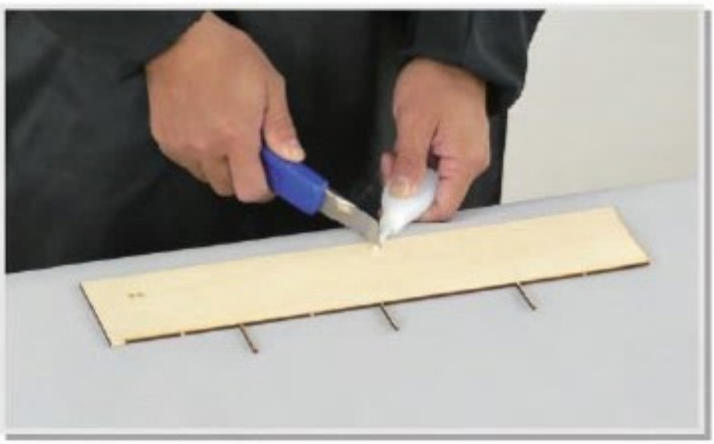
PRECISION LASER CUT
EASY BUILT KIT SERIES
MADE IN CHINA

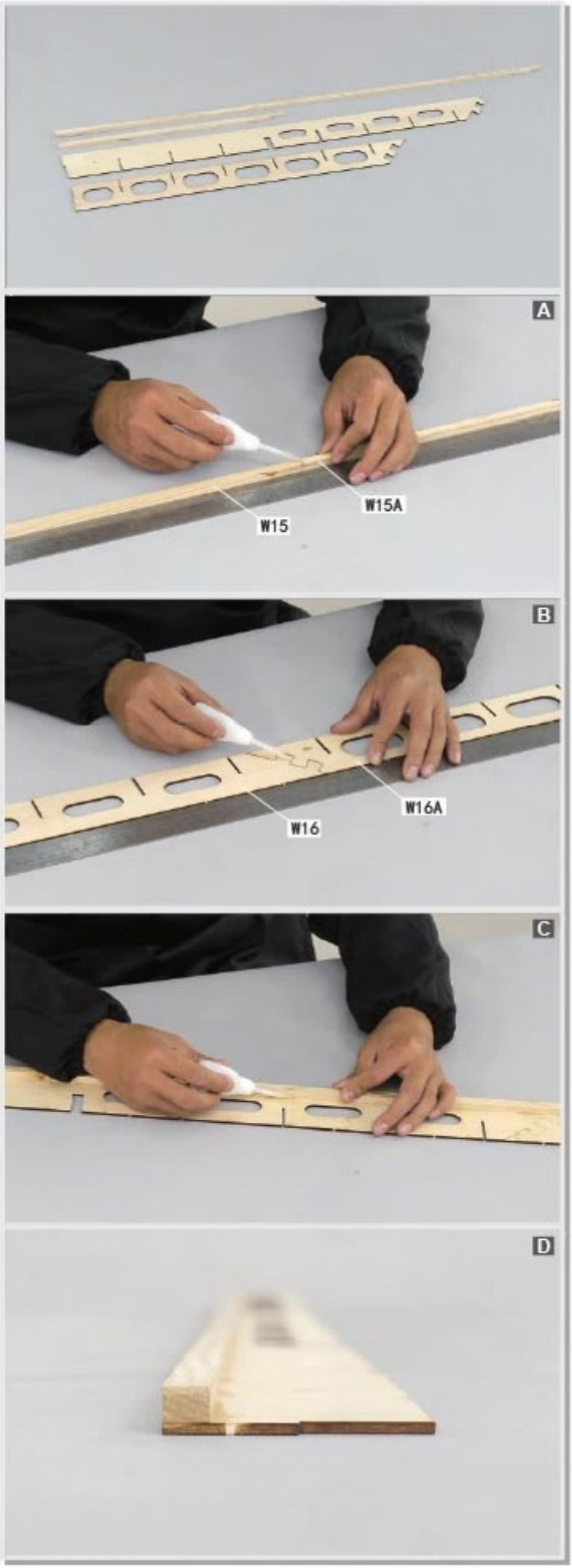
MAIN WING ASSEMBLY

Lay out parts for the wings.

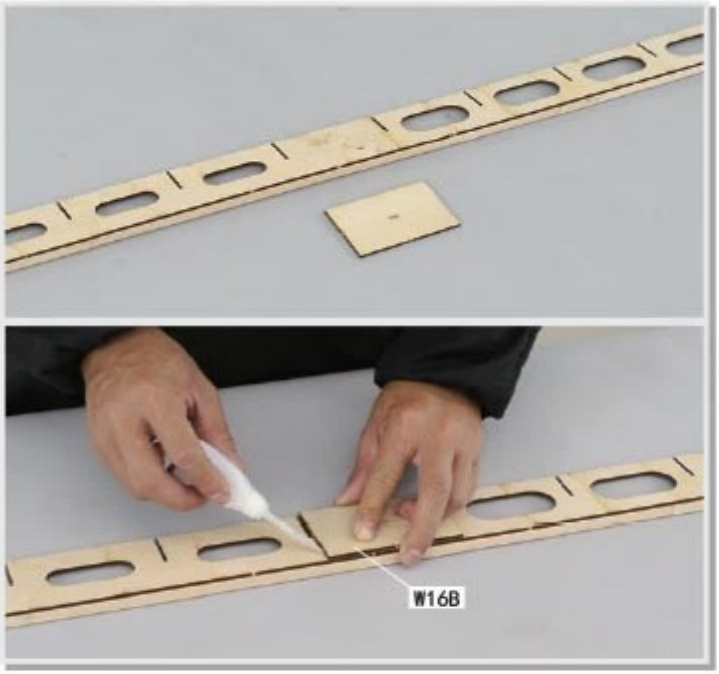
1.1 Remove parts from plywood, cut connecting taps when required.



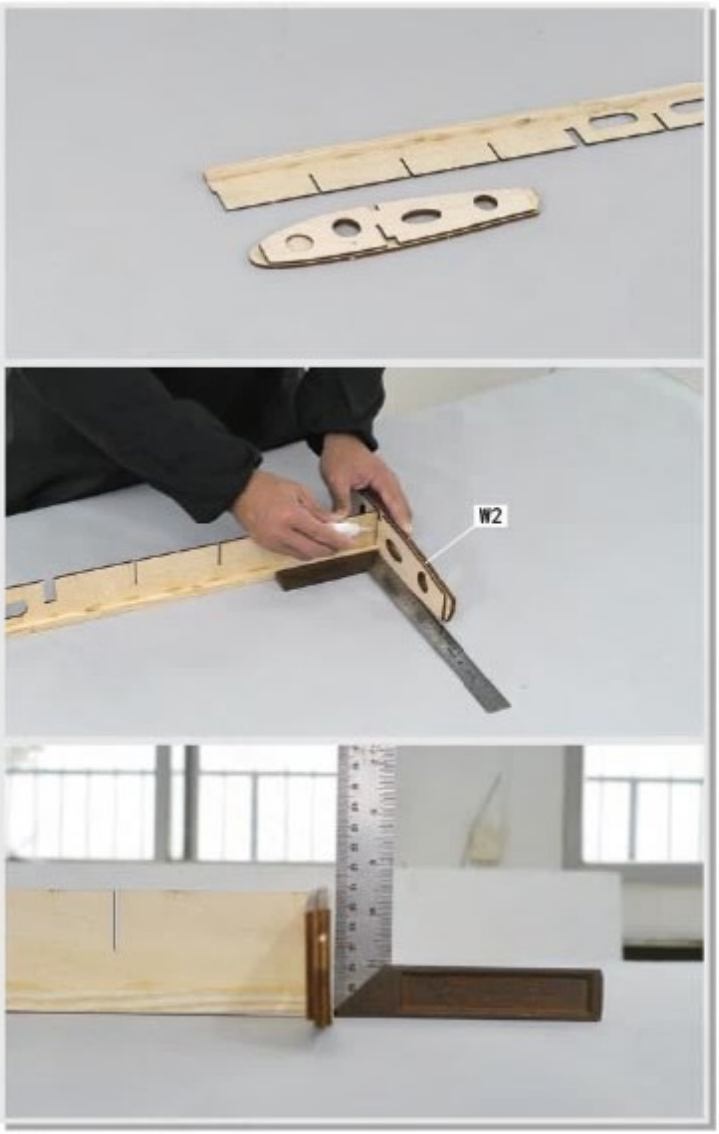
1.2 Cut open CA glue tip for CA application. Make sure opening is not pointing at anyone.



1.3 Glue and join W15 to W15A, W16 to W16A. Glue wider side of W15/W15A to W16/W16A . Place the W15/W15A joint as far away as possible from the W16/W16A joint.

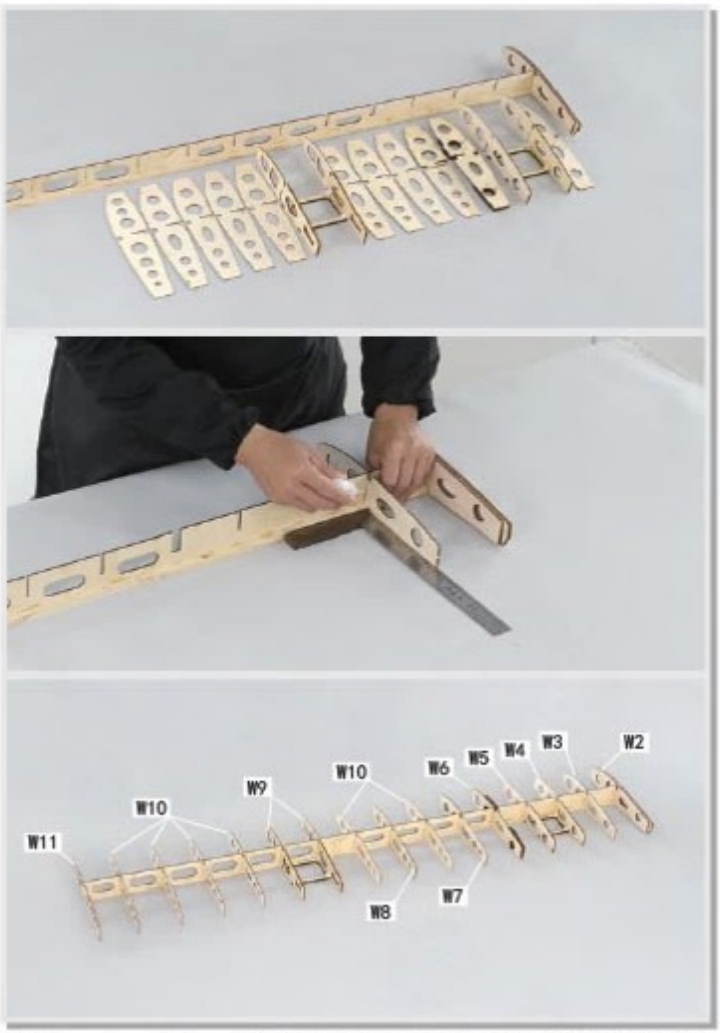


1.4 Glue W16B to W16/W16A to reinforce the joint. Note that W16B should flush with slot.

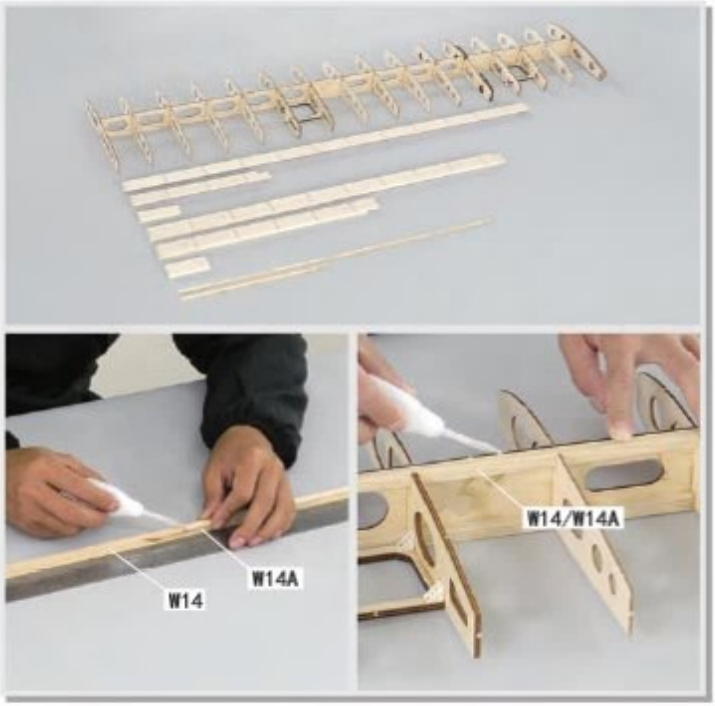


1.5 Fully insert W16/W16A to W2. Note that due to dihedral angle of wings, W2 is not perpendicular to W16/W16A.

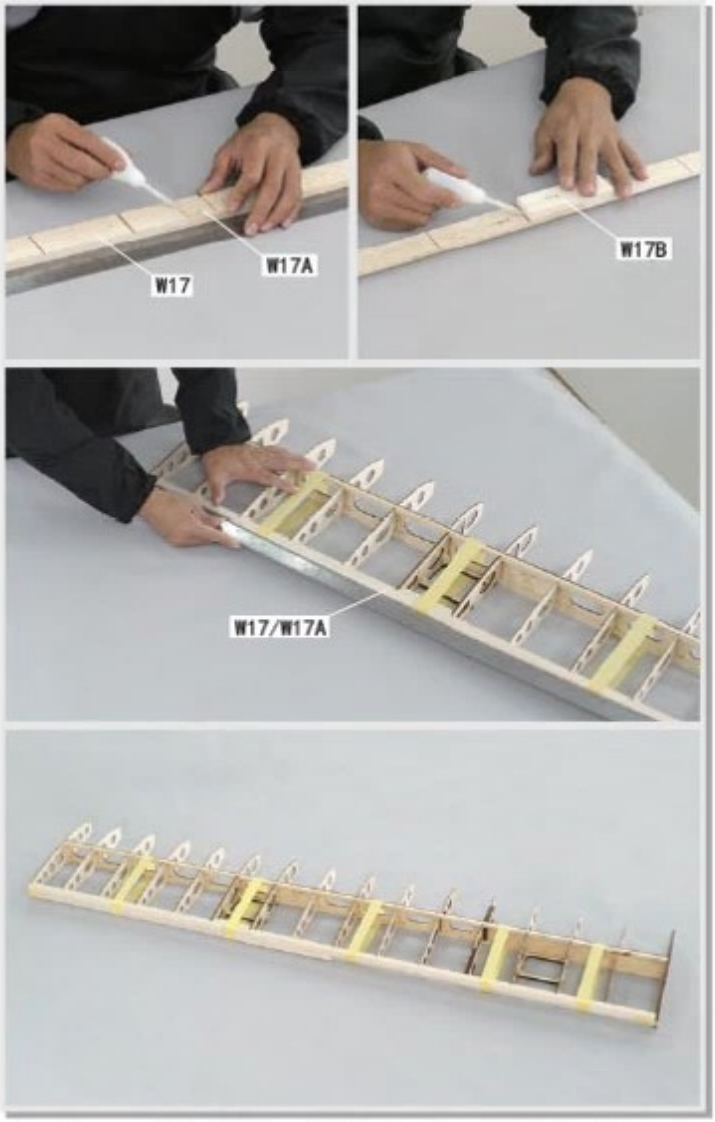
1.6 Glue W21 between W4 and W5, W21 between W9 and W9. Make sure the half rib is facing inward and join to W21. Glue W22 for reinforcement.



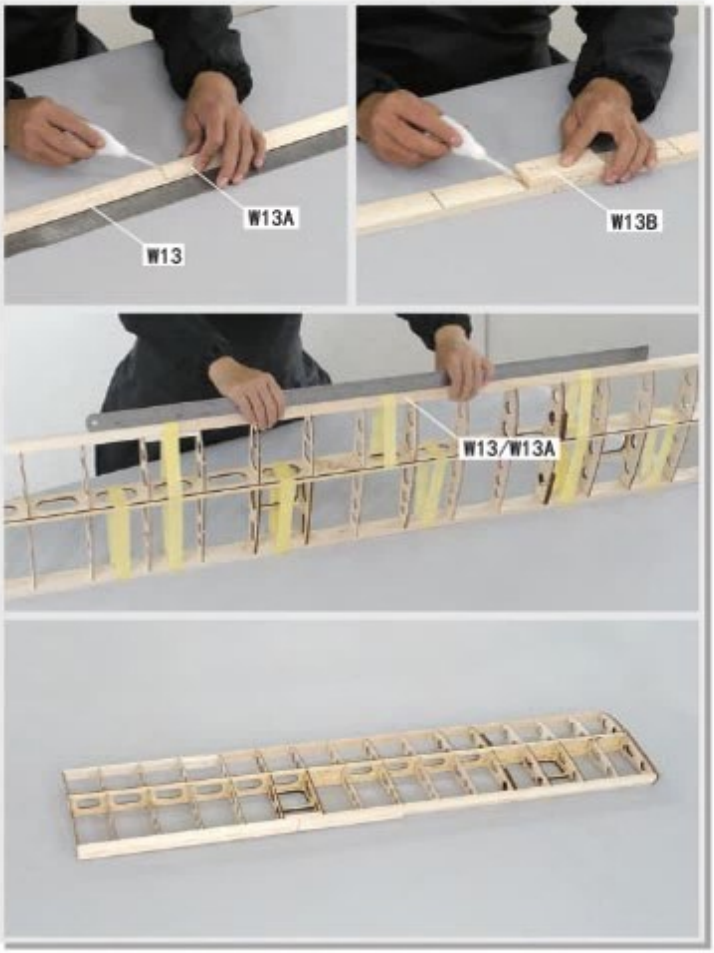
1.7 Insert and glue W3, W4/W5, W6, W7, W8, W9/W9, W10 and W11, as shown above.



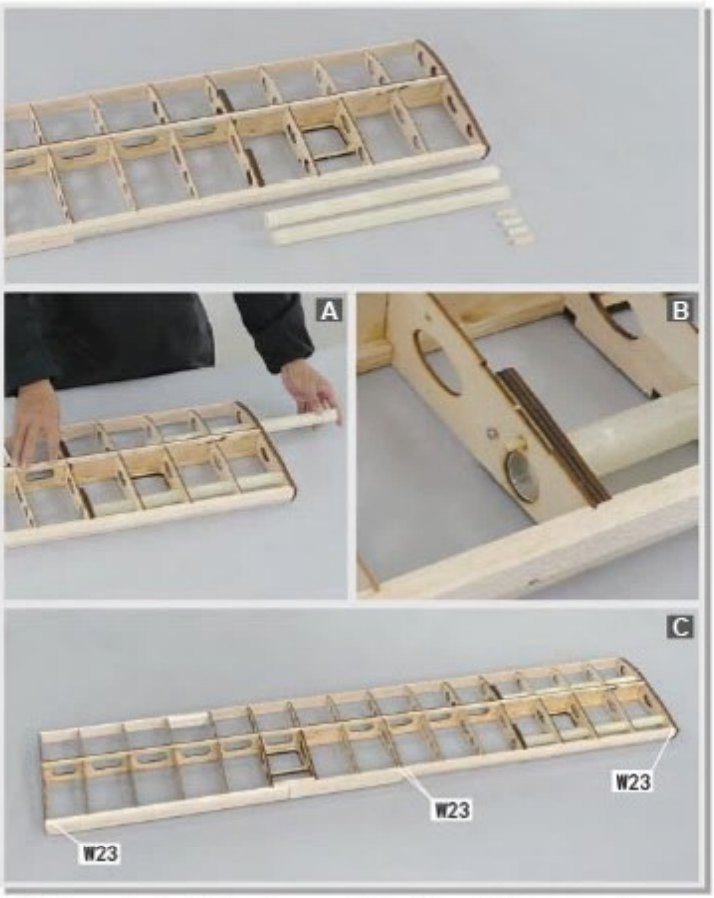
1.8 Glue and join W14 and W14A.



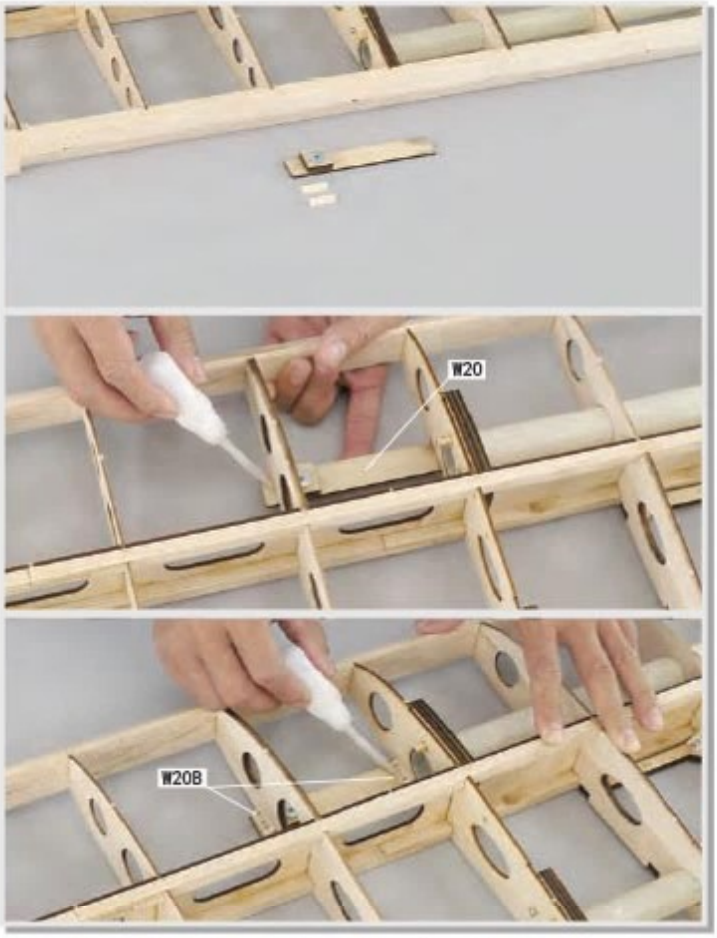
1.9 Glue and join W17 and W17A. Glue W17B for joint reinforcement. Make sure W17B flush with the adjacent slot. Glue W17/W17A to ribs, use tape to hold in place.



1.10 Glue and join W13 and W13A. Glue W13B for joint reinforcement. Make sure W13B flush with the adjacent slot. Glue W13/W13A to ribs, use tape to hold in place.

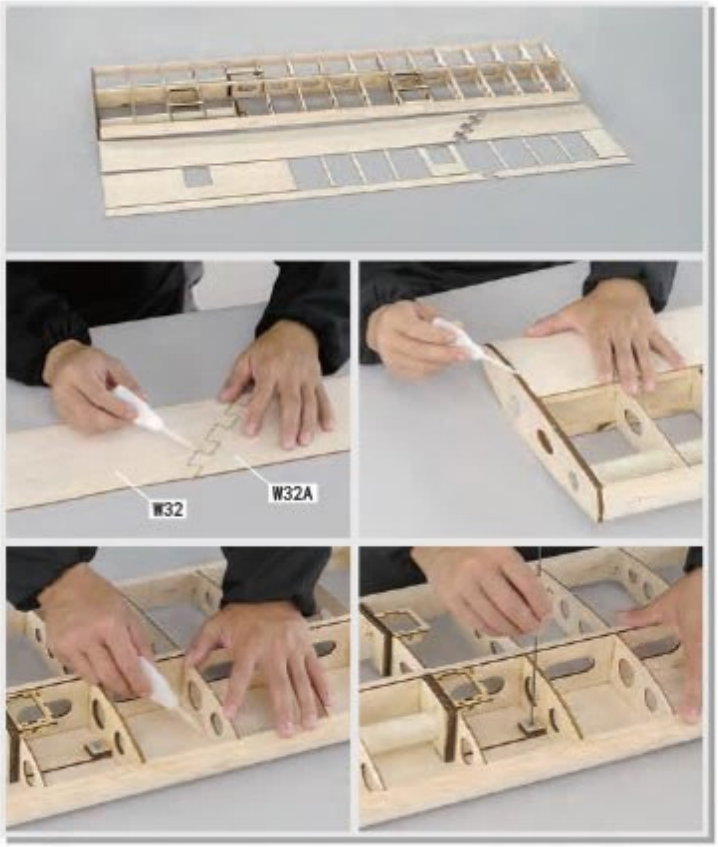


1.11 Insert wing tube sleeves into ribs. Make sure sleeves flush with W6, then apply glue to fasten sleeves in position.

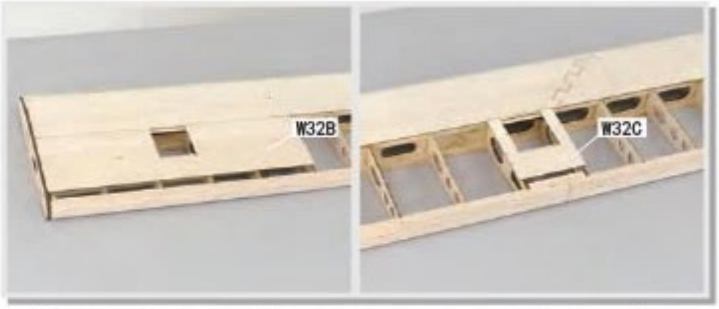


1.12 Glue W20 in place. Glue W20B for reinforcement. W20 should be between W6 and W7 with blind nut facing inward.

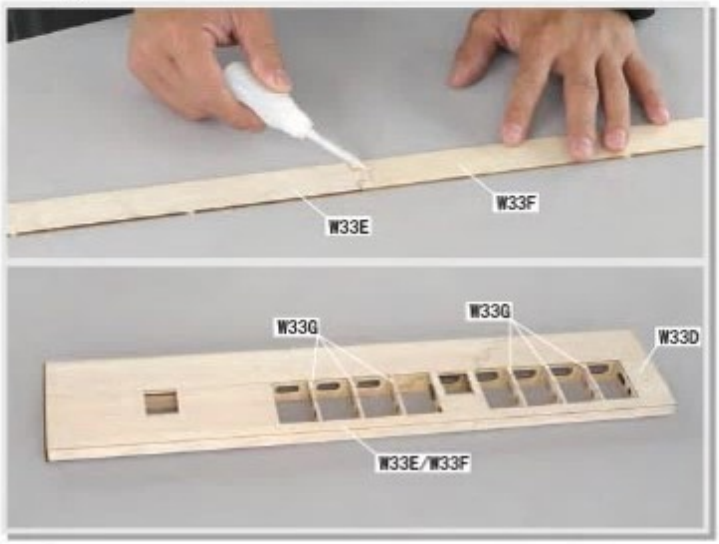
1.13 Glue W44 and W44A in place.



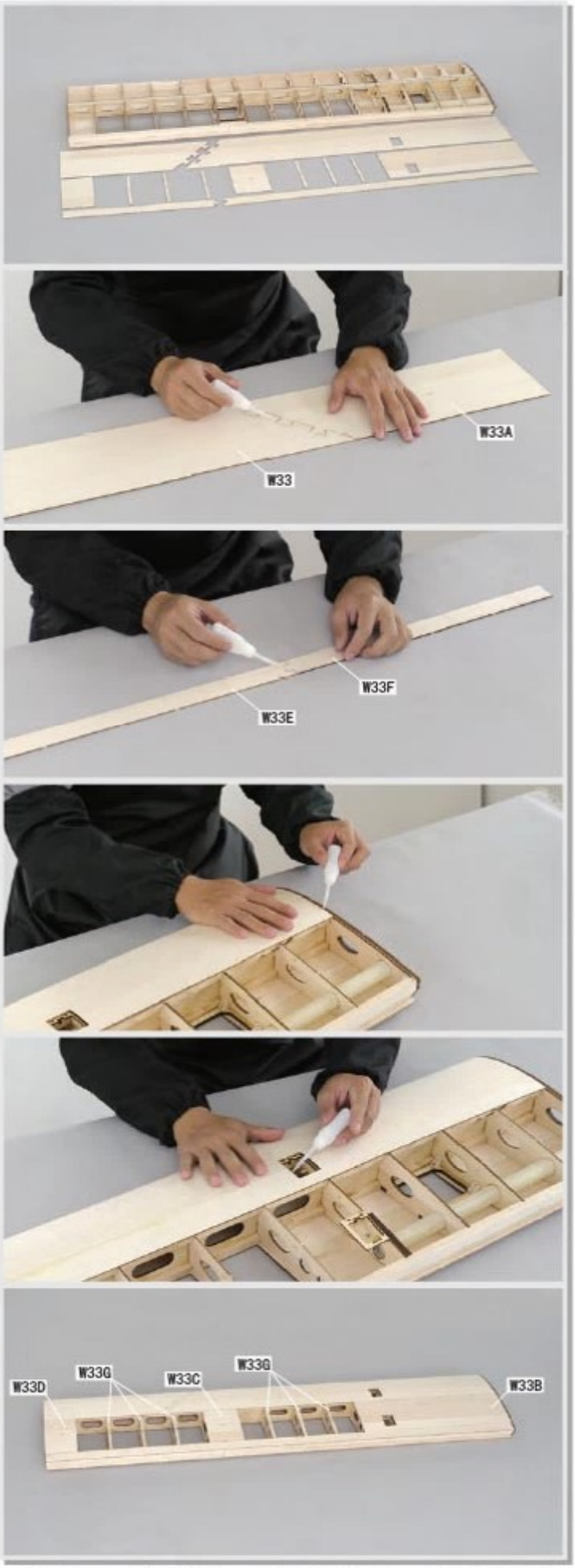
1.14 Glue and join W32 and W32A. Glue W32.W32A on bottom of wing from leading edge to spar. Flip over the wing and apply glue to all surfaces in contact between ribs and sheeting W32/W32A. When glue is set, use steel wire to poke through sheeting through blind nut hole . This marks the position of blind nut for future wing strut installation.



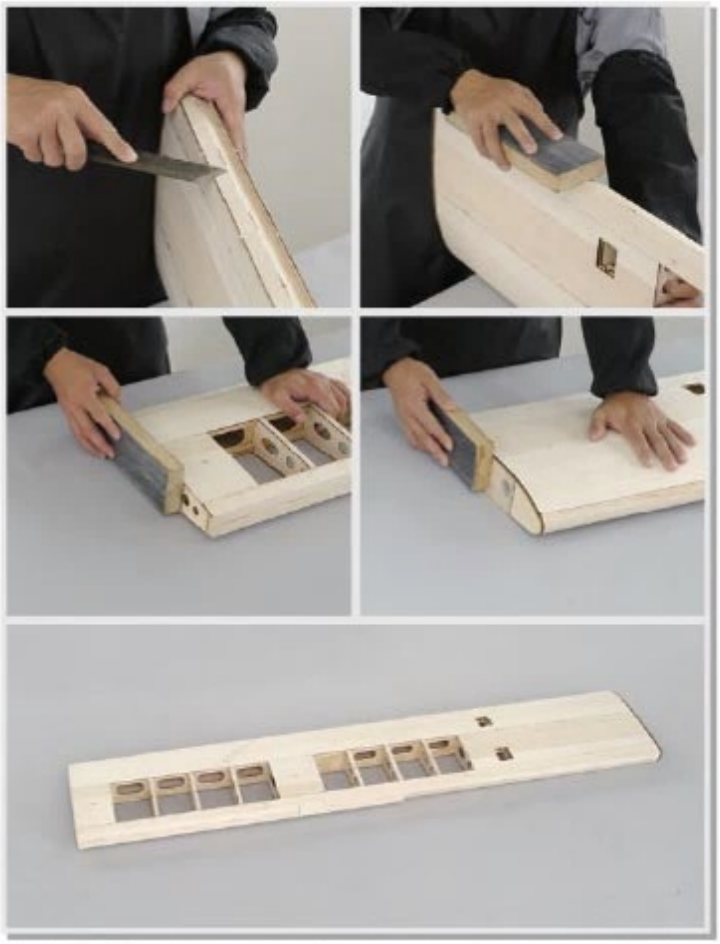
1.15 Glue W32B and W32C in place. Flip over wing and add glue to all surfaces in contact.



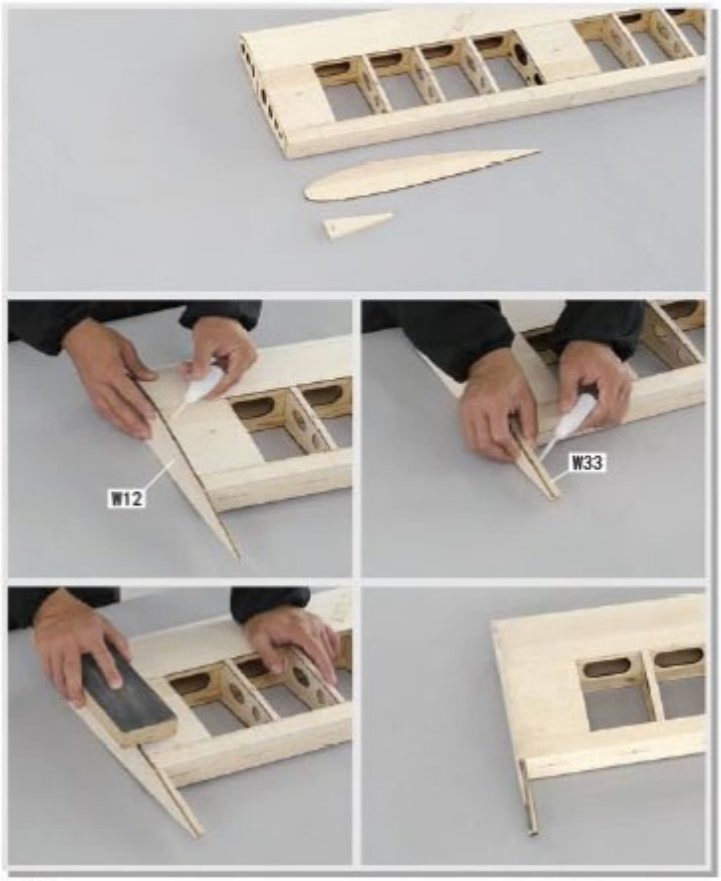
1.16 Glue and join W33E and W33F. Glue W33E/W33F, W33D and W33G in place.



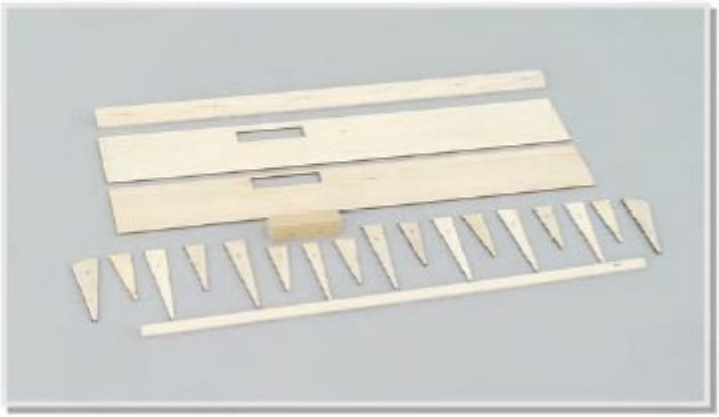
1.17 Glue and join W33 and W33A, W33E and W33F. Apply slow curing glue as white glue to the top of wing frame in contact with sheeting, then glue all sheeting in place.



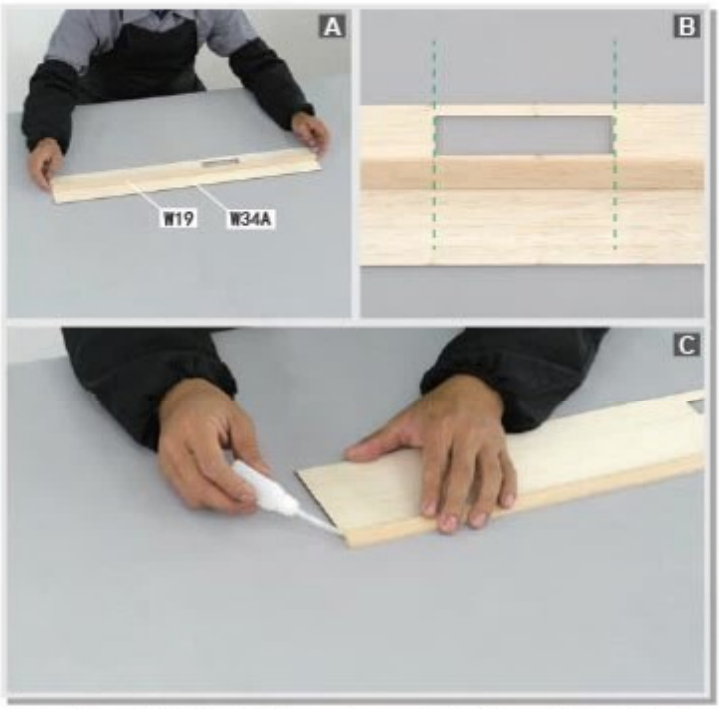
1.18 Whe glue is cured, cut and remove rough edges with sand paper.



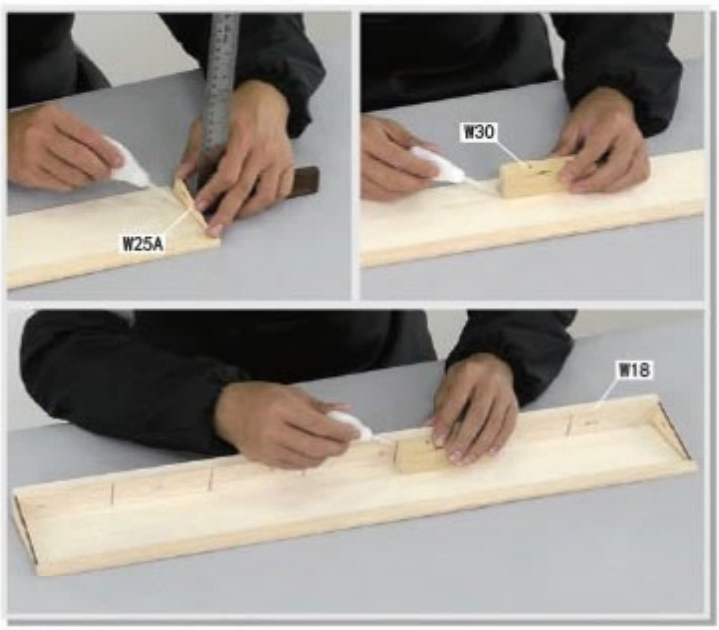
1.19 Glue W12 and W33 in place. Remove rough edges with sand paper.



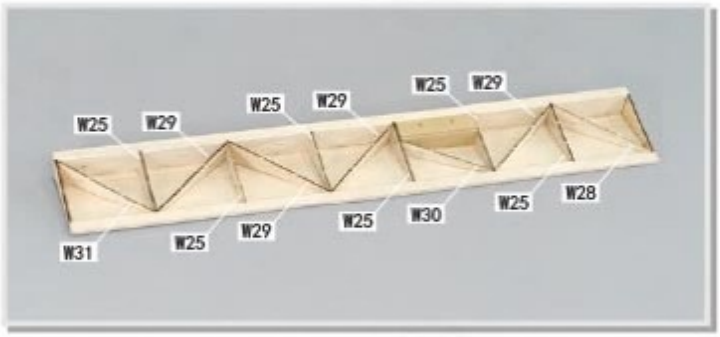
1.20 Lay out parts for flaps.



1.21 Align W19 slot with opening on W34A, and glue W19 in place.

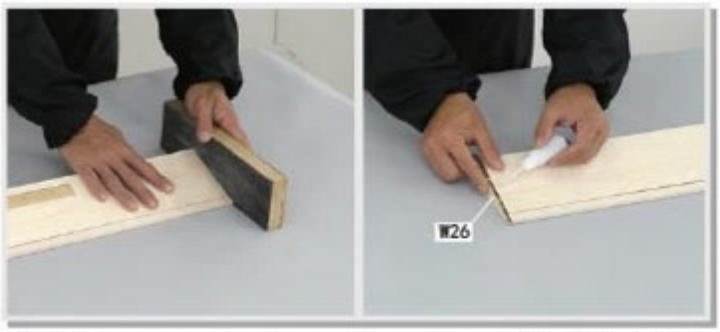


1.22 Glue W25A in place at both ends of W34A. Glue W30 to the opening on W34A, then glue W18 in place. Make sure W30 tapers towards the trailing edge.

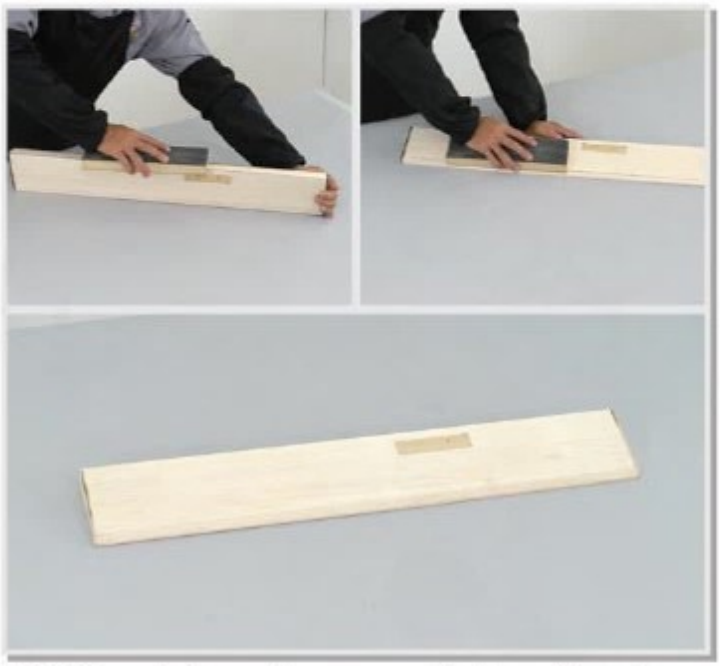


1.23 Glue W25, W28, W29, W30 and W31 in place. Apply slow curing glue to all surfaces in contact with W34.

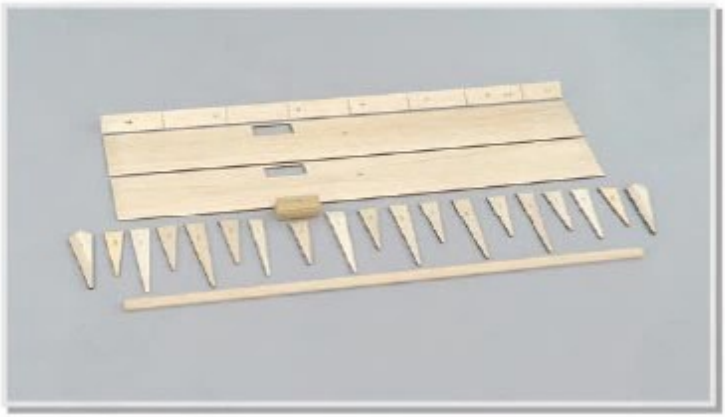
1.24 Then glue W34 in place, add glue around W30.



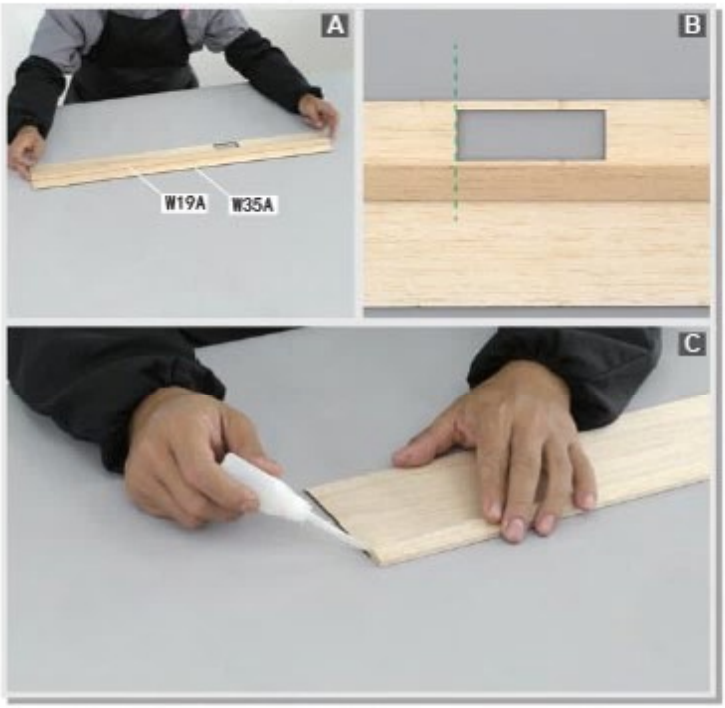
1.25 Remove rough edges with sand paper then glue W26 in place.



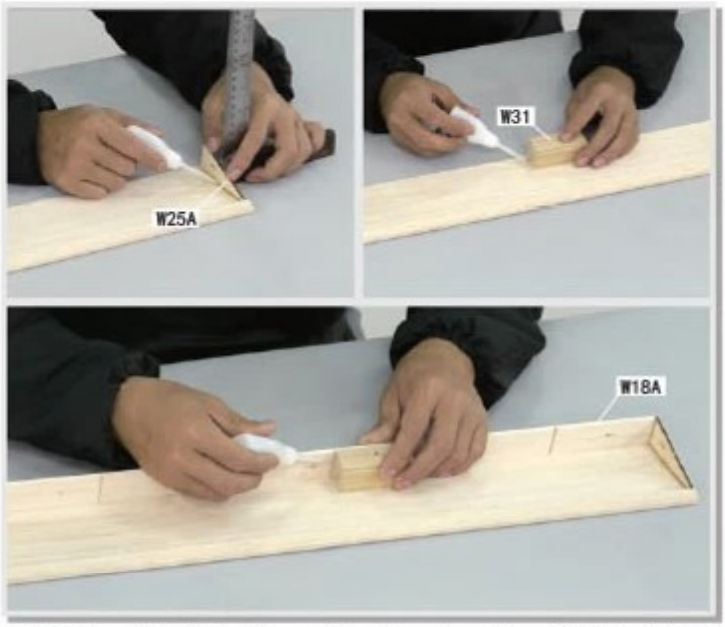
1.26 When glue is cured, remove rough edges with sand paper.



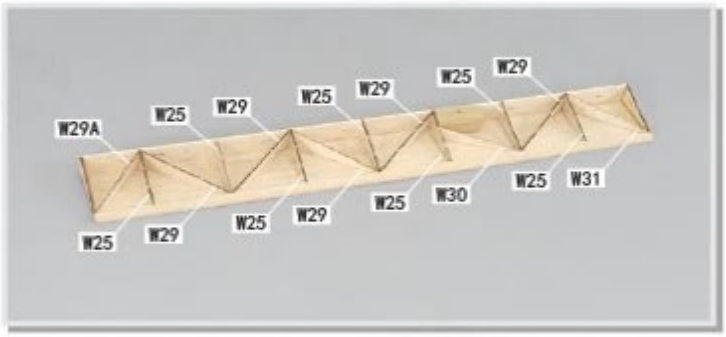
1.27 Lay out parts for ailerons.



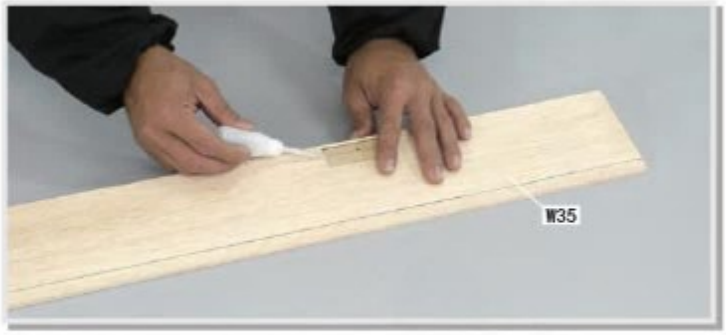
1.28 Align W19A slots with W35A opening. Glue W19A to W35A.



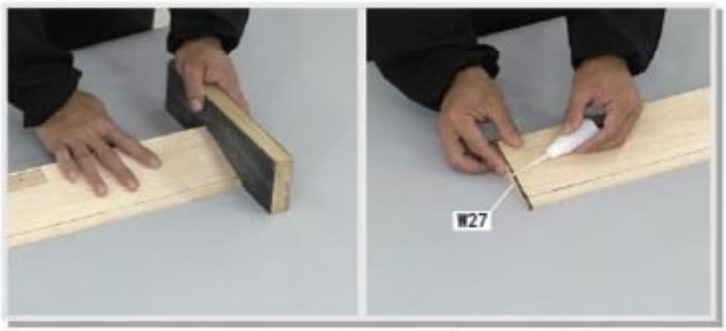
1.29 Glue W25A in place at both ends. Glue W31 to W35A opening, then glue W18A in place. Make sure W31 tapers towards the trailing edge.



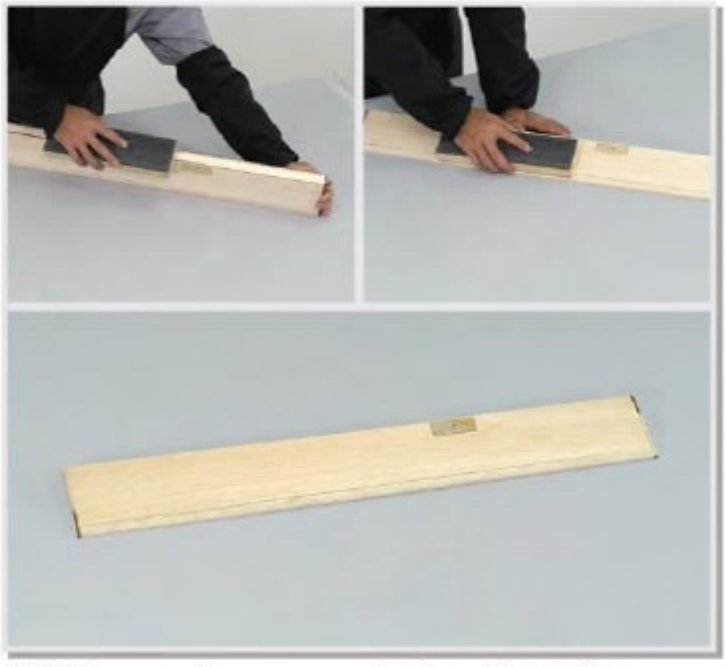
1.30 Glue W25, W29, W29A, W30 and W31. Apply slow curing glue to all surfaces in contact with W35.



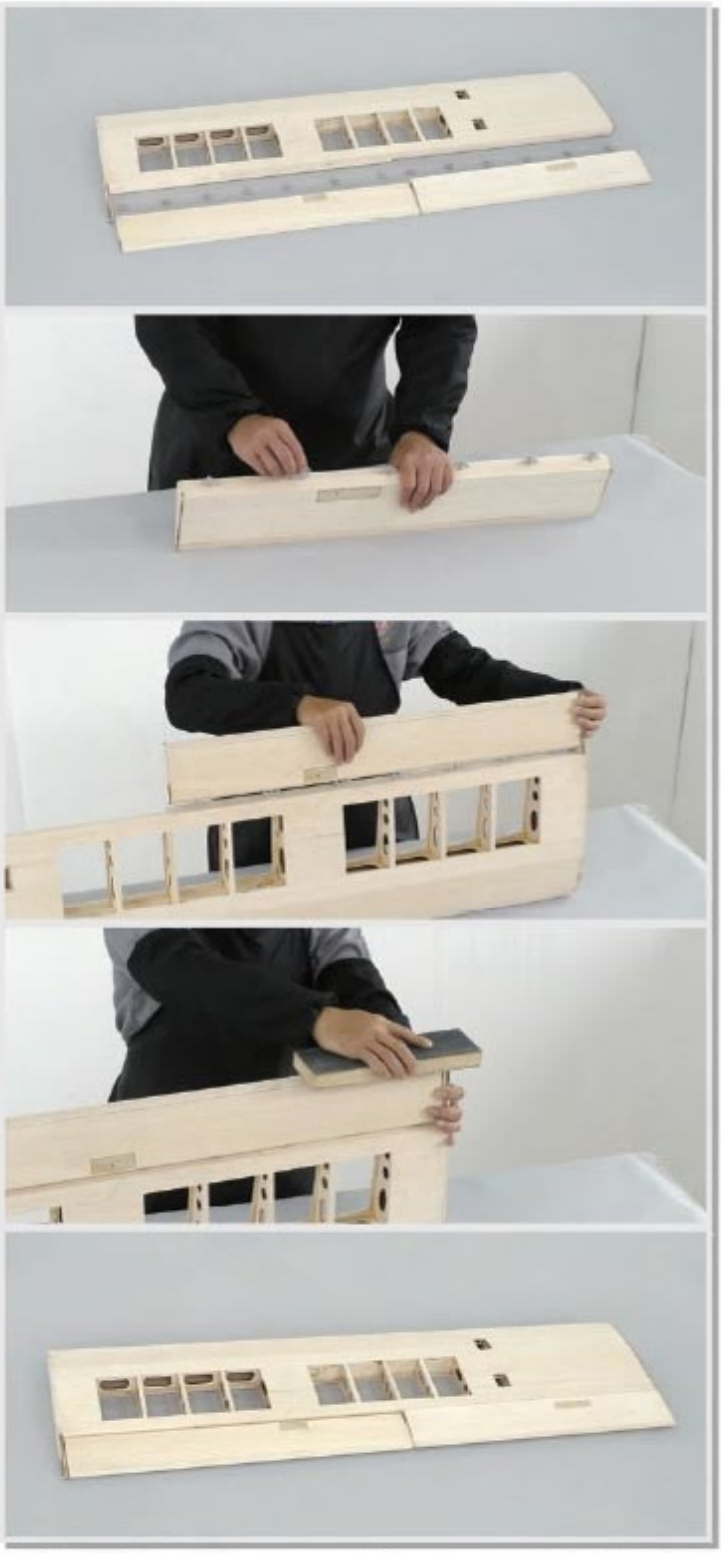
1.31 Then glue W35 in place.



1.32 Remove rough edges at both ends with san paper, the glue W27 in place.



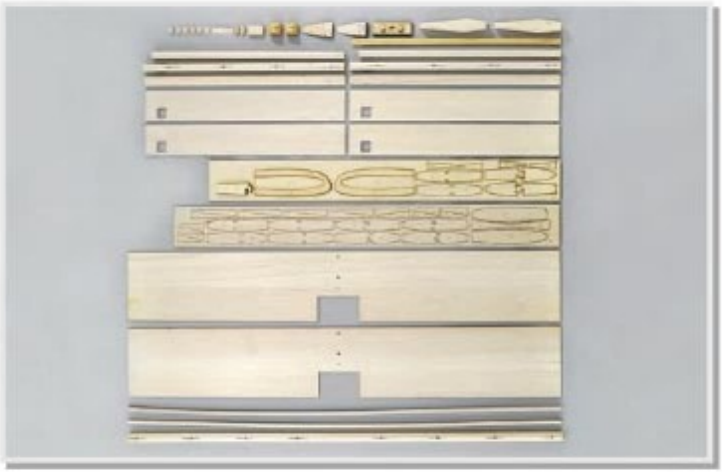
1.33 When cured, remove rough edges with sand paper.



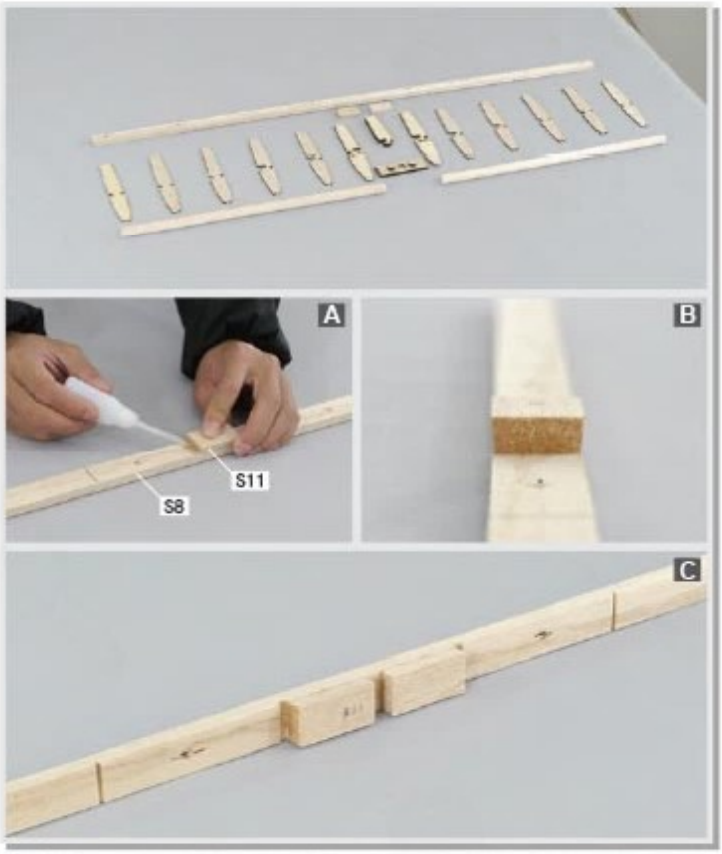
1.34 Insert hinges to aileron and flap, then install to left wing. Use sand paper to remove uneven surfaces.

1.35 Follow the same procedure to assemble right wing.

HORIZONTAL STABILIZER AND ELEVATOR ASSEMBLY

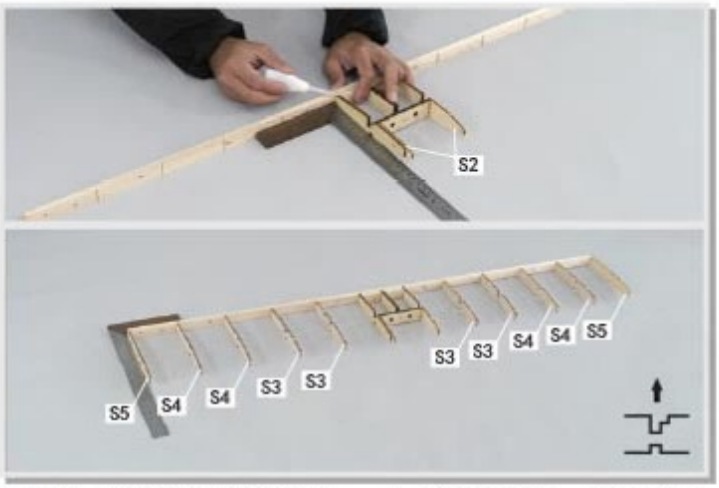


Lay out parts for horizontal stabilizer and elevator

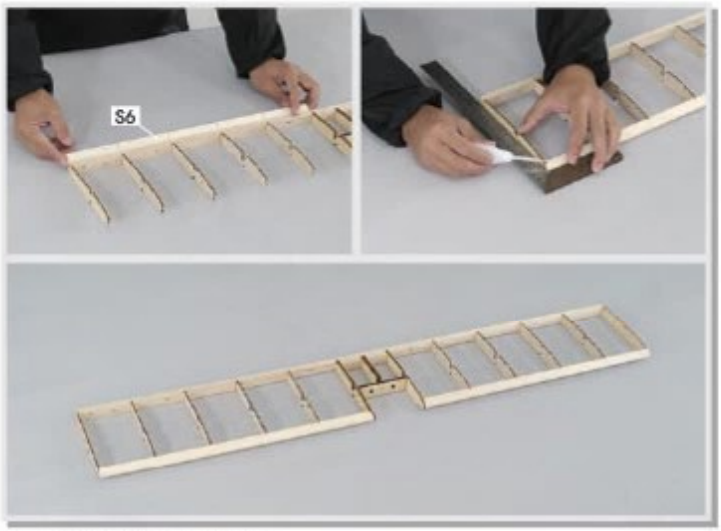


2.1 Align S11 with slot on S8, and glue the narrower flat side of S11 to S8 as shown on figure B.

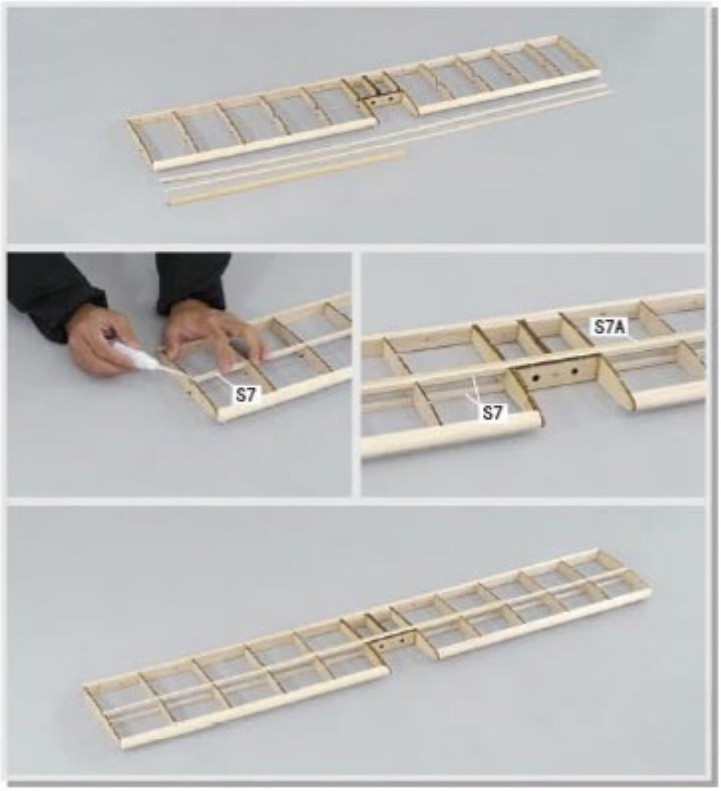
2.2 Apply glue and insert S1 into S10.



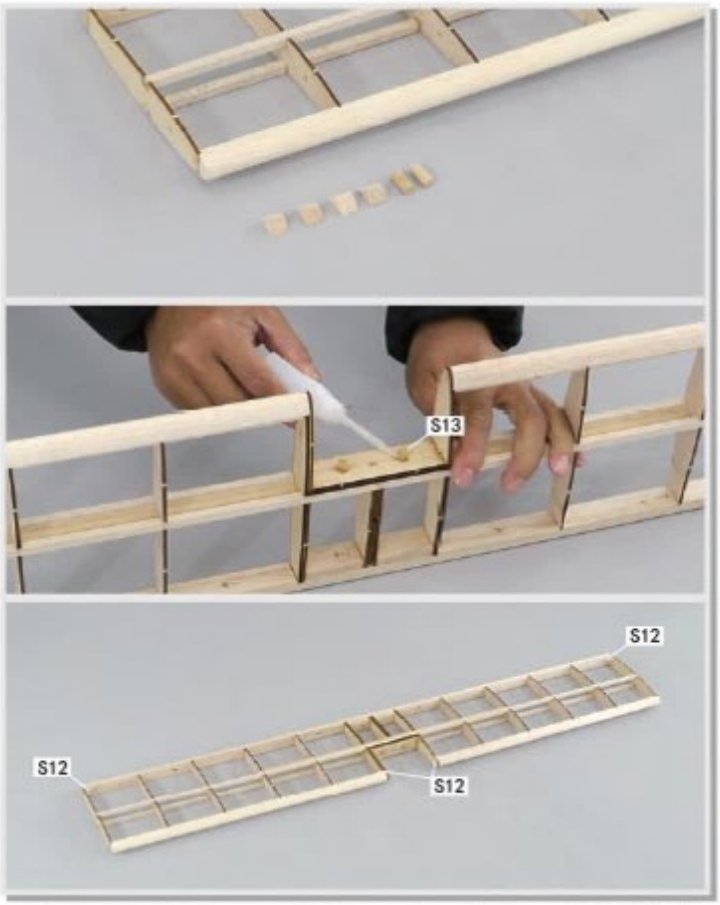
2.3 Glue S1/S10 to S8/S11, then glue S2, S3, S4 and S5. Note that the larger slot of each rib should be on the same side of the stabilizer.



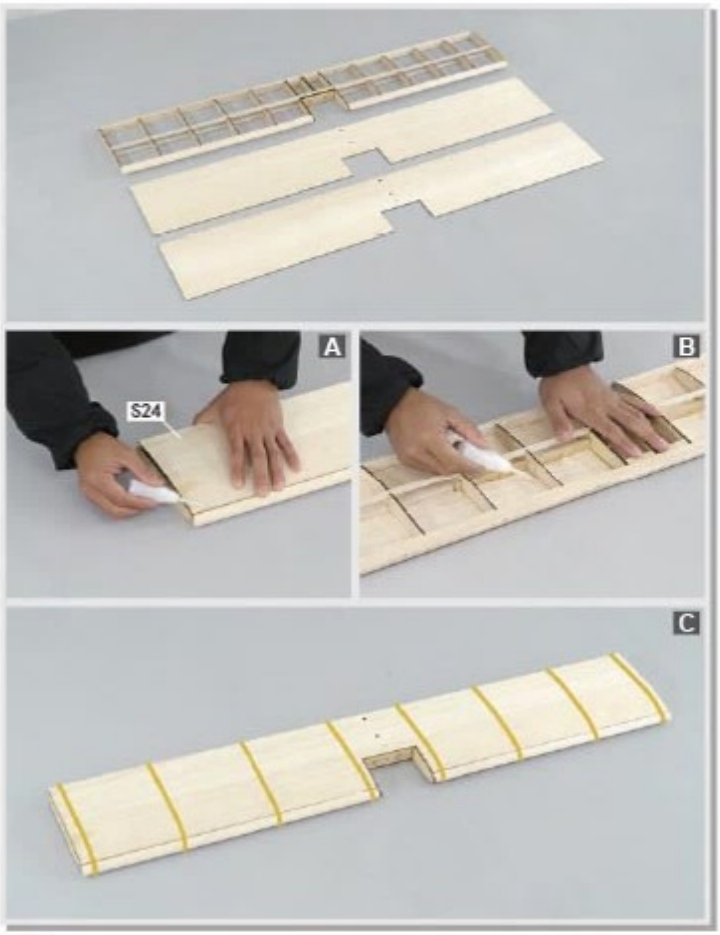
2.4 Glue 2xS6 in place.



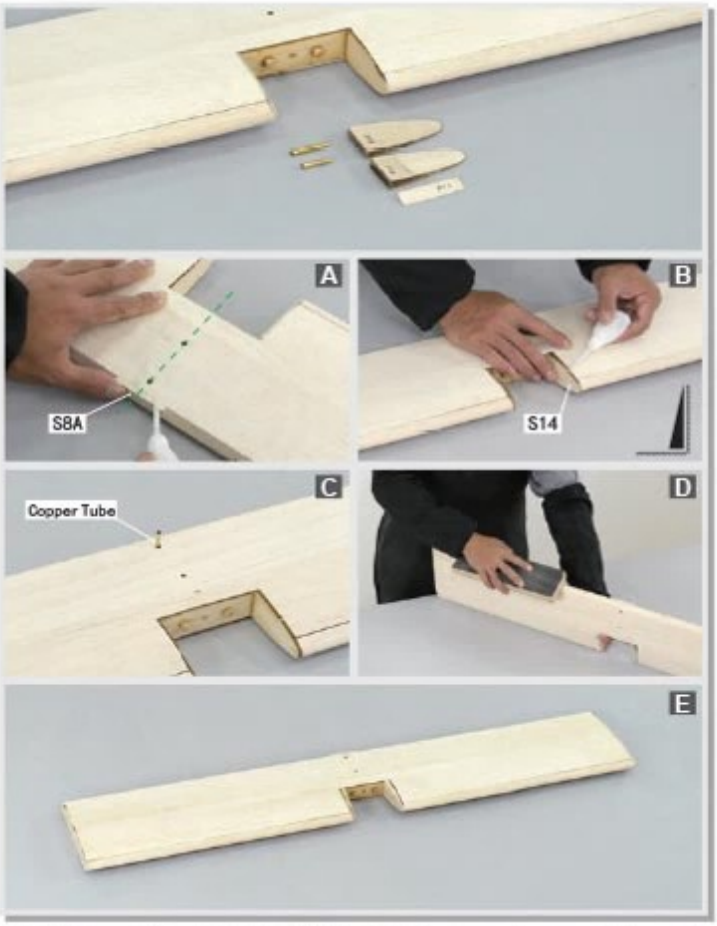
2.5 Glue S7 and S7A in place.



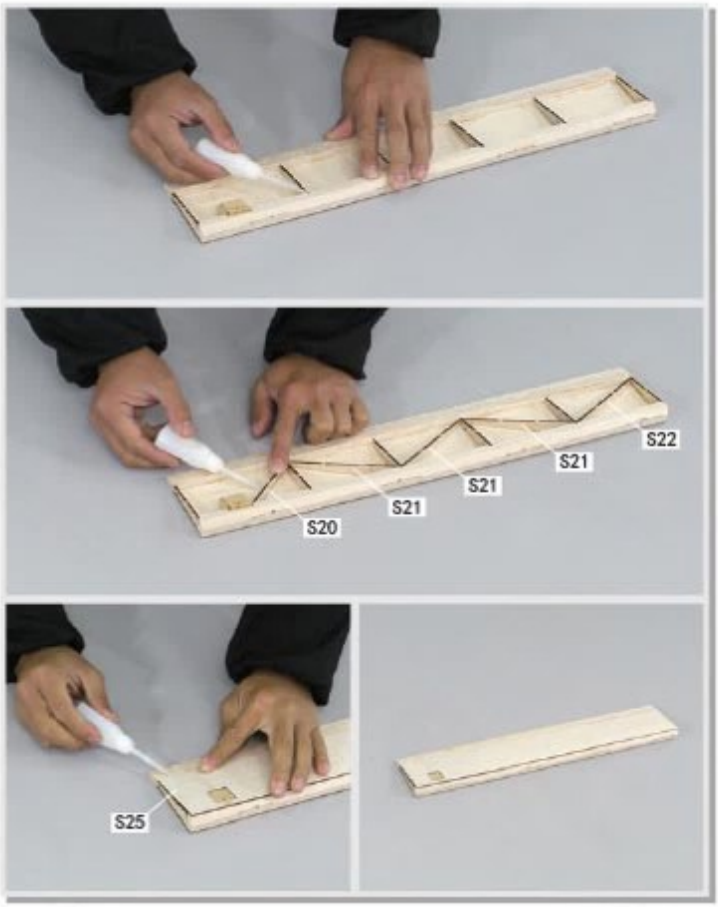
2.6 Insert S13 into round holes and apply glue. Glue S12 in place.



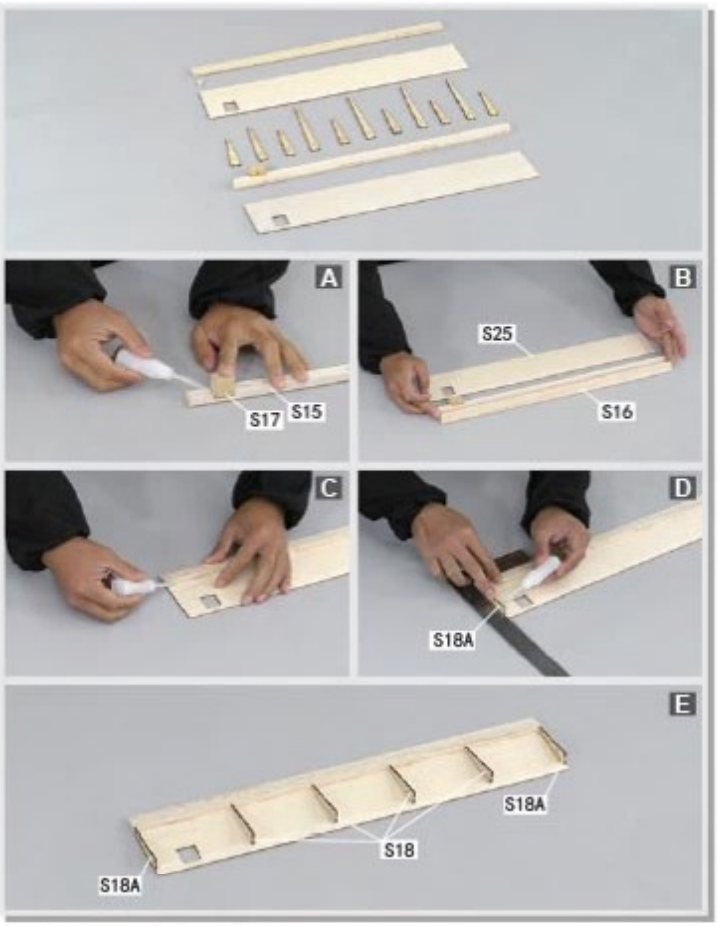
2.7 Put S24 on stabilizer frame and apply glue on both sides. When cured apply slow curing glue on frame and then place S24 on frame. Use rubber band to keep the sheeting in place.



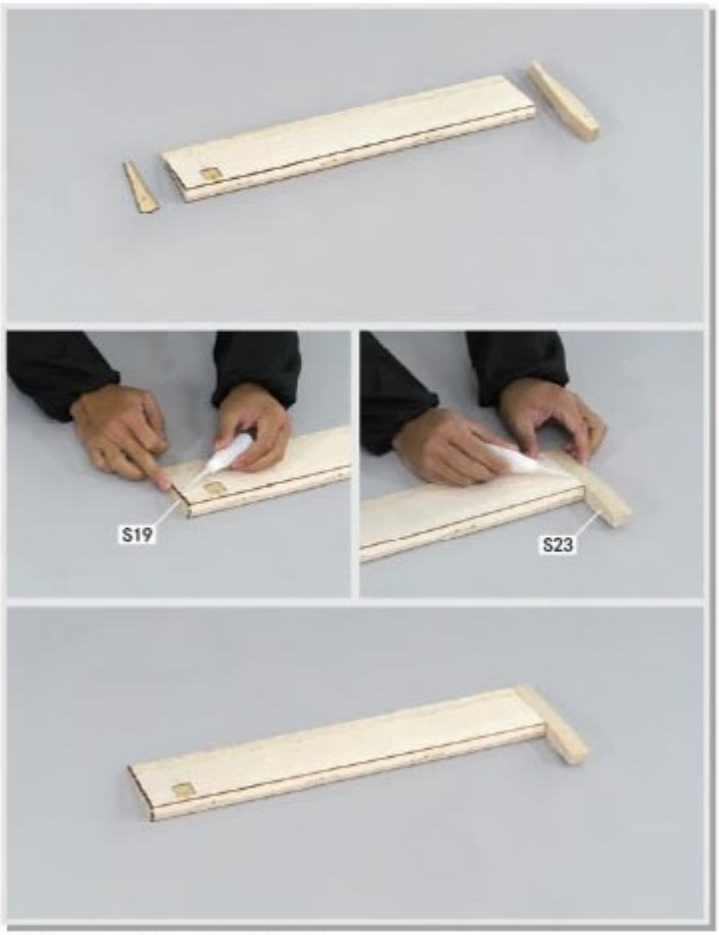
2.8 Align center of S8A with the 2 holes as shown on figure A and glue in place. Glue S14 in place. Insert two copper tubes into S24 and glue in place.



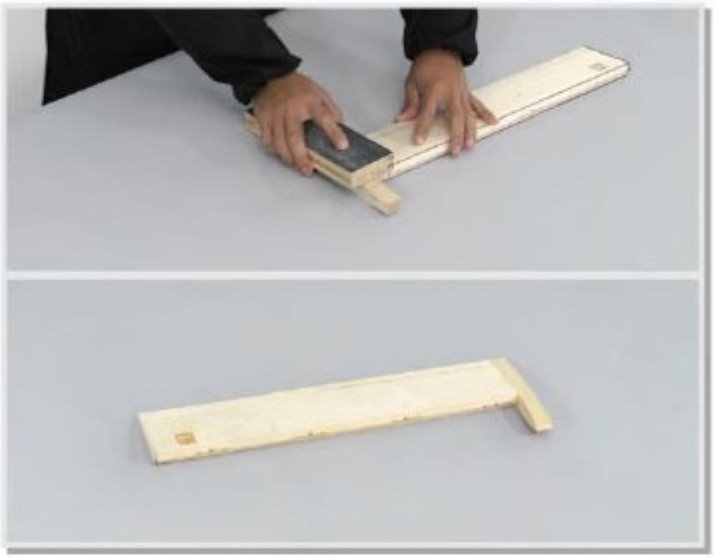
2.10 Glue S15/S17 in place. Glue in S20, S21 and S22. Apply glue to S18. When cured, apply slow curing glue to surfaces in contact and glue S25 in place.



2.9 Lay out parts for elevator. Insert S17 into S15 and glue in place. Glue S16 to S25 as shown in figure C. Glue S18A in place. Insert S18 into S16 slots, do not apply glue at this stage.

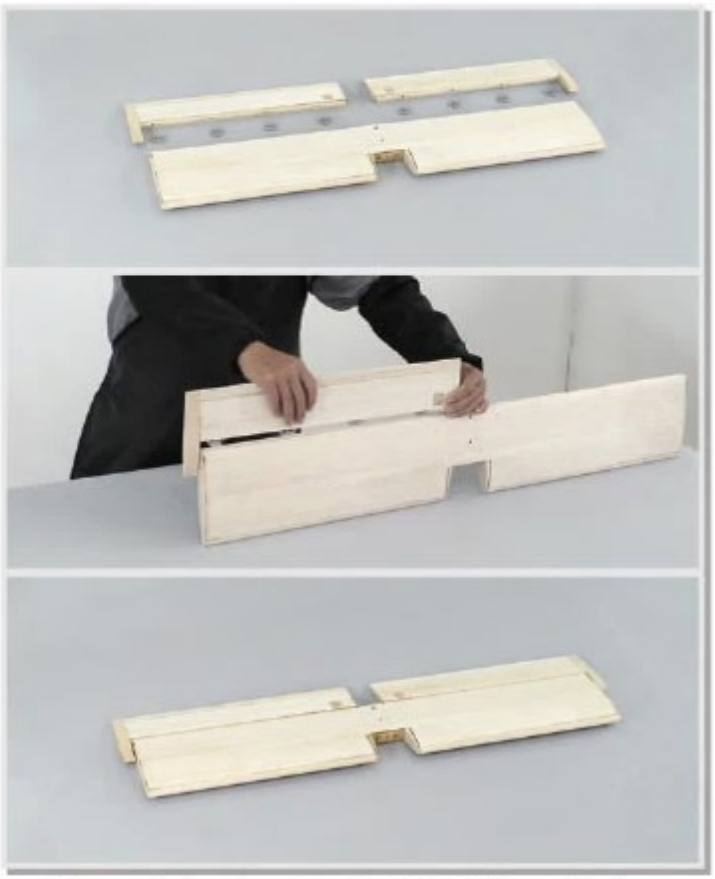


2.11 Glue S19 and S23 in place.



2.12 Use sand paper to remove rough edges.

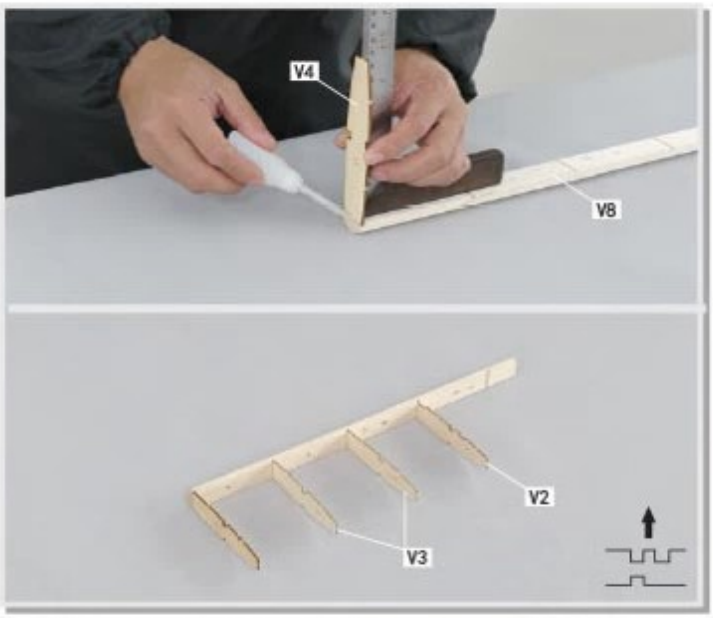
2.13 Apply same procedures to assemble the other elevator.



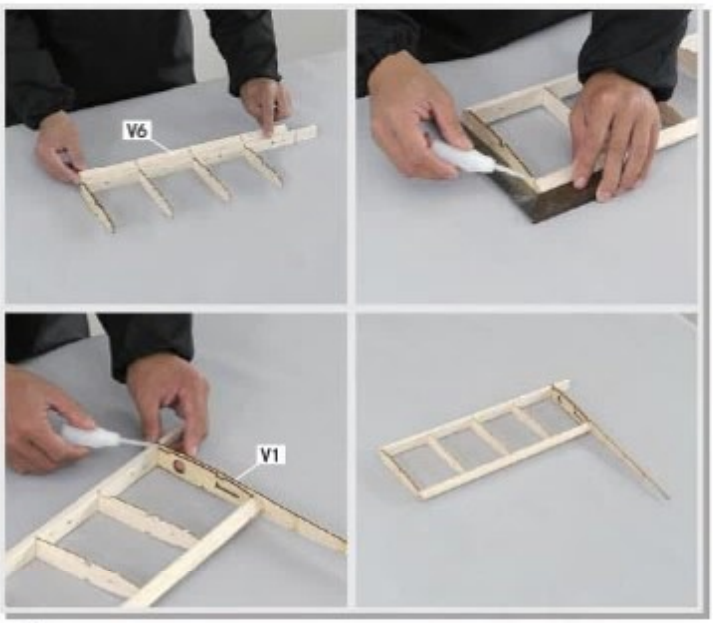
2.14 Connect elevator and horizontal stabilizer with align-pro hinges.

VERTICAL STABILIZER AND RUDDER ASSEMBLY

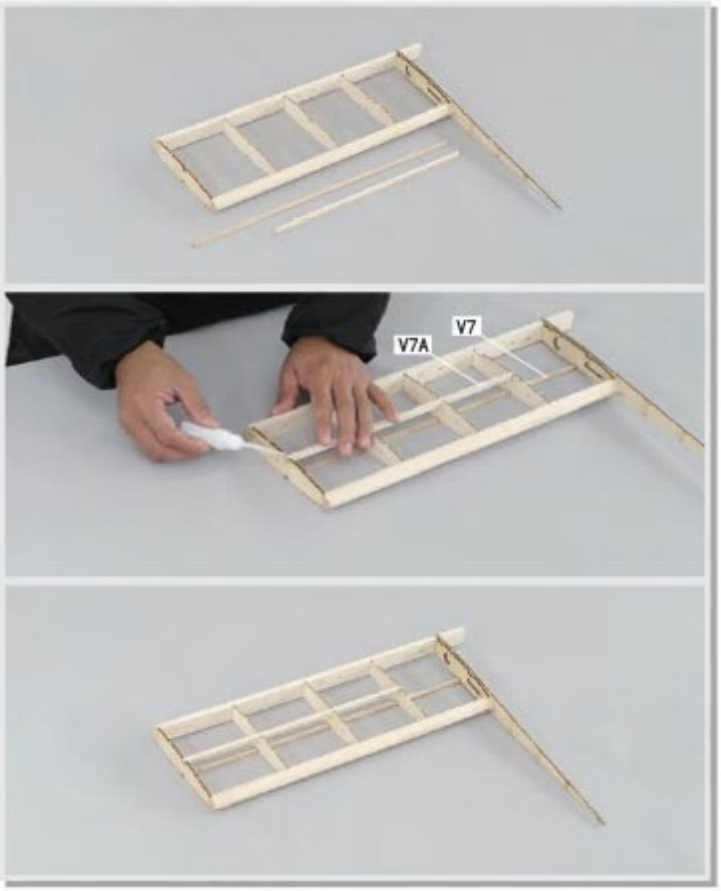
Lay out parts for the vertical fin and rudder



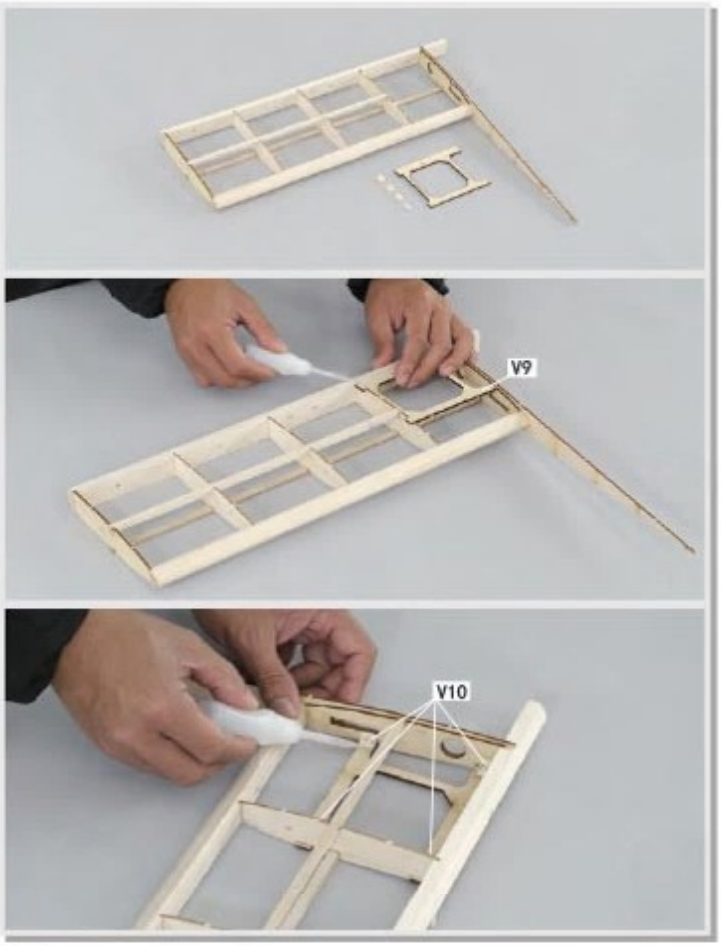
3.1 Insert V2, V3 and V4 to V8 grooves and glue in place. Make sure double slot side of ribs are facing up.



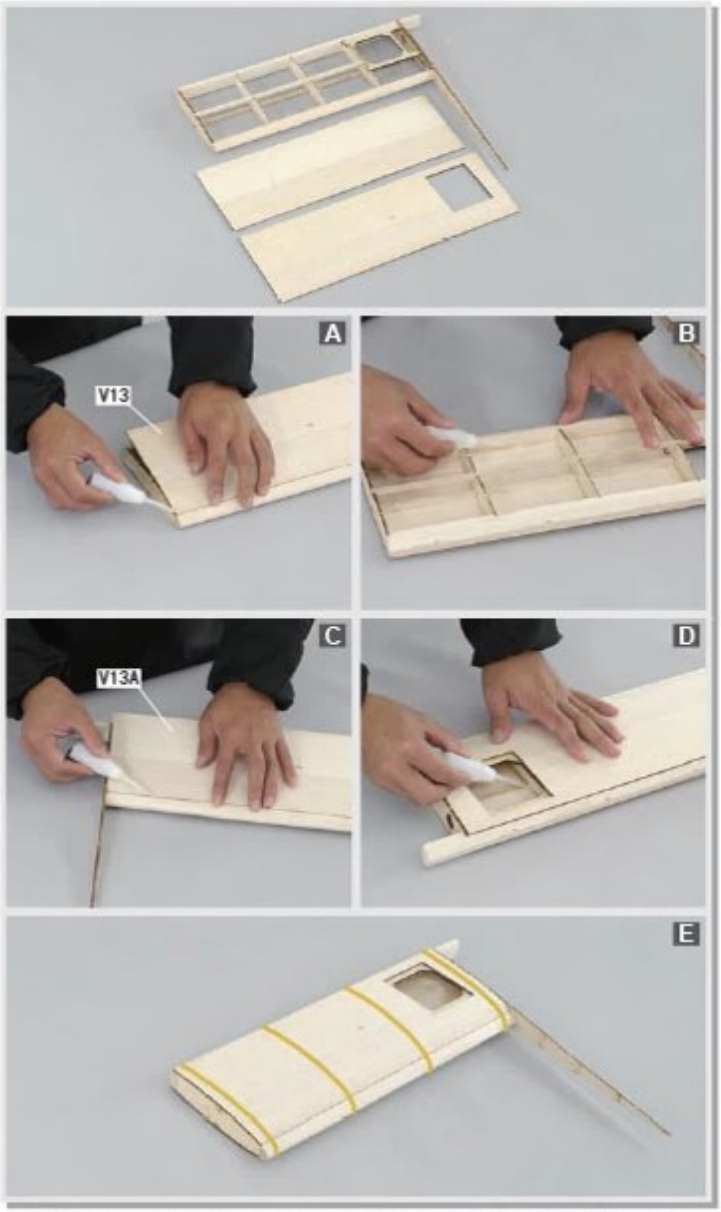
3.2 Glue V1 and V6 in place. Make sure plywood side of V1 is facing V2.



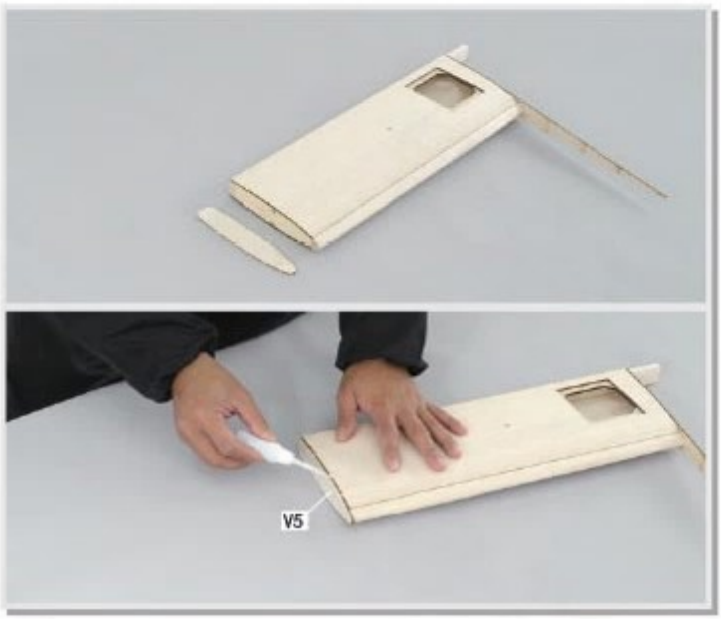
3.3 Glue V7 and V7A in place.



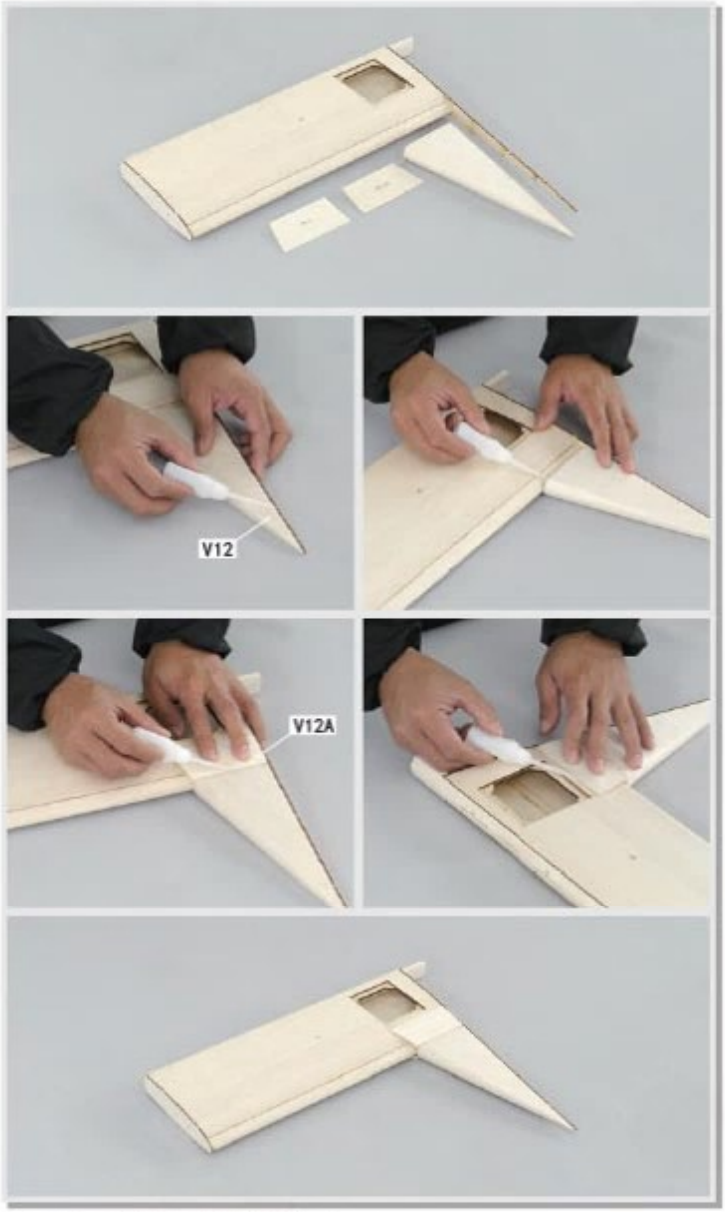
3.4 Glue V9 in place. When cured flip over frame and glue 4 reinforcement triangular wood block V10 in place.



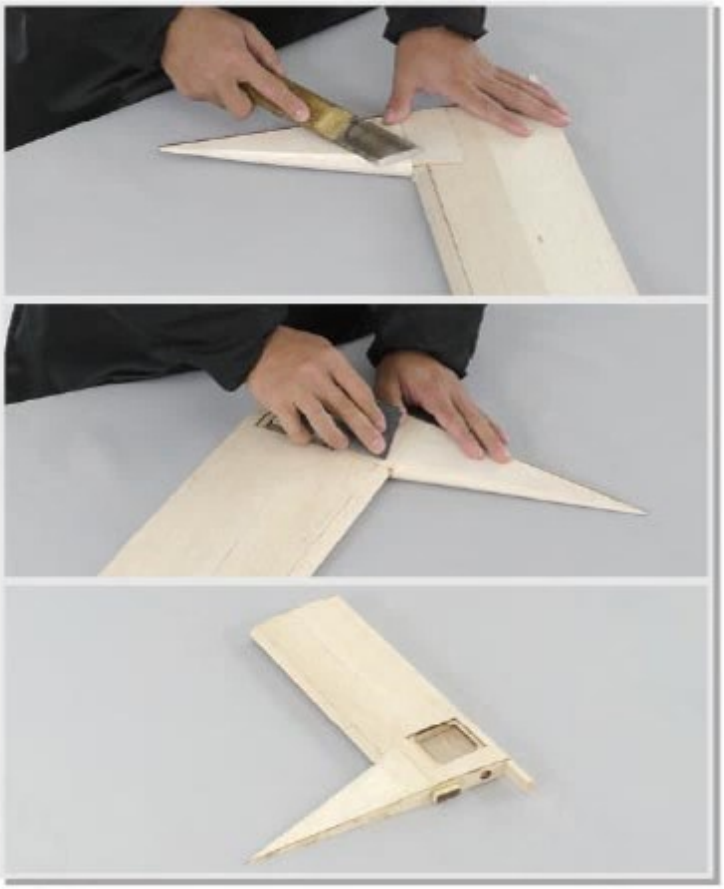
3.5 Glue V13 in place. Flip over frame and apply glue to all surfaces in contact. When cured apply slow curing glue to surfaces in contact with V13A, press V13A to frame and use rubber band to hold in place.



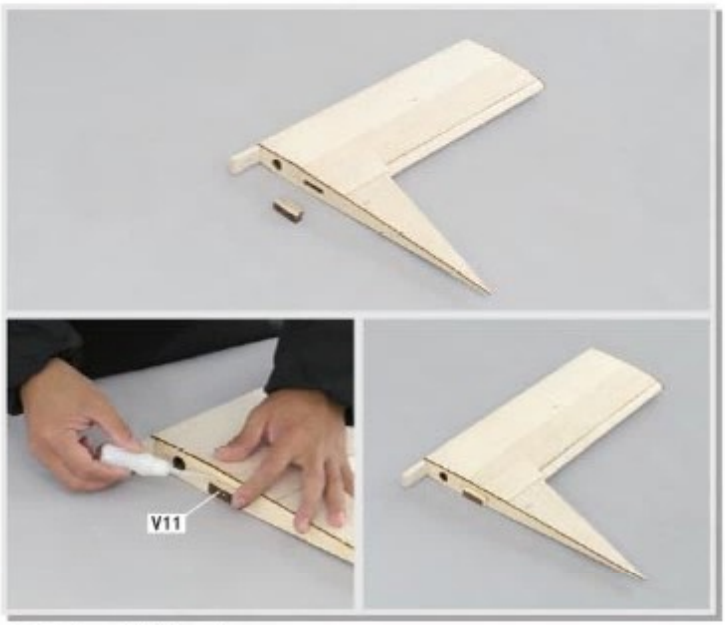
3.6 Glue V5 in place.



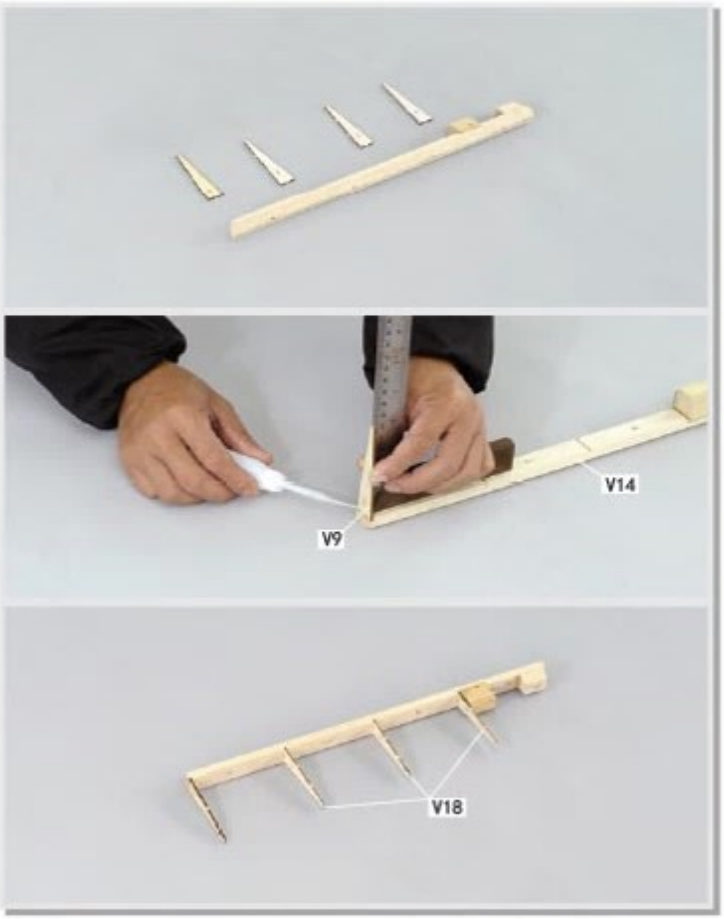
3.7 Glue V12 and V12A in place.



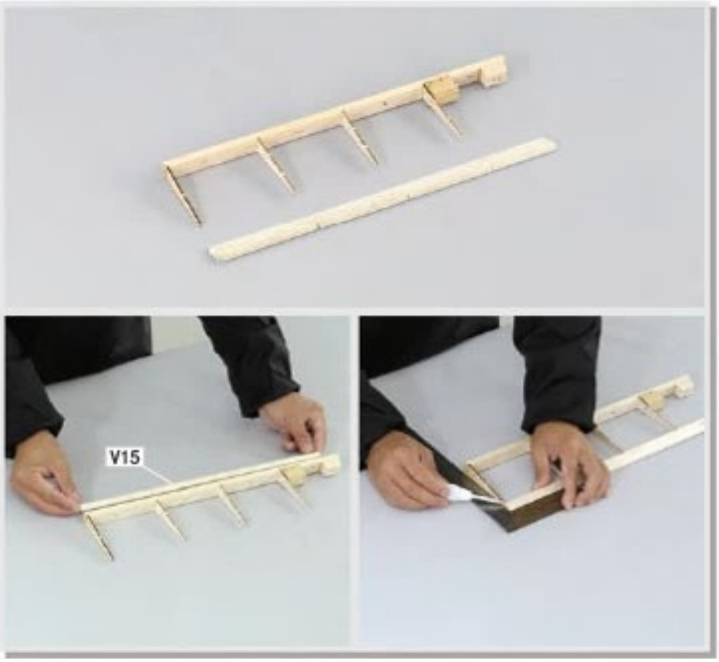
3.9 Cut off and sand down rough edges.



3.8 Glue V11 in place.

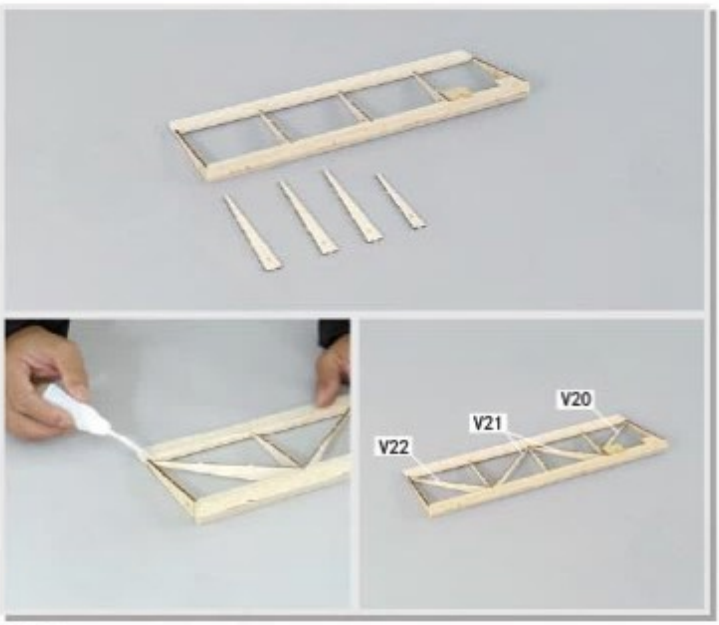


3.10 Insert V9 and V18 into V14 slot and glue in place.

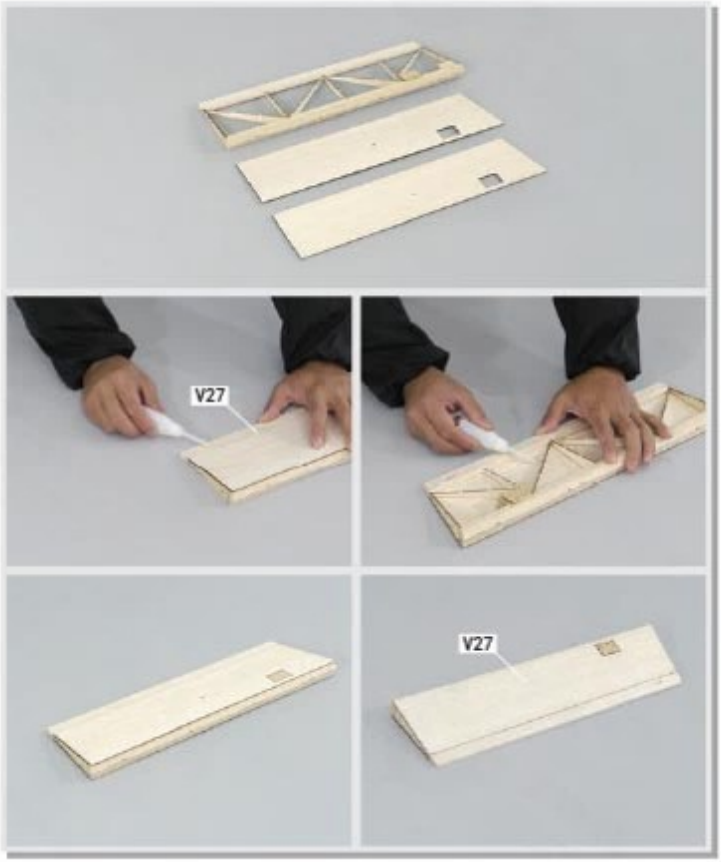


3.11 Glue in V15, make sure slots align with ribs.

3.12 Glue in V17.

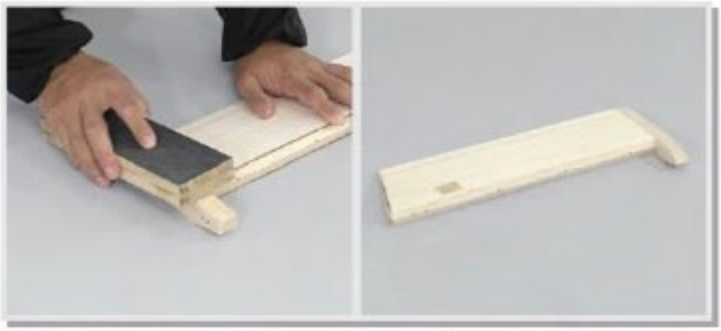


3.13 Glue in V20, V21 and V22.

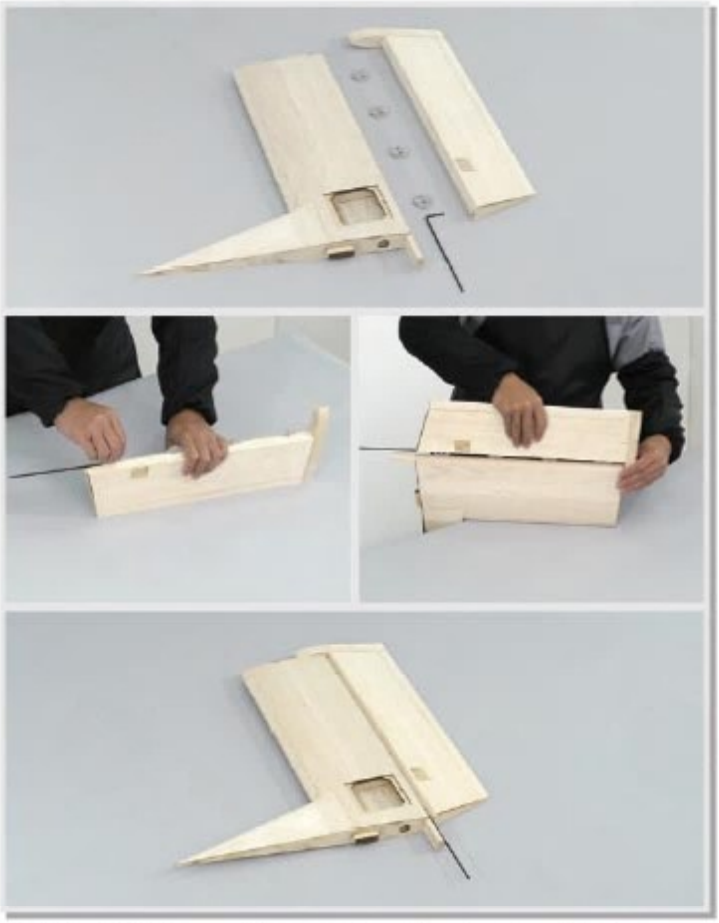


3.14 Glue in V27, apply glue to all surfaces in contact. When cured, apply slow curing glue to frame and glue in the other V27.

3.15 When cured, glue in V16 an dV26.

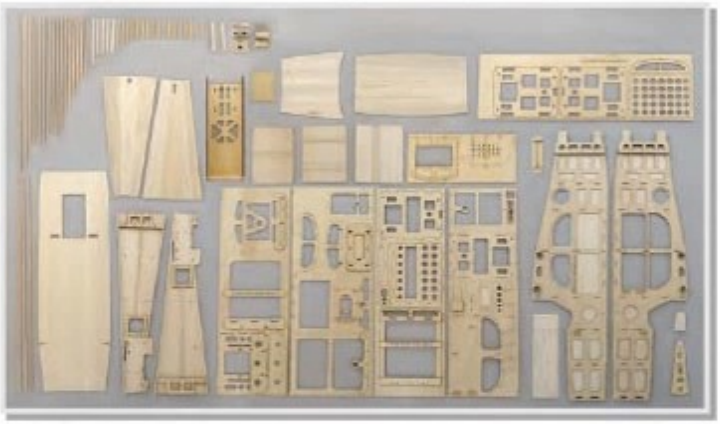


3.16 Remove rough edges with sand paper.

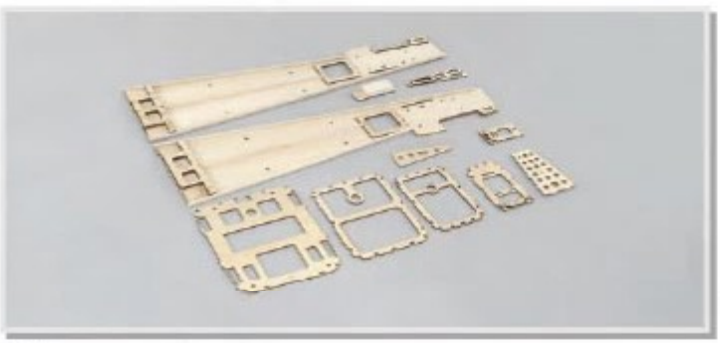


3.17 Install align-pro hinges. Do not apply glue at this stage.

FUSELAGE ASSEMBLY

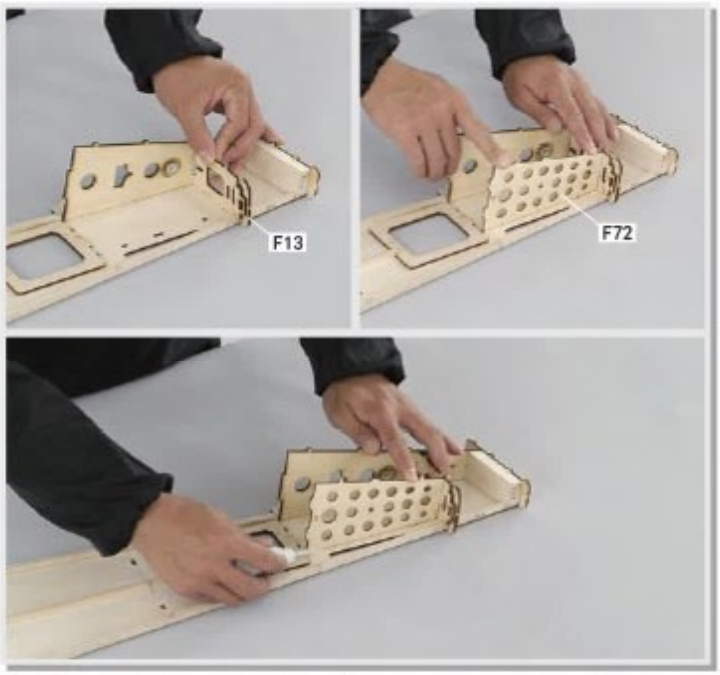


Lay out the fuselage parts on a flat table top.

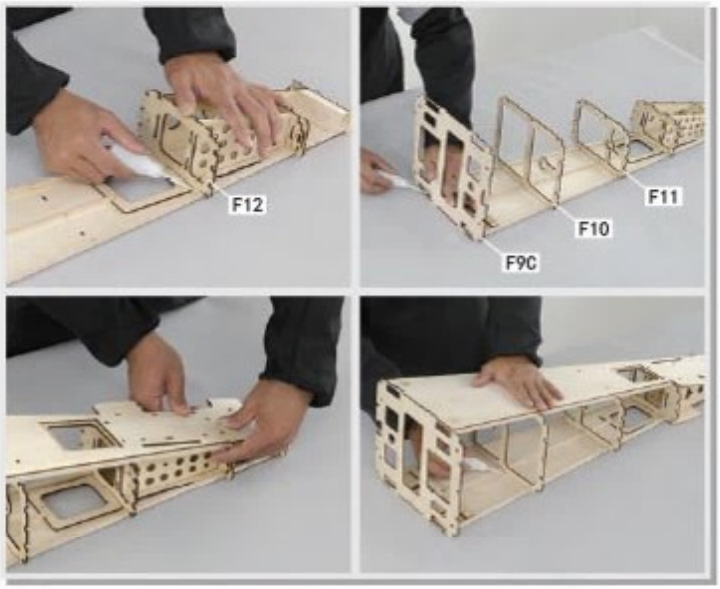


4.1 Take out parts for the tail section.

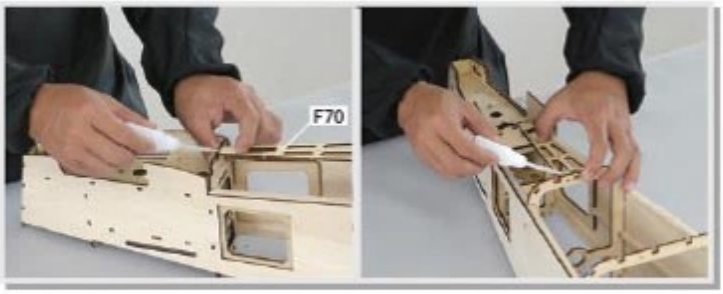
4.2 Glue in F14 and F52, make sure all the latches are inside corresponding slots.



4.3 Insert F13 and F72 into side panel.Apply glue when both F13 and F72 are in position.



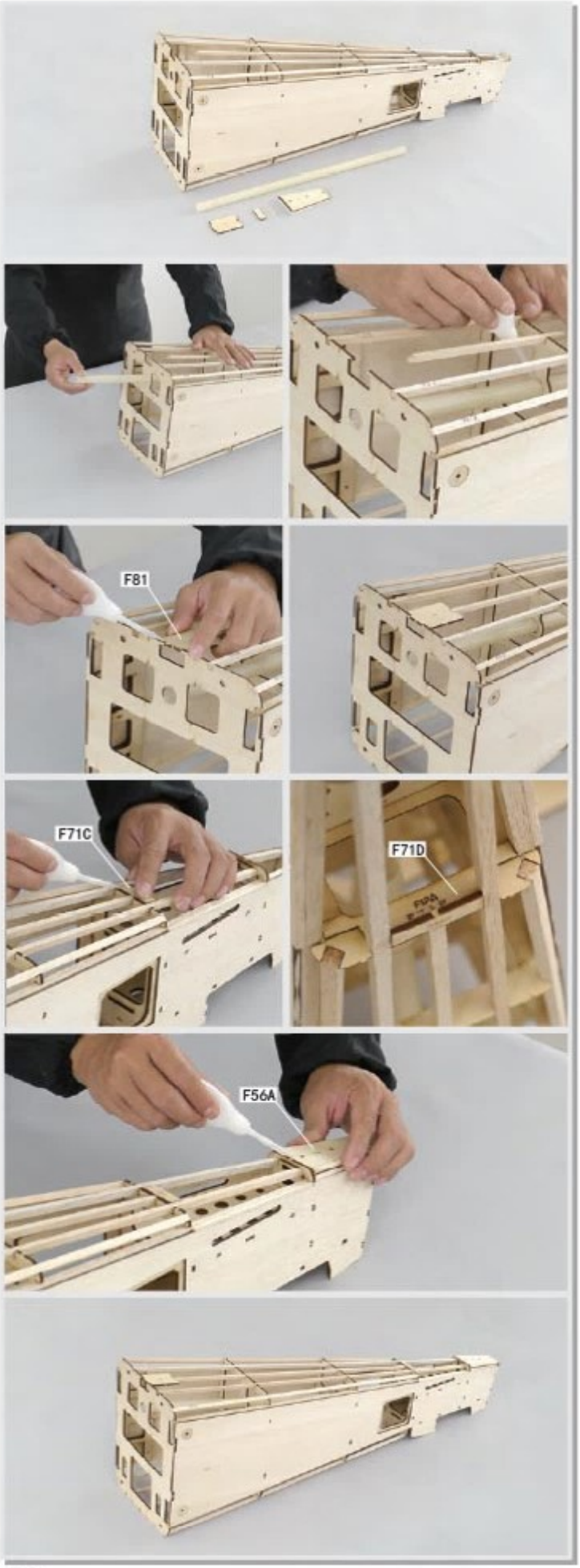
4.4 Glue in F9C, F10, F11 and F12, then glue in the right side panel. Make sure all the latches are fully inserted into corresponding slots.



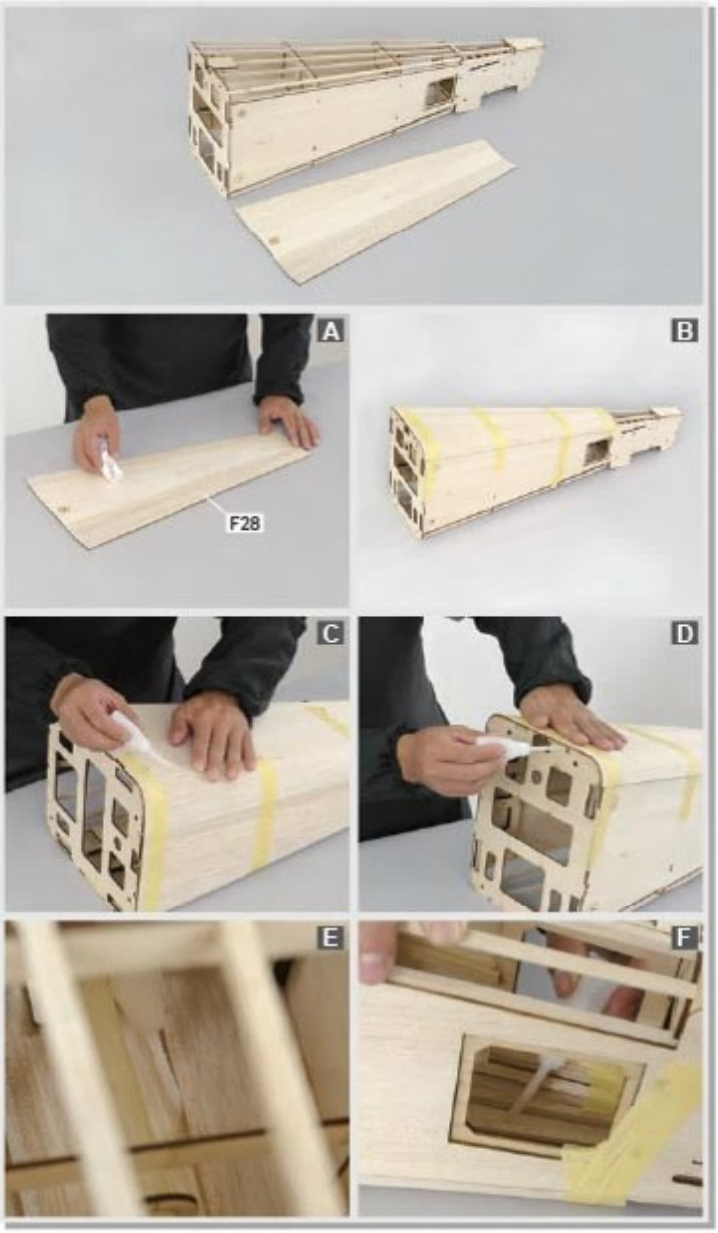
4.5 Put tail section upright and glue in F70. Make sure latches are fully inserted into slots when applying glue.

4.6 Glue in F41A, F41C and F42A.

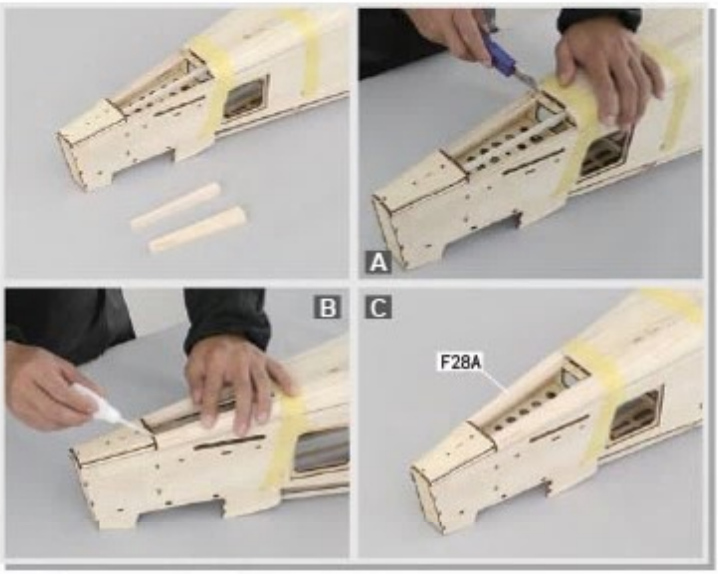
4.7 Flip over tail section and glue in F45A, F45B and F46A. Place F46A with slots facing outwards.



4.8 Glue in F56A, F71C, F71D, F81 and fiber glass tube.

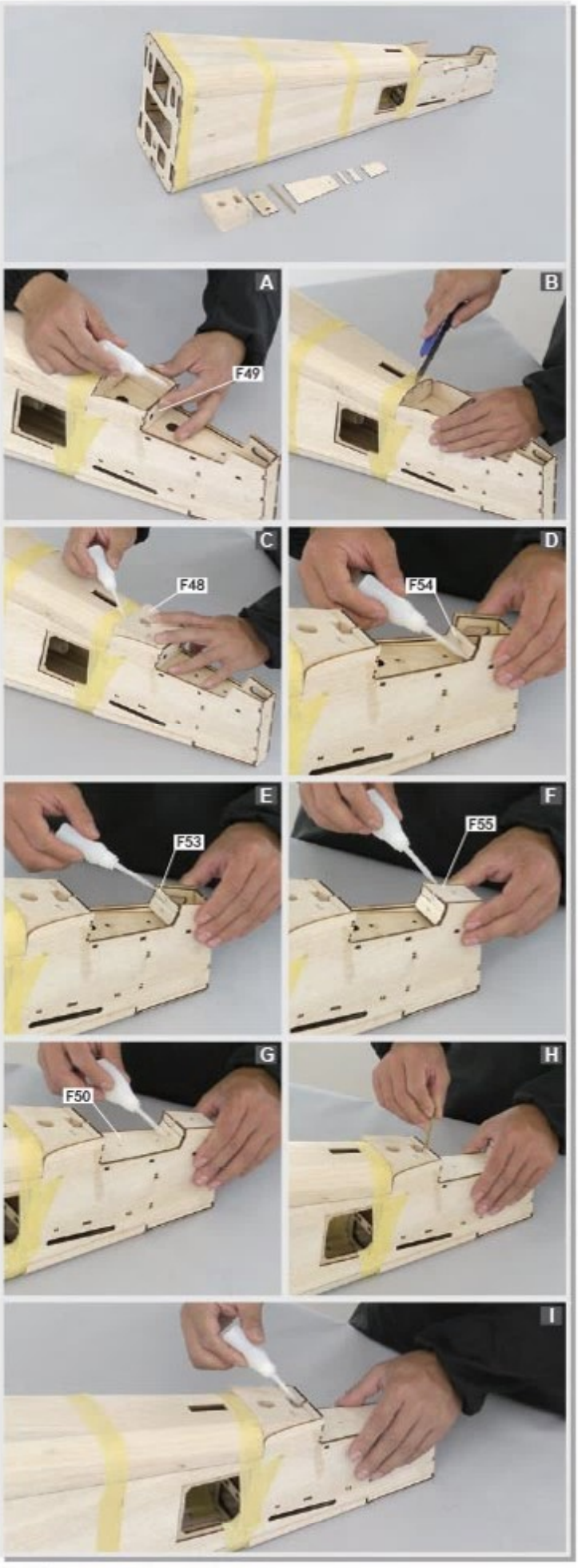


4.9 Apply slow curing glue to frame. Apply moisture to outer 6 cm portion of F28 to make it more flexible and press onto tail section frame. Use tape to hold F28 in place. When cured apply glue to all surfaces in contact for reinforcement.

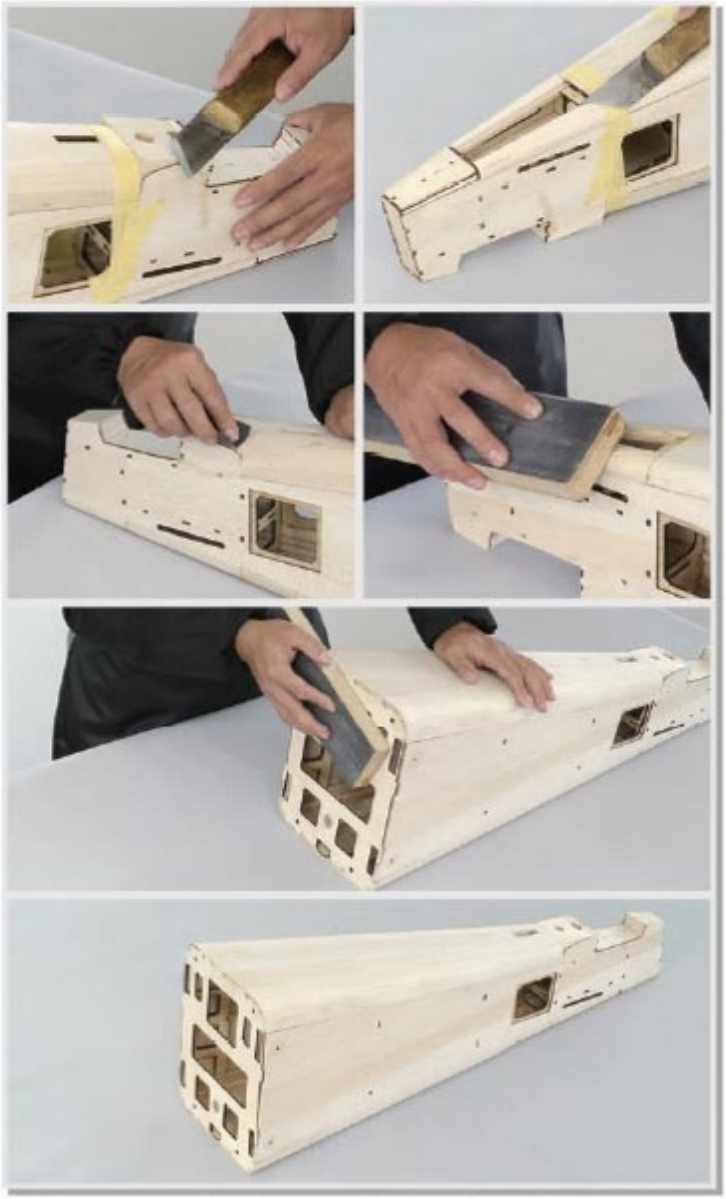


4.10 Trim uneven sheeting with knife and glue in F28A.

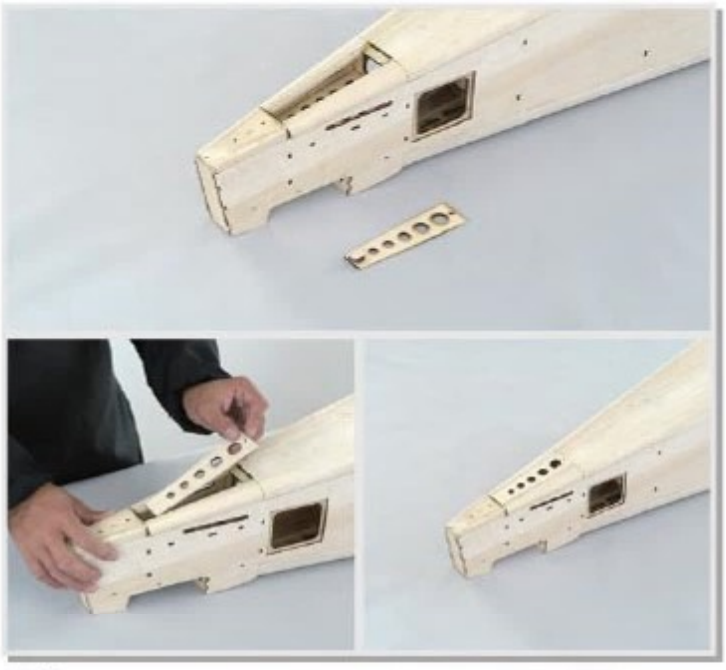
4.11 Place tail section upright, repeat same procedure as 4.9 to glue F27A in place.



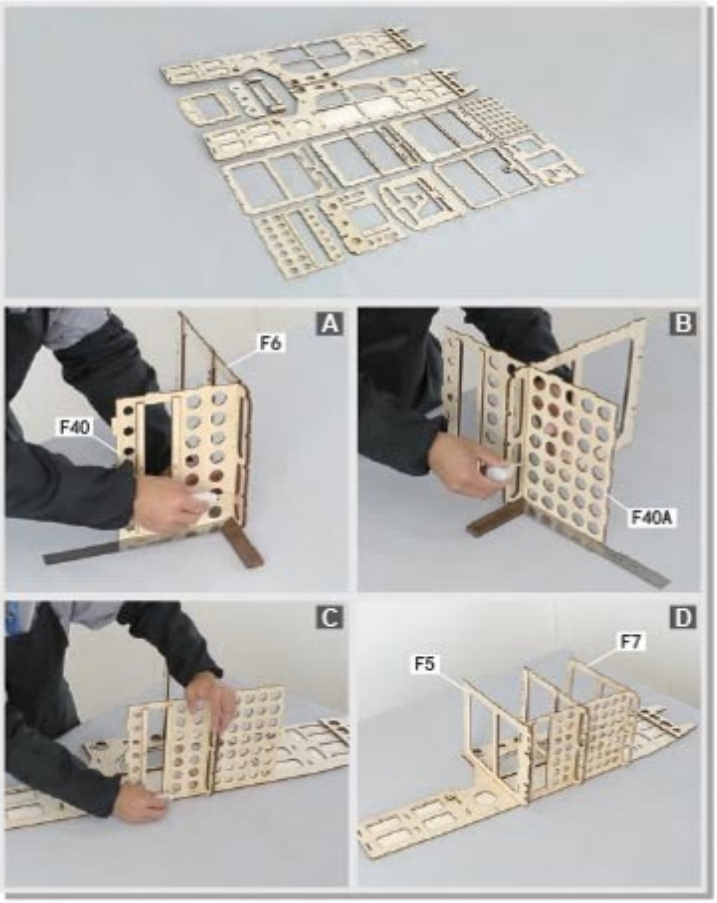
4.12 Glue in F49, F48, F54, F53, F50 and copper tube. Before glue in F48, trim uneven sheeting. Make sure copper tube goes through all pre-drilled holes.



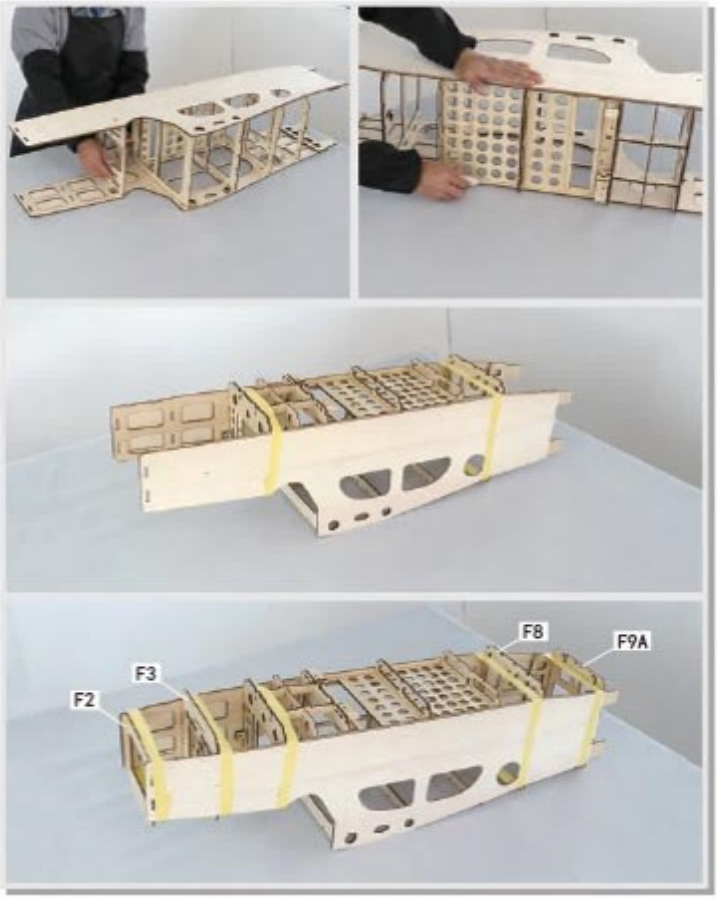
4.13 Remove rough edges with knife and sand paper.



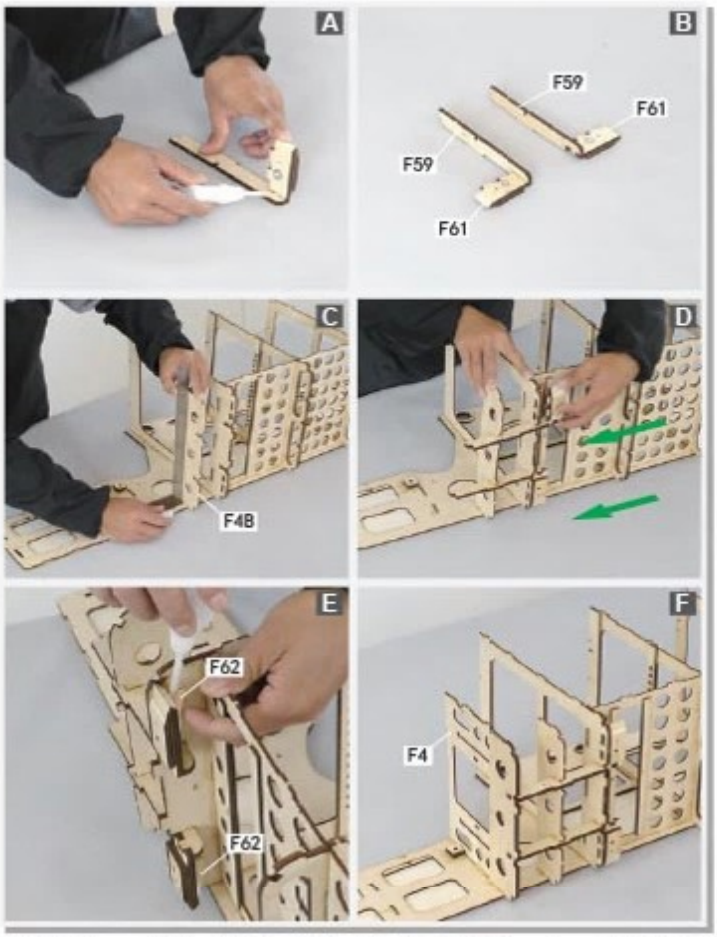
4.14 Trial fit F71. Grind down uneven surface if needed.



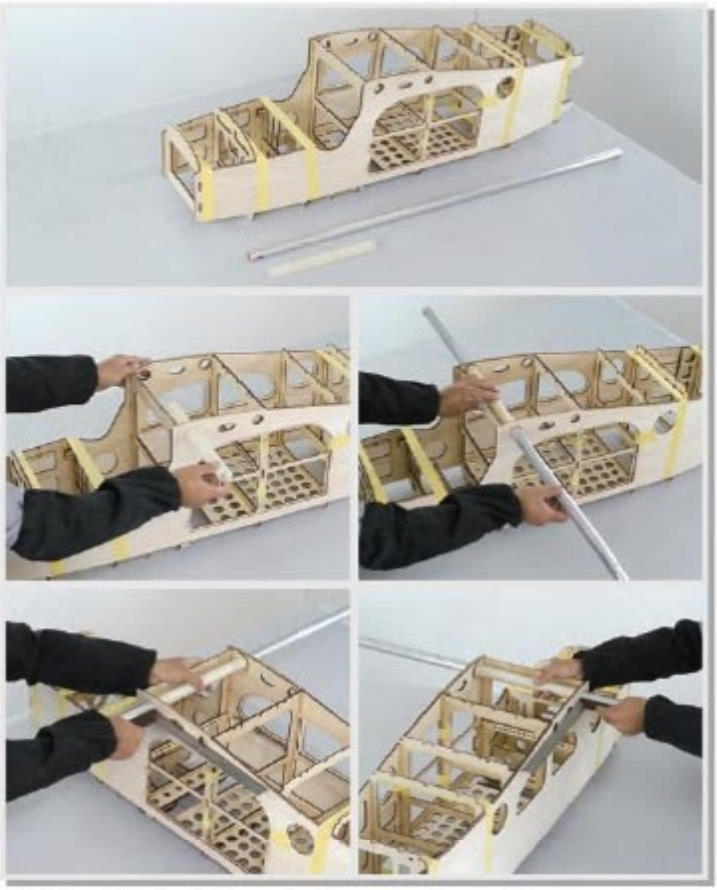
4.15 Glue in F6, F40, F40A, F5 and F7 to fuselage side panel.



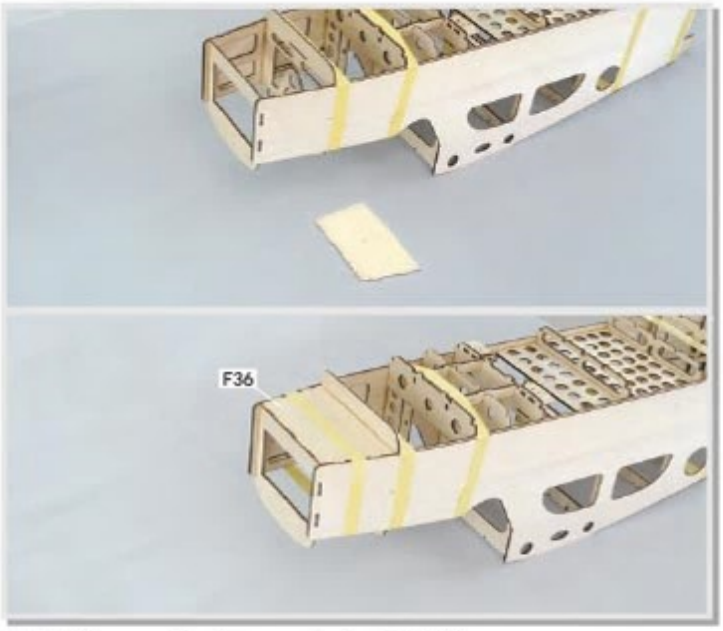
4.17 Insert right side frame into left side panel. Make sure all latches are inside corresponding slots and apply glue. Use tape to secure the side panel. Glue in F3, F2, F8 and F9A. Use tape to force side panels to curve in to conform with F3, F2, F8 and F9A.



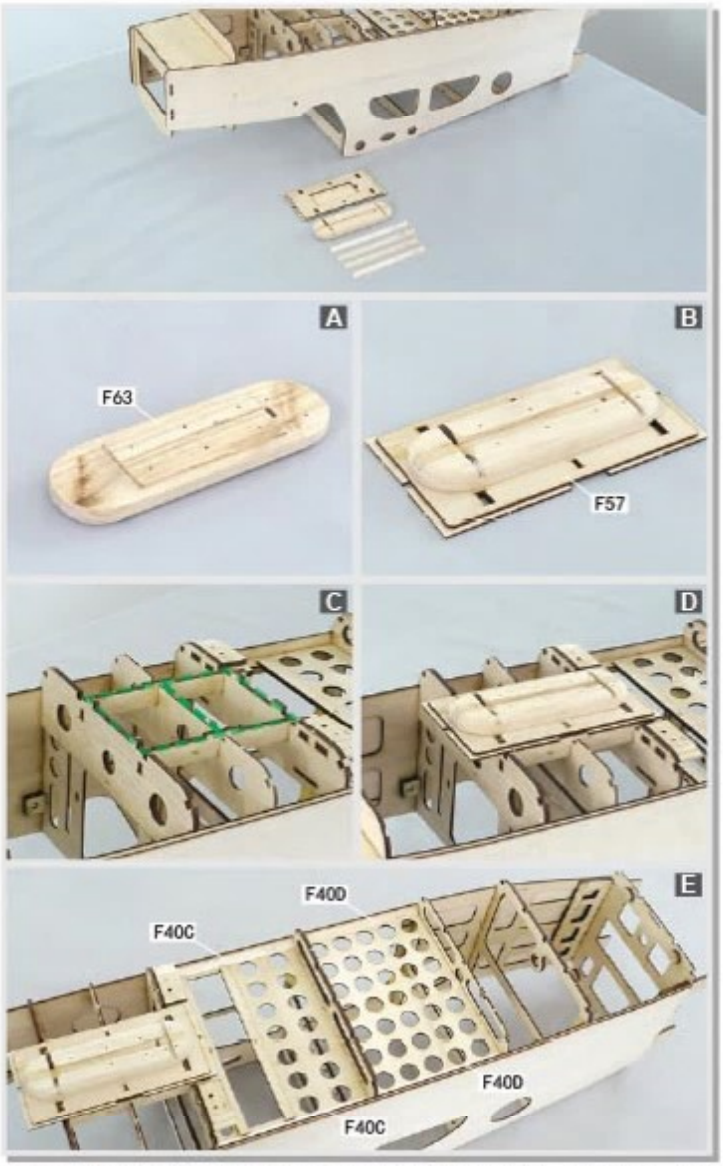
4.16 Glue and join F59 to F61. Glue in F4B, then insert F59/F61 into F5 and F4B, then apply glue. Glue in F62 to reinforce joint. Then glue in F4.



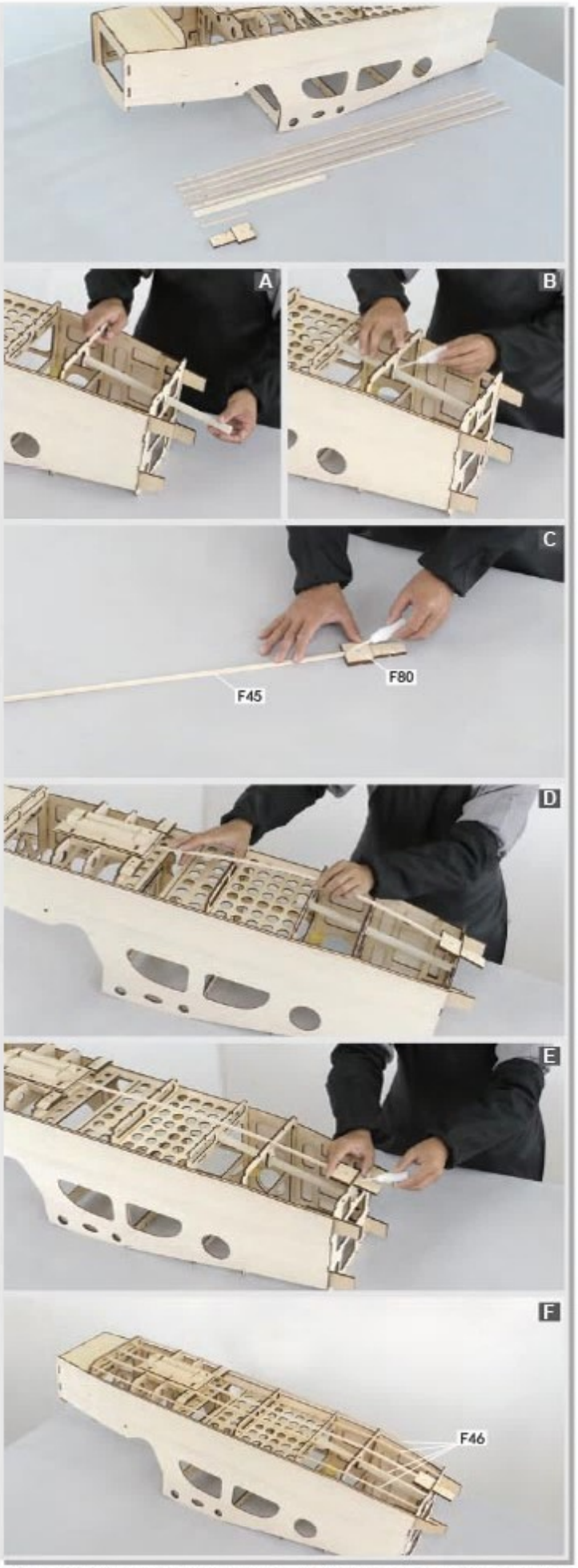
4.18 Install wing tube and sleeve, and use set square to make sure wing tube is perpendicular to side panel.



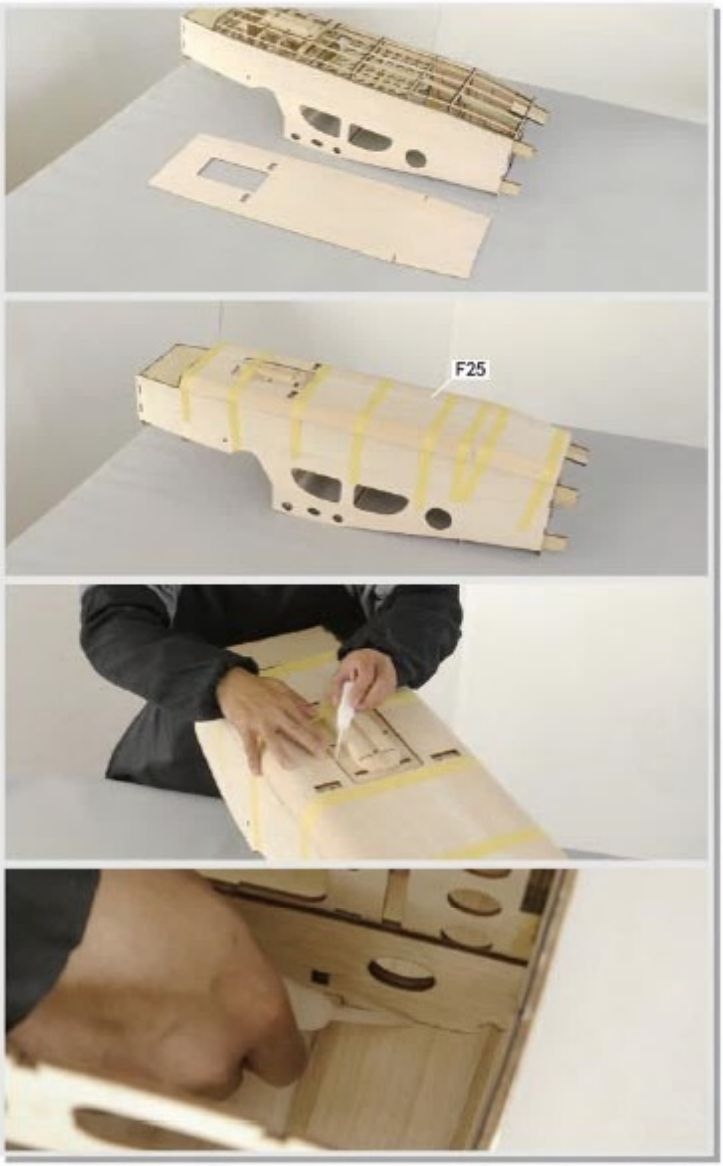
4.19 Flip over fuselage and glue in F36.



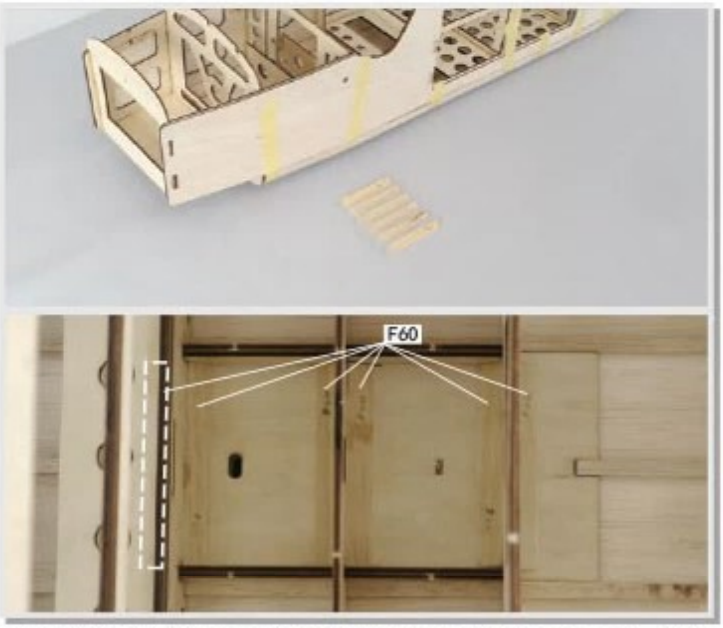
4.20 Apply epoxy glue to F63, and glue to F57. Apply epoxy glue to green area as shown on picture C, glue F63/F57 in place, Glue in F40C and F40D.



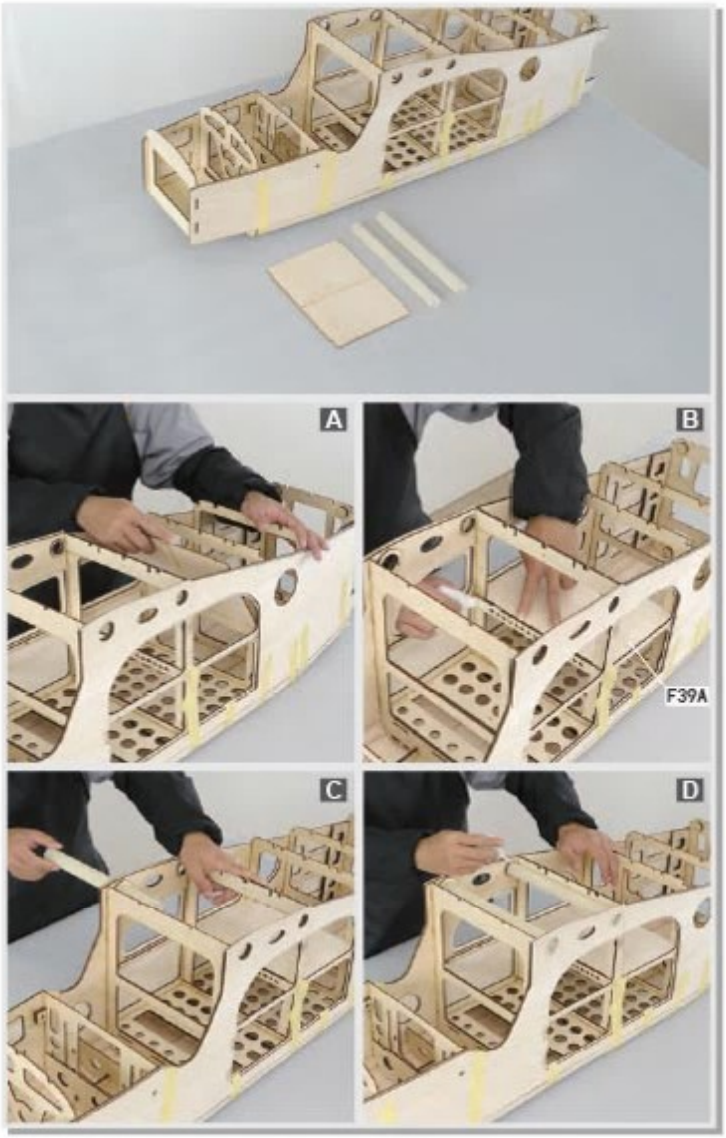
4.21 With fuselage bottom up, insert fiber glass sleeve and glue in place. Glue and join F45 and F80. Glue in F45/F80. Glue in he 4 pieces of F46.



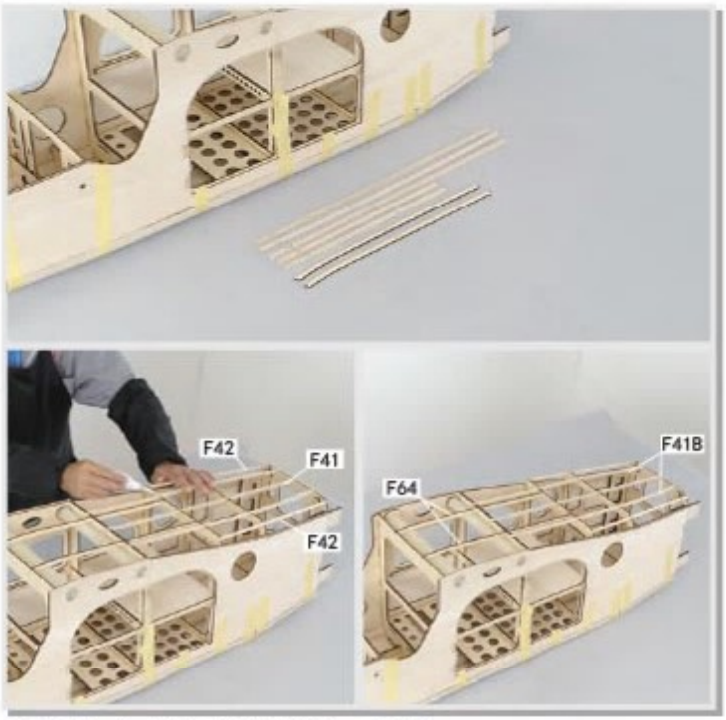
4.22 Apply slow curing glue to frame, apply moisture to outer 6 cm portion of F25 and put F25 on the fuselage frame. Use tape to keep curve section of F25 in position. When cured, apply glue to all surfaces in contact for reinforcement.



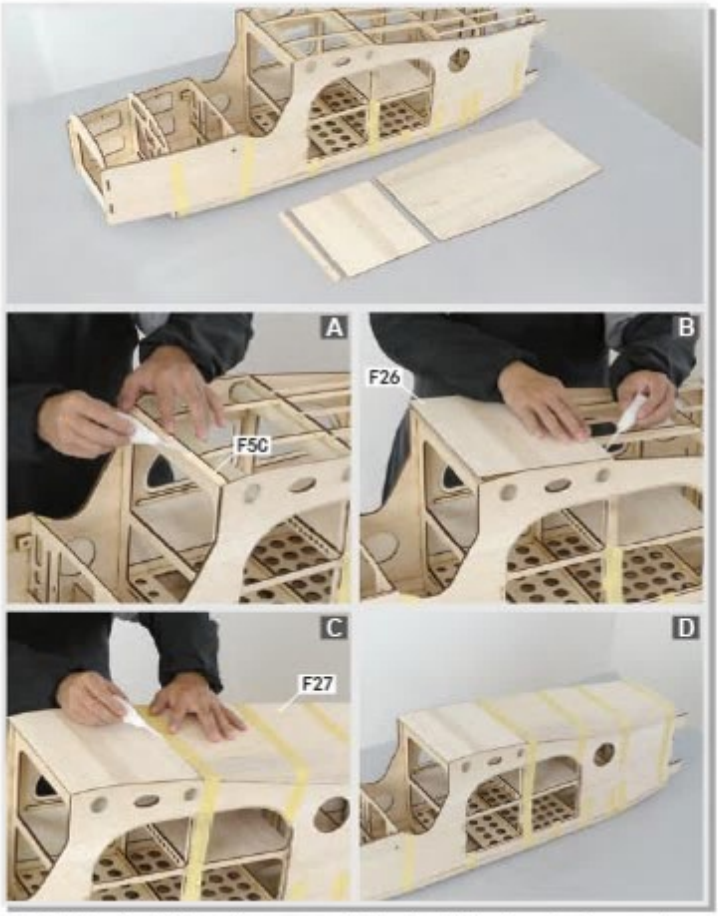
4.23 Glue in 6 pieces of F60 reinforcement wood block. Note that there is one F60 underneath as shown by dotted lines in above picture.



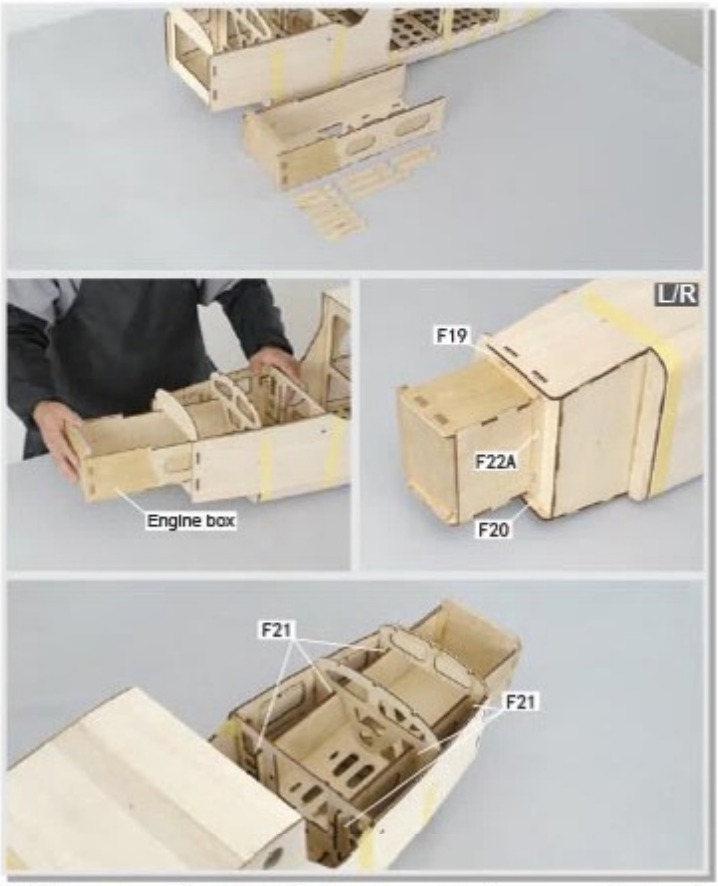
4.24 Glue in F39A and wing tube sleeve.



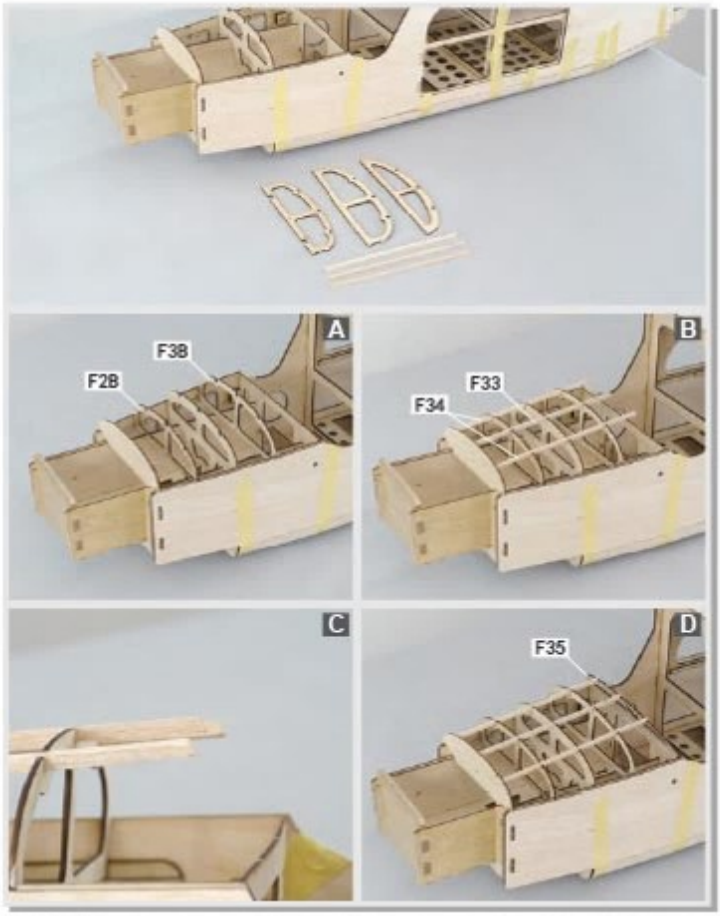
4.25 Glue in F41, F41B, F42 and F64.



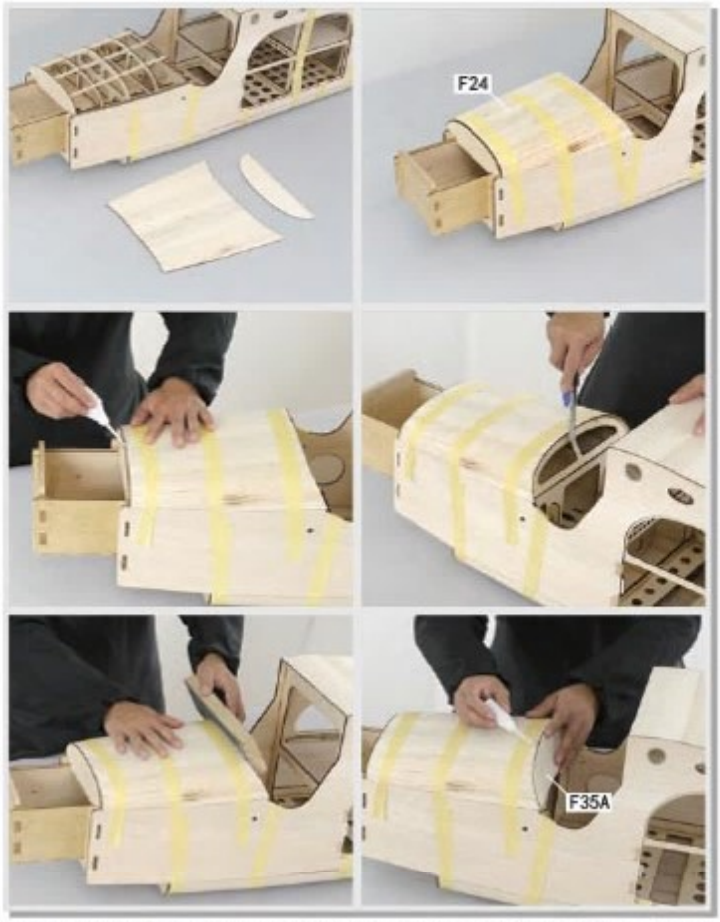
4.26 Glue in F5C, when cured glue in F26. Apply slow curing glue to surfaces in contact with F27. Apply moisture to outer 6 cm portion of F27 then put on top of frame. Use tape to keep F27 in position, more tape on curved section. When cured apply glue for reinforcement.



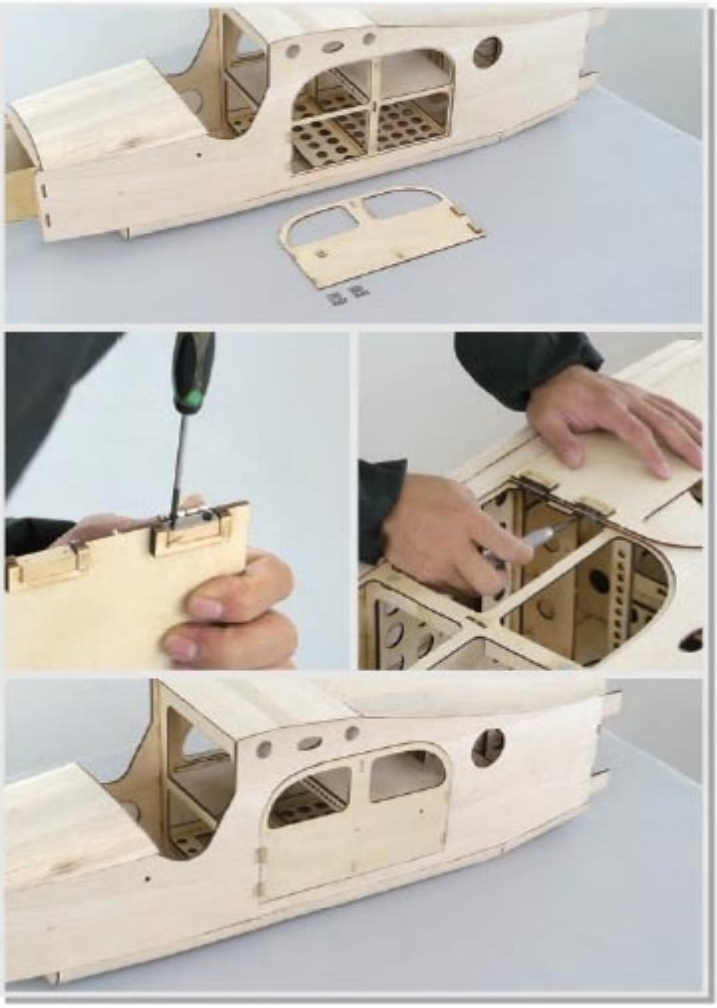
4.27 Insert engine box into fuselage. Apply epoxy glue to all surfaces in contact. Glue in F19, F20, F21 and F22A.



4.28 Glue in F2B and F3B. Glue in F33 and F34. Make sure tapered surface is facing outwards. Then glue in F35.



4.29 Apply slow curing glue to surfaces in contact with F24. Apply moisture to outer 6 cm portion of F24 then put on top of frame. Use tape to hold F24 in position. When cured remove rough surface by knife and sand paper. Glue in F35A.

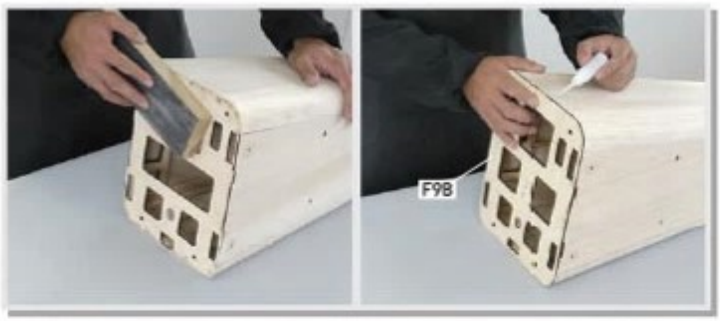


4.30 Install the cabin door.

4.31 Remove rough edges with sand paper.

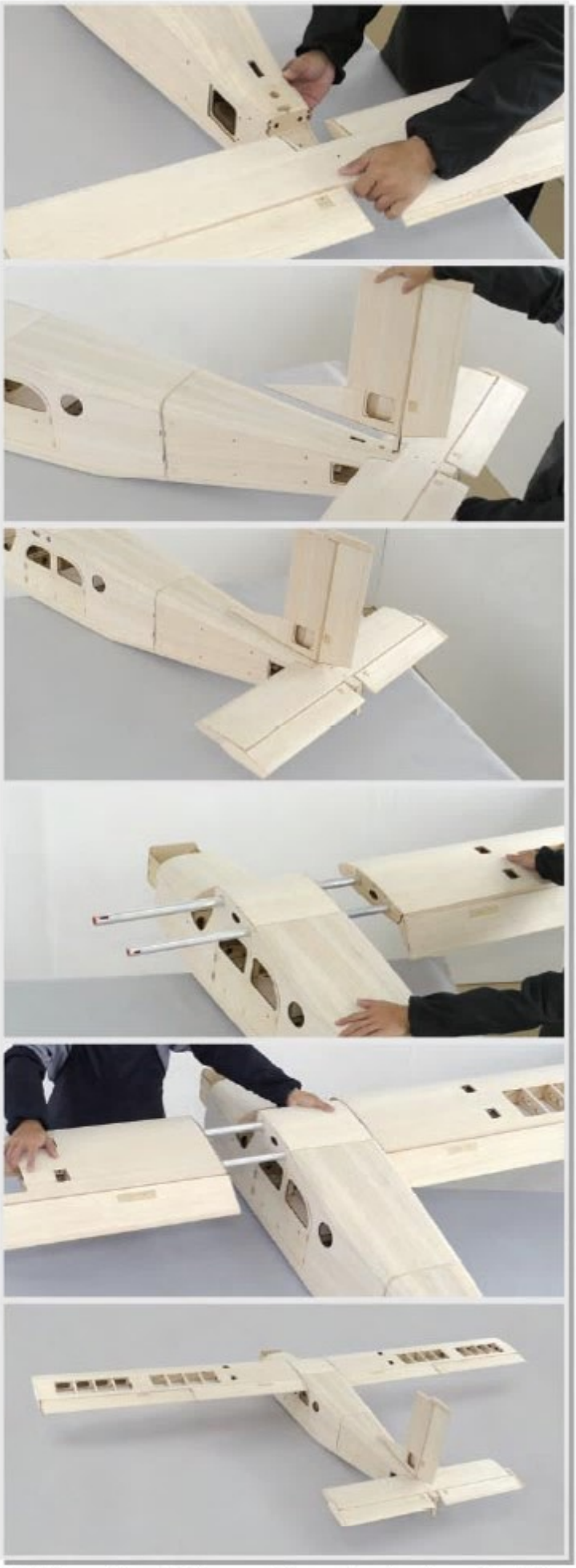
4.32 Cut out landing gear slot.

4.33 Glue on F9 to fuselage front section. Glue in F74, use set square to make sure F74 is perpendicular to F9. Glue in F9D.



4.34 Prepare tail section with sand paper and glue on F9B. Apply epoxy glue to all surfaces in contact and join the front and tail fuselage sections before applying coverings.

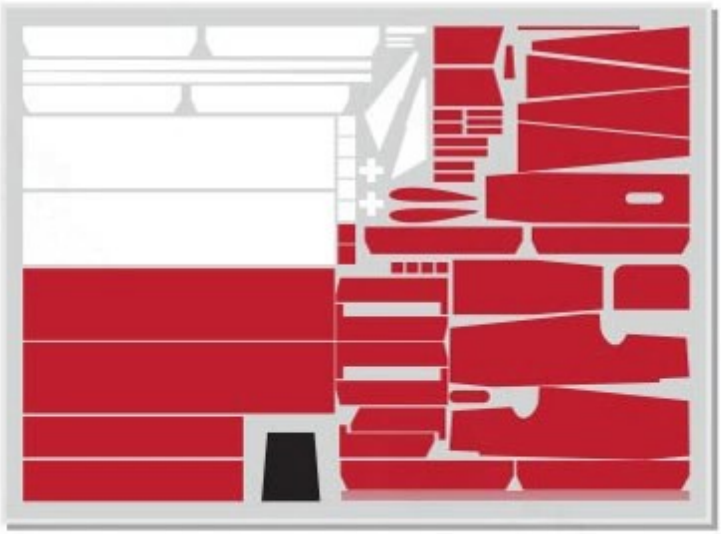
4.34 Trial fit tail section to front section and sand down joining area.



5. 0 Assemble stabilizer, rudder and main wing. Check for alignment and modify if necessary.

COVERING

The following ironing procedure is for the World Models Tough-Lon covering. Please follow the instructions included with the covering material. Please completely remove dust from the surface before covering, or the covering will not stick to the surface. The covering adhesive is activated at 58°C/136°F, and shrinking starts at 90°C/194°F. Set your iron at about 60°C/140°F to begin.



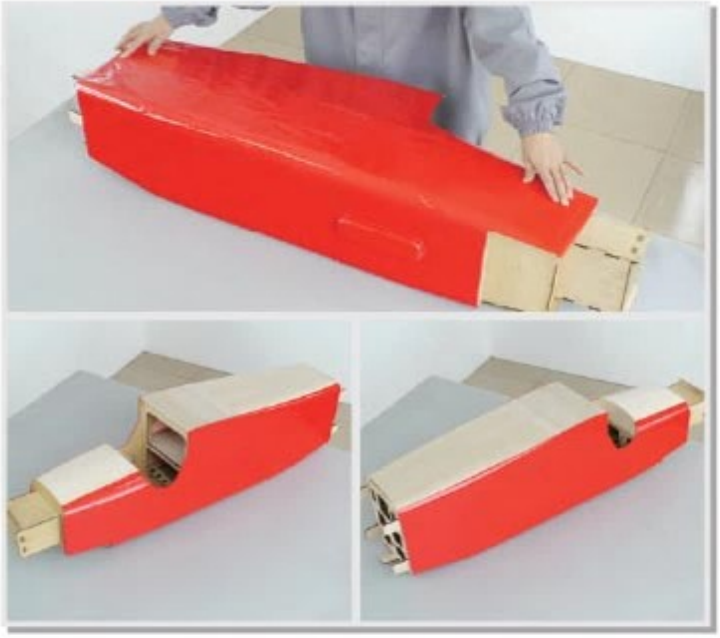
Lay out the Fuselage coverings.

6.1 Cover iron with cotton cloth to eliminate scratch and better temperature distribution. A hobby grade sealing iron with cover sock is recommended for better handling.

6.2 Take out the covering piece for the bottom of fuselage, and peel off backing sheet.

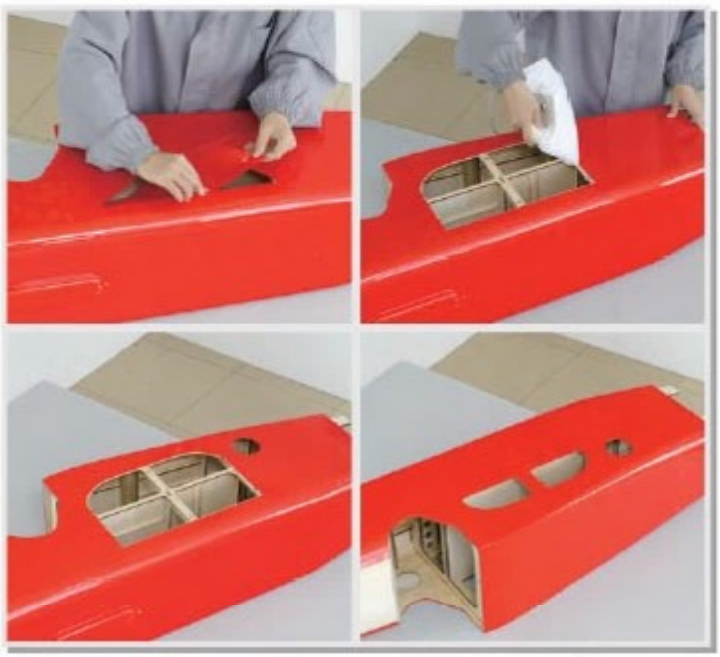
6. 3 First work on bottom of fuselage. Cover landing gear block with covering then apply hot iron. Iron around the landing gear block until the covering conform to the shape of landing gear block. Allow 3 mm overlap and cut away excess covering material.

6. 4 Lay bottom on fuselage. Align landing gear block hole and spread covering evenly on bottom of fuselage. Apply hot iron until covering stick and conform to balsa surface. Allow 3 mm overlap on ends and 20 mm on left and right side of fuselage. Trim away excess covering.

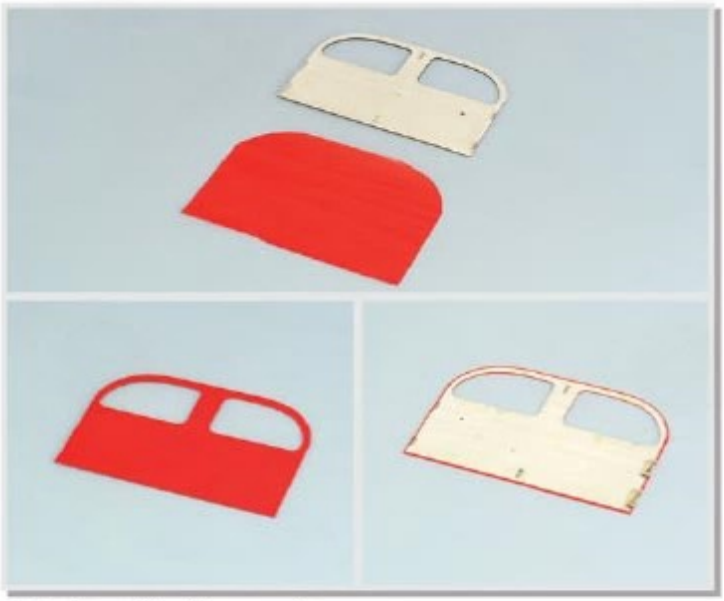


6. 5 Use similar procedure to cover the left and right side of fuselage. Note that the total overlap of coverings at seams will be 6 mm.

6. 6 Iron on top fuselage covering, apply heat to make covering conform to corners.

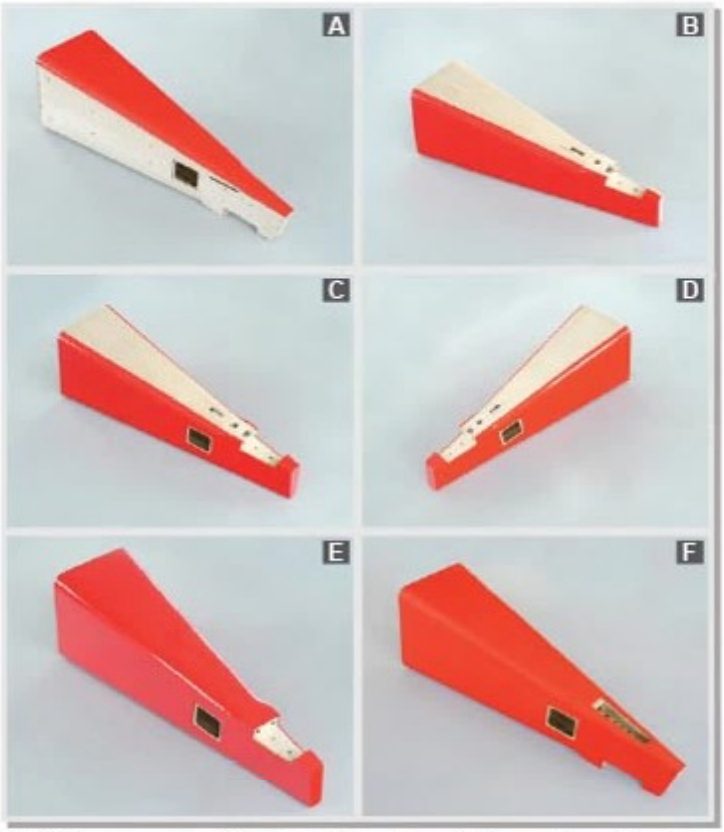


6. 7 Cut openings for windows. Allow 3 mm overlap and iron on rim of windows.



6.8 Cover the door panel.

6.9 Cover the battery hatch.

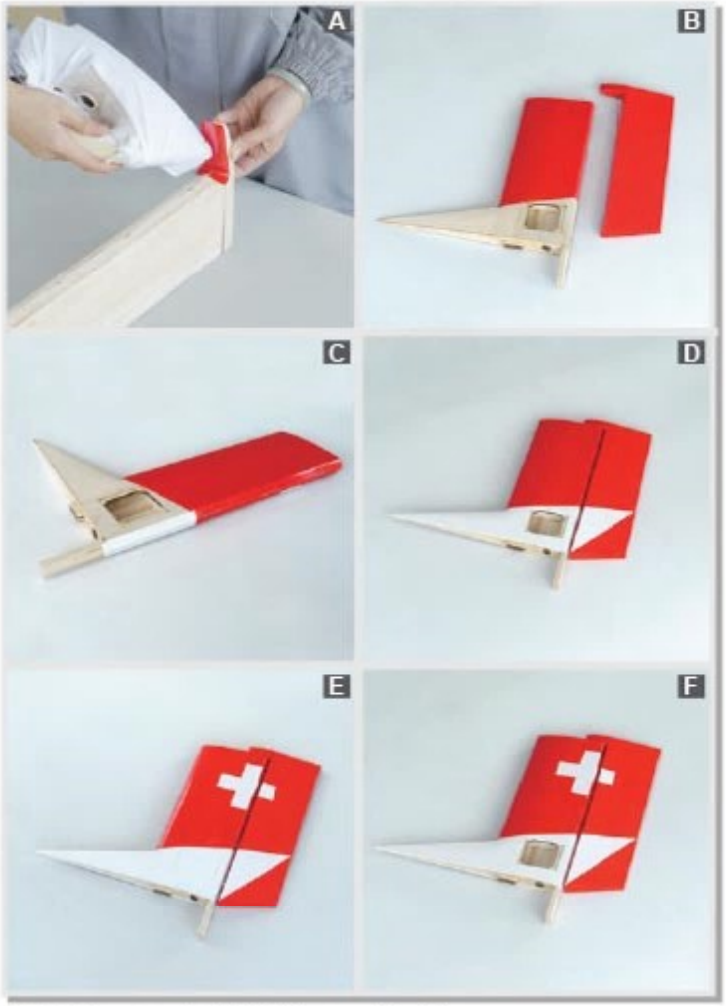


6.10 Iron on coverings to tail section in the order of bottom, sides and then top. Cut openings for servo mount and tail gear.

6.11 Cover the aileron servo tray.

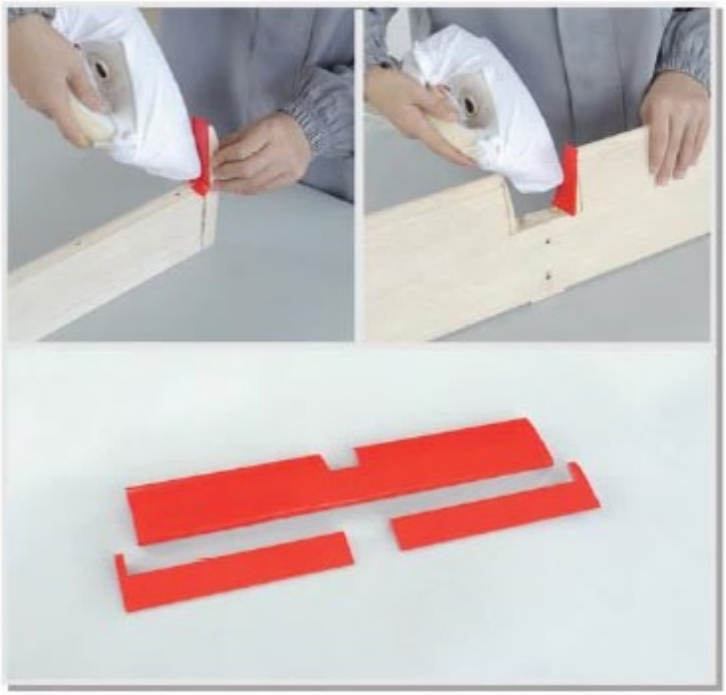
6.12 Install cowling and tail section to the fuselage. With reference to cowling trimming pattern, add on fuselage side panel trimming. After trimming is done, cut trimmings at junctions to free door and servo mount.

6.13 Use PWA2x8 mm screw to fix F2B and F2C.



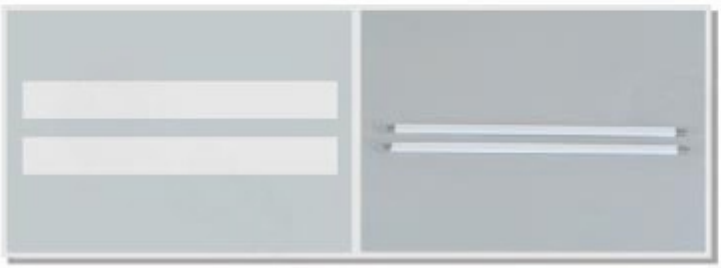
6.15 Cover vertical stabilizer and rudder.

6.14 Cover tail gear hatch.



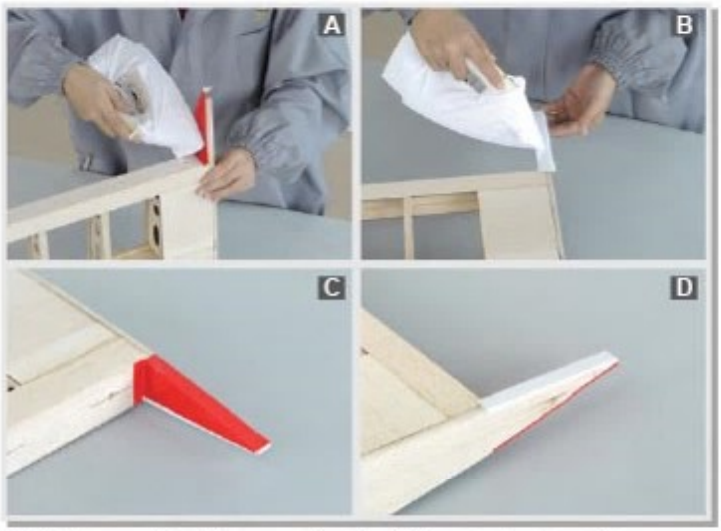
6.16 Cover horizontal stabilizer and elevator.

6.17 Cover elevator end plate.

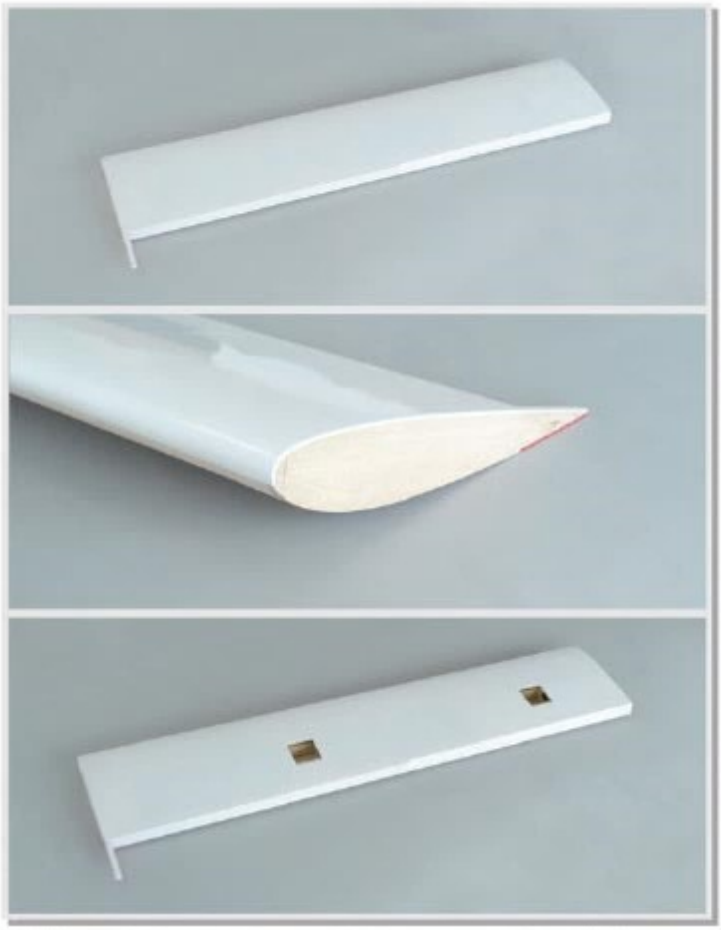


6.18 Cover wing struts.

6.19 Cover wing hinge beam.



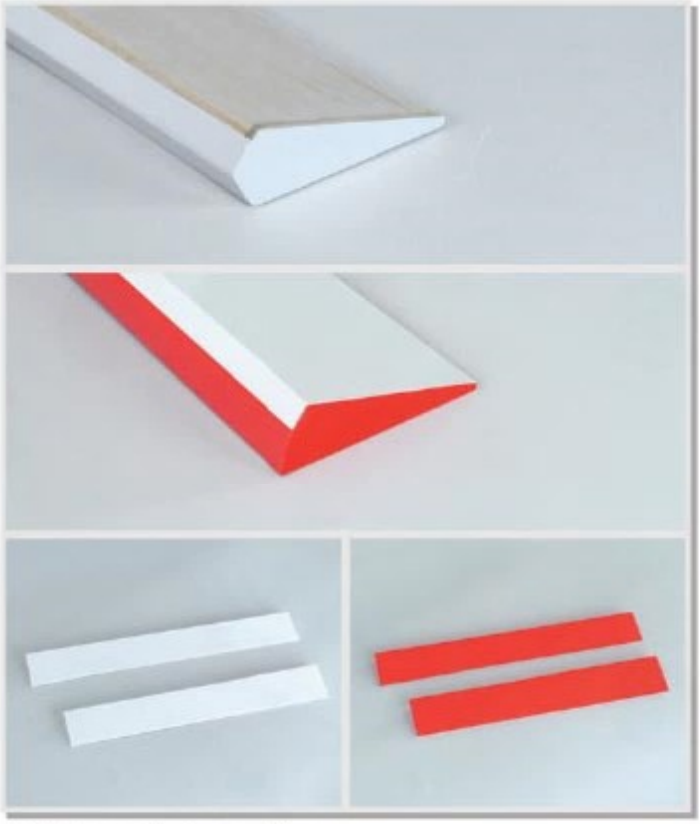
6.20 Cover wing tip according to picture A, B, C and D.



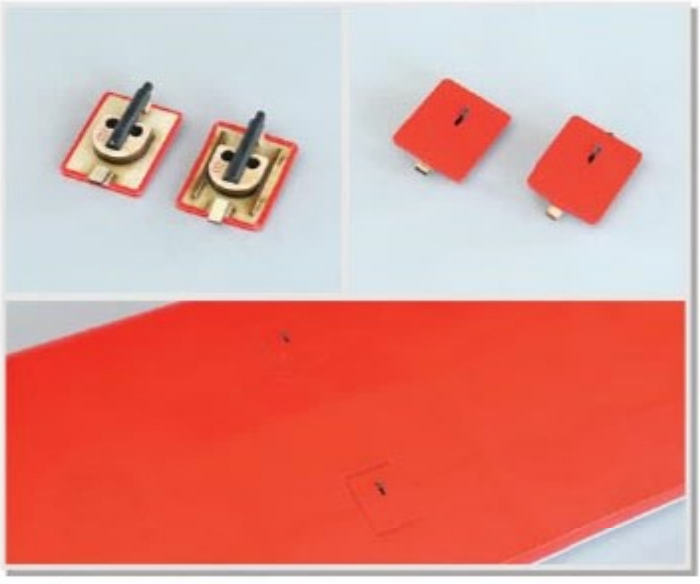
6.21 Cover bottom of wing. Allow 3 mm overlap at both ends. Cut openings for servo mount.

6.22 Cover top of wing. Allow 3 mm overlap at both ends and total 6 mm overlap at leading edge. Cut openings for wing tube latch hatch.

6.23 Cover wing tip. Allow 3 mm overlap.



6.24 Cover ailerons and flaps.



6.25 Cover wing tube latch hatch.

6.26 Completed right wing.

6.27 Cover left wing with similar procedure.

The plane is now ready for equipment installation.

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