

# HANGAR 9

## *Tribute 4D 36*

### ASSEMBLY MANUAL



Specifications

Wingspan: ..... 44 <sup>5</sup>/<sub>8</sub>" (1133.4mm)  
Fuselage length: ..... 48" (1219.2mm)  
Wing area: ..... 690 sq. in. (44.5 sq dm)

Weight: ..... 4–4.5 Lbs (1.8–2 kg)  
Engine: ..... .32–.36 2-stroke, .40–.52 4-stroke  
Radio: ..... 4 channel w/ 5 servos

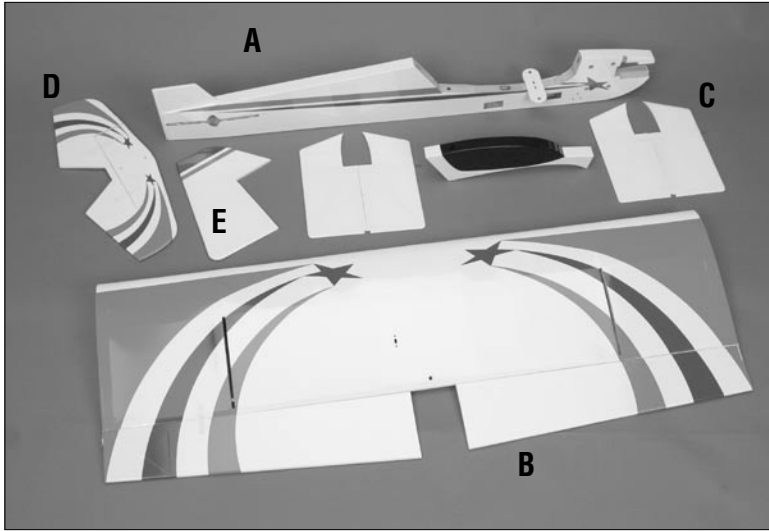
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# Contents of Kit

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## Large Parts:

A. Fuselage	HAN2926
B. Wing	HAN2927
C. Side Force Generator	HAN2928
D. Elevator/Stabilizer	HAN2933
E. Rudder	HAN2934

## Items Not Shown:

Fuel Tank	
Tail Wheel Assembly	HAN2913
Decal Set	HAN2932
Pushrod Set	HAN2935
Landing Gear	HAN2929
Wheels	HAN2930

# Additional Required Equipment

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## Radio Equipment

- 4-channel radio system (minimum)
- 5 standard servos

## Recommended JR® Systems

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



JR XP9303

## Recommended Engine

- Evolution .36



JR XP6102

# Covering Colors

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- |             |         |
|-------------|---------|
| • White     | HANU870 |
| • True Red  | HANU866 |
| • Deep Blue | HANU873 |

# Additional Required Tools and Adhesives

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## Tools

- Drill
- Drill bit: 1/16", 1/8", 5/64"
- Crescent wrench
- Flat blade screwdriver
- Petroleum jelly
- Phillips screwdriver (small)
- Pliers
- Ruler
- Side cutters
- T-pins
- Thin CA

## Adhesives

- 6-minute epoxy
- Threadlock

## Other Required Items

- Epoxy brushes
- Felt-tipped pen or pencil
- Measuring device (e.g. ruler, tape measure)
- Mixing sticks for epoxy
- Paper towels
- Petroleum jelly
- Rubbing alcohol
- Sanding bar
- Covering Iron (HAN101)
- Covering Glove (HAN150)
- Sealing Iron Sock (HAN141)

# Field Equipment Required

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- Propeller APC 11x4 (APC11040)
- Fuel
- Glow Plug Wrench (HAN2510)
- Glow Plug Igniter with Charger (HAN7101)
- Glow Plug (HAN3001/3006)
- Manual Fuel Pump (HAN118)

# Warning

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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 engine.

# Using the Manual

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This manual is divided into sections to help make assembly easier to understand, and to provide breaks between each major section. Remember to take your time and follow the directions.

# Before Starting Assembly

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Before beginning the assembly of your Tribute™ 36, remove each part from its bag for inspection. Closely inspect the fuselage, wing panels, rudder, stabilizer and side force generators 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 covering 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 – Covering Iron**

**HAN141 – Sealing Iron  
Sock**

# Warranty Information

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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 component parts damaged 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 of the final assembled product. By the act of using the assembled product, the user accepts all resulting liability.

Please note that once assembly of the model has been started, you must contact Horizon Hobby, Inc. directly regarding any warranty question. 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, Inc.  
4105 Fieldstone Road  
Champaign, Illinois 61822  
(877) 504-0233  
horizonhobby.com

# Section 1: Installing the Control Horns

## Required Parts

- Elevator
- Rudder
- 2mm x 12mm screw (12)
- Control horn w/backplate (4)
- Aileron (R&L)

## Required Tools and Adhesives

- Drill
- Drill bit: 5/64"

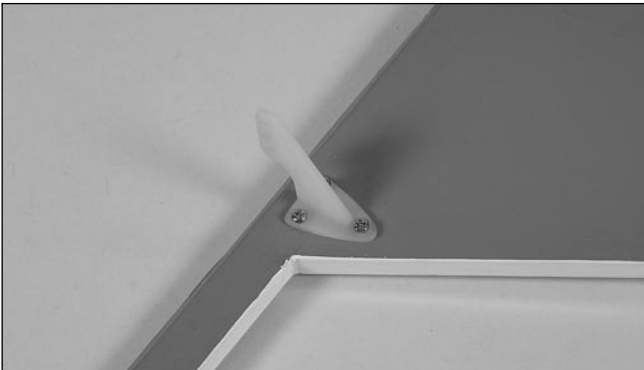
### Step 1

Carefully remove the tape holding the stabilizer to the elevator. Drill three 5/64" holes in the elevator. The locations have been marked at the factory.



### Step 2

Install the control horn on the bottom of the elevator using three 2mm x 12mm screws.



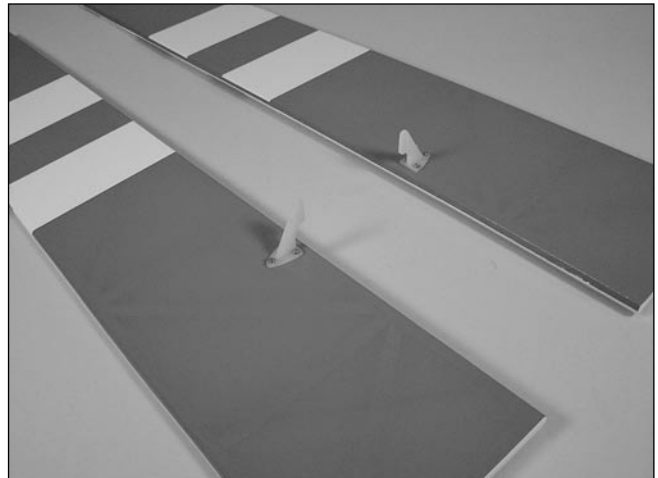
### Step 3

Repeat Steps 1 and 2 to attach the rudder control horn.



### Step 4

Repeat Steps 1 and 2 to install the aileron control horns.



# Section 2: Hinge Installation

## Required Parts

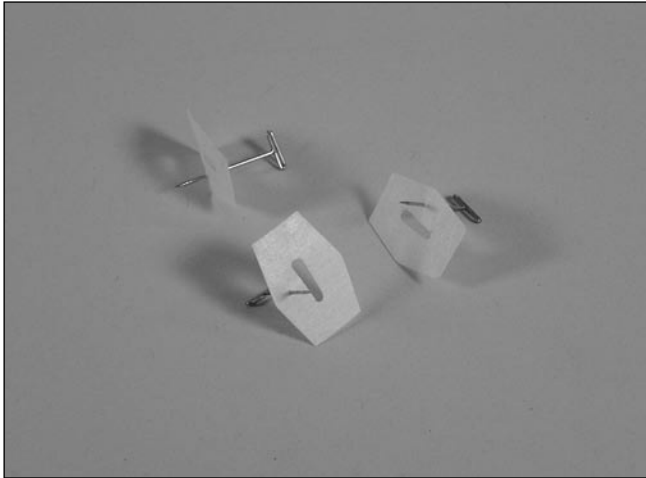
- Stabilizer
- Fuselage
- Wing
- Tail gear wire
- Elevator
- Rudder
- Aileron (R&L)
- Hinge (13)

## Required Tools and Adhesives

- Thin CA
- 6-minute epoxy
- T-pins
- Petroleum jelly

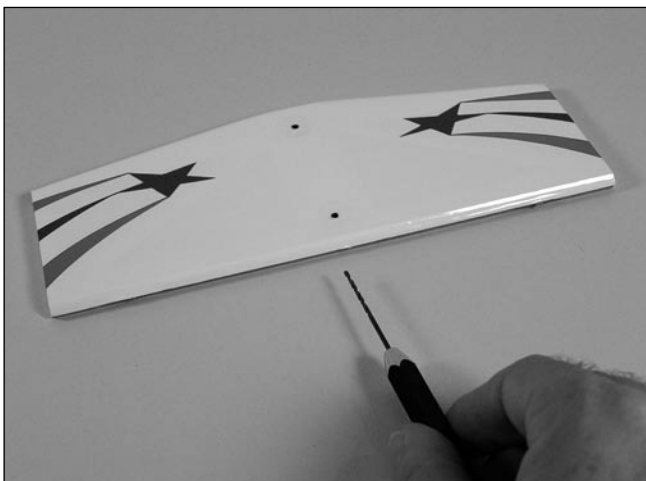
### Step 1

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



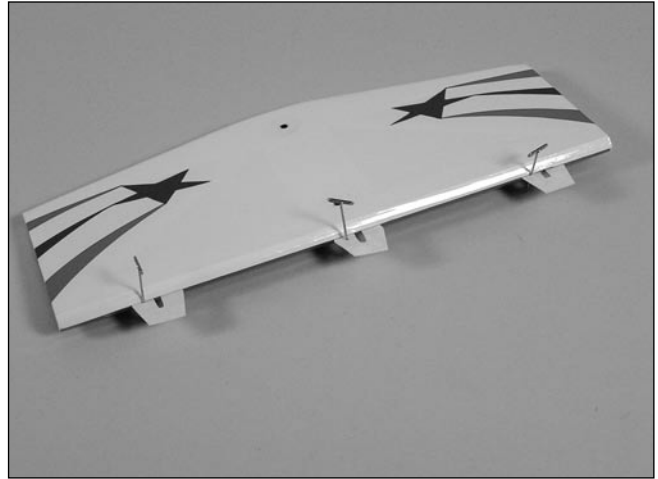
### Step 2

Drill a 1/16" hole in both the stabilizer and elevator in the center of the hinge locations.



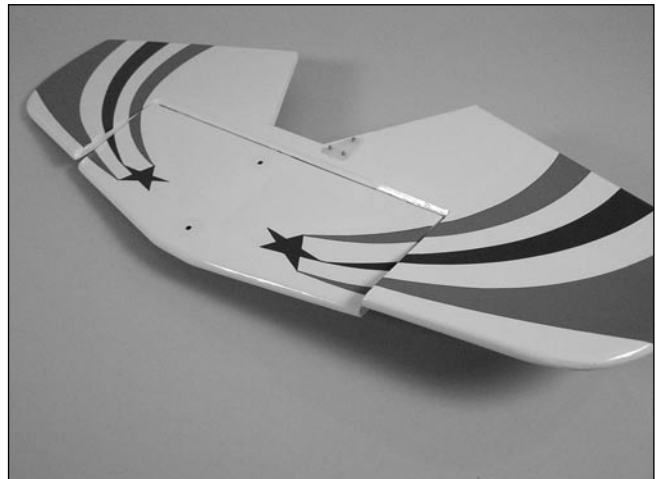
### Step 3

Place the hinges in the stabilizer.



### Step 4

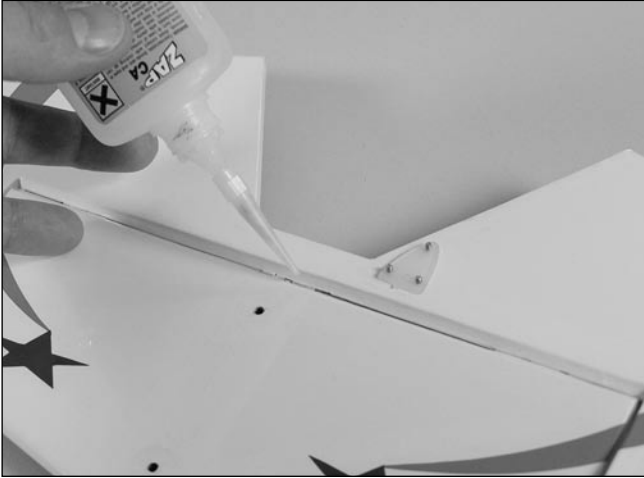
Slide the elevator and stabilizer together. Remove the T-pins. There should be a 1/64" gap between the stabilizer and elevator.



## Section 2: Hinge Installation

### Step 5

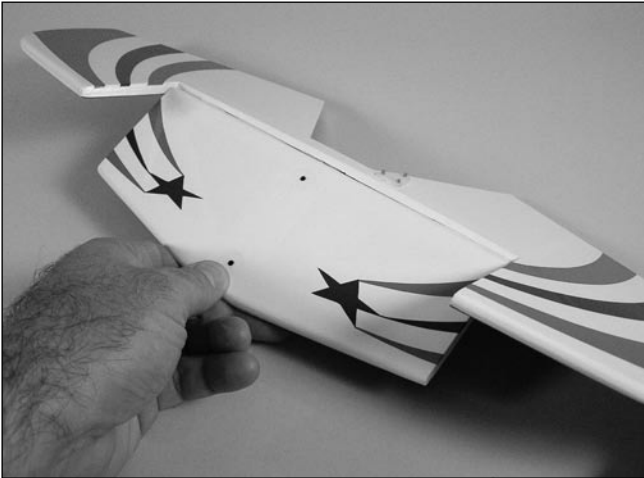
Check that the stabilizer is centered and the elevator can move freely. Wick thin CA into each of the hinges.



**Note:** Do not use accelerator in the hinging process. The CA must be allowed to soak into the hinge naturally.

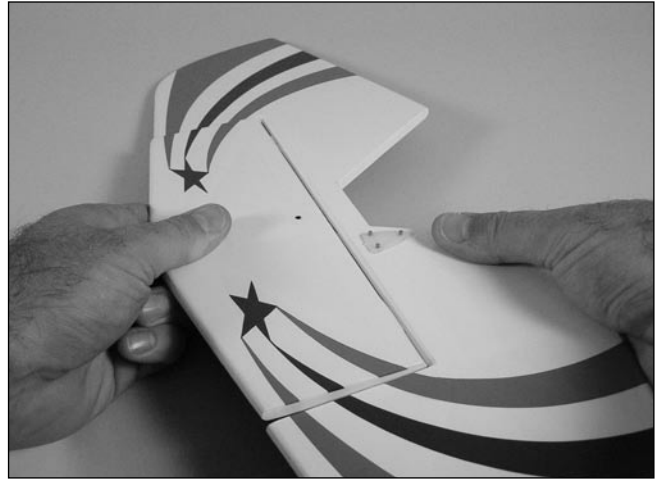
### Step 6

After the CA has cured, flex the surfaces several times to break in the hinges.



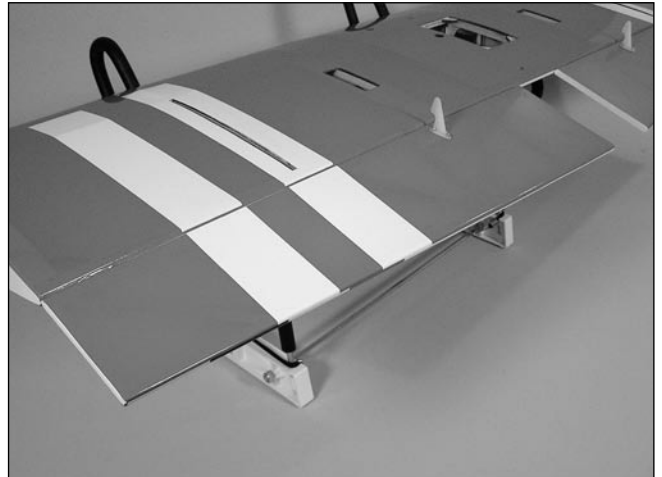
### Step 7

Pull on both surfaces to make sure the hinges are secure.



### Step 8

Repeat Steps 1 through 7 for the aileron hinges. Each aileron will use four hinges. Align the tips of the aileron with the wing tips before gluing the hinges.

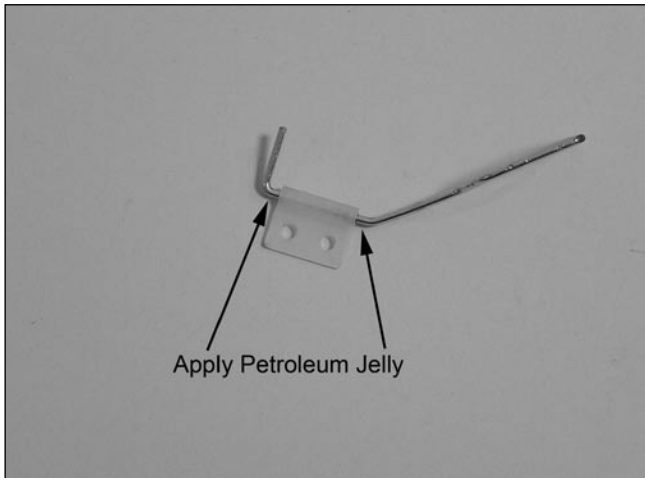




## Section 2: Hinge Installation

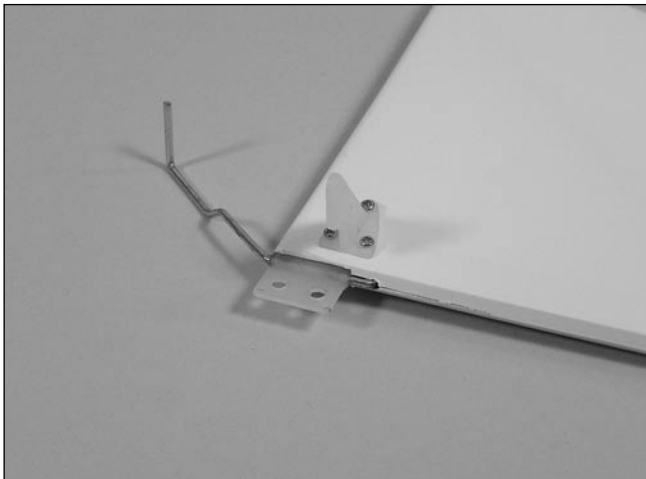
### □ Step 9

Coat the tail gear wire near the bushing with petroleum jelly. Work the lubricant into the bearing to prevent epoxy from entering the bearing, gluing the bearing to the wire.



### □ Step 10

Apply a thin layer of lubricant where the bearing will ride in the rudder. Use 6-minute epoxy to glue the wire into the rudder.



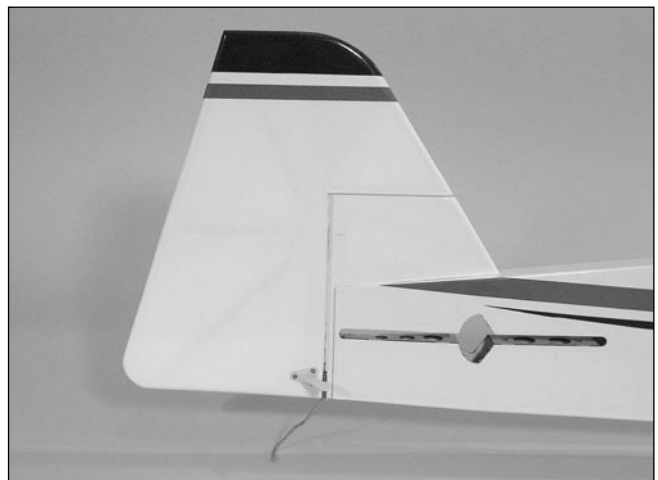
### □ Step 11

Install two hinges into the rudder. Test fit the rudder to the fuselage, sliding the hinges and tail wheel bracket into position.



### □ Step 12

Use 6-minute epoxy to glue the tail gear bearing into the fuselage. Use thin CA for the hinges.



# Section 3: Servo and Battery Installation

## Required Parts

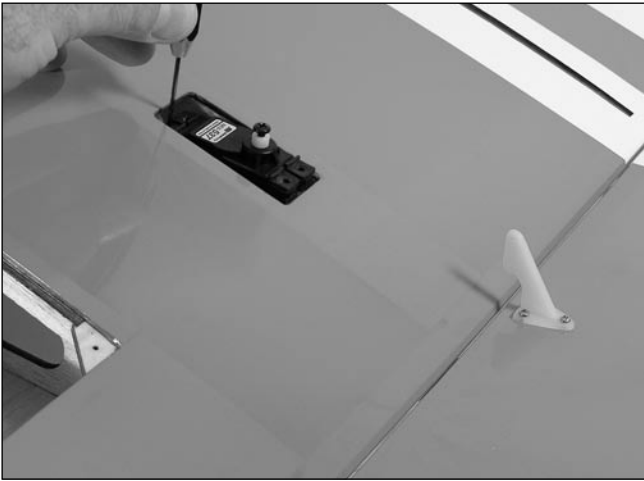
- Fuselage assembly
- Wing assembly

## Required Tools and Adhesives

- Drill
- Drill bit: 1/16"
- Phillips screwdriver

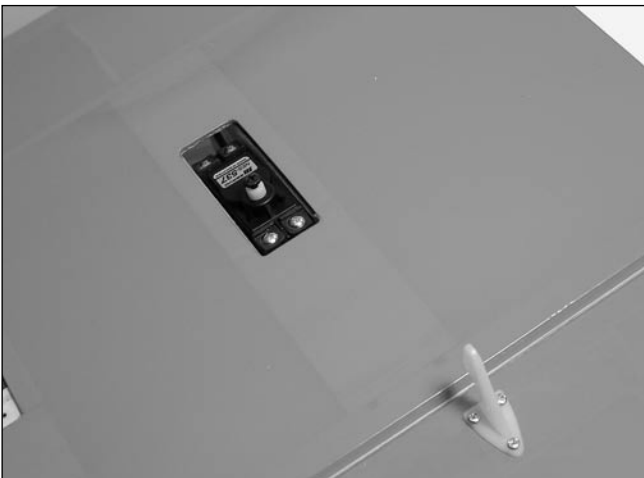
### Step 1

Position the aileron servo. Use a 1/16" drill bit to drill for the four mounting screws.



### Step 2

Secure the aileron servo using the four screws provided with the servo.

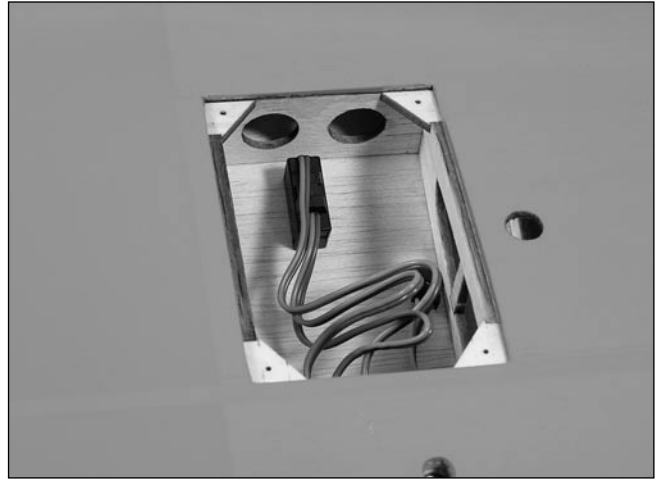


### Step 3

Repeat Steps 1 and 2 for the remaining aileron servo.

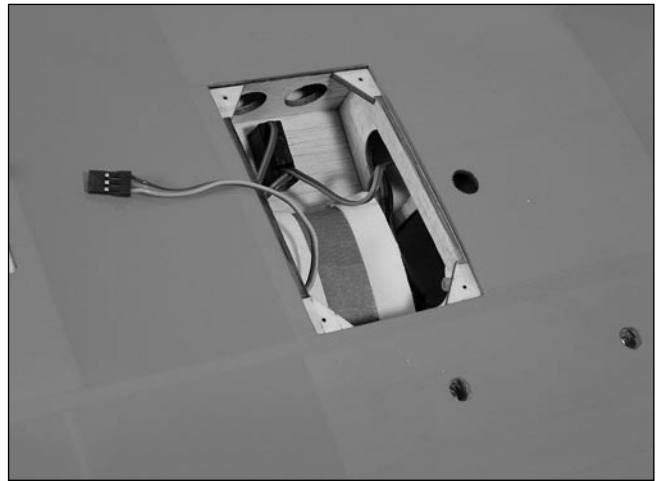
### Step 4

Install the switch harness in the opening in the wing.



### Step 5

Wrap the receiver battery in foam and install it into the wing.



**Note:** The final location of the battery will be determined when balancing the model.

## Section 3: Servo and Battery Installation

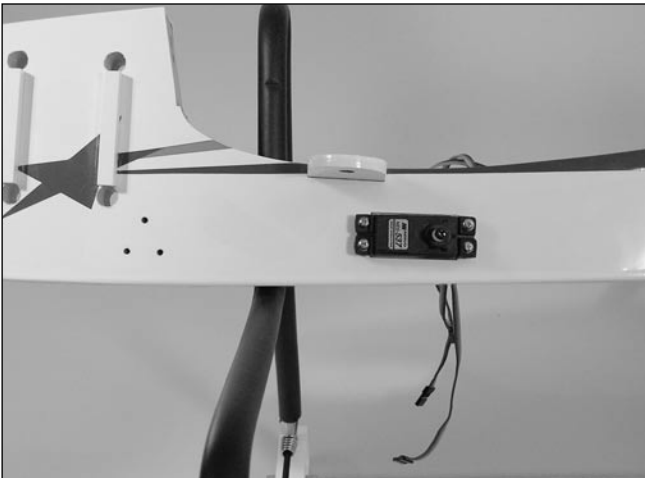
### Step 6

Repeat Steps 1 and 2 for the rudder and throttle servo.



### Step 7

Repeat Steps 1 and 2 for the elevator servo.



# Section 4: Linkage Installation

## Required Parts

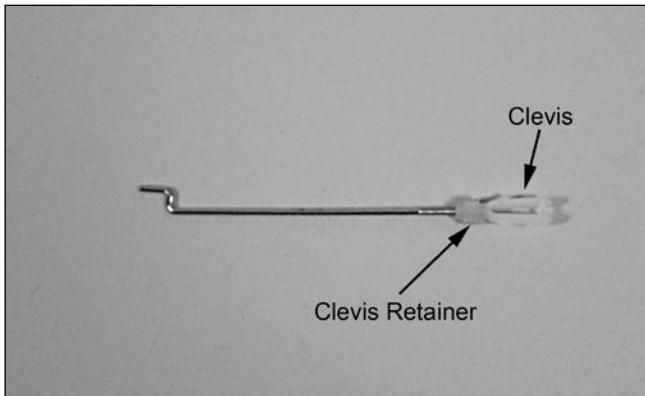
- Fuselage
- 24" linkage wire
- 14 1/4" pushrod tube
- 3 1/2" linkage wire (2)
- Clevis retainer (3)
- 3mm x 10mm screw (4)
- Wing
- 26 1/2" linkage wire
- 19 1/4" pushrod tube
- Pushrod tube clip (4)
- Clevis (3)

## Required Tools and Adhesives

- Phillips screwdriver
- Drill
- Drill bit: 1/16"

### Step 1

Slide a clevis retainer onto a nylon clevis. Thread the clevis onto a 3 1/2" linkage wire.



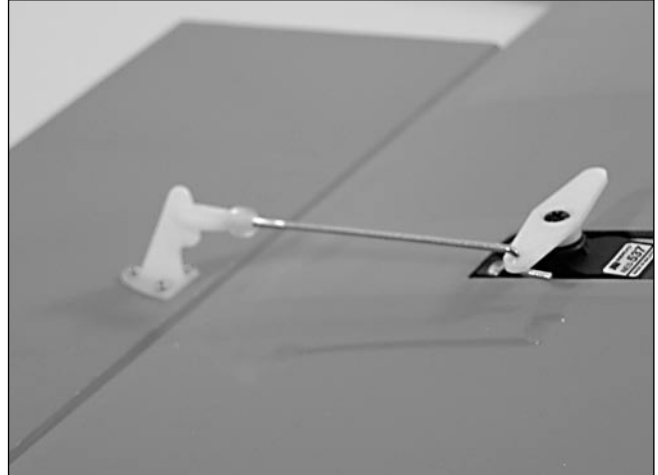
### Step 2

With the radio system on, electronically center the aileron servo. Install the servo arm perpendicular to the servo centerline. Attach the "Z" bend of the wire to the outer hole of the servo arm.



### Step 3

Attach the clevis to the center hole of the control horn. Thread the clevis in or out so the aileron is aligned with the wing.

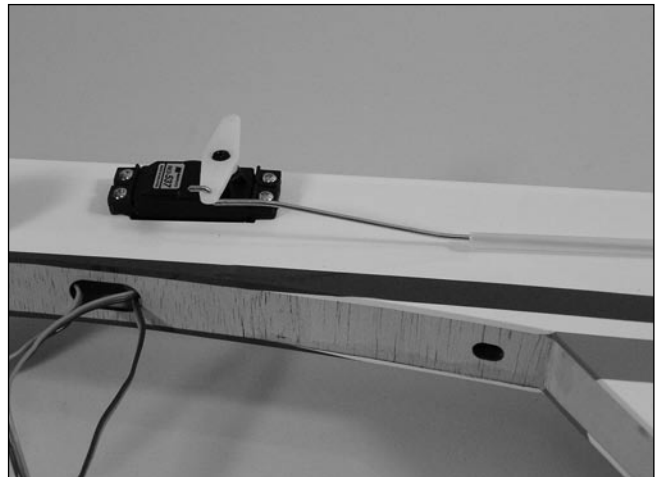


### Step 4

Repeat Steps 1 through 3 for the remaining aileron linkage.

### Step 5

Slide the 19 1/4" pushrod tube onto the 26 1/2" linkage wire. Center the rudder servo using the radio system. Attach the "Z" bend to a long servo arm, and then install the servo arm onto the servo.



## Section 4: Linkage Installation

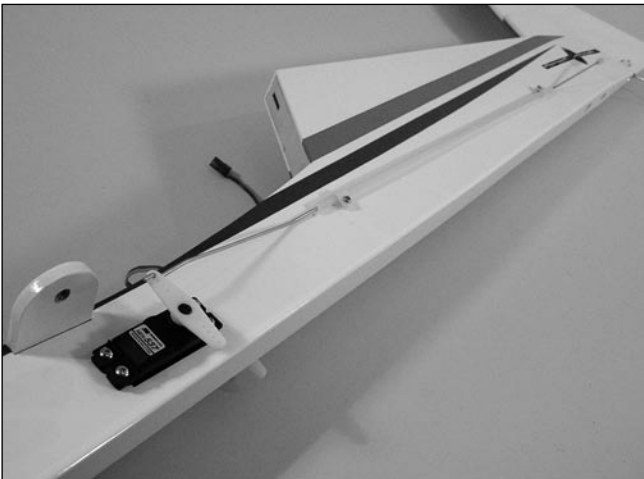
### □ □ Step 6

Secure the position of the tube using two pushrod tube clips and two 3mm x 10mm screws. The positions for the clips are marked, but will need to be drilled using a 1/16" drill bit.



### □ □ Step 7

Slide a clevis retainer onto a clevis. Thread the clevis onto the rudder pushrod wire and attach the clevis to the rudder control horn. Thread the clevis as necessary so the rudder is centered when the radio system is on.



### □ Step 8

Repeat Steps 5 through 7 for the elevator pushrod. Use the remaining 14 1/4" pushrod tube and 24" pushrod wire. The clevis will be attached later in the manual.



# Section 5: Wheel Installation

## Required Parts

- Landing gear (2)
- 4mm nut (2)
- 2 1/2" (64mm) wheel (2)
- 4mm x 35mm socket head bolt (2)
- Wheel collar w/setscrew
- 1 1/4" (28mm) wheel
- 4mm locknut (2)

## Required Tools and Adhesives

- Crescent wrench

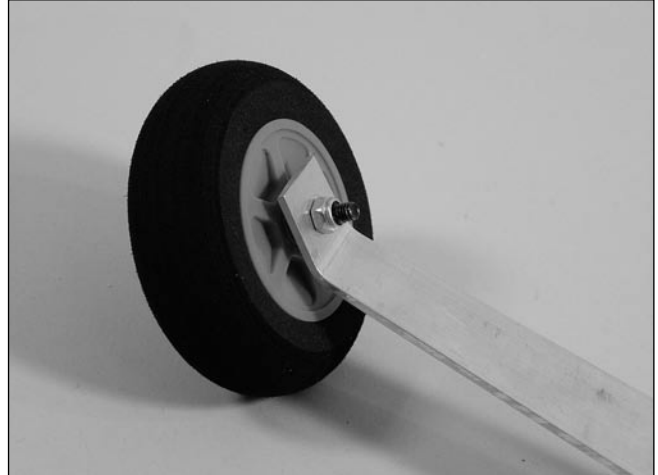
### Step 1

Slide a 4mm x 35mm socket head bolt through a wheel. Thread a 4mm nut onto the bolt, but do not tighten against the wheel.



### Step 2

Slide the bolt into the landing gear and secure its location using a 4mm locknut. Make sure the wheel can still spin freely.



### Step 3

Repeat Steps 1 and 2 for the remaining landing gear.

### Step 4

Slide the tail wheel onto the tail gear. Secure the tail wheel using a wheel collar and setscrew.



# Section 6: Engine Installation

## Required Parts

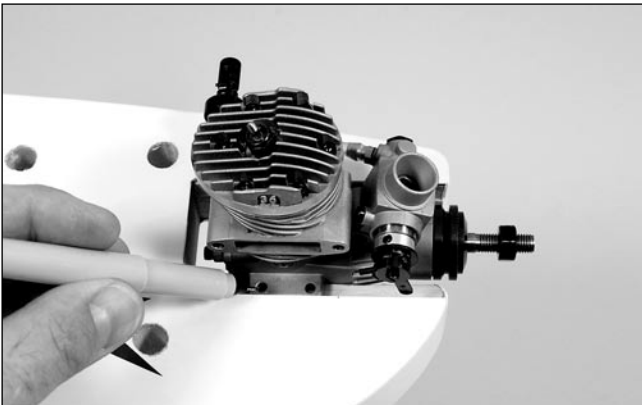
- Fuselage Assembly
- Tie wrap (13 1/2") (2)
- Clevis
- 4-40 locknut (4)
- 4-40 x 1" socket head bolt (4)
- Fuel tank assembly
- Pushrod (7")
- Clevis retainer
- #4 washer (8)

## Required Tools and Adhesives

- Engine w/muffler
- Drill
- Felt-tipped pen
- Side cutters
- Drill bit: 1/8"

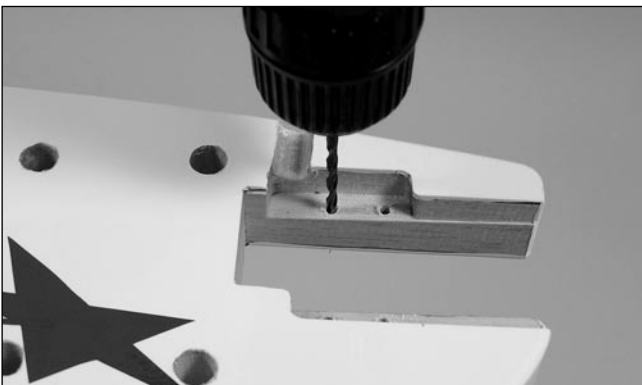
### □ Step 1

Place the engine into position on the fuselage. Make sure the drive washer is in front of the front of the fuselage so the propeller won't interfere with the fuselage. Use a felt-tipped pen to mark the locations for the engine bolts.



### □ Step 2

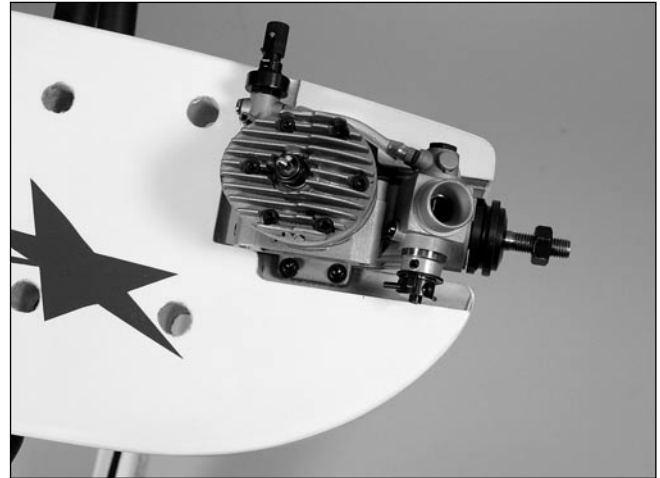
Use a 1/8" drill bit to drill the four locations for the engine bolts.



**Note:** It is recommended to use a drill press for drilling the holes

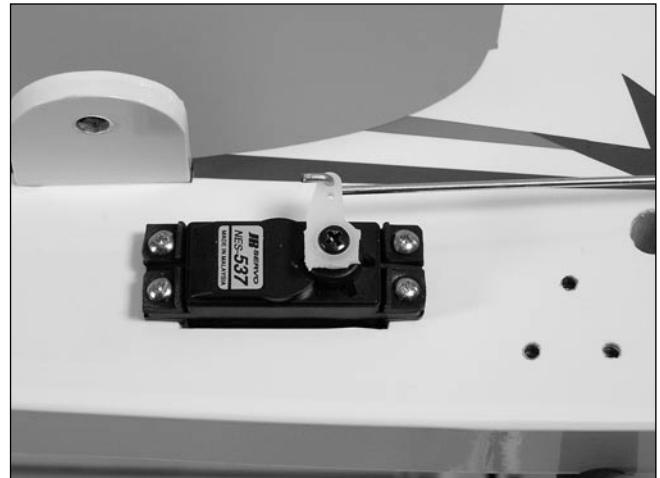
### □ Step 3

Attach the engine using the four 4-40 x 1" socket head bolts, four 4-40 locknuts and eight #4 washers.



### □ Step 4

Place a clevis retainer onto a clevis, and then thread the clevis onto the 7" pushrod. Attach the "Z" bend of the pushrod to the servo arm. With the radio on, center the throttle stick and trim lever. Install the throttle servo arm perpendicular to the servo.



## Section 6: Engine Installation

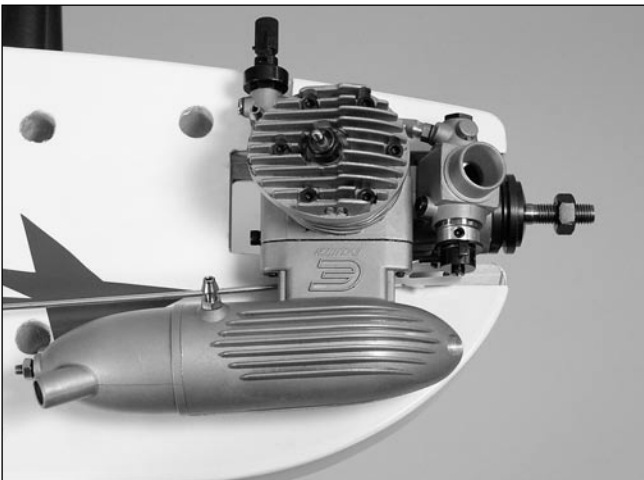
### □ Step 5

Attach the clevis to the throttle arm. Use the radio to check that you can achieve both full throttle and closed throttle using the radio without the servo binding. Make any necessary adjustment to correct any problems.



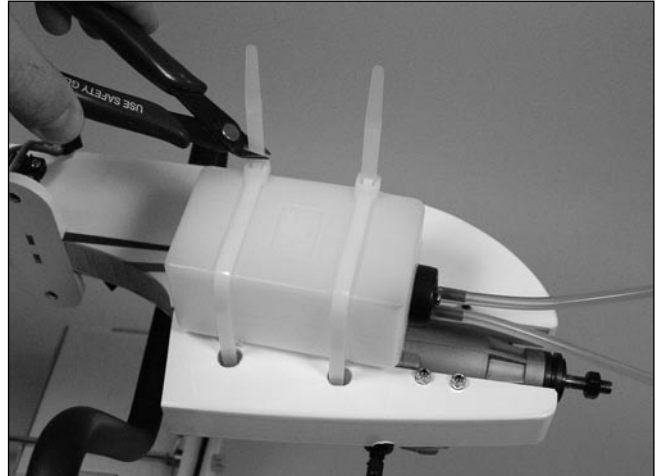
### □ Step 6

Follow the engine instructions to attach the muffler.



### □ Step 7

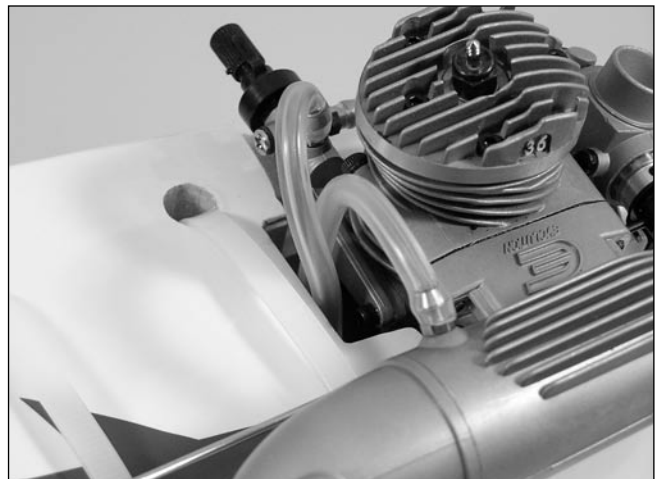
Use the two 13 1/2" tie wraps to attach the fuel tank. Check to make sure the vent line inside the tank is facing towards the top of the fuselage before tightening the tie wraps. Use side cutters to remove any excess tie wrap.



**Note:** Make sure you do not tie wrap the throttle pushrod to the fuselage by accident.

### □ Step 8

Route the fuel line behind the engine. Attach the vent to the muffler and the main line to the fuel inlet of your particular engine.





# Section 7: Receiver Installation

## Required Parts

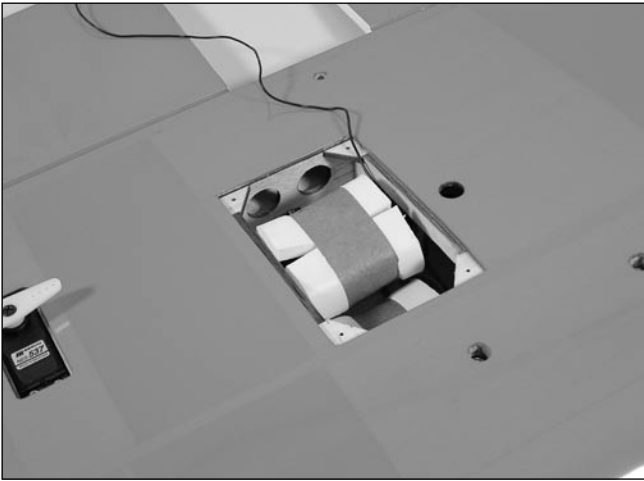
- Wing assembly
- Radio hatch
- 3mm x 12mm sheet metal screw (4)

## Required Tools and Adhesives

- Phillips screwdriver (small)

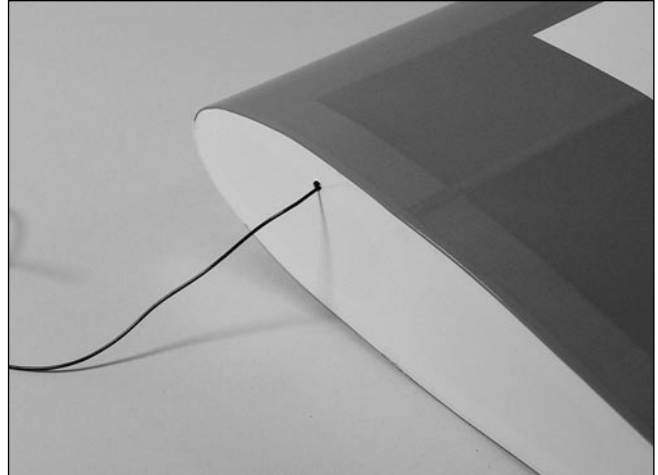
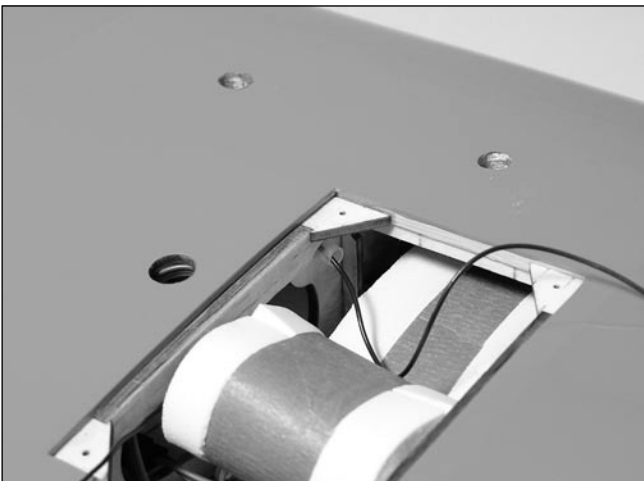
### Step 1

Wrap your receiver in foam to protect it from vibration. Place the receiver into the opening in the wing.



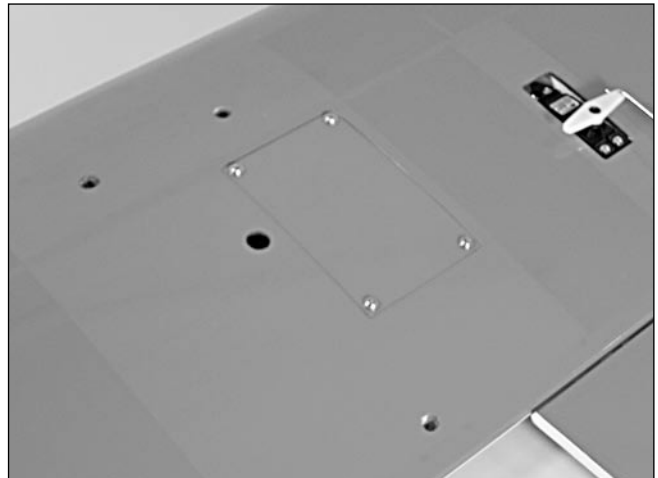
### Step 2

A tube has been installed in the wing for the receiver antenna. Route the antenna through the tube, which exits the right wing tip.



### Step 3

Secure the radio hatch using four 3mm x 12mm sheet metal screws.



**Note:** The receiver and battery may be moved when checking the Center of Gravity.

# Section 8: Installing the Stabilizer

## Required Parts

- Stabilizer assembly
- Fuselage
- Stabilizer fixing screw (2)

## Required Tools and Adhesives

- Threadlock

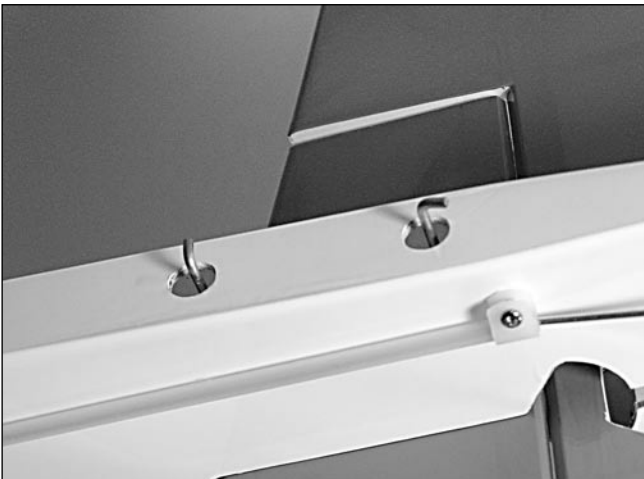
### Step 1

Locate the stabilizer/elevator assembly. Position the stabilizer/elevator assembly so the control horn will face down, away from the fin. Carefully slide the assembly into the fuselage.



### Step 2

Secure the stabilizer using the two stabilizer fixing screws. It's a good idea to use a drop of threadlock on the threads to keep them from loosening during flight.



### Step 3

Attach the clevis to the elevator horn. With the radio on, center the elevator servo. Thread the clevis in or out so the elevator is in neutral.



# Section 9: Landing Gear Installation

## Required Parts

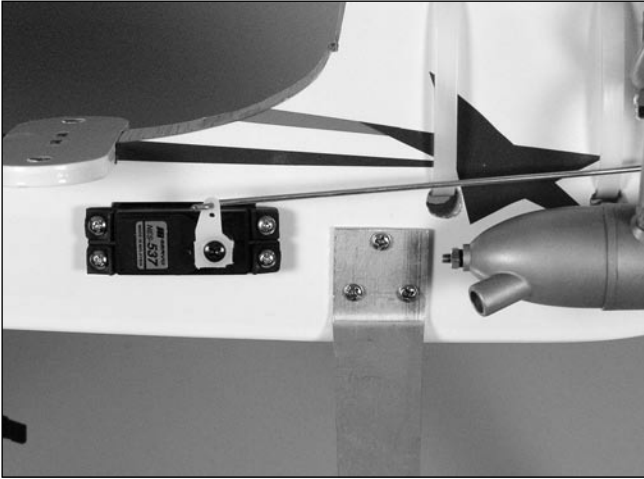
- Fuselage assembly
- 3mm x 40mm bolt
- 3mm wing nut
- Landing gear (2)

## Required Tools and Adhesives

- Phillips screwdriver (small)
- Threadlock

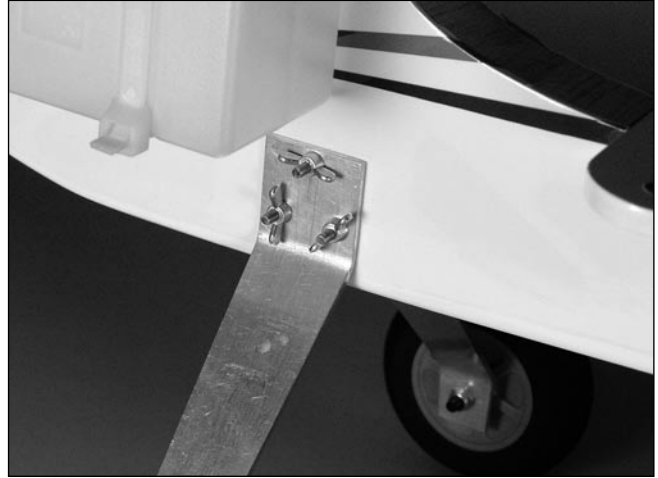
### Step 1

Slide the three 3mm x 40mm bolts into one of the landing gear halves. Slide the bolts into the fuselage.



### Step 2

Slide the remaining landing gear half onto the bolts. Secure the gear using three 3mm wing nuts.



**Note:** Use threadlock on the wing nuts to prevent them from loosening during flight.

# Section 10: Propeller and Spinner

## Required Parts

- Fuselage
- Propeller
- Spinner
- #4 x 5/8" sheet metal screw (2)

## Required Tools and Adhesives

- Crescent wrench

### Step 1

Remove the propeller nut and washer from the engine. Position the drive washer so it is keyed onto the engine shaft. Slide the spinner backplate onto the engine shaft, and then slide the propeller into position.

### Step 2

Slide the washer and thread the nut onto the engine shaft. Rotate the propeller clockwise so it is resting against the lugs of the spinner backplate. Use a crescent wrench to tighten the propeller nut. Do not use pliers, as the nut will not be tight enough, and could come loose.



**Note:** It is suggested to read the engine instructions at this time to learn more on the care and operation of your engine.

### Step 3

Locate the two #4 x 5/8" sheet metal screws. Position the spinner cone onto the spinner backplate, making sure it keys into the backplate. Use the screws and a Phillips screwdriver to secure the spinner cone to the backplate.



# Section 11: Wing Installation

## Required Parts

- Wing
- 1/4-20 x 2" nylon bolt
- Side force generator
- #2 x 1/4" screw (8)
- 1/4-20 x 2" nylon winged bolt (2)
- Fuselage
- Canopy hatch
- 3mm wing nut (2)

## Required Tools and Adhesives

- Flat blade screwdriver
- Threadlock

### □ Step 1

Place the wing onto the fuselage. Connect the servo leads and guide them into the fuselage. Secure the front of the wing using the two 1/4-20 x 2" nylon winged bolts. Leave the bolts slightly loose for now.



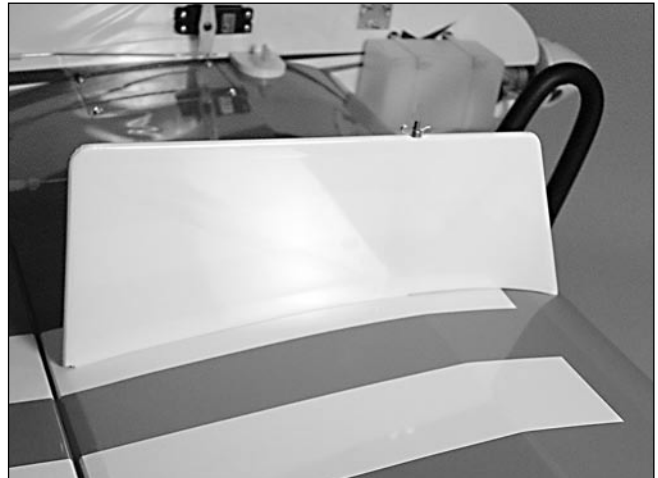
### □ Step 2

The final bolt goes into the hole at the rear of the canopy hatch. Use a flat blade screwdriver to tighten the bolt. Once tightened, go back and tighten the bolts installed in Step 1.



### □ Step 3

Slide the side force generators into the wing. The one with the threaded rod slides in from the top. Secure the generators using the 3mm wing nuts. Do not over-tighten the nuts and damage the generators.



### □ Step 4

If you are not planning on using the side force generators, secure the side force generator plugs to the wing using #2 x 1/4" screws.

**Note:** The SFG's can be easily removed in a few seconds. Try your Tribute™ 36 with and without to decide which setup suits your flying style best.

### □ Step 5

Apply the decals to customize your Tribute 36.

# Adjusting the Engine

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## 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

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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.

## Exponential

Recommended Expo (Use to soften the response of the control around neutral)

Use positive values (+) for JR Radios, Negative values (-) for Futaba radios

Elevator Low Rate	40%
Elevator Hi Rate (3D)	70%
Aileron Low Rate	40%
Aileron Hi Rate (3D)	55%
Rudder	45%

## Elevator

<i>Low Rate</i>	<i>Up</i>	<i>Down</i>
	20° (1 1/4")	20° (1 1/4")
<i>High Rate (3D)</i>		
	45° (3")	45° (3")

*Linear measurement (inches) measured at widest part of elevator (inboard end).*

## Aileron

<i>Low Rate</i>	<i>Up</i>	<i>Down</i>
	31° (1 3/4")	31° (1 3/4")
<i>High Rate (3D)</i>		
	45° (2 1/2")	45° (2 1/2")

*Linear measurement (inches) measured at tip.*

## Rudder

45° (4 1/2") Left
45° (4 1/2") Right

*Linear measurement (inches) measured at widest part of rudder (bottom).*

# Flying Information

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For detailed information on setting up and flying the Tribute 4D 36 by Mike McConville, go to [www.hangar-9.com](http://www.hangar-9.com).

# Balancing the Model

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## **Caution: Do not inadvertently skip this step!**

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

The recommended Center of Gravity (CG) range for the Tribute™ is 4 1/2" behind the leading edge of the wing against the fuselage. It is suggested to start at the forward end of the range until comfortable with the flight characteristics of your aircraft. 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 shop and work well for this purpose.

# Range Testing the Radio

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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.

# Preflight at the Field

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## **Range Test Your Radio**

### **Step 1**

Before going to the field, be sure that your batteries are fully charged, per the instructions included with your radio. 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.

### **Step 2**

Before each flying session, be sure to range check your radio. See your radio manual for the recommended range and instructions for your radio system. Each radio manufacturer specifies different procedures for their radio systems. Next, start the engine. With the model securely anchored, check the range again. The range test should not be significantly affected. If it is, don't attempt to fly! Have your radio equipment checked out by the manufacturer.

### **Step 3**

Double-check that all controls (aileron, elevator, rudder and throttle) move in the correct direction.

### **Step 4**

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.







# 2005 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.)

# 2005 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.

**HANGAR 9™**

**HORIZON**  
H O B B Y

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