

HANGAR 9

F6F Hellcat 60 ARF

ASSEMBLY MANUAL



Specifications

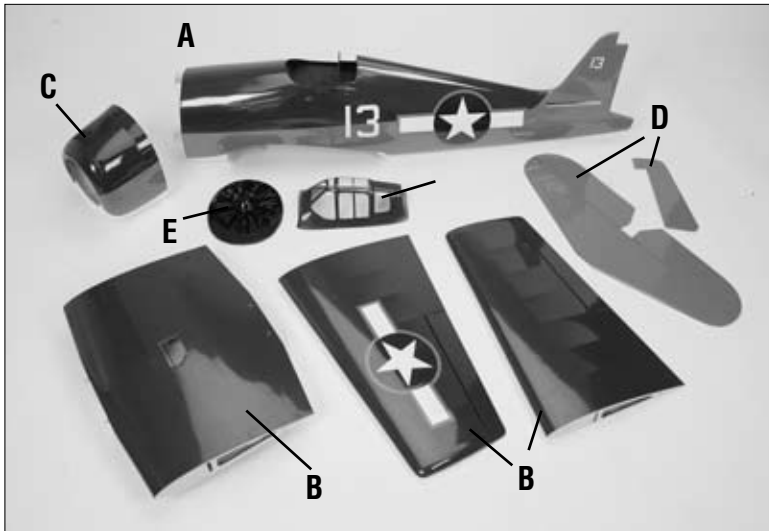
Wingspan: 65 in (1651mm)
Wing Area: 770 sq in (49.68 sq dm)

Length: 53 in (1346mm)
Measured with Tru-Turn "A" Style Spinner
Weight: 8–9.5 lb (3.6 kg–4.3 kg)

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Contents of Kit



Large Parts:

A. Fuselage	HAN4076
B. Wing	HAN4077
C. Cowling	HAN4079
D. Tail Set	HAN4078
E. Scale Detail Set	HAN4080
F. Canopy	HAN4081

Items Not Shown:

Fuel Tank (Assembled)	HAN4086
Tail Wheel Assembly	HAN4082
Decal Set	HAN4087
Pushrod Set	HAN4083
Retract Set	HAN4084
Wheels	HAN2584
Plastic Wheel Wells	HAN4085

Radio and Power Systems Requirements

Additional Required Equipment (not included)

- 537 Standard Servo (JRPS537) (5) or equivalent
- 791 High Torque Lo-Profile Retract Servo (JRPS791) or equivalent
- Large Servo Arm (JRPA212) (2)
- A-Style Propeller Nut: 1 1/4" (TRUB1250A)
- 18" Heavy Duty Servo Extension (JRPA099) (2)
- 1/7 U.S. WWII Pilot (HAN8311)

Recommended JR® Systems

- | | |
|----------|-----------|
| • PCM10X | • XP9303 |
| • XP8103 | • X-378 |
| • XP6102 | • XF631 |
| • XF421 | • Quattro |



JR XP6102



JR XP9303

Recommended Power Systems

- .61-.75 2-stroke
- .91-1.00 4-stroke
- Power 60 Brushless Outrunner



Evolution .61NT
EVOE0610



Saito 1.00 FA-AAC
SAIE100



Power 60 Brushless
Outrunner Motor, 400KV
EFLM4060A

Required Tools and Adhesives

Tools

- Drill
- Crescent wrench
- Hobby knife
- Phillips screwdriver (small)
- Ruler
- Socket wrench: 11/32"
- Drill bits: 1/16" (1.5mm), 5/64" (2mm), 3/32" (2.5mm) 1/8" (3mm), 5/32" (4mm)
- Hex wrench: 9/64", 3/16"
- Hobby scissors
- Pliers
- Side cutters
- T-pins

Adhesives

- 6-minute epoxy (HAN8000)
- Thin CA
- Zap-A-Dap-A-Goo
- 30-minute epoxy (HAN8002)
- Canopy glue
- Threadlock

Other Required Items

- Epoxy brushes
- Measuring device (e.g. ruler, tape measure)
- Paper towels
- Masking tape
- Sandpaper
- Sealing Iron (HAN101)
- Sealing Iron Sock (HAN141)
- Felt-tipped pen or pencil
- Mixing sticks for epoxy
- Rubbing alcohol
- Sanding bar
- Rotary tool w/sanding drum
- Covering Glove (HAN150)

Covering Colors

- Midnight Blue (HANU885)
- Sky Blue (HANU875)
- White (HANU870)

Required Field Equipment

- Propeller
- Long Reach Glow Plug Wrench (HAN2510)
- 2-Cycle Sport Plug (HAN3001)
- 4-Cycle Super Plug (HAN3011)
- Fuel
- Metered Glow Driver w/Ni-Cd & Charger (HAN7101)
- 2-Cycle Super Plug (HAN3006)
- Manual Fuel Pump (HAN118)

Limited Warranty & Limits of Liability

Pursuant to this Limited Warranty, Horizon Hobby, Inc. will, at its option, (i) repair or (ii) replace, any product determined by Horizon Hobby, Inc. to be defective. In the event of a defect, these are your exclusive remedies.

This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than an authorized Horizon Hobby, Inc. service center. This warranty is limited to the original purchaser and is not transferable. In no case shall Horizon Hobby's liability exceed the original cost of the purchased product and will not cover consequential, incidental or collateral damage. Horizon Hobby, Inc. reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon Hobby, Inc. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. HORIZON HOBBY, INC. SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

As Horizon Hobby, Inc. has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the purchaser or user are not prepared to accept the liability associated with the use of this product, you are advised to return this product immediately in new and unused condition to the place of purchase.

Safety Precautions

This is a sophisticated hobby product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision.

The product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the product has been started, you must contact Horizon Hobby, Inc. directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance.

Questions or Assistance

For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs

If your product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon Hobby, Inc. is not responsible for merchandise until it arrives and is accepted at our facility. Include your complete name, address, phone number where you can be reached during business days, RMA number, and a brief summary of the problem. Be sure your name, address, and RMA number are clearly written on the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Providing warranty conditions have been met, your product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Warranty Information

Horizon Hobby, Inc. guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any parts damage by use or modification. In no case shall Horizon Hobby's liability exceed the original cost of the purchased kit. Further, Horizon Hobby reserves the right to change or modify this warranty without notice. In that Horizon Hobby has no control over the final assembly or material used for the final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

Once assembly of the model has been started, you must contact Horizon Hobby, Inc. directly regarding any warranty question that you have. Please do not contact your local hobby shop regarding warranty issues, even if that is where you purchased it. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.

Horizon Hobby
4105 Fieldstone Road
Champaign, Illinois 61822
(217) 355-9511

Using the Manual

This manual is divided into sections to help make assembly easier to understand, and to provide breaks between each major section. In addition, check boxes have been placed next to each step to keep track of each step completed. Steps with a single box () are performed once, while steps with two boxes () indicate that the step will require repeating, such as for a right or left wing panel, two servos, etc. Remember to take your time and follow the directions.

Non-Warranty Repairs

Should your repair not be covered by warranty and the expense exceeds 50% of the retail purchase cost, you will be provided with an estimate advising you of your options. You will be billed for any return freight for non-warranty repairs. Please advise us of your preferred method of payment. Horizon Hobby accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly.

Electronics and engines requiring inspection or repair should be shipped to the following address (freight prepaid):

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822

All other products requiring inspection or repair should be shipped to the following address (freight prepaid):

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822

Warning

An RC aircraft is not a toy! If misused, it can cause serious bodily harm and damage to property. Fly only in open areas, preferably at AMA (Academy of Model Aeronautics) approved flying sites, following all instructions included with your radio and power systems.

Before Starting Assembly

Before beginning the assembly of the F6F Hellcat, remove each part from its bag for inspection. Closely inspect the fuselage, wing panels, rudder, and stabilizer for damage. If you find any damaged or missing parts, contact the place of purchase.

If you find any wrinkles in the covering, use a heat gun or sealing iron to remove them. Use caution while working around areas where the colors overlap to prevent separating the colors.



HAN100 – Heat Gun

HAN150 – Covering Glove



HAN101 – Sealing Iron

**HAN141 – Sealing Iron
Sock**

Section 1: Retract Linkage Installation

Required Parts

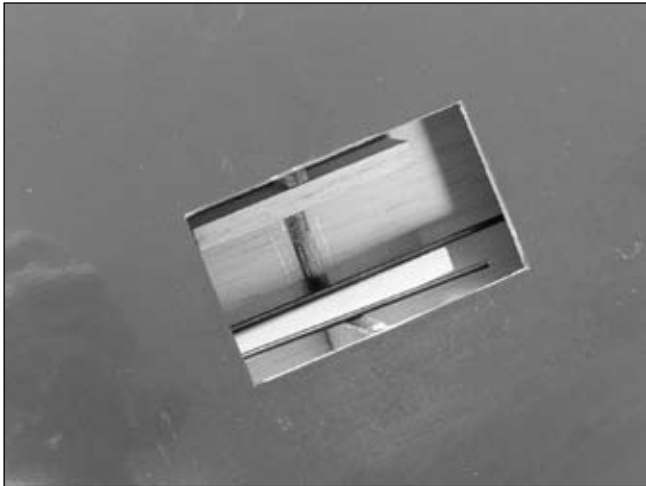
- Quick connector retainer (2)
- 3mm setscrew (2)
- Retract servo tray rail (2)
- Retract servo tray
- 3 1/4" (82.5mm) main wheel (2)
- 5/32" wheel collar (4)
- 3mm x 10mm screw (8)
- 3mm washer (8)
- 3mm lock nut (8)
- Aluminum bracket (4)
- Landing gear door (L&R)
- 3mm setscrew (4)
- Quick connector (2)
- Wheel well (2)
- Quick connector washer (2)

Required Tools and Adhesives

- 6-minute epoxy
- Thick CA
- Retract Servo (JRPS791)
- Hobby knife
- Drill
- Rubbing alcohol
- Drill bit: 1/16" (1.5mm), 5/64" (2mm), 1/8" (3mm)
- Hex wrench (included in kit)
- Paper towel

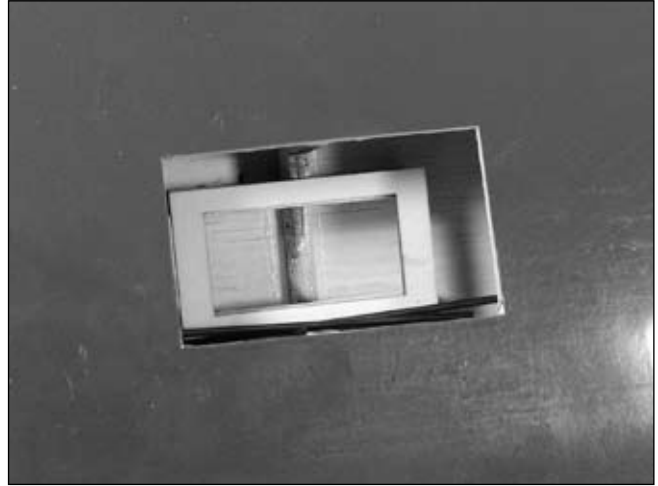
□ Step 1

Use 6-minute epoxy to glue the two retract servo tray rails into the wing. Make sure the rails rest on the bottom sheeting of the wing.



□ Step 2

Locate the retract servo tray. Use 6-minute epoxy to glue the servo tray into position. Keep the retract actuating wires on the top side of the servo tray.



□ Step 3

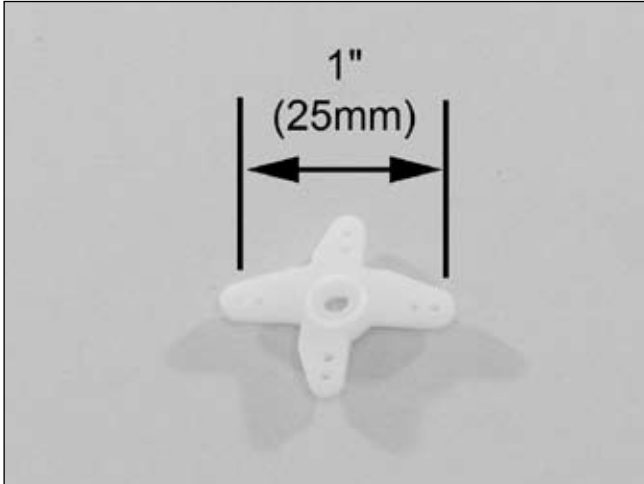
Install the low-profile retract servo in the servo tray using the hardware provided with the servo. Prevent splitting the servo tray by drilling 1/16" (1.5mm) holes for the servo mounting screws.



Section 1: Retract Linkage Installation

□ Step 4

Select a servo arm from those included with your servo that has a distance of 1" (25mm) between equally spaced holes as shown. Use a 5/64" (2mm) drill bit to drill the appropriate holes in the arm.



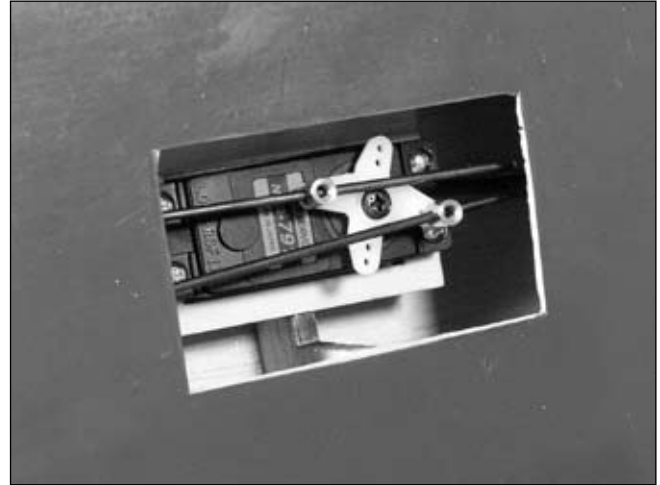
□ Step 5

Attach two quick connectors to the servo arm using quick connector washers and retainers.



□ Step 6

Connect the retract servo to your radio system and electronically move the servo to the retracted position. Slide the retract control wires through the quick connectors as shown and secure the servo arm to the retract servo.



□ Step 7

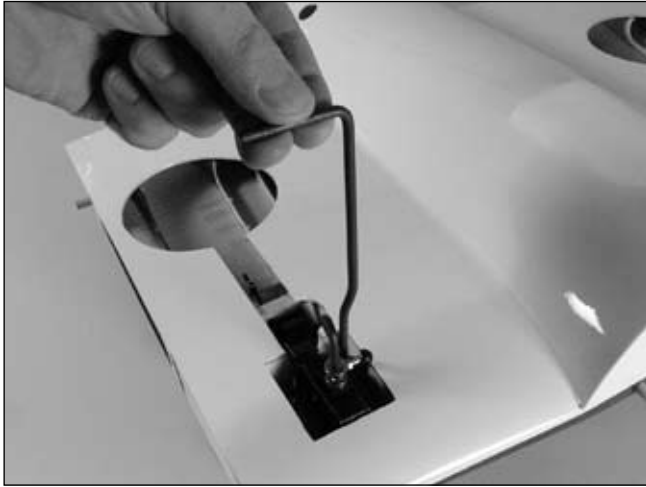
With the retract servo in the up position, use the linkage to manually retract the landing gear. Install a 3mm setscrew into the quick connectors and tighten them to secure the linkage.



Section 1: Retract Linkage Installation

□ □ Step 8

Check the actuation of the retracts, making sure they fully lock in both the up and down positions. Make any necessary adjustments to the linkages as necessary for proper operation of the retracts.



Hint: Adjustments and fine tuning can also be made to the retract linkages from inside the wheel wells.



□ □ Step 9

Install the wheel wells once the retracts have been adjusted. Roughen the bottom side of the well and surrounding covering using medium sandpaper. Clean both the wing and wheel well using rubbing alcohol and a paper towel. Trace around the wheel well onto the wing. Use a sharp hobby knife to remove the covering to expose the underlying wood. Glue the wells using 6-minute epoxy.



Hint: Use clear tape and tape the wells into position when flying from rough surfaces. This will allow easy access to the linkages in case they might need future adjustments.

□ □ Step 10

Install a wheel and two wheel collars on the main landing gear. The order of items is 5/32" wheel collar, wheel, and then another wheel collar. Secure the collars using the 3mm setscrews. Use threadlock to prevent the wheel collars from vibrating loose during flight.

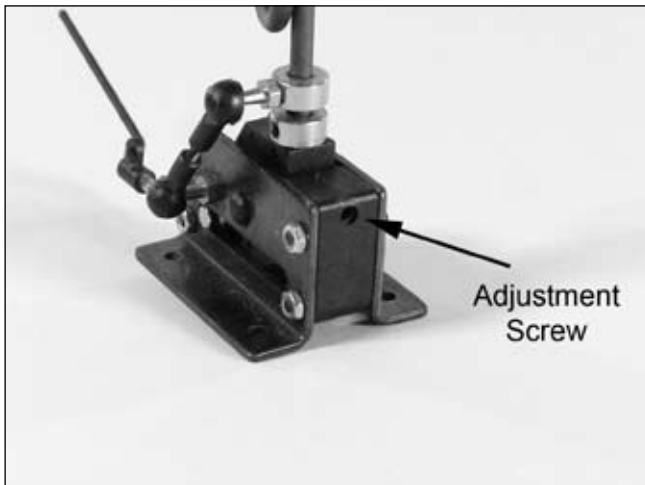


Section 1: Retract Linkage Installation

Note: The retract has been removed from the aircraft for clarity. Do not over-tighten the screw or the retract will bind and not operate correctly.

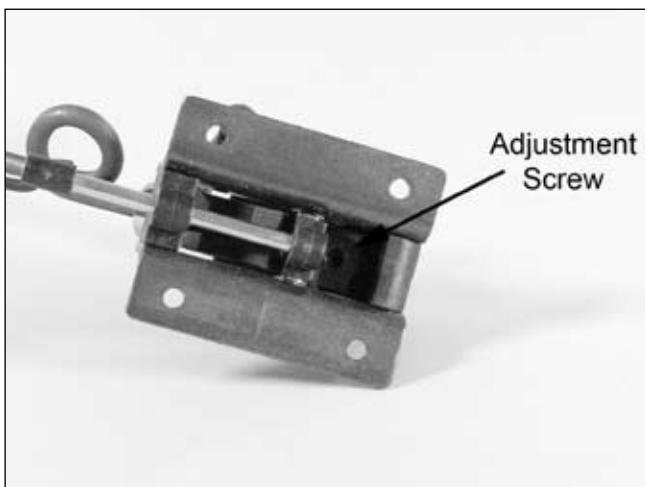
□ □ Step 11

With the retract extended, physically check to make sure the retract does not move fore or aft by moving the strut as shown in Step 10. Tighten the adjustment screw in the front of the retract to eliminate any play when in the down and locked position.



□ □ Step 12

If you notice that the retract has play when fully retracted, it may be necessary to tighten the adjustment screw on the retract to eliminate this. The screw is located inside the retract, so it will have to be removed from the aircraft to make this adjustment.



□ □ Step 13

The landing gear door is attached using two aluminum brackets, four 3mm x 10mm screws, four 3mm washers and four 3mm nuts. Draw a centerline down the backside of the landing gear door to aid in alignment. Pre-drill the landing gear doors for the screws using a 1/8" (3mm) drill bit. Make sure the location of the aluminum brackets does not interfere with the operation of the retracts.



Note: It is suggested to leave the gear doors off when flying from grass or other rough surfaces.

□ Step 14

Repeat Steps 8 through 13 to complete the retract installation.

Section 2: Aileron Installation

Required Parts

- Outer wing panel (L&R)
- Nylon clevis (2)
- CA hinges (6)
- #2 x 3/8" sheet metal screw (8)
- Servo (2)
- Long servo arm (JRPA212) (2)
- 6" (153mm) pushrod wire (2)
- Control horn w/backplate (2)
- Servo Extension, 18" (458mm) (2) (JRPA099)
- 3/8" x 3/4" x 3/4" (9.5mm x 19mm x 19mm) servo mounting block (4)
- Aileron (left and right)
- Clevis retainer (2)
- #2 x 3/4" screw (6)

Required Tools and Adhesives

- Thin CA
- Drill
- Ruler
- Drill bit: 1/16" (1.5mm), 5/64" (2mm), 3/32" (2.5mm)
- T-pins
- 6-minute epoxy
- Felt-tipped pen

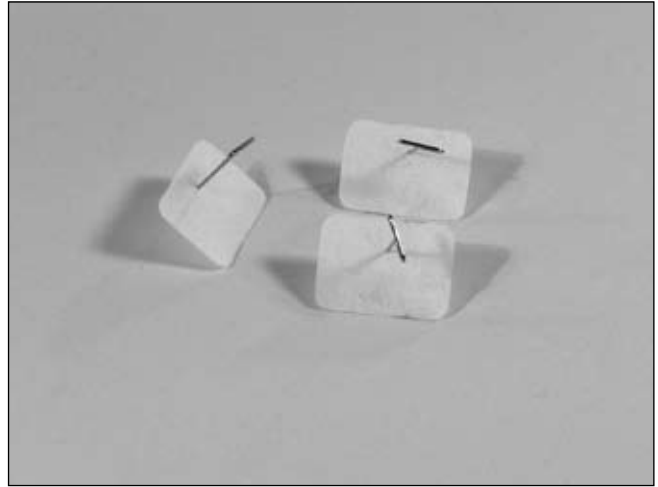
□ □ Step 1

Use a 1/16" (1.5mm) drill bit to drill a hole in the center of each hinge location. Drill holes in both the wing and aileron. This creates a tunnel for the CA to wick into, allowing for a better bond of the hinge.



□ □ Step 2

Locate three CA hinges. Place a T-pin in the center of each hinge.



□ □ Step 3

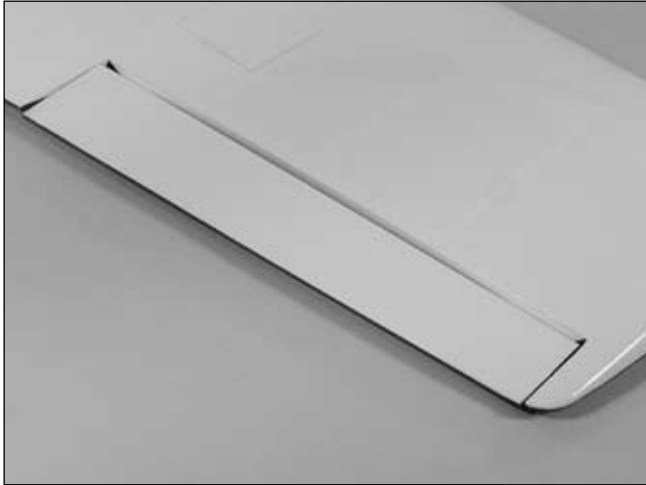
Place the hinges in the precut slots in the aileron. The T-pin will rest against the leading edge of the aileron when installed correctly.



Section 2: Aileron Installation

□ □ Step 4

Slide the aileron and wing together. The gap between the leading edge of the aileron and wing should be a maximum of approximately 1/64" (.4mm). Check to make sure the gap at the ends of the aileron are equal and the aileron can move without rubbing on the wing.



Note: Do not use CA accelerator during the hinging process. The CA must be allowed to soak into the hinge to provide the best bond. Using accelerator will not provide enough time for this process.

□ □ Step 5

Remove the T-pins and move the aileron to provide the best access to the hinge. Apply thin CA to each hinge. Make sure the hinge is fully saturated with CA. Use a paper towel and CA remover/debonder to clean up any excess CA from the wing and/or aileron. Make sure to apply CA to both sides of the hinges.



□ □ Step 6

Firmly grasp the wing and aileron and gently pull on the aileron to ensure the hinges are secure and cannot be pulled apart. Use caution when gripping the wing and aileron to avoid crushing the structure.



□ □ Step 7

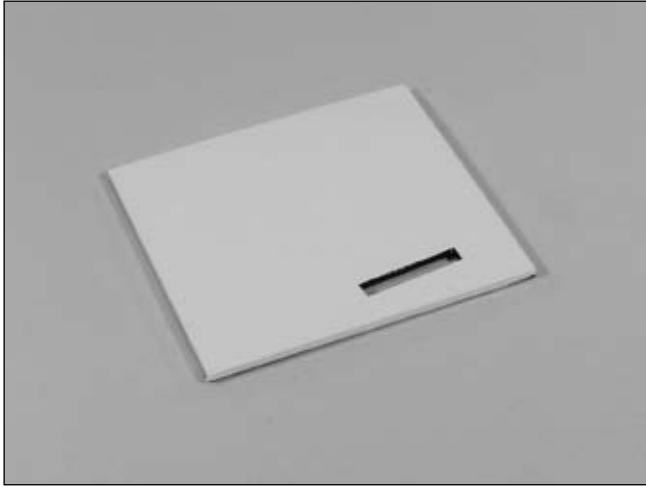
Work the aileron up and down several times to work in the hinges and check for proper movement.



Section 2: Aileron Installation

□ □ Step 8

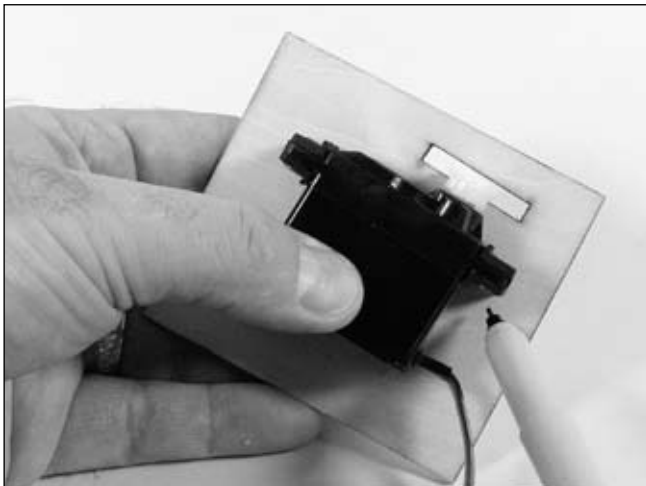
Remove the aileron hatch from the wing. Remove the covering from the slot for the aileron horn.



Note: The aileron servo is mounted directly to the hatch.

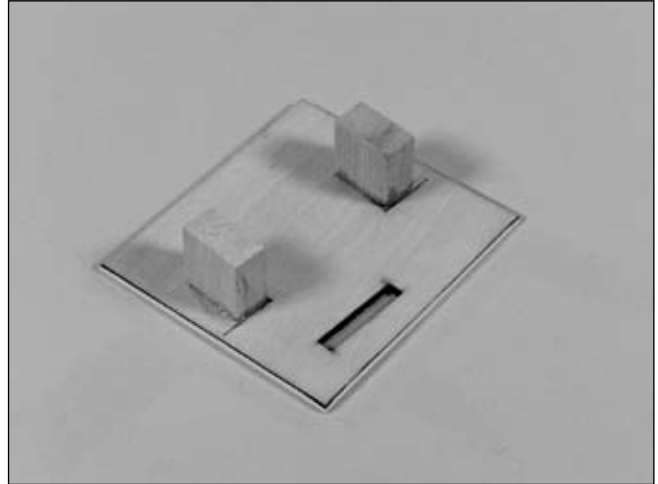
□ □ Step 9

Install the recommended servo hardware (grommets and eyelets) supplied with the servo. Cut one arm off a long half servo arm (JRPA212) and attach it to the servo and position the servo onto the hatch so the servo arm is centered in the notch. Once satisfied, mark the location for the servo mounting blocks.



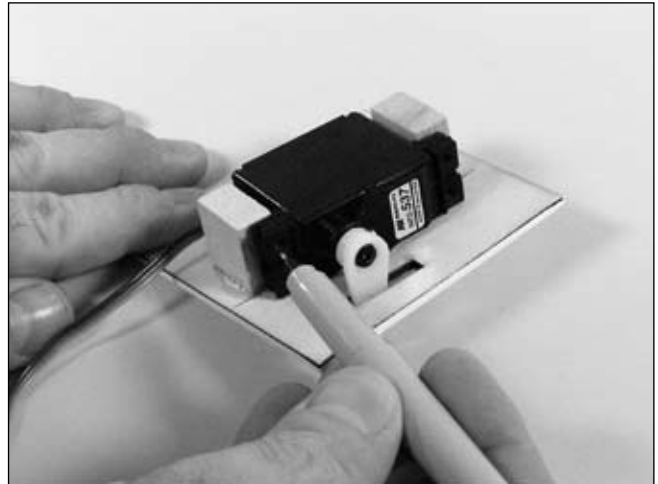
□ □ Step 10

Locate the servo mounting blocks. Use 6-minute epoxy to glue the blocks to the hatch. Let the epoxy fully cure before proceeding to the next step.



□ □ Step 11

Place the aileron servo between the mounting blocks and use a felt-tipped pen to mark the location of the four servo mounting screws.



Note: The servo must not touch the hatch in order to isolate engine vibration.

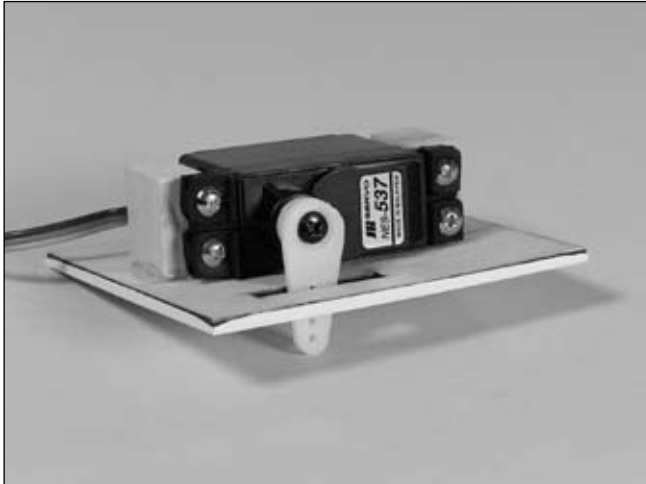
Note: Before mounting the servo, it is suggested to electronically center the servo using the transmitter, then install the servo arm to avoid having to remove the servo and center the arm later.

Section 2: Aileron Installation

Note: It may be necessary to slightly trim one of the servo mounting blocks to clear the servo wire.

□ □ Step 12

Remove the servo and use a 1/16" (1.5mm) drill bit to predrill the holes for the servo mounting screws marked in the previous step. Use the screws supplied with the servo to mount it to the servo mounting blocks.



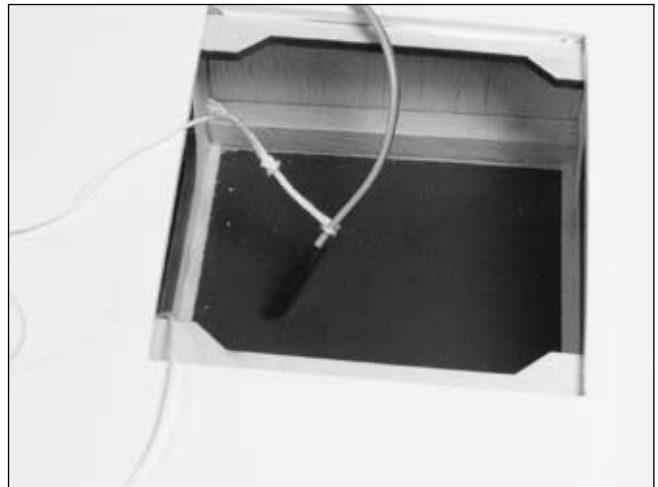
□ □ Step 13

Connect an 18" (458mm) Servo Lead extension (JRPA099) to the servo lead. Secure the connectors by tying them in a knot using dental floss (as shown) or by using a commercially available connector clamp to prevent the servo leads from becoming disconnected.

Note: It is always a good idea to secure the servo connector and servo extension together to prevent the wires from becoming unplugged.

□ □ Step 14

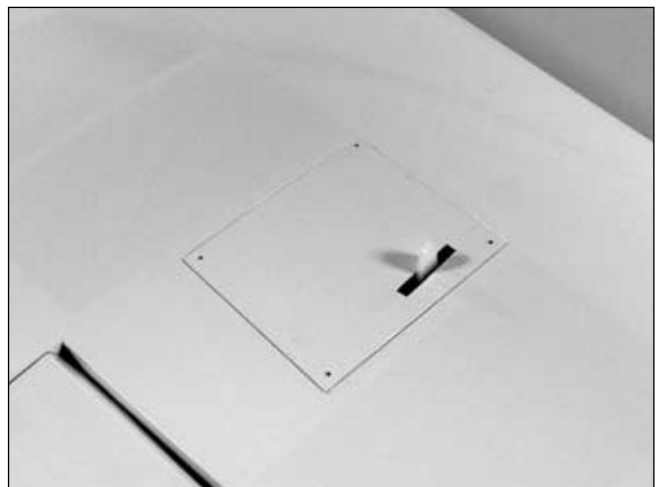
Tie the preinstalled string onto the servo extension. Tie a small weight onto the string at the root of the outer panel. Use the string and weight to pull the extension out of the tip panel.



□ □ Step 15

Place the hatch cover in position in the aileron opening. Measure in 1/8" (3mm) on all four sides of the hatch. Drill four 1/16" (1.5mm) holes at the intersections of the lines as shown.

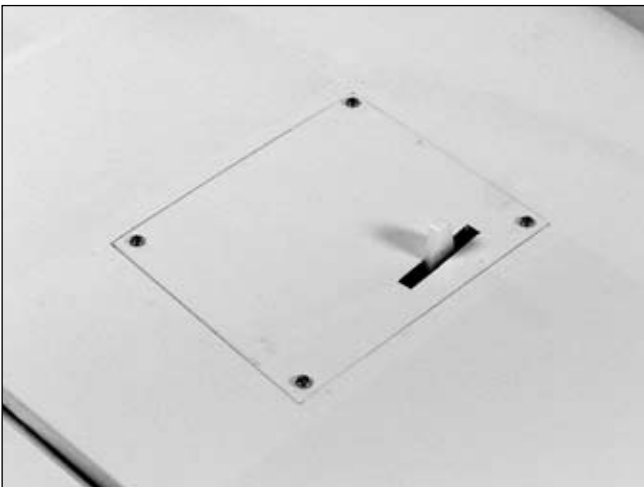
Note: Drill through the servo hatch and the underlying hatch mounts. Use caution not to accidentally drill through the top of the wing.



Section 2: Aileron Installation

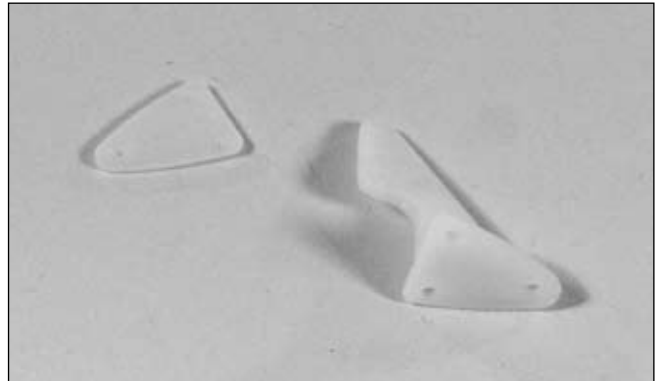
□ □ Step 16

Remove the servo hatch cover and re-drill the holes using a 5/64" (2mm) drill bit. Use 2–3 drops of thin CA to harden the underlying wood. This will prevent the screws from crushing the wood when they are tightened. Secure the hatch using four #2 x 3/8" screws.



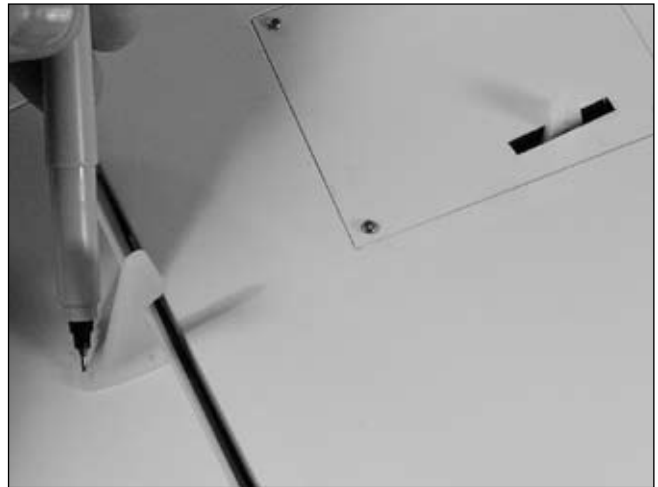
□ □ Step 17

Remove the back plate from a control horn using side cutters or a sharp hobby knife.



□ □ Step 18

Position the control horn on the aileron so the horn aligns with the aileron servo horn and the aileron hinge line. Mark the position for the mounting holes using a felt-tipped pen.



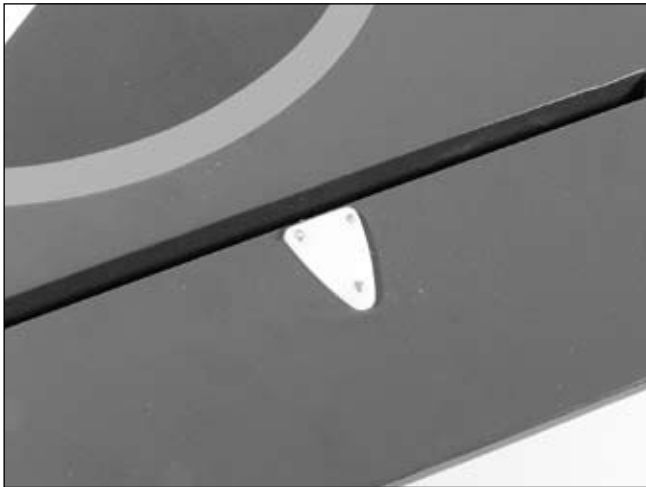
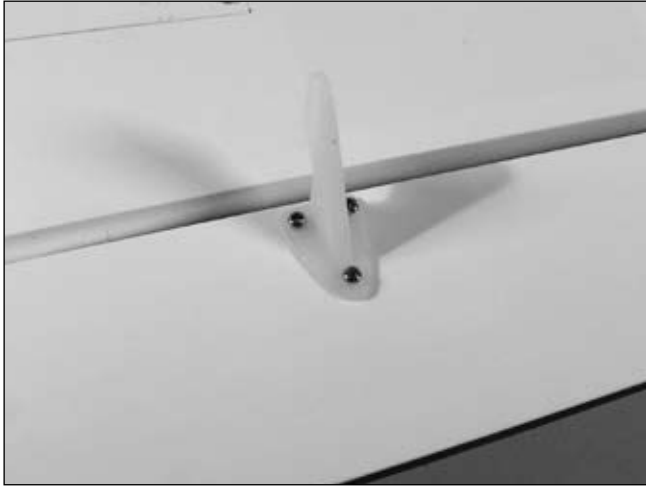
□ □ Step 19

Drill three 3/32" (2.5mm) holes at the locations marked in the previous step.

Section 2: Aileron Installation

□ □ Step 20

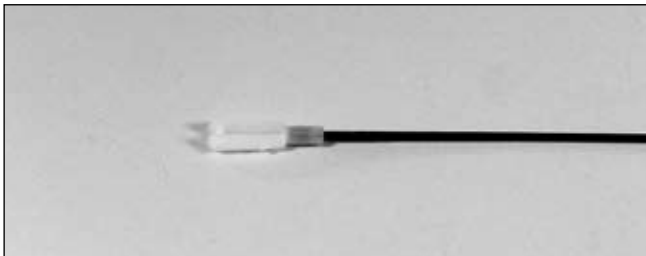
Attach the control horn using three #2 x 3/4" screws and the control horn backplate.



Note: Cut the excess screw extending from the control horn backplate using side cutters.

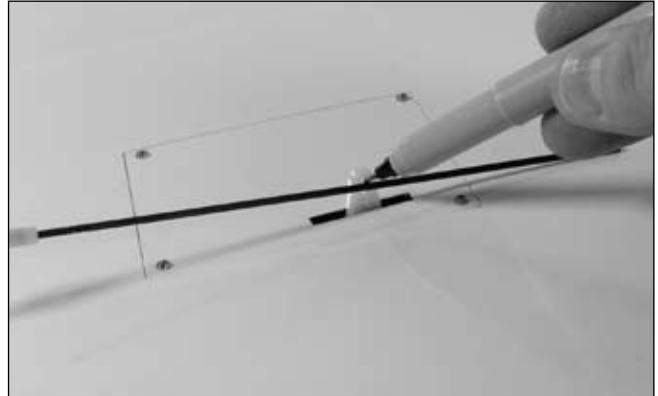
□ □ Step 21

Slide a clevis retainer onto a nylon clevis. Thread a clevis onto a 6" (153mm) pushrod wire a minimum of 10 turns.



□ □ Step 22

Center the aileron servo electronically using the radio system. Attach the pushrod with clevis to the control horn. Physically place the aileron control surface in neutral. Mark the pushrod where it crosses the holes in the servo arm.

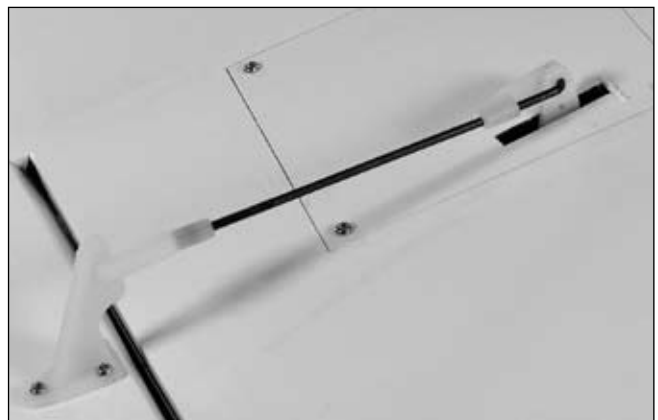


□ □ Step 23

Bend the wire 90 degrees at the mark made in the previous step. Cut the wire 3/8" (9.5mm) above the bend.

□ □ Step 24

Use a 5/64" (2mm) drill to enlarge the outer hole in the servo arm. Slide the wire through the hole. Secure the wire using a nylon wire keeper.



□ Step 25

Repeat Steps 1 through 24 for the other aileron servo.

Section 3: Joining the Wing Panels

Required Parts

- Left and right wing panels
- Center wing panel
- Wing joiner (2)

Required Tools and Adhesives

- Masking tape
- Epoxy brush
- Rubbing alcohol
- Sealing iron
- 30-minute epoxy
- Mixing stick
- Paper towels
- Measuring cup

□ □ Step 1

Test the fit of the wing joiner into the outer wing panel and the center panel. The forked end is inserted into the center panel. The joiner should slide into each with little resistance. Lightly sand the joiner as necessary to achieve a proper fit.



Note: The joiner will be angled towards the top of the wing.

□ □ Step 2

Without using any glue, test fit the wing panel and center panel together using the wing joiner. The panels must fit together without any gaps top or bottom. If any gaps do exist, use a sanding bar to lightly sand the root ribs of both panels until the panels fit together perfectly.



□ □ Step 3

Tuck the servo lead back into the tip panel. Place the weight inside the outer panel, but do not tape it in, as it will eventually drop through the center panel and out the opening for the retract servo.



Note: Read through the remaining steps of this section before mixing any epoxy.

Section 3: Joining the Wing Panels

Hint: It is extremely important to use plenty of epoxy when joining the wing panels. It will also be helpful to use wax paper under the wing joint to avoid gluing the wing to your work surface.

□ □ Step 4

Mix approximately 1 ounce of 30-minute epoxy. Using an epoxy brush, apply a generous amount of epoxy to the wing joiner cavity of the outer wing panel.



□ □ Step 5

Completely coat the section of the wing joiner that will be inserted into the outer panel with epoxy. Be sure to apply epoxy to the top and bottom of the joiner also. Insert the epoxy-coated side of the joiner into the outer wing joiner cavity up to the mark on the joiner. If you have used enough epoxy, it will ooze out of the cavity as the joiner is installed. Remove any excess epoxy using a paper towel and rubbing alcohol.



□ □ Step 6

Apply a generous amount of epoxy to the joiner cavity and root rib of the center wing panel.



Note: Be careful not to get epoxy in the area of the retract linkage.

□ □ Step 7

Apply epoxy to the exposed portion of the wing joiner and to the root wing rib of both panels.



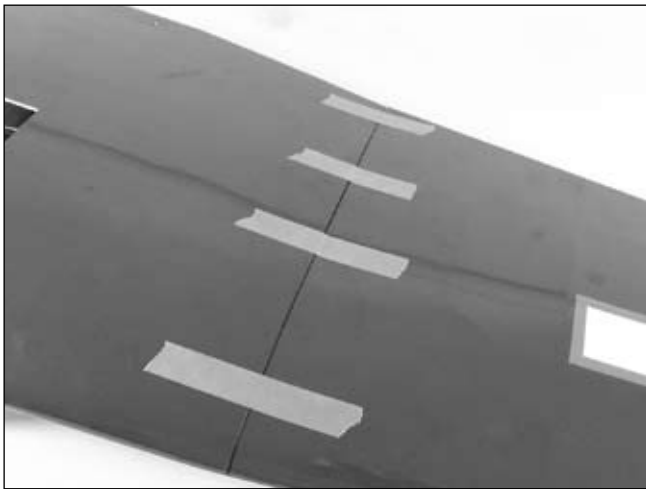
Section 3: Joining the Wing Panels

Step 8

Carefully slide the wing panels together. Apply enough pressure to firmly seat the two wing panels together, causing any excess epoxy to ooze out from between the panels. Use rubbing alcohol and a paper towel to remove the excess epoxy. Check to make sure there are no visible gaps between the panels.

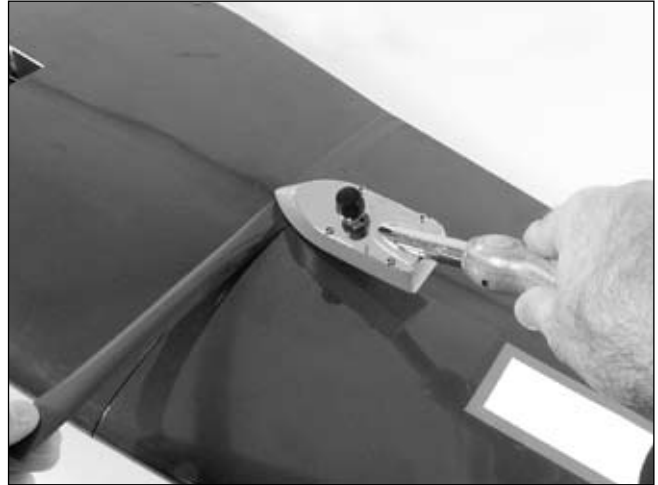
Step 9

Use masking tape to securely hold the wing panels together. Allow the epoxy to fully cure before continuing to the next section.



Step 10

Once the epoxy has fully cured, use a sealing iron to apply the trim to the joint between the outer panel and center panel. Position the wing so the tip panel is up. The weight should fall to the center where it can be retrieved from the opening for the retract servo. Pull the servo lead through.



Step 11

Repeat Steps 1 through 10 for the remaining wing panel.

Section 4: Engine Installation

Required Parts

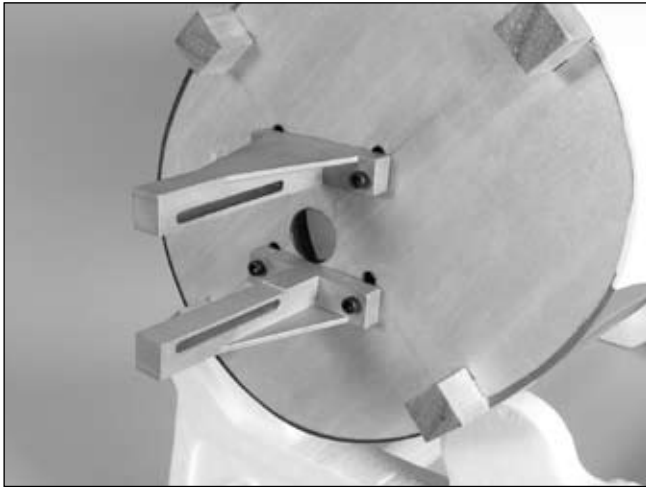
- Fuselage
- Engine mount (2)
- 8-32 nylon lock nut (4)
- 8-32 blind nut (4)
- #8 washer (8)
- Engine
- 8-32 x 1 1/4" socket head screw (4)
- 8-32 x 1" socket head screw (4)

Required Tools and Adhesives

- Hex wrench: 9/64"
- Ruler
- Adjustable wrench
- 11/32" socket wrench
- Drill bit: 5/32" (4mm)
- Drill
- Phillips screwdriver

□ Step 1

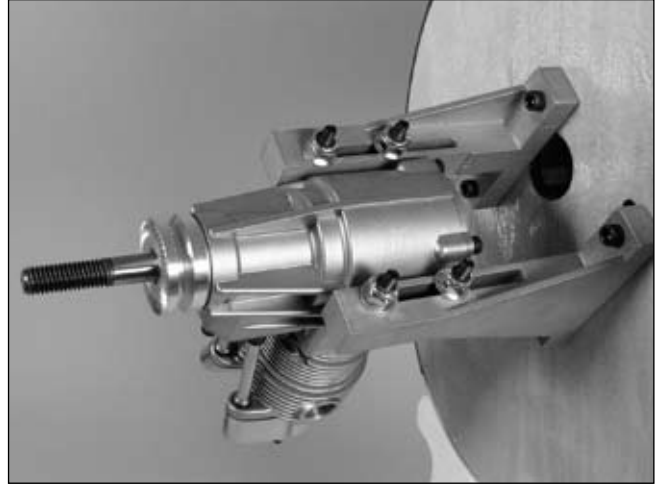
Locate the engine mount and the associated hardware. Temporarily install the engine mount to the fuselage using four 8-32 x 1" socket head screws, four #8 washers and four blind nuts. Leave the bolts loose enough not to draw the blind nuts into the wood inside the fuselage.



Hint: You can also install the blind nuts backwards to prevent them from pulling into the wood on the backside of the firewall. Just remember to move them to their correct positioning before moving to the next section.

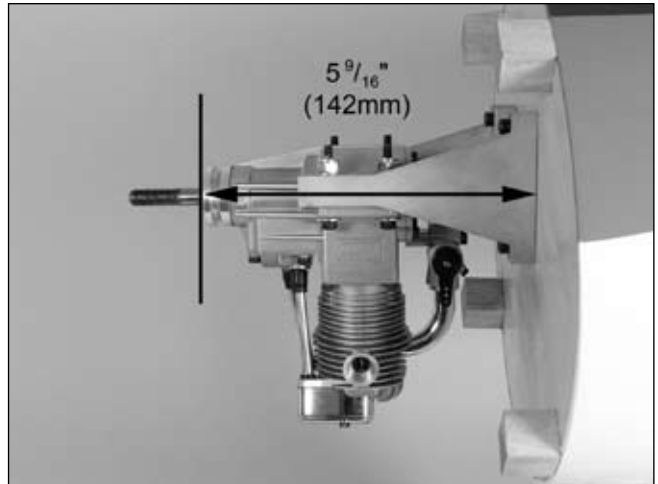
□ Step 2

Temporarily attach the engine using four 8-32 x 1 1/4" socket head screws, four #8 washers and four nylon lock nuts.



□ Step 3

Position the engine so the front of the drive washer is 5 9/16" (142mm) from the firewall. Tighten the bolts holding the engine once the engine is positioned.



Section 4: Engine Installation

□ Step 4

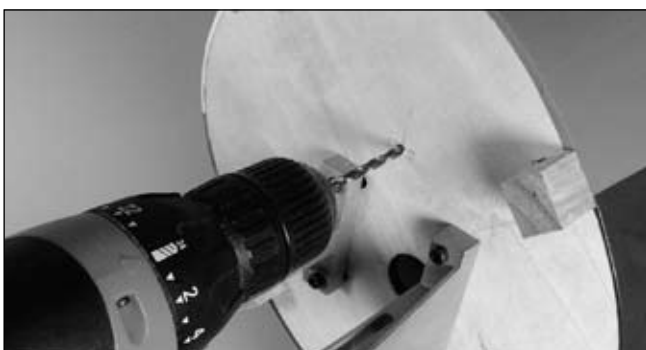
Center the engine mount in relation to the oval holes in the firewall. Tighten the bolts holding the mount to the firewall. (Remember to make sure the barbs on the blind nuts go into the backside of the firewall.)



Note: Install the screws and blind nuts one at a time so the mount doesn't change positions on the firewall.

□ Step 5

Determine the proper location for the throttle pushrod. Mark the location with a felt-tipped pen. Remove the engine and drill the firewall for the pushrod tube using a drill and 5/32" (4mm) drill bit.



□ Step 6

Drill a 5/32" (4mm) hole in former 2 that corresponds to the location of the hole drilled in the firewall.



Note: Make sure to drill the hole in former 2 far enough inside the fuselage so the wing will not interfere with the pushrod tube.

□ Step 7

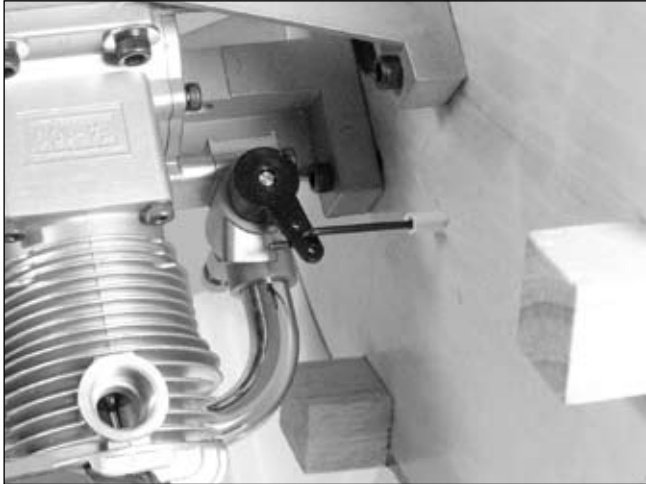
Test fit the throttle pushrod tube through the firewall, through former 2, and into the fuselage. Once satisfied with the fit, roughen the tube using medium sandpaper. Slide the tube back into position and use medium CA to glue it to the firewall.



Section 4: Engine Installation

□ Step 8

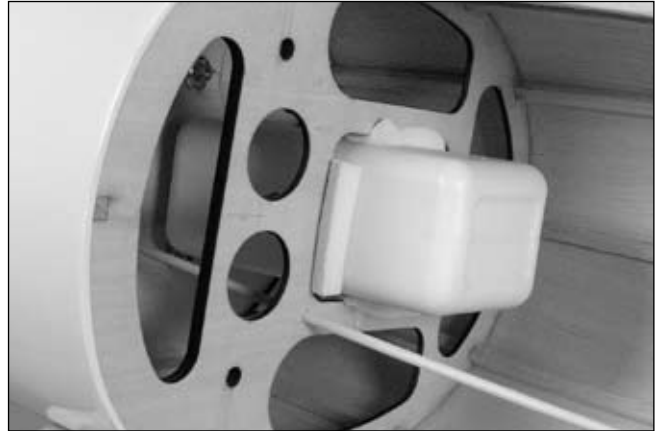
Attach the “Z” bend on the throttle pushrod wire onto the carburetor arm. Slide the pushrod wire into the tube and secure the engine to the firewall.



Note: When installing the fuel tank, make sure to have a piece of foam at any point that contacts any structure inside the fuselage. Without the foam, vibrations will be transmitted to the fuel tank, which could cause the fuel to foam. In turn, you will not get the optimum performance from your engine.

□ Step 9

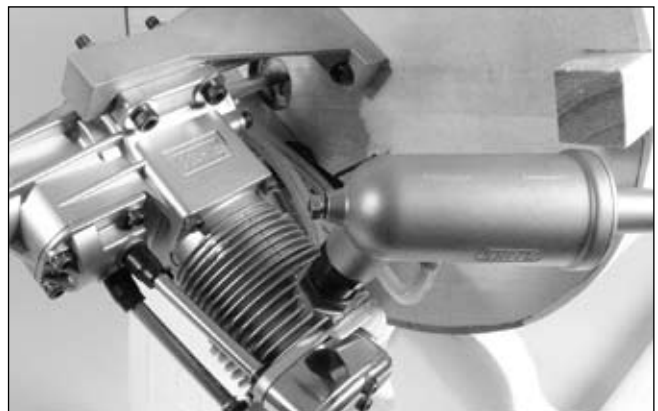
Install the fuel tank into the fuselage. Place small pieces of foam where the fuel tank contacts the formers. Make any necessary supports to keep the tank from moving during flight.



Note: Make sure that any support braces installed will not interfere with the installation of the wing or linkages.

□ Step 10

Install the muffler. There should be plenty of clearance between the muffler and firewall. Make the proper connections to the engine, using the engine manufacturer's instructions. If you are using a four-stroke, make sure to route the crankcase vent to the outside of the cowling.



Hint: The fuel tank tubes have been anodized red and green. The red tube is associated with the clunk, which goes to the carburetor. The green tube is associated with the muffler.

Section 5: Canopy and Decal Installation

Required Parts

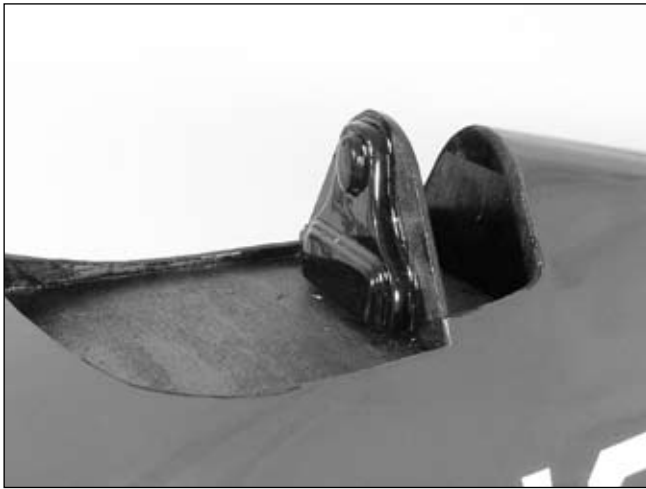
- Fuselage assembly
- Canopy
- #2 x 1/2" sheet metal screw (2)

Required Tools and Adhesives

- Canopy glue
- Rubbing alcohol
- Zap-A-Dap-A-Goo
- Paper towel
- Sandpaper (medium grit)
- 1/7 U.S. WWII Pilot (HAN8311)

Step 1

Trim the instrument decal from the decal sheet. Place the instrument panel into position. Use Zap-A-Dap-A-Goo to glue the backrest into position.

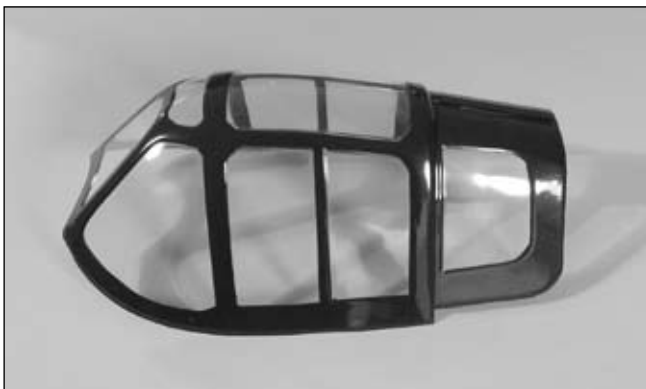


Step 2

Install a pilot of your choosing. We used the 1/7 U.S. WWII Pilot (HAN8311). Use epoxy or Zap-A-Dap-A-Goo to secure the pilot.

Step 3

Use Lexan scissors to trim the canopy.



Step 4

Position the canopy onto the fuselage. Trace around the canopy and onto the fuselage using a felt-tipped pen.



Step 5

Lightly sand the inside edge of the canopy and slightly inside the line drawn on the fuselage using medium sandpaper. Clean both the fuselage and canopy using rubbing alcohol and a paper towel.



Note: A better bond can be made between the canopy and fuselage by removing about 1/8" (3mm) of the covering inside the line drawn in Step 4.

Section 5: Canopy and Decal Installation

Step 6

Apply a bead of Canopy Glue around the inside edge of the canopy. Position the canopy onto the fuselage. Use tape to hold the canopy secure until the glue fully cures.



Step 7

Apply the decals. Use the photos on the box to aid in their location.

Step 8

Cut a small hole in the upper edge of the fuselage big enough to install the radio mast. Remove at least 1/4" of covering from the mast, and then insert it into the hole. Use medium CA to secure the mast into position.



Note: The mast is optional. If you know the mast will get bumped in transport, you can opt to leave it off your model.

Section 6: Cowling Installation

Required Parts

- Fuselage assembly
- Cowling
- #2 x 1/2" sheet metal screw (4)
- Dummy radial engine

Required Tools and Adhesives

- Drill
- Sandpaper
- Drill bit: 1/16" (1.5mm), 1/8" (3mm)
- Hobby scissors
- 6-minute epoxy
- Phillips screwdriver (small)
- Cardstock
- Felt-tipped pen
- Rubbing alcohol
- Paper towel
- Rotary tool with sanding drum

□ Step 1

Locate the dummy radial engine. Use a sharp hobby knife to trim the material between the cylinders and bottom as shown. Leave the material above the cylinders in tact for strength. Remove the center area for the engine drive washer.



Hint: The dummy radial engine can also be painted at this time. Just remember to test the paint on the pieces removed to make sure the paint won't attack the plastic.

□ Step 2

Use a rotary tool to remove the openings in the cowling to allow for air to flow to the engine.



□ Step 3

Use medium grit sandpaper to sand the inside of the cowling where the dummy radial engine will be positioned. Clean the inside of the cowling using a mild detergent. This will remove the mold release and sanding dust from inside the cowling.

□ Step 4

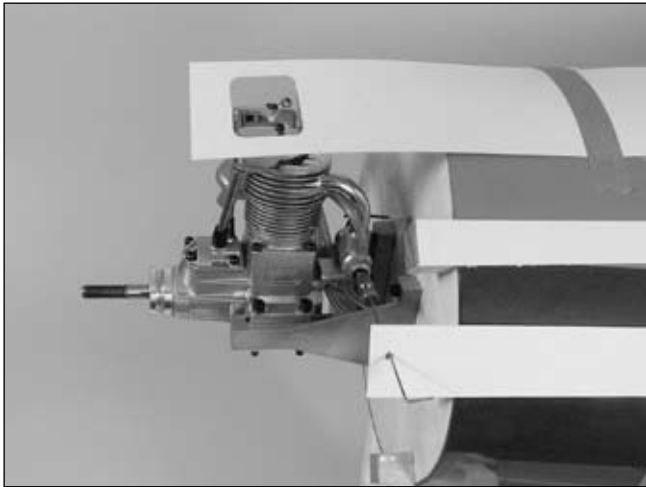
Use 6-minute epoxy to glue the dummy radial engine inside the cowl.



Section 6: Cowling Installation

□ Step 5

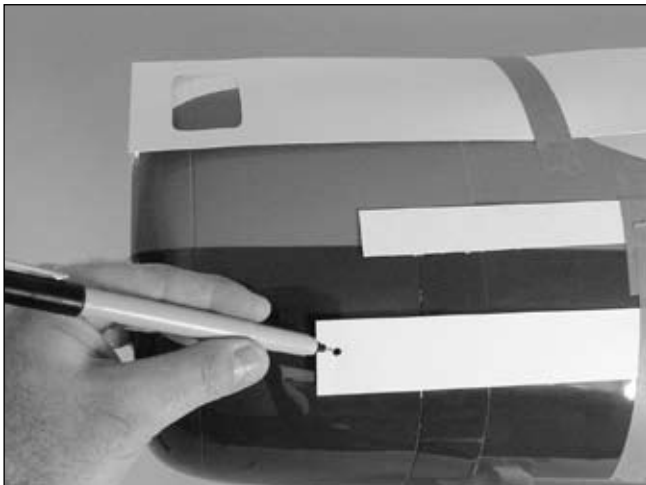
Use a piece of cardstock to indicate the location of the engine head, needle valve and cowl mounting blocks.



Hint: Remove the muffler at this time and fit the cowl to it later.

□ Step 6

Remove the engine. Position the cowl onto the fuselage so it is $5\frac{1}{2}$ " (140mm) from the firewall. Transfer the location for the engine and needle valve onto the cowl.



□ Step 7

Remove the cowl and remove the necessary material to fit the cowl over the engine. Install the engine back onto the firewall and test fit the cowl over the engine. Use a small amount of threadlock on the four bolts to prevent them from loosening during flight.

Hint: Start by removing only a little material at a time. Work until the cowl fits nicely over the engine.

□ Step 8

Slide the cowling onto the fuselage. Position the cowl so the engine drive washer is $\frac{1}{8}$ " (3mm) in front of the dummy engine.



Section 6: Cowling Installation

Step 9

Use the cardstock from Step 4 to locate the positions for the cowling screws. The goal is to drill into the center of the cowl mounting blocks for the four screws that hold the cowling. Drill the locations using a 1/16" (1.5mm) drill bit.



Step 10

Enlarge the holes drilled in the cowling using a 1/8" (3mm) drill bit.

Step 11

Attach the cowl using four #2 x 1/2" sheet metal screws.

Hint: Apply several drops of CA into the screw holes after threading the screws in a couple of times. This will harden the wood and keep the screws from loosening during flight.

Step 12

Attach the propeller to the engine. An A-Style Propeller Nut: 1 1/4" (TRUB1250A) and matching adapter for the engine were used for the photos on the box.

Section 7: Stabilizer Installation

Required Parts

- Assembled wing
- Fuselage
- 1/4-20 blind nut (2)
- 1/4" washer (2)
- Stabilizer
- 1/4-20 x 1 1/2" socket head bolt (2)

Required Tools and Adhesives

- 30-minute epoxy
- Pliers
- Hex wrench: 3/16"
- Hobby knife
- Felt-tipped pen
- Ruler
- Paper towels
- Mixing sticks
- Measuring cup
- Epoxy brush
- Rubbing alcohol

□ Step 1

Locate the two 1/4-20 blind nuts. Mix a small amount of 30-minute epoxy and apply it to the barbs of the blind nut. Use pliers to install the blind nut from the inside of the fuselage.



Hint: A short 1/4-20 bolt and fender washer can also be used to draw the blind nut up into position.

Note: Make sure no epoxy gets into the threads of the blind nut.

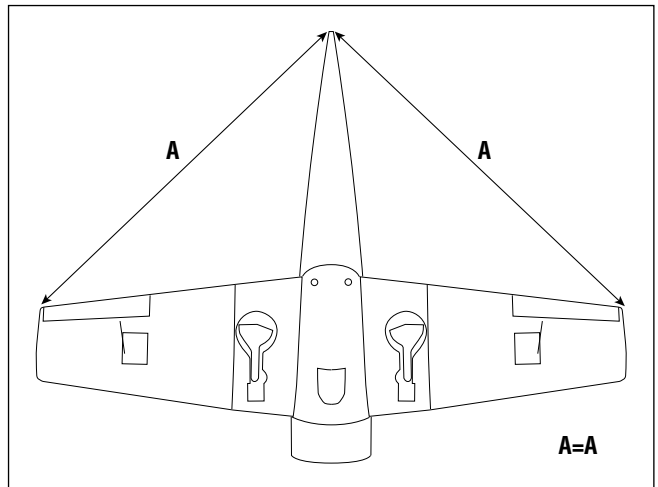
□ Step 2

Use the two 1/4 x 1 1/2" socket head bolts and 1/4" washers to attach the wing to the fuselage.



□ Step 3

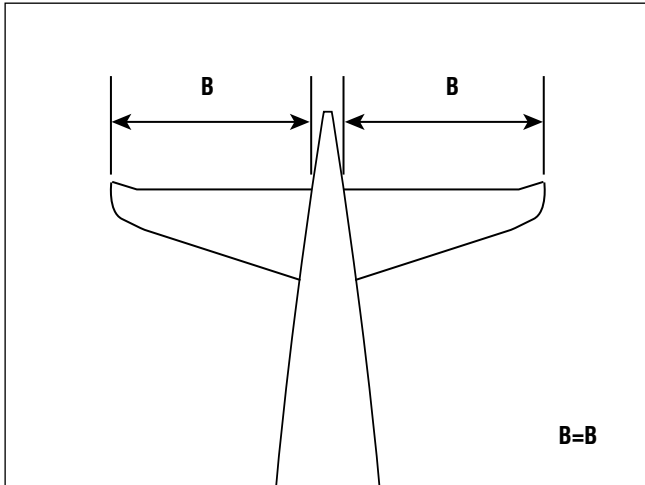
Measure the distance between a point centered at the rear of the fuselage and each wing tip. The measurement will be equal if the wing is aligned correctly. If the measurement is not the same, slightly oval the hole for the wing bolts until an equal measurement is achieved.



Section 7: Stabilizer Installation

□ Step 4

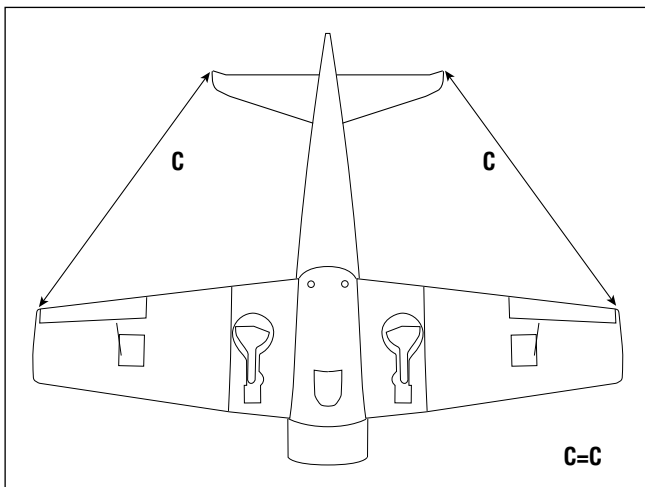
Slide the stab into the fuselage, making sure the stabilizer is as far forward as possible. Center the stab in the opening by measuring the distance from the fuselage to each tip. The stab is aligned when both measurements are identical.



Hint: Place the elevators in position on the stabilizer to help in centering the stabilizer. DO NOT glue the hinges until instructed to do so.

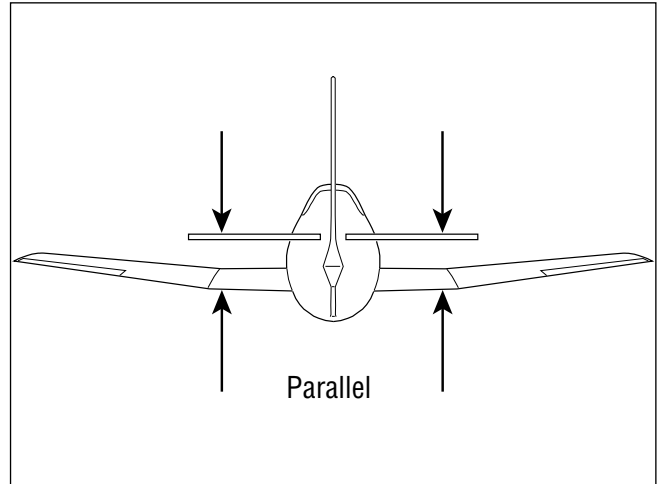
□ Step 5

Check the distance from each stab tip to each wing tip. These measurements must be equal for the stab to be aligned.



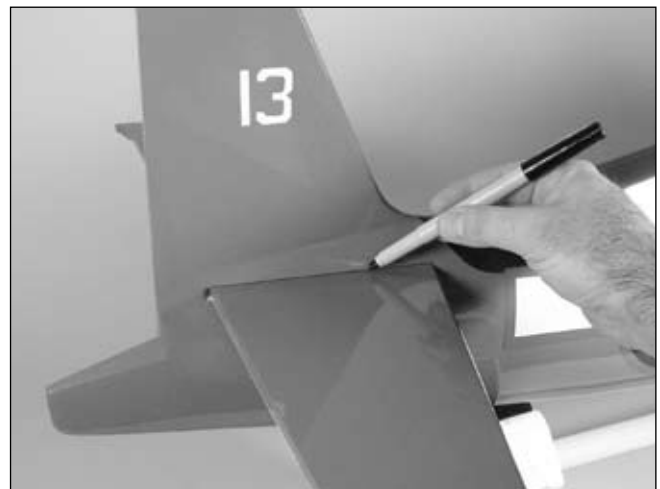
□ Step 6

Check to make sure the wing and stabilizer are parallel. If they are not, lightly sand the opening in the fuselage for the stab until the stab is parallel to the wing.



□ Step 7

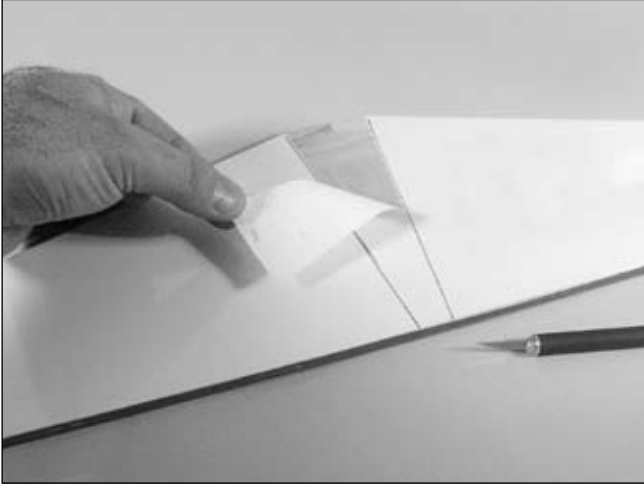
After verifying the alignment of the stabilizer, use a felt-tipped pen to trace the outline of the fuselage on the stab.



Section 7: Stabilizer Installation

□ Step 8

Remove the stab and use a hobby knife with a new blade to remove the covering 1/16" (1.5mm) inside the lines just drawn. Use rubbing alcohol and a paper towel to remove the lines once they are no longer needed.



Note: Use care not to cut into the underlying wood and weaken the structure. Doing so could cause the stab to fail in flight, resulting in the loss of your airplane.

Hint: Use a soldering iron or hot knife as an alternative to a hobby knife to melt the covering.

□ Step 9

Slide the stabilizer partially back into the slot. Mix 1/2 ounce of 30-minute epoxy. Apply epoxy to the top and bottom of the exposed wood of the stabilizer. Slide the stabilizer the rest of the way into the slot in the fuselage. Double-check the alignment to verify it's correct. Remove any excess epoxy using a paper towel and rubbing alcohol. Allow the epoxy to fully cure before continuing.



Section 8: Installing the Elevators

Required Parts

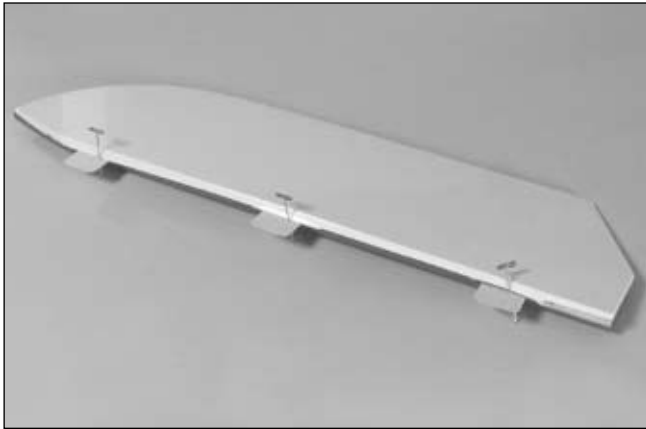
- Elevator joiner wire
- CA hinge (6)
- Fuselage assembly
- Elevator (left and right)

Required Tools and Adhesives

- Thin CA
- T-Pins
- 30-minute epoxy
- Medium sandpaper

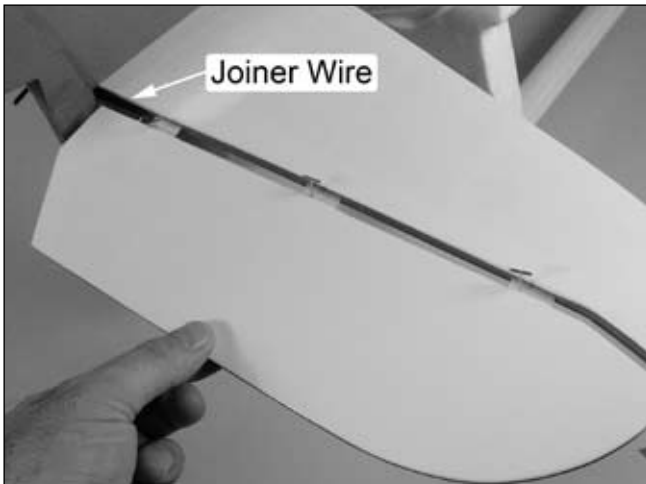
□ □ Step 1

Remove the covering from the slot in the elevator. Locate three CA hinges. Place a T-pin in the center of the hinges. Place the hinges into the elevator half.



□ □ Step 2

Lightly sand the elevator joiner wire. Clean the wire using a paper towel and rubbing alcohol. Slide the elevator joiner wire into position. Test fit the elevator and stab together. The elevator joiner wire will be inserted into the hole exposed in Step 1.



□ □ Step 3

Mix 1/2 ounce of 30-minute epoxy and apply it to the groove and hole in the elevator half. Insert the elevator joiner wire. Press the elevator against the stabilizer so that the hinge gap between the elevator and stabilizer is roughly 1/64" (.4mm). Remove the T-pins and remove any excess epoxy using rubbing alcohol and a paper towel.

Note: You can combine the previous step with the following step if you like. This will hold the elevator in position while the epoxy cures.

□ □ Step 4

Line up the tip of the elevator with the stabilizer tip. Again, check to make sure the hinge gap between the elevator and stabilizer is roughly 1/64" (.4mm). Apply thin CA to both sides of the hinge. Make sure to saturate the hinge and don't use accelerator.

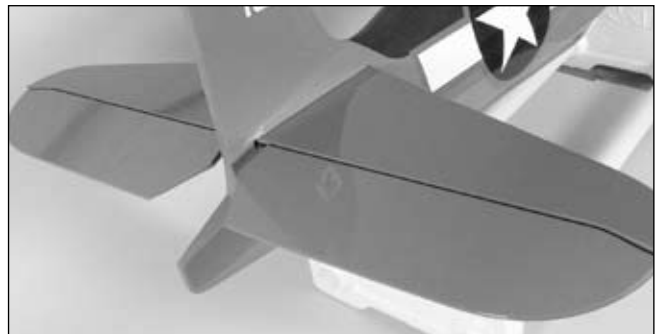


□ □ Step 5

Once the CA and epoxy have fully cured, gently pull on the elevator and stab to make sure the hinges are well glued. Flex the elevators a few times to break in the hinges.

□ Step 6

Repeat Steps 1 through 5 to install the remaining elevator half.



Section 9: Installing the Rudder

Required Parts

- Fuselage assembly
- CA hinge (3)
- Rudder
- Tail wheel wire

Required Tools and Adhesives

- Thin CA
- 30-minute epoxy
- Hobby knife
- Hex wrench
- Mixing sticks
- T-pins
- Medium sandpaper
- Rubbing alcohol
- Ruler
- Paper towel

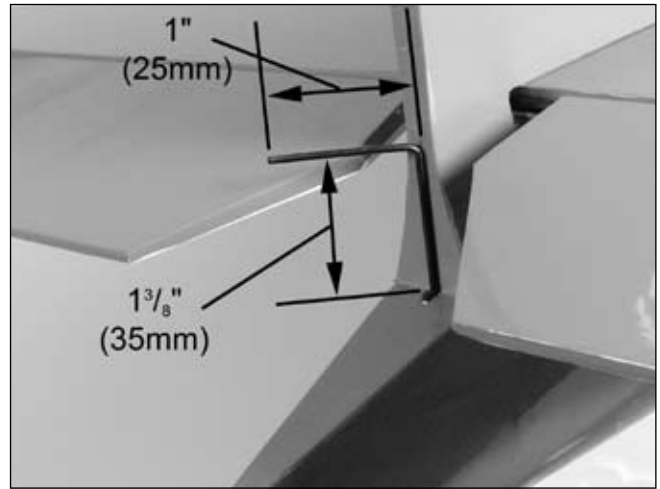
□ Step 1

Remove the covering from the bottom of the fuselage and behind the fin using a sharp hobby knife. Slide the tail gear wire into position from the bottom of the fuselage.



□ Step 2

Push the tail wheel until the wheel collar is against the bracket inside the fuselage. Measure $1\frac{3}{8}$ " (35mm) up from the fuselage and mark the tail wheel wire. Position the wire so the tail wheel will be parallel to the runway. Make a 90-degree bend in the wire at the mark so the wire will extend into the rudder. Cut the excess wire so only 1" (25mm) extends past the rear edge of the fin.



□ Step 3

Remove the covering from the slot in the rudder. Locate three CA hinges. Place a T-pin in the center of the hinges. Place the hinges into the elevator half.

□ Step 4

Use medium sandpaper to roughen the portion of the tail wheel wire that will be inserted in the rudder. Clean the wire using rubbing alcohol and a paper towel.



Section 9: Installing the Rudder

Step 5

Locate three CA hinges and place a T-pin in the center of each hinge. Place the hinges into the rudder.

Step 6

Test fit the rudder to the fin and tail wheel wire. The gap between the rudder and fin should be a maximum of approximately 1/64" (.4mm). Check the movement of the rudder to make sure it clears the fin.



Step 7

Remove the rudder from the fin. Mix 1/2 ounce of 30-minute epoxy and apply it to the groove and hole in the rudder. Insert the rudder control rod. Remove any excess epoxy using rubbing alcohol and a paper towel.

Note: You can combine the previous step with the following step if you like. This will hold the rudder in position while the epoxy cures.

Important: Do not let epoxy get into the tail wheel wire support brackets.

Step 8

Check to make sure the rudder moves freely. Apply thin CA to both sides of the hinges. Make sure to saturate the hinge and don't use accelerator.

Step 9

Once the CA and epoxy have fully cured, gently pull on the fin and rudder to make sure the hinges are well glued. Flex the rudder a few times to break in the hinges.

Step 10

Loosen the setscrew in the wheel collar and slide it tightly against the bracket inside the fuselage. This prevents loads from landing on the rudder hinges.



Section 10: Radio Installation

Required Parts

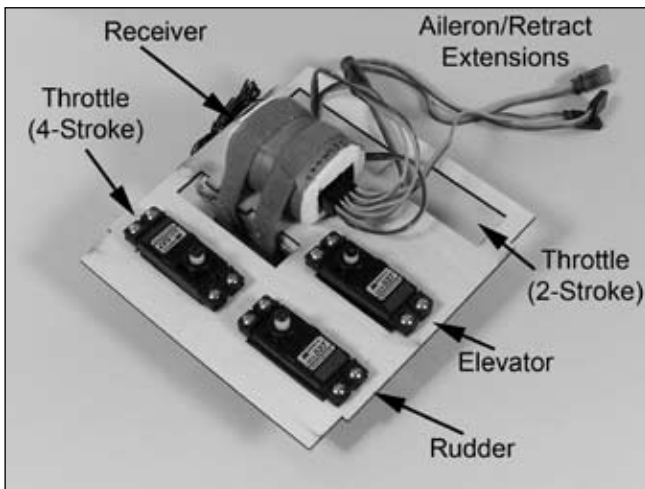
- Nylon clevis (2)
- Nylon control horn (3)
- Fuselage assembly
- Quick connector
- Quick connector backplate
- Pushrod wire (29³/₄" (756mm) (2)
- 3mm setcrews
- Switch harness
- Nylon wire keeper (2)
- 2-56 x 1/2" screw (6)
- Servo w/hardware (3)
- Receiver
- Receiver battery
- 1/4" (6mm) foam

Required Tools and Adhesives

- 6-minute epoxy
- Felt-tipped pen
- Ruler
- Drill bit: 1/16" (1.5mm), 5/64" (2mm), 3/32" (2.5mm)
- Phillips screwdriver (small)
- Thin CA
- Hobby knife
- Drill

□ Step 1

Wrap the receiver and receiver battery in foam. Secure them to the radio tray using rubber bands or hook and loop straps. Install the servo hardware and install the servos into the servo tray. Connect the servos to the receiver and the extensions for the aileron and retract servos.



Note: The receiver battery is located under the servo tray. The tray shows the four-stroke throttle servo location. The empty opening is the servo location for the two-stroke throttle servo.

Important: Apply 2–3 drops of thin CA onto each servo screw to prevent them from vibrating loose in flight.

□ Step 2

Use 6-minute epoxy to glue the servo tray inside the fuselage. Make sure there is a good bond between the formers and servo tray to prevent it from coming loose during the life of the aircraft.



□ Step 3

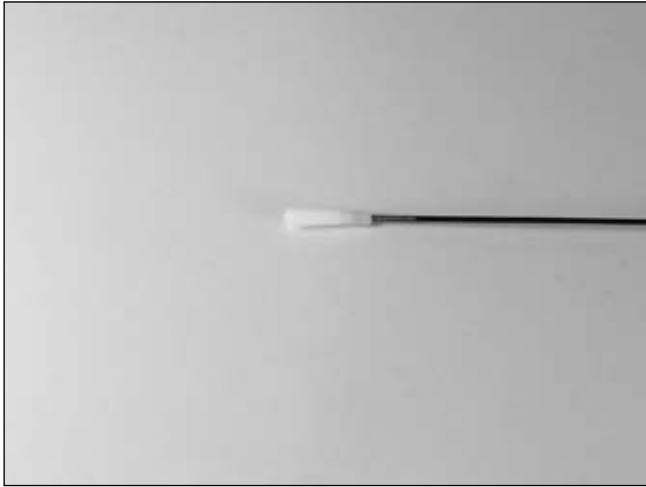
Install a switch harness opposite the side of the engine exhaust. Route the antenna through the bottom of the fuselage and secure it to a location at the tail with rubber bands.



Section 10: Radio Installation

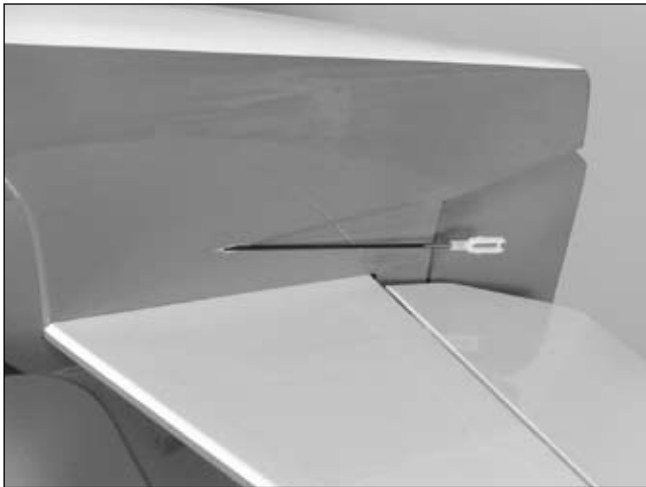
□ □ Step 4

Thread a clevis onto a $29\frac{3}{4}$ " (756mm) pushrod wire a minimum of 10 turns.



□ □ Step 5

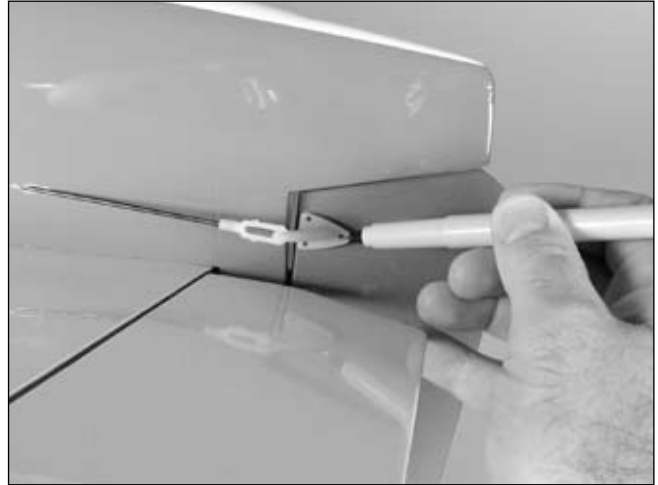
Remove the covering on the fuselage to expose the end of the pushrod tube. Slide the pushrod into the pre-installed pushrod tube inside the fuselage.



Note: It may be difficult to locate the pushrod tube. Slide the pushrod wire from the inside of the fuselage and note where the covering is displaced to locate the tube.

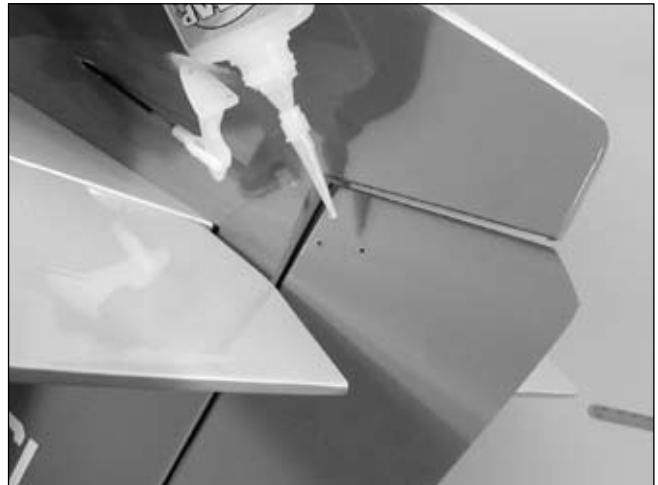
□ □ Step 6

Remove the back plate from a control horn using side cutters or a sharp hobby knife. Position the control horn on the rudder so the horn aligns with the hinge line. Mark the position for the mounting holes using a felt-tipped pen.



□ □ Step 7

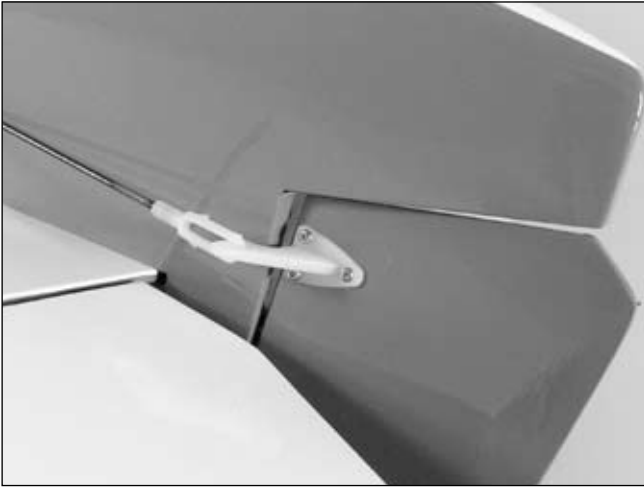
Drill three $\frac{3}{32}$ " (2.5mm) holes through the rudder at the locations marked in the previous step. Place 2–3 drops of thin CA into the hole to harden the wood. Repeat this for each of the three holes.



Section 10: Radio Installation

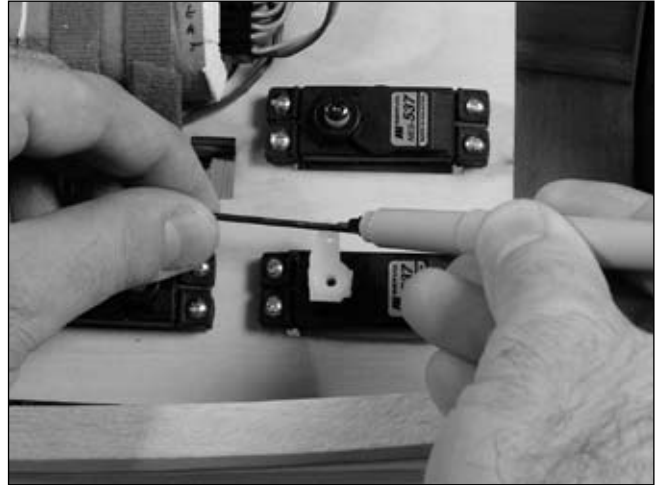
□ □ Step 8

Attach the control horn using three 2-56 x 1/2" screws and the control back plate.



□ □ Step 9

Center the rudder servo electronically using the radio system. Install a servo arm onto the rudder servo. Attach the pushrod with clevis to the control horn. Physically place the rudder control surface in neutral. Mark the pushrod where it crosses the holes in the servo arm.



□ □ Step 10

Bend the wire 90 degrees at the mark made in the previous step. Cut the wire 3/8" (9.5mm) above the bend.



Section 10: Radio Installation

□ □ Step 11

Drill out the hole in the servo arm using a 5/64" (2mm) drill bit then slide the wire through the outer hole in the rudder servo arm. Secure the wire using a nylon wire keeper.



□ Step 12

Repeat Steps 4 through 11 for the elevator pushrod installation.

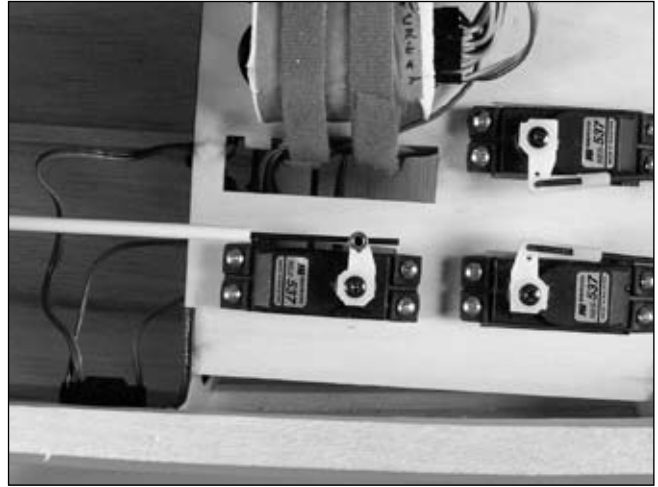
□ Step 13

Use a 5/64" (2mm) drill bit to drill a hole in the throttle servo arm. Attach a quick connector to the servo arm using quick connector washers and retainers.



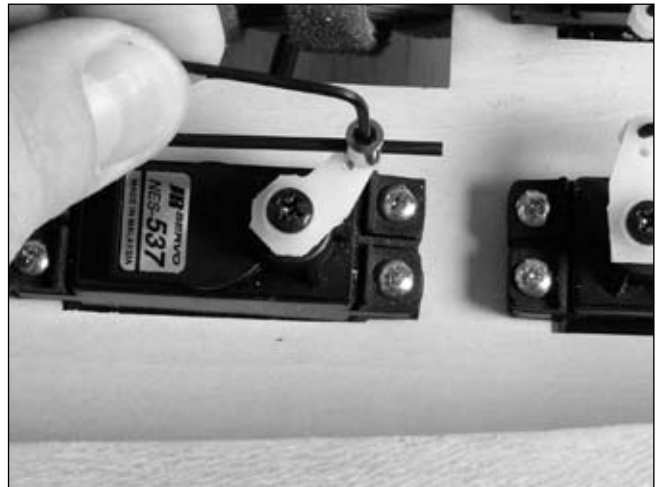
□ Step 14

Center the throttle stick and trim with both the receiver and transmitter on. Slide the throttle pushrod through the connector and install the throttle servo arm in the neutral position.



□ Step 15

Move the servo to the throttle closed position using the radio system. Manually move the throttle arm on the carburetor to the closed position. Use a 3mm setscrew to secure the throttle pushrod wire.



□ Step 16

Check the movement of the throttle to verify there is no binding at either low or high throttle. If there is, make the necessary adjustment using the radio system to eliminate any binding. Install the throttle servo arm screw when complete.

Adjusting the Engine

Step 1

Completely read the instructions included with your engine and follow the recommended break-in procedure.

Step 2

At the field, adjust the engine to a slightly rich setting at full throttle and adjust the idle and low-speed needle so that a consistent idle is achieved.

Step 3

Before you fly, be sure that your engine idles reliably, transitions and runs at all throttle settings. Only when this is achieved should any plane be considered ready for flight.

Control Throws

The amount of control throw should be adjusted as closely as possible using mechanical means, rather than making large changes electronically at the radio. By moving the position of the clevis at the control horn toward the outermost hole, you will decrease the amount of control throw of the control surface. Moving it toward the control surface will increase the amount of throw. Moving the pushrod wire at the servo arm will have the opposite effect: Moving it closer to center will decrease throw, and away from center will increase throw. Work with a combination of the two to achieve the closest or exact control throws listed.

Aileron 9/16" (14mm) up 9/16" (14mm) down

Note: Aileron throw is measured at the inboard trailing edge of the aileron.

Elevator 7/16" (11mm) up 1/2" (13mm) down

Note: Elevator throw is measured at the inboard trailing edge of the elevator.

Rudder 1" (25mm) right 1" (25mm) left

Note: Rudder throw is measured at the bottom of the rudder.

Once the control throws have been set, use the supplied heat shrink tubing on each clevis to prevent them from opening during flight.

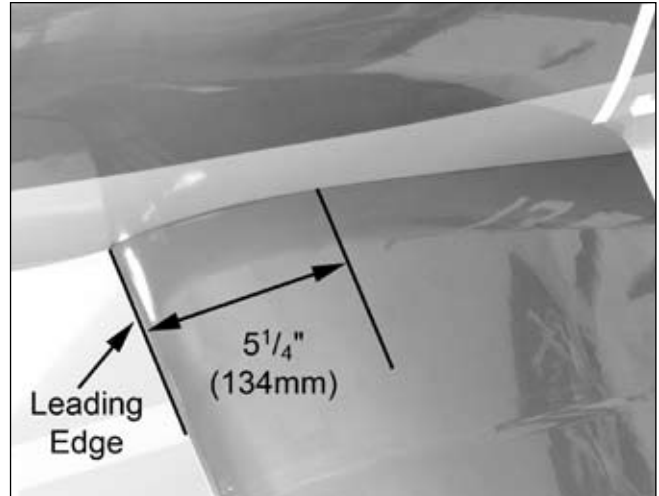


Recommended CG

An important part of preparing the aircraft for flight is properly balancing the model. This is especially important when various engines are mounted.

Caution: Do not inadvertently skip this step!

The recommended Center of Gravity (CG) location for the F6F Hellcat is $5\frac{1}{4}$ " (134mm) behind the leading edge of the wing against the fuselage. Make sure the gear is retracted when checking the CG, as the CG will change depending on the gear position. Make sure the aircraft is inverted when measuring the CG. If necessary, move the battery pack or add weight to either the nose or the tail until the correct balance is achieved. Stick-on weights are available at your local hobby store and work well for this purpose.



Preflight

Charge both the transmitter and receiver pack for your airplane. Use the recommended charger supplied with your particular radio system, following the instructions provided with the radio. In most cases, the radio should be charged the night before going out flying.

Check the radio installation and make sure all the control surfaces are moving correctly (i.e. the correct direction and with the recommended throws). Test run the engine and make sure it transitions smoothly from idle to full throttle and back. Also ensure the engine is tuned according to the manufacturer's instructions, and it will run consistently and constantly at full throttle when adjusted. Check all the control horns, servo horns and clevises to make sure they are secure and in good condition. Replace any items that would be considered questionable. Failure of any of these components in flight would mean the loss of your aircraft.

Range Testing the Radio

Before each flying session, range check your radio. This is accomplished by turning on your transmitter with the antenna collapsed. Turn on the radio in your airplane. With your airplane on the ground, you should be able to walk 30 paces away from your airplane and still have complete control of all functions. If not, don't attempt to fly! Have your radio equipment checked out by the manufacturer.

2006 Official AMA National Model Aircraft Safety Code

GENERAL

- 1) I will not fly my model aircraft in sanctioned events, air shows or model flying demonstrations until it has been proven to be airworthy by having been previously, successfully flight tested.
- 2) I will not fly my model higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right-of-way and avoid flying in the proximity of full-scale aircraft. Where necessary, an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full-scale aircraft.
- 3) Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.
- 4) The maximum takeoff weight of a model is 55 pounds, except models flown under Experimental Aircraft rules.
- 5) I will not fly my model unless it is identified with my name and address or AMA number, on or in the model. (This does not apply to models while being flown indoors.)
- 6) I will not operate models with metal-bladed propellers or with gaseous boosts, in which gases other than air enter their internal combustion engine(s); nor will I operate models with extremely hazardous fuels such as those containing tetranitromethane or hydrazine.

- 7) I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile of any kind) including, but not limited to, rockets, explosive bombs dropped from models, smoke bombs, all explosive gases (such as hydrogen-filled balloons), or ground mounted devices launching a projectile. The only exceptions permitted are rockets flown in accordance with the National Model Rocketry Safety Code or those permanently attached (as per JATO use); also those items authorized for Air Show Team use as defined by AST Advisory Committee (document available from AMA HQ). In any case, models using rocket motors as a primary means of propulsion are limited to a maximum weight of 3.3 pounds and a G series motor. (A model aircraft is defined as an aircraft with or without engine, not able to carry a human being.)
- 8) I will not consume alcoholic beverages prior to, nor during, participation in any model operations.
- 9) Children under 6 years old are only allowed on the flight line as a pilot or while receiving flight instruction.

RADIO CONTROL

- 1) I will have completed a successful radio equipment ground range check before the first flight of a new or repaired model.
- 2) I will not fly my model aircraft in the presence of spectators until I become a qualified flier, unless assisted by an experienced helper.
- 3) At all flying sites a straight or curved line(s) must be established in front of which all flying takes place with the other side for spectators. Only personnel involved with flying the aircraft are allowed at or in the front of the flight line. Intentional flying behind the flight line is prohibited.
- 4) I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission. (Only properly licensed Amateurs are authorized to operate equipment on Amateur Band frequencies.)

2006 Official AMA National Model Aircraft Safety Code

- 5) Flying sites separated by three miles or more are considered safe from site-to site interference, even when both sites use the same frequencies. Any circumstances under three miles separation require a frequency management arrangement, which may be either an allocation of specific frequencies for each site or testing to determine that freedom from interference exists. Allocation plans or interference test reports shall be signed by the parties involved and provided to AMA Headquarters. Documents of agreement and reports may exist between (1) two or more AMA Chartered Clubs, (2) AMA clubs and individual AMA members not associated with AMA Clubs, or (3) two or more individual AMA members.
- 6) For Combat, distance between combat engagement line and spectator line will be 500 feet per cubic inch of engine displacement. (Example: .40 engine = 200 feet.); electric motors will be based on equivalent combustion engine size. Additional safety requirements will be per the RC Combat section of the current Competition Regulations.
- 7) At air shows or model flying demonstrations, a single straight line must be established, one side of which is for flying, with the other side for spectators.
- 8) With the exception of events flown under AMA Competition rules, after launch, except for pilots or helpers being used, no powered model may be flown closer than 25 feet to any person.
- 9) Under no circumstances may a pilot or other person touch a powered model in flight.

Organized RC Racing Event

- 10) An RC racing event, whether or not an AMA Rule Book event, is one in which model aircraft compete in flight over a prescribed course with the objective of finishing the course faster to determine the winner.
 - A. In every organized racing event in which contestants, callers and officials are on the course:
 1. All officials, callers and contestants must properly wear helmets, which are OSHA, DOT, ANSI, SNELL or NOCSAE approved or comparable standard while on the racecourse.
 2. All officials will be off the course except for the starter and their assistant.
 3. "On the course" is defined to mean any area beyond the pilot/staging area where actual flying takes place.
 - B. I will not fly my model aircraft in any organized racing event which does not comply with paragraph A above or which allows models over 20 pounds unless that competition event is AMA sanctioned.
 - C. Distance from the pylon to the nearest spectator (line) will be in accordance with the current Competition Regulations under the RC Pylon Racing section for the specific event pending two or three pylon course layout.
- 11) RC night flying is limited to low-performance models (less than 100 mph). The models must be equipped with a lighting system that clearly defines the aircraft's attitude at all times.



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