

HOBBICO® SKYVISTA™

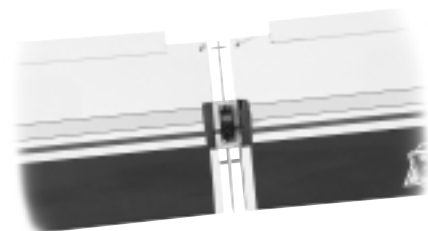


Innovative Prebuilt R/C Sport Aircraft

Assembly Instructions



- *Innovative Pre-Built Aerobatic Trainer*
- *Builds with 2 tools in 1 evening*
- *No gluing, cutting, covering or painting required*



INTRODUCTION

Congratulations!. You now own one of the most unique model airplanes in the world. The Hobbico® SkyVista™ can be built in just one evening using common tools. Please read through the instruction manual before beginning assembly to familiarize yourself with the kit.

The SkyVista is a sport aircraft featuring a symmetrical airfoil. Aerobatics are a joy with this aircraft. It is capable of loops, rolls, inverted flight, hammerheads and more! All this while maintaining outstanding low-speed handling characteristics. The plane takes off and lands easily and is amazingly stable. Stalls are gentle and controllable.

Please note, although the SkyVista can be a gentle handling aircraft, **it is not a beginners kit!** You should be able to competently fly an aileron equipped trainer before flying this plane. The Hobbico **AirVista** trainer is the perfect choice for learning to fly.

PROTECT YOUR MODEL, YOURSELF & OTHERS...FOLLOW THESE IMPORTANT SAFETY PRECAUTIONS

Your SkyVista is not a toy, but rather a sophisticated, working model that functions very much like an actual airplane. Because of its realistic performance, the SkyVista, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage property.

To make your R/C modeling experience totally enjoyable, we recommend that you get help from an experienced, knowledgeable modeler for your first flights. You will learn faster and avoid risking your model before you're truly ready to solo. Your local hobby shop has information about flying clubs in your area whose membership includes qualified instructors.

You can also contact the national Academy of Model Aeronautics (AMA), which has more than 2500 chartered clubs across the country. Through any one of them, instructor training programs and insured newcomer training are available.

Contact the AMA at:



Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302
Office: (765) 287-1256
Toll Free: (800) 435-9262
Fax: (765) 741-0057
Web Site: <http://www.modelaircraft.org>

REQUIRED TOOLS

You only need two tools to build the SkyVista:

- (1) Medium Phillips Screwdriver (#1)
- (1) Pliers

OPTIONAL TOOLS

For convenience, these additional tools will make the job a little easier:

- (1) Hobby knife with #11 blade
- (1) Adjustable wrench
- (1) Large Phillips Screwdriver (#2)
- (1) Scissors
- (1) Diagonal Cutter

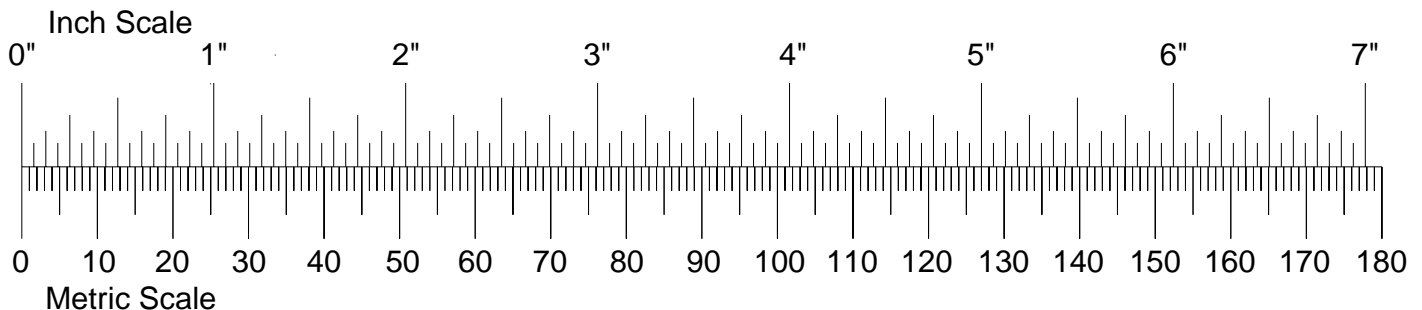
ACCESSORIES REQUIRED TO FINISH YOUR SKYVISTA

- 4-channel radio system with 4 servos
- We recommend the Top Flite® Power Point® brand of props (see the engine manufacturer's recommendations)
- .40-size two-stroke engine

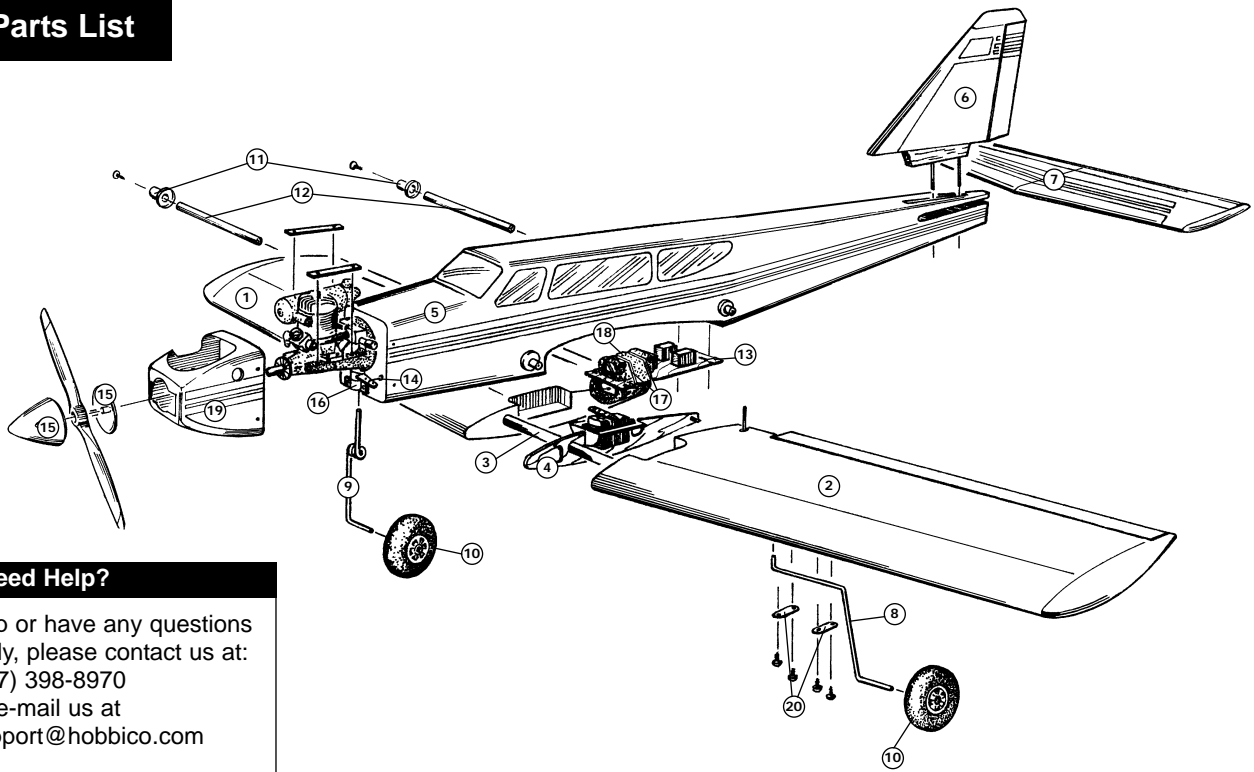


**O.S.® .40 LA
OSMG0040**

NO GLUE REQUIRED!



SkyVista Parts List



Need Help?

If you need help or have any questions during assembly, please contact us at:
 (217) 398-8970
 or e-mail us at
productsupport@hobbico.com

See more of our products at
www.hobbico.com

Take a moment to familiarize yourself with the parts of the SkyVista.

- 1 (1) Right Wing Panel
- 2 (1) Left Wing Panel
- 3 (1) Steel Wing Joiner Rod
- 4 (1) Plywood Center Rib Assembly
- 5 (1) Fuselage
- 6 (1) Fin/Rudder Assembly
- 7 (1) Stab/Elevator Assembly
- 8 (2) 4mm Landing Gear Wire
- 9 (1) 4mm Nose Gear Strut
- 10 (3) Wheels
- 11 (4) Plastic Dowel Caps
- 12 (2) Wing Dowels (Wood)
- 13 (1) Plywood Servo Tray
- 14 (1) 1.5mm Wire for Nose Gear Steering
- 15 (1) Spinner Assembly
- 16 (1) Steering Arm
- 17 (14) #64 Rubber Bands
- 18 (1) Foam Sheet
- 19 (1) Cowl
- 20 (4) Metal Landing Gear Straps

Hardware included with the kit:

- (7) 3 x 5mm Screws
- (1) 3 x 8mm Screw
- (4) Nylon Torque Rod Horns
- (4) Nylon Servo Connectors
- (5) Nylon Clevis
- (1) Fuel Tubing
- (5) Clevis Retainer
- (2) Brass Pushrod Connector
- (2) Nylon Retainers For Brass Pushrod Connectors
- (2) 2-56 Wire Pushrod for Elevator/Rudder
- (2) 2-56 Wire Pushrod for Aileron

- (1) 2-56 Wire Pushrod for Throttle
- (7) Metal Wheel Collars
- (1) White Decal Strip
- (1) Window Decal Sheet
- (16) 2.5 x 10mm Sheet Metal Screws
- (4) #4 x 5/8" Sheet Metal Screws
- (2) 4-40 Lock Nuts
- (2) 4-40 x 1/8" Phillips Head Screw
- (6) #4 Washers
- (1) Fuel Tank Assembly
- (4) 4 x 20mm Screws
- (4) 4mm Washers
- (4) 4mm Lock Washers
- (4) 4mm Nuts
- (1) Metal "T" Pin
- (1) Small Rubber Band

Replacement Parts:

In the event that you need replacement parts, contact your hobby dealer and ask for the following:

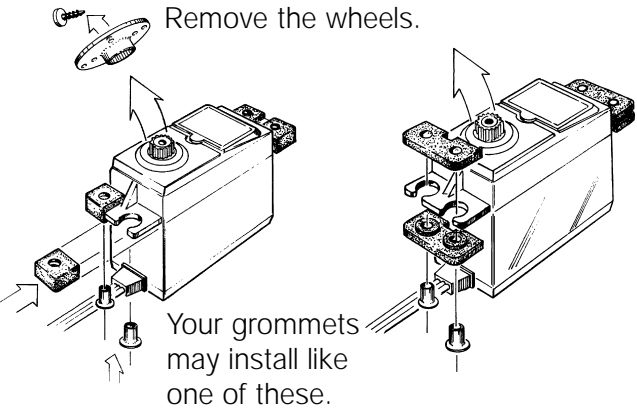
- Wing Tips (HCAA3566)
- Right Wing Panel (HCAA3567)
- Left Wing Panel (HCAA3568)
- Aileron Servo Tray and Wing Joiner Rod (HCAA3569)
- Fuse and Servo Tray (HCAA3570)
- Fin Set (HCAA3571)
- Cowl (HCAA3572)

SECTION 1

Radio System Preparation

STEP 1: Unpack your Radio System

Charge your radio system following the manufacturer's instructions. This is usually an overnight process.



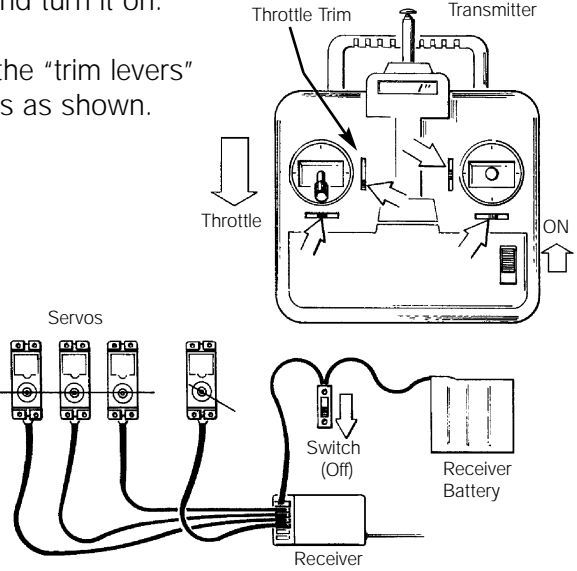
Install the rubber grommets with brass inserts to each of the four servos.

Note: Your system may look slightly different. Consult your radio instructions.

STEP 2: Connect your Radio System

A. Connect your radio system and turn it on.

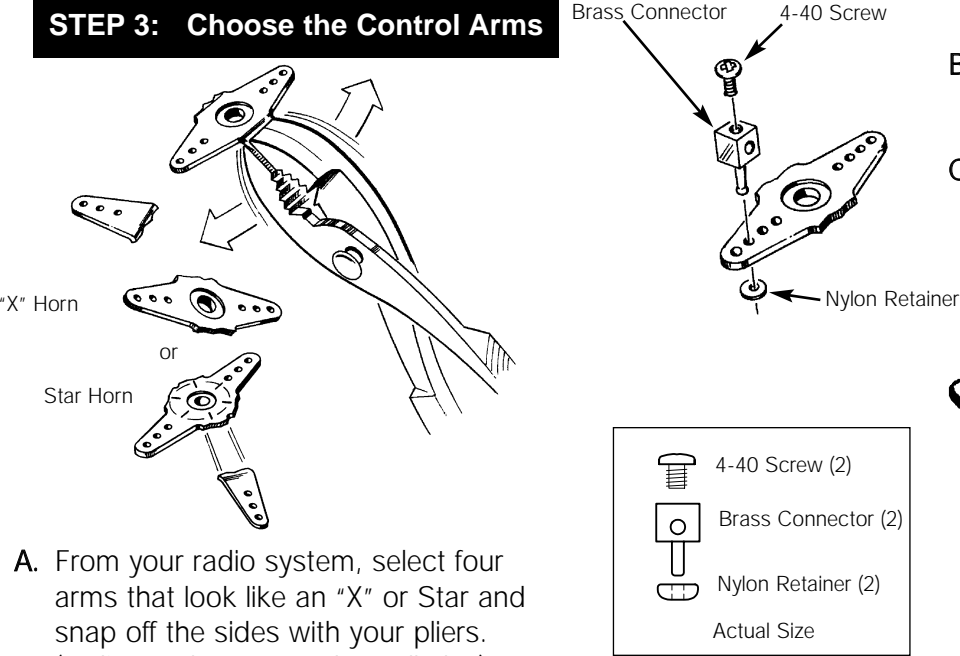
B. Position the "trim levers" and sticks as shown.



C. Turn off your receiver switch followed by the transmitter. Your servos are now properly centered.

Note: If you bump or move your servos during assembly, simply repeat this step.

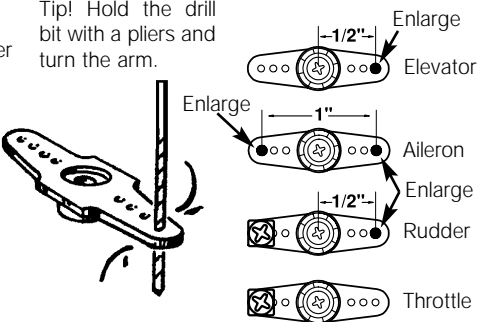
STEP 3: Choose the Control Arms



A. From your radio system, select four arms that look like an "X" or Star and snap off the sides with your pliers. (A diagonal cutter works well also).

B. Install the Brass Pushrod Connectors onto TWO of the arms.

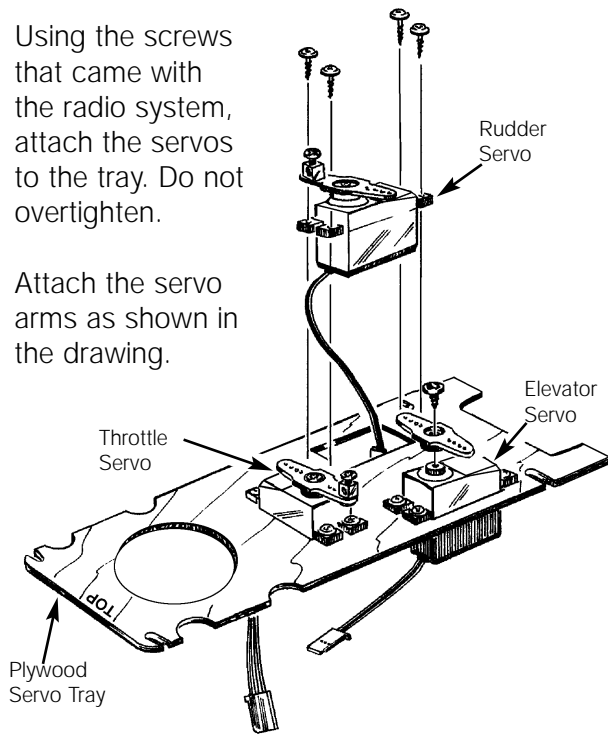
C. Squeeze the nylon retainers in place using your pliers.



D. Enlarge the selected holes in the servo arms using a #48 (5/64") drill bit.

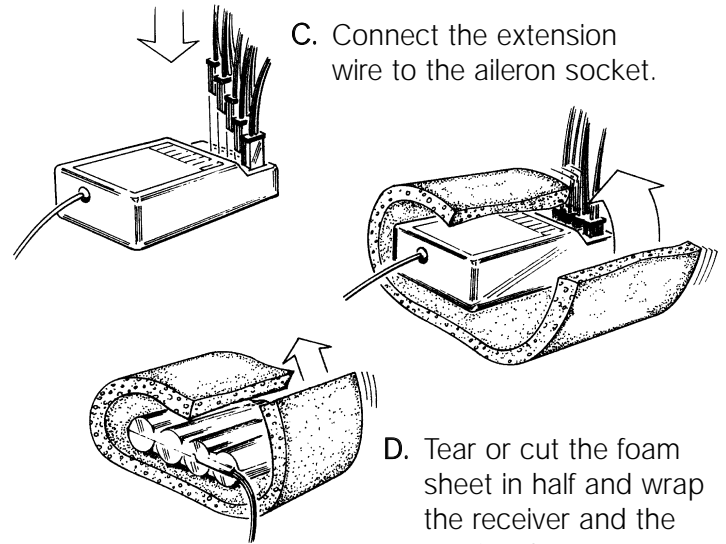
STEP 4: Install the Servos

- A. Position one servo in each pre-cut hole in the tray as shown. Note the orientation.
- B. Using the screws that came with the radio system, attach the servos to the tray. Do not overtighten.
- C. Attach the servo arms as shown in the drawing.

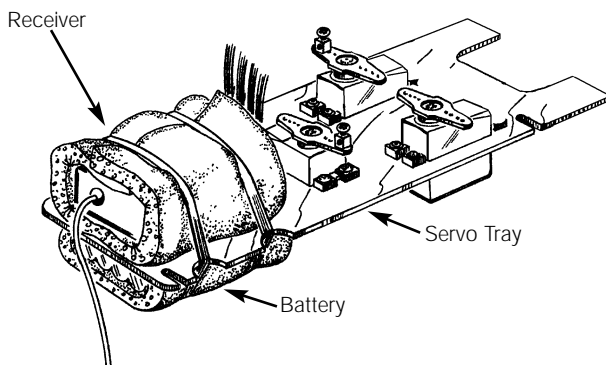


STEP 5: Connect the Servos to the Receiver

- A. Connect the three servos to the receiver according to the manufacturer's instructions.
- B. Connect the battery to the receiver switch harness and the switch to the "battery" socket on the receiver (the extra wire on the switch is for charging your system).



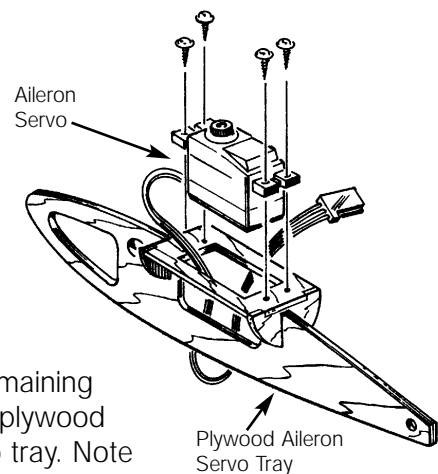
STEP 6: Install the Receiver and Battery



IMPORTANT NOTE!
Unwrap the antenna wire.

Use two #64 rubber bands to secure the receiver to the top and the battery to the bottom of the servo tray.

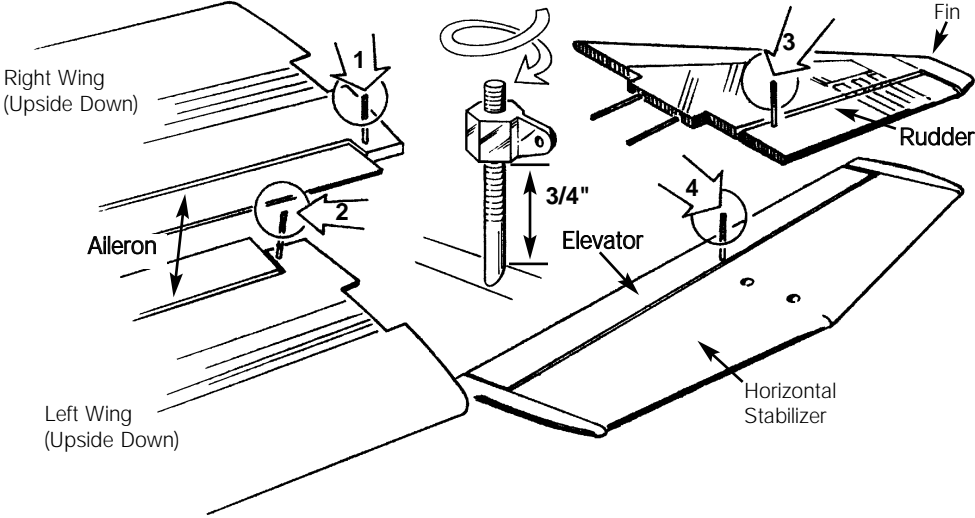
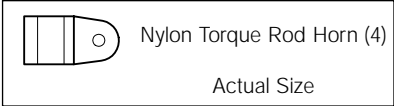
STEP 7: Install the Aileron Servo



Install the remaining servo in the plywood aileron servo tray. Note the orientation and routing of the servo wire.

SECTION 2 Wing Assembly

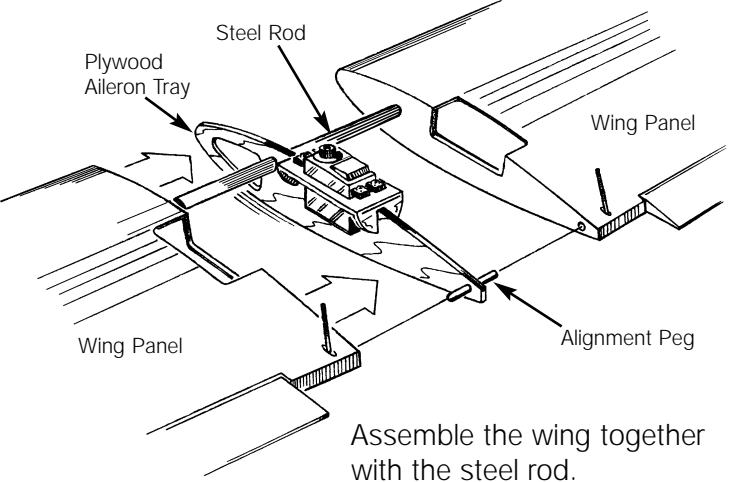
STEP 1: Install the FOUR Torque Rod Horns



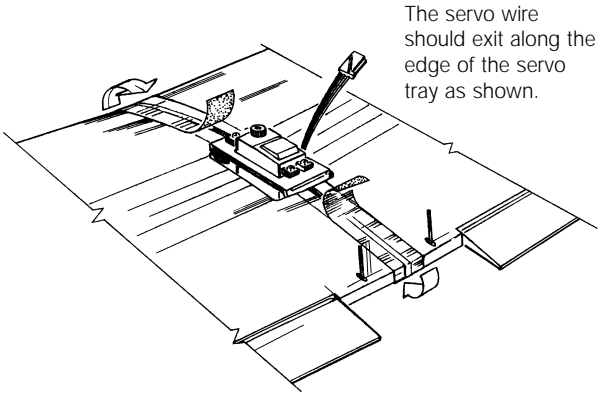
Install the nylon torque rod horns to the Ailerons, Rudder and Elevator.

Adjust the height of the horns so they are approximately 3/4" from the surface.

STEP 2: Assemble the Wing



STEP 3: Apply the Tape



The servo wire should exit along the edge of the servo tray as shown.

Apply the white tape around the center of the wing to hold the assembly together.

SECTION 3 Fuselage Assembly

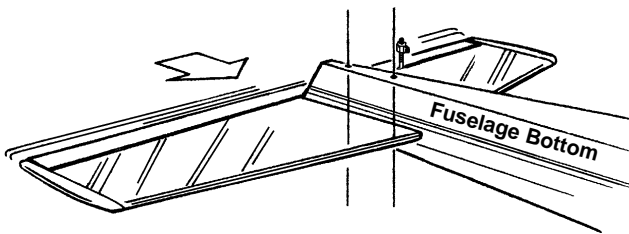
Part One

Tail and Wing Dowel Installation

STEP 1: Install the Horizontal Stabilizer

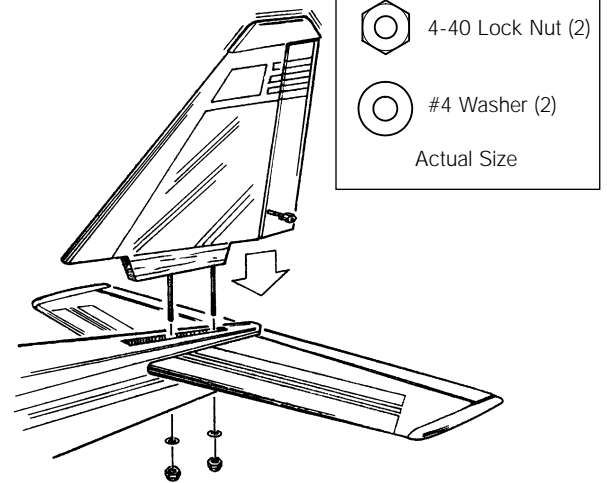
Insert the Stabilizer into the Fuselage.

The nylon horn should be towards the fuselage bottom.



Align the holes in the fuselage with the holes in the stab.

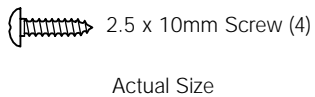
STEP 2: Install the Fin



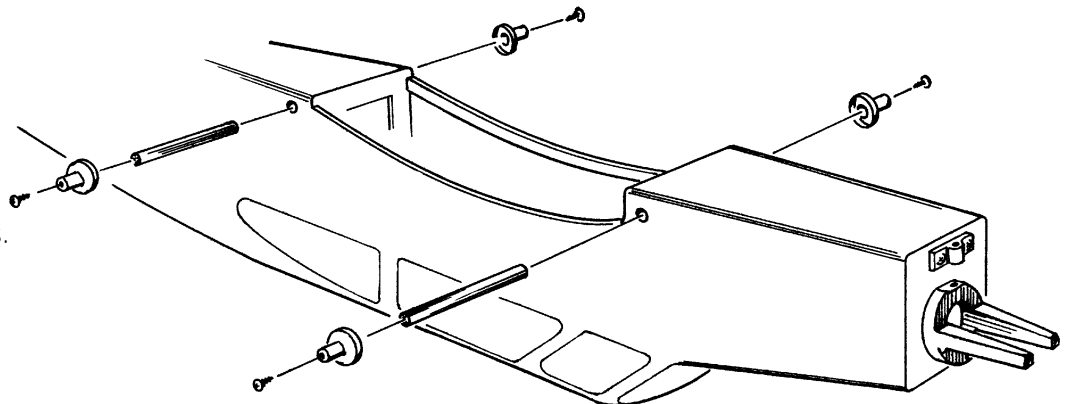
Insert the Fin into the fuselage. Use the two 4-40 lock nuts along with washers to hold the tail in place.

STEP 3: Install the Wing Dowels

You may need to hold one screw with a pliers while installing the other side.



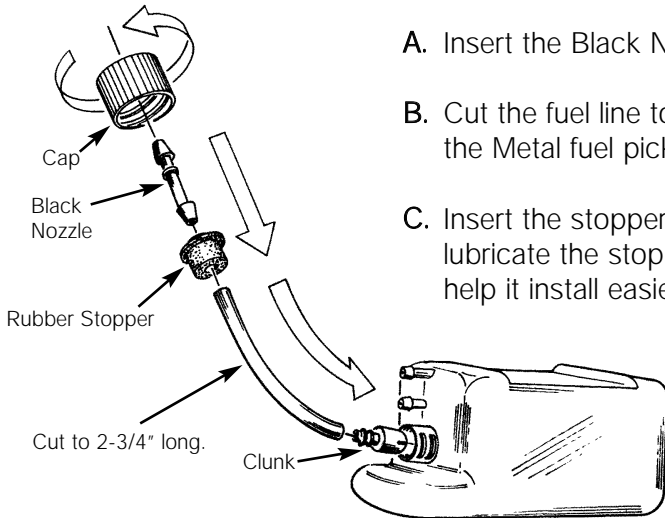
- Install the window decals.
- Use the screwdriver to open the dowel holes.
- Insert the two wood dowels into the fuselage. Install the Plastic Dowel Caps.



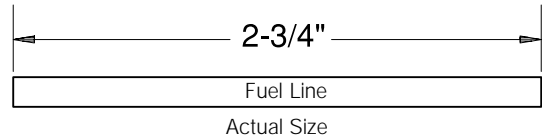
Part Two

Fuel Tank and Radio Tray Installation

STEP 1: Assemble the Fuel Tank

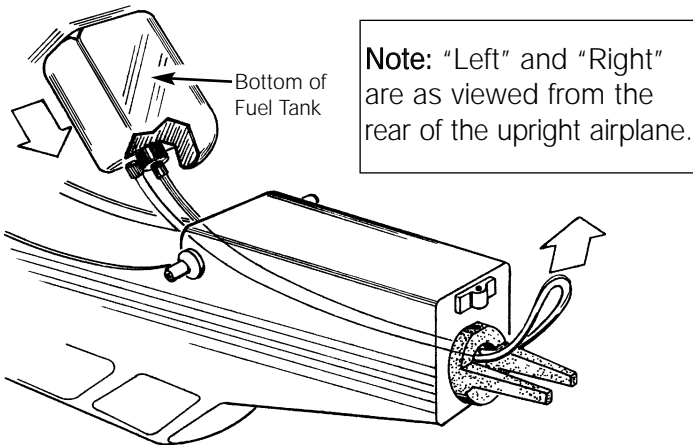


- A. Insert the Black Nozzle into the Rubber "Stopper."
- B. Cut the fuel line to 2-3/4" (70mm) and install it onto the black nozzle and to the Metal fuel pickup (commonly referred to as the "clunk").
- C. Insert the stopper into the tank and tighten the cap. You may need to lubricate the stopper with skin oil (best found on the sides of your nose) to help it install easier.



STEP 2: Install the Fuel Tank

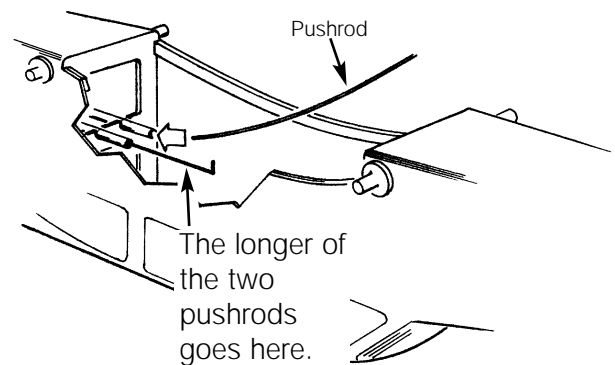
- A. Insert the fuel tubing into the holes located on the firewall.
- B. Attach the tube that goes through the left hole to the black nozzle. Attach the tube that goes through the right hole to the top nozzle on the tank. **Note:** The middle nozzle will not be used.
- C. Carefully install the fuel tank into the fuselage while pulling the tubing from the front.



- D. Slide the fuel tank in place. Make sure the fuel line is not pinched during installation. This will cut off the fuel supply to the engine.

STEP 3: Insert the Pushrods

Insert the two longest Pushrods into the tubes from inside the fuselage.

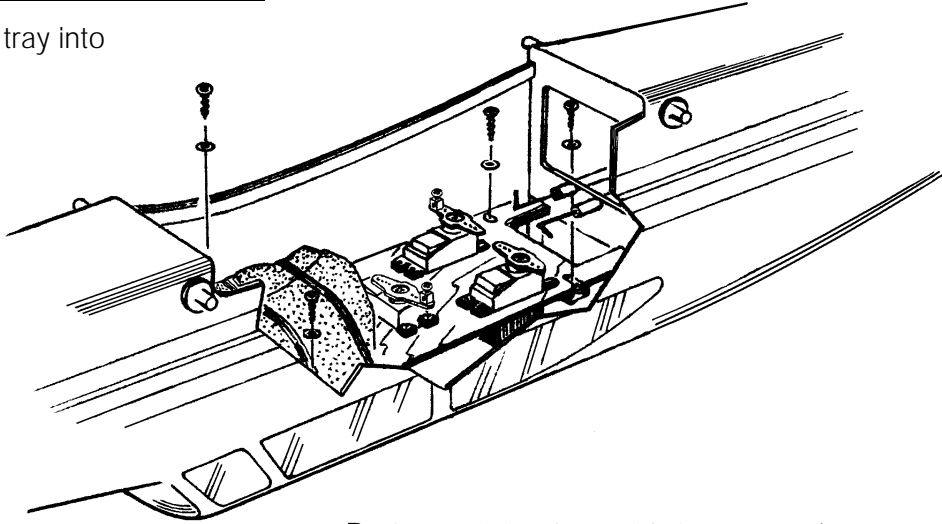


STEP 4: Install the Radio Tray

- A. Install the radio tray into the fuselage.

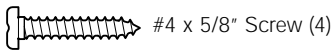
Make sure the servo wires do not get pinched.

Cut the white tubes if they are in the way.



- B. Secure it in place with four #4 x 5/8" screws and washers.

- C. **Note:** If you bump the servo arms, re-center them as shown in section 1.



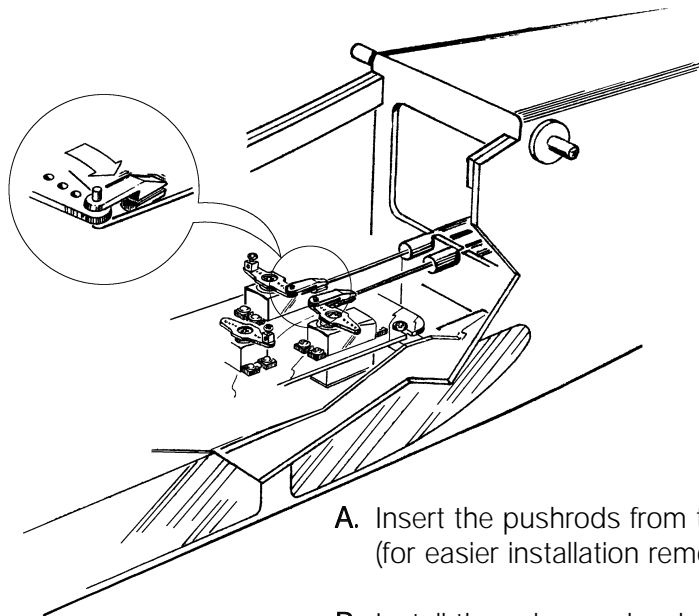
#4 x 5/8" Screw (4)



#4 Washer (4)

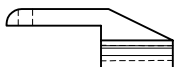
Actual Size

STEP 5: Hook Up the Servos



- A. Insert the pushrods from the bottom of the servo arms (for easier installation remove the arms from the servos).

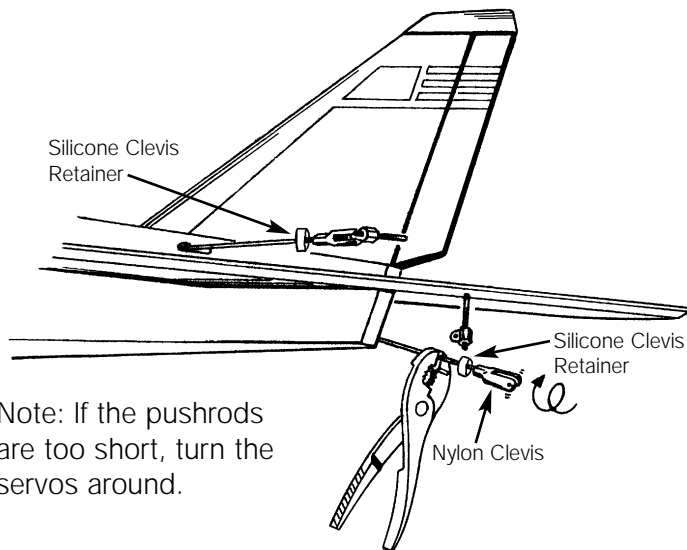
- B. Install the nylon pushrod retainers.



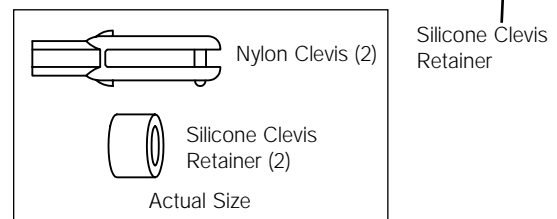
Nylon Pushrod Retainer (2)

Actual Size

STEP 6: Attach the Clevises to the Control Surfaces

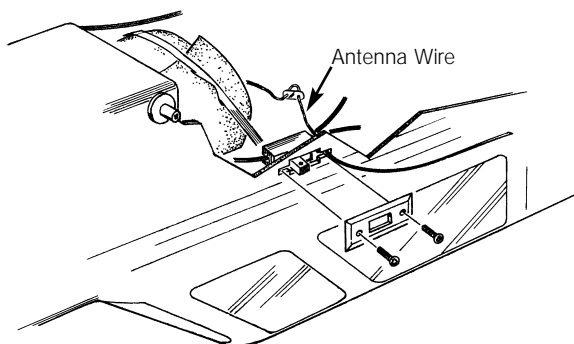


- Slide a silicone clevis retainer onto each wire pushrod.
- Make sure the servos do not move.
- Screw the clevises on so that the control surfaces are centered. Attach the clevises to the horns.
- Slide the retainers over the clevises.



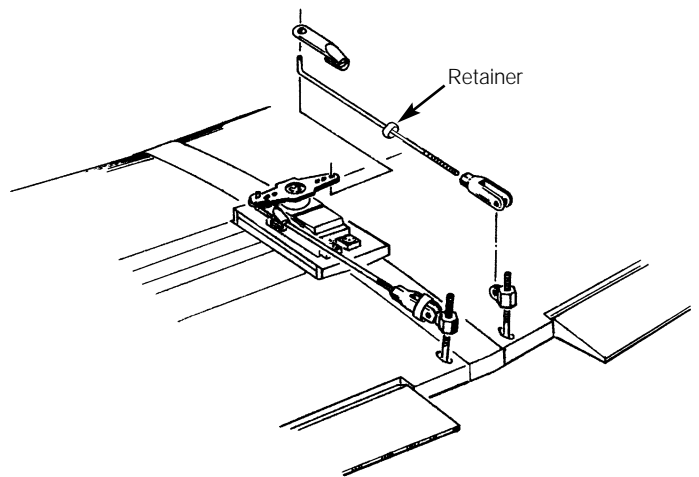
STEP 7: Attach the Switch

- Position a cut-off servo arm from page 4 on the antenna wire about 6" away from the receiver. This is called "strain relief."



- Route the antenna wire through the longer slot where you installed the switch.
- Attach the switch to the left side of the fuselage.

STEP 8: Install the Aileron Pushrods



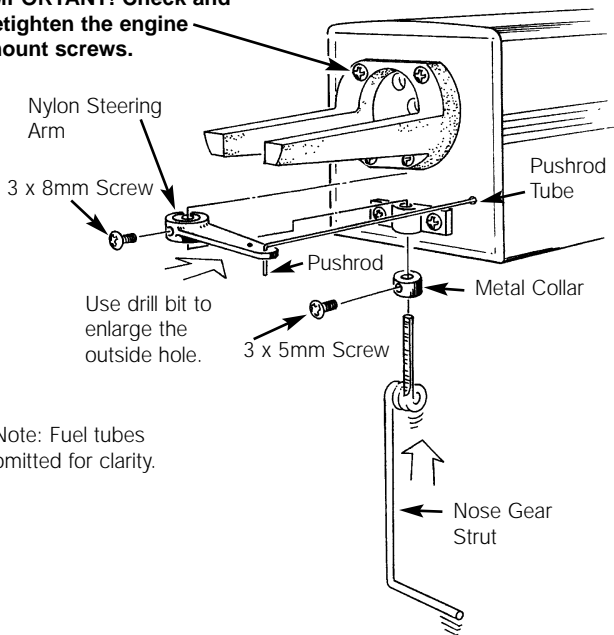
- Install the two remaining clevises with retainers onto the short pushrod wires.
- Connect the rods using the nylon retainers.
- Adjust the clevises so the ailerons are centered when the servo is centered.

Part Three

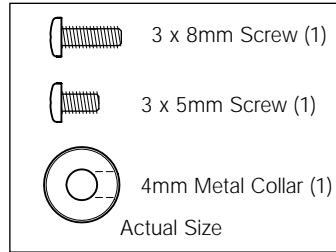
Landing Gear Installation

STEP 1: Install the Steering Hardware

IMPORTANT! Check and retighten the engine mount screws.

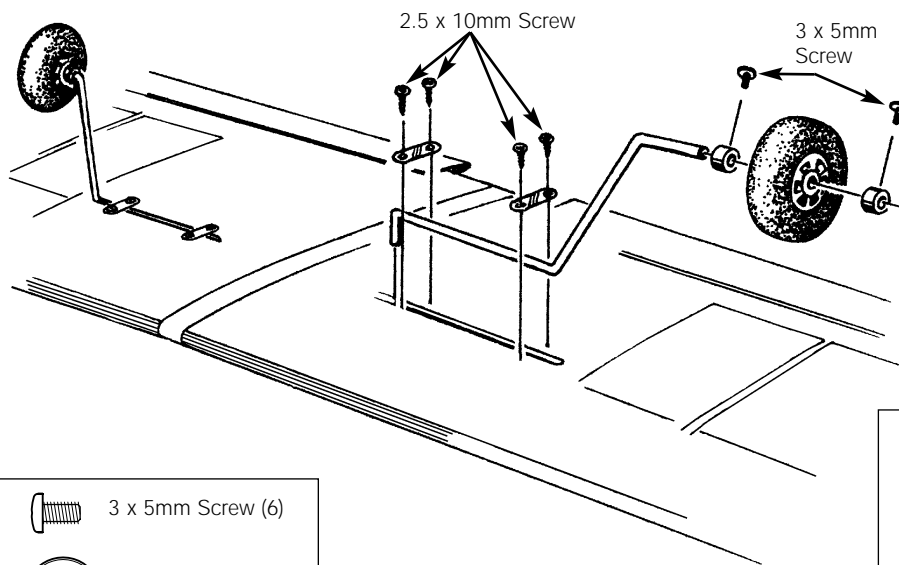


Note: Fuel tubes omitted for clarity.

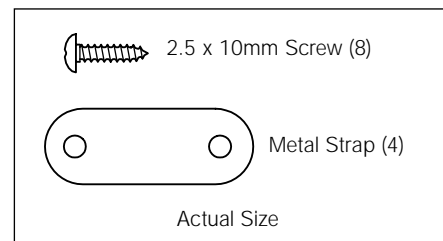
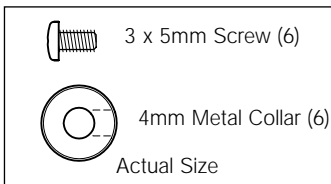


- Insert the steering pushrod wire through the outer hole in the nylon steering arm. Slide the wire into the tube so that it will extend through the brass connector on the rudder servo.
- Place a 4mm metal collar over the nose gear strut. Slide the strut in place capturing the steering arm between the bottom bracket and engine mount.
- Tighten the steering arm screw so the end of the steering arm is positioned about 3/8" (10mm) from the firewall while the nose gear is straight.
- From the inside of the fuselage, tighten the screw to secure the pushrod to the brass connector.

STEP 2: Install the Main Landing Gear and Wheels



- Insert the two main landing gear wires into the slots on the bottom of the wing
- Secure the landing gear using four metal straps and eight 2.5 x 10mm screws.
- Attach the wheels using the 4mm metal collars with the 3 x 5mm screws.
- Attach the remaining wheel to the nose gear strut.

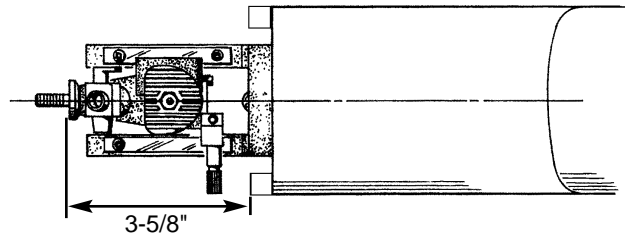


Part Four

Engine Installation

STEP 1: Install the Engine

Position the engine straight or slightly right.

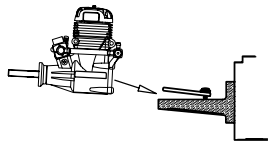


Place the engine onto the engine mount. The engine should be positioned straight or slightly to the right (NEVER LEFT).

4 x 20mm Screws

4mm Split Washers

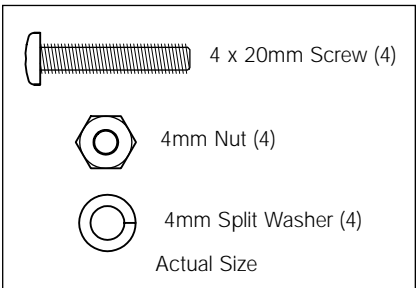
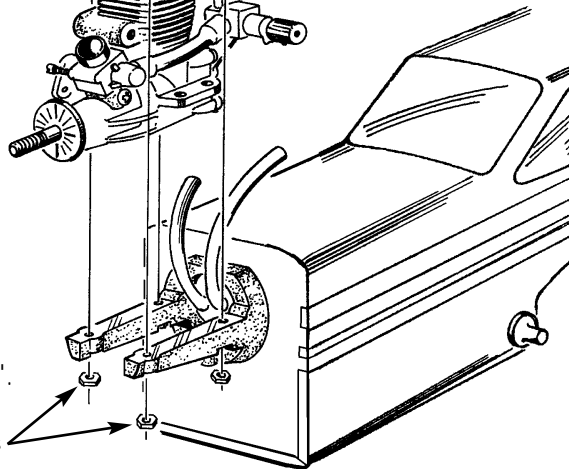
Mounting Plates



Tip! If installing an O.S.® 40 LA engine, install the back two screws with the plates first. Next, slide the engine into position and install the front screws. This is because access is restricted due to the remote needle valve.

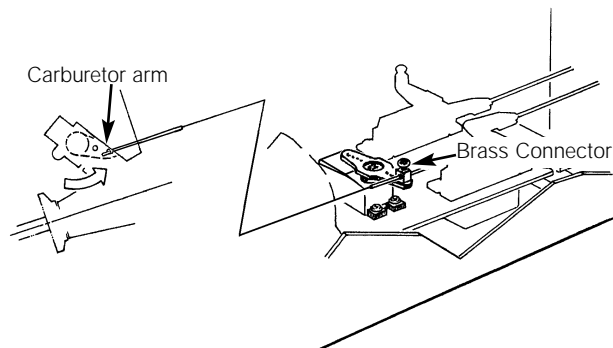
Cut the fuel tubing so that each tube sticks out about 6".

4mm Nuts

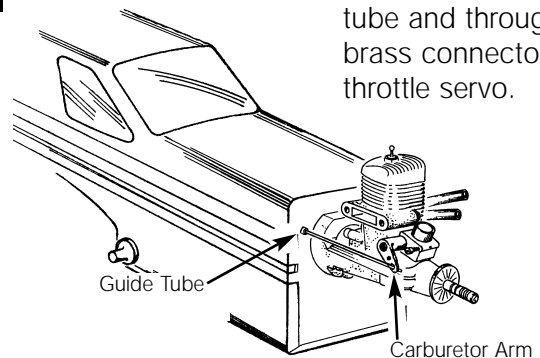


STEP 2: Install the Throttle Control Linkage

- A. Remove the carburetor arm from the engine.
- B. Attach the throttle pushrod to the outer hole in the arm.



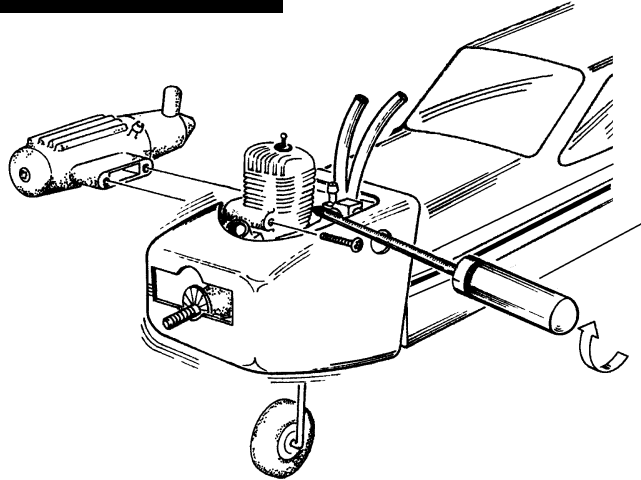
- C. Insert the throttle pushrod into the guide tube and through the brass connector on the throttle servo.



- D. Reattach the carburetor arm to the engine. Make sure it is positioned so the carburetor will completely open and close.

STEP 3: Position the Cowl, Install the Muffler

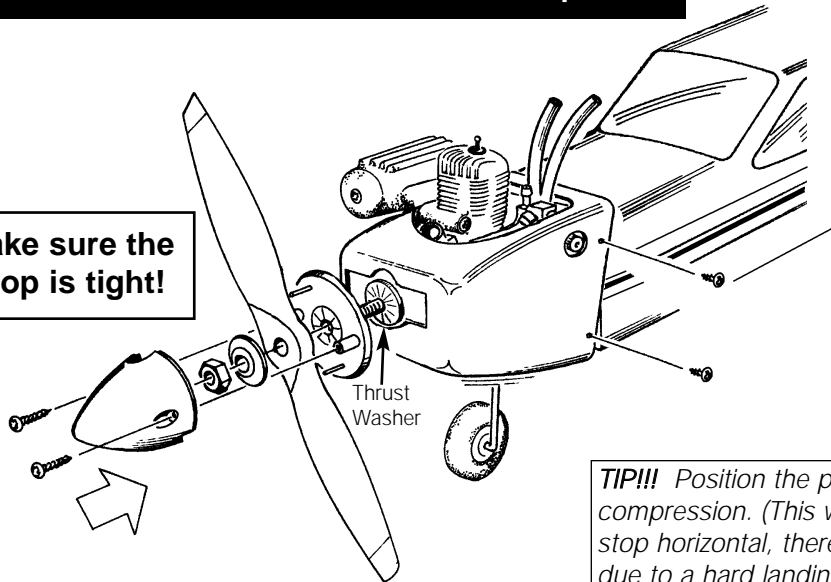
Work the cowl around the engine. Install the muffler.




Note: For some engines, you may need to trim the cowl to provide access to the needle valve.

STEP 4: Attach the Cowl and Install the Spinner

Make sure the prop is tight!



Thrust Washer

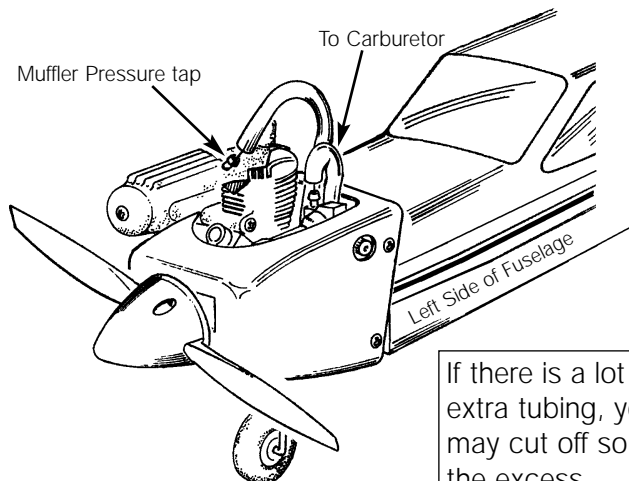
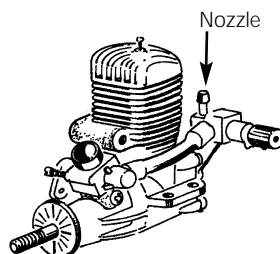
 2.5 x 10mm Screw (4)
Actual Size

TIP!!! Position the prop so it is horizontal when you can feel compression. (This way, if your engine quits in flight, the prop will stop horizontal, therefore reducing the chance of prop breakage due to a hard landing.)

STEP 5: Attach the Fuel Lines

Attach the fuel tube that comes out of the "left" hole in the firewall, to the nozzle on the carburetor.

Attach the remaining fuel tubing to the muffler. This is called the "vent line" or "muffler pressure line."



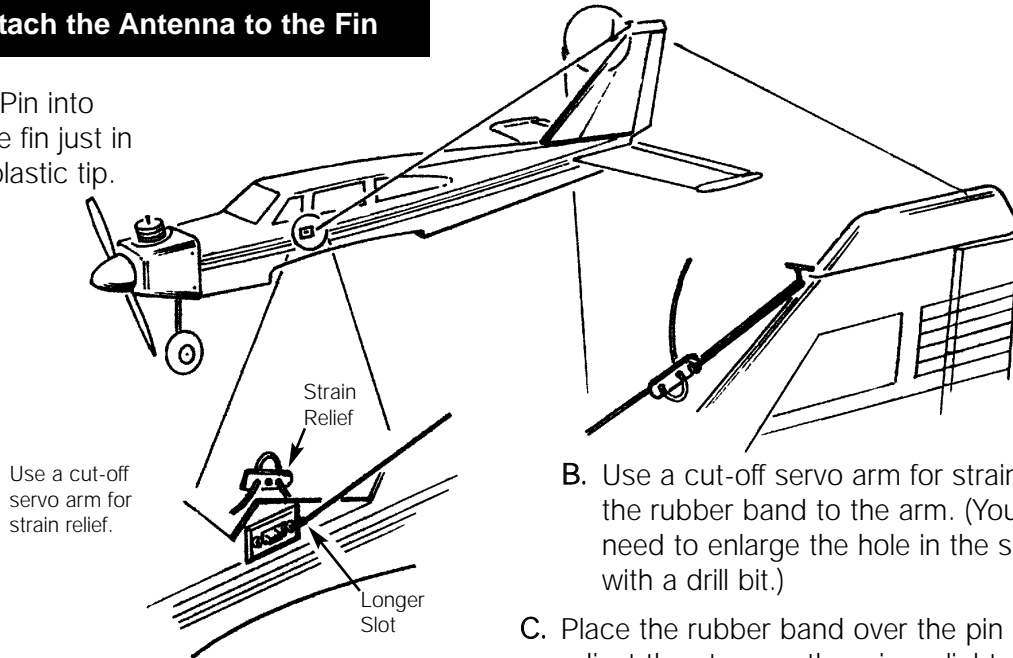
If there is a lot of extra tubing, you may cut off some of the excess.

Part Five

Final Assembly

STEP 1: Attach the Antenna to the Fin

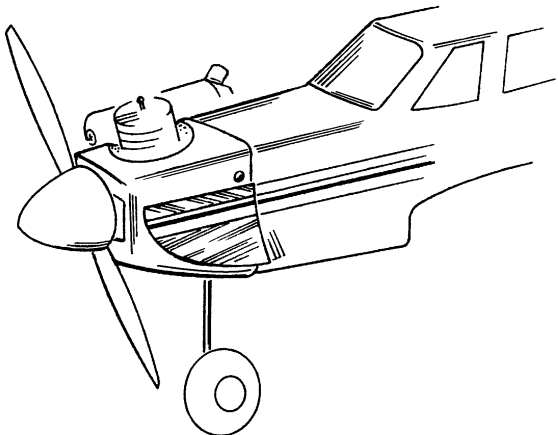
- A. Insert the T- Pin into the top of the fin just in front of the plastic tip.



- B. Use a cut-off servo arm for strain relief. Attach the rubber band to the arm. (You may need to enlarge the hole in the servo arm with a drill bit.)
- C. Place the rubber band over the pin head and adjust the strap so there is a slight amount of tension on the antenna wire.

STEP 2: Apply the Decals

Temporarily remove the bottom cowl screws.



Apply the stripes to the cowl sides.

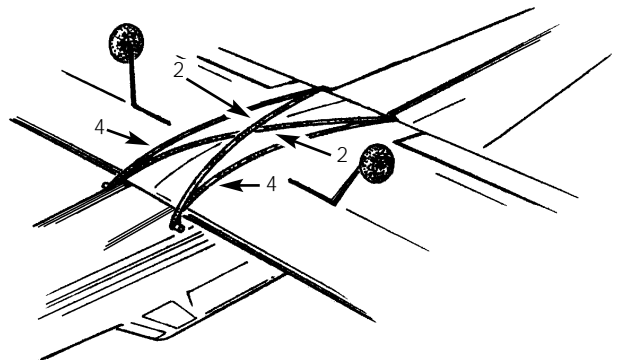
Trim the front to match the curve of the cowl.

Wrap the excess inside the back part of the cowl and reinstall the screws.

STEP 3: Attach the Wing

Important! Plug the aileron servo wire into the receiver.

Attach the wing to the Fuselage using twelve #64 rubber bands. Attach four on each side and criss-cross the remaining four.



SECTION 4 Preparing For Flight

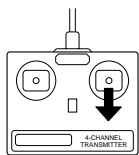
RADIO SYSTEM SET-UP

Note: We recommend that you have your instructor help you with the set up of your radio system.

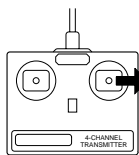
CHECK THE CONTROL DIRECTIONS

1. Turn on the transmitter and then the receiver. Standing behind the plane, make the following movements with the transmitter and observe the control surfaces:

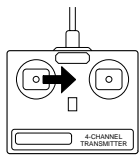
4-CHANNEL RADIO SET-UP (STANDARD MODE 2)



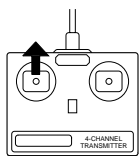
ELEVATOR MOVES UP



RIGHT AILERON MOVES UP
LEFT AILERON MOVES DOWN



RUDDER MOVES RIGHT
FRONT WHEEL MOVES RIGHT



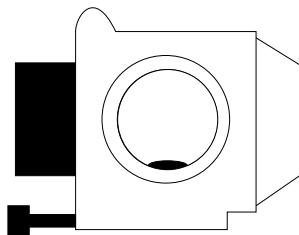
CARBURETOR WIDE OPEN

If any of the servo movements are wrong, reverse the servo direction with the **servo reversing switches** on the transmitter.

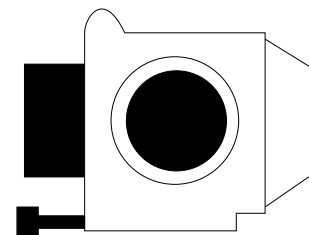
ADJUST THE THROTTLE

2. For added **safety** and **convenience**, the throttle should be set up so that the engine can be stopped using the throttle trim. To do this, loosen the pushrod connector screw and move the throttle pushrod so that the carburetor is completely **closed** with the throttle stick and trim lever on the transmitter fully **back**. (**Note:** If the carburetor does not fully close, adjust the **idle stop screw** on the carburetor until it will.) Next, tighten the screw on the pushrod connector. Test the trim lever by advancing it to full. This will be a **fast idle position** with the carburetor barrel open slightly (about 1/32" or .8mm).

Open Slightly (Idle)



Barrel Fully Open



Now move the throttle stick forward to full. Make sure that the carburetor barrel opens **all the way**. (See sketch.) If it doesn't open far enough or opens too far (bending the rod) move the pushrod connector in or out on the servo arm and/or the carburetor arm to gain or reduce movement. The throw will be correct when the carburetor barrel will stop fully open at the same time the throttle stick reaches full. With the throttle set up properly, you should be able to run the engine with the trim lever set midway to the full position (adjusted for a smooth but slow idle). Then when it is time to stop the engine, simply pull back on the trim to close the carburetor and the engine will stop running.

ADJUST THE NOSE WHEEL

3. With the radio system on, adjust the steering pushrod at the rudder servo, so that the nose wheel is straight. Tighten the screw on the brass connector.

ADJUST THE CONTROL THROWS

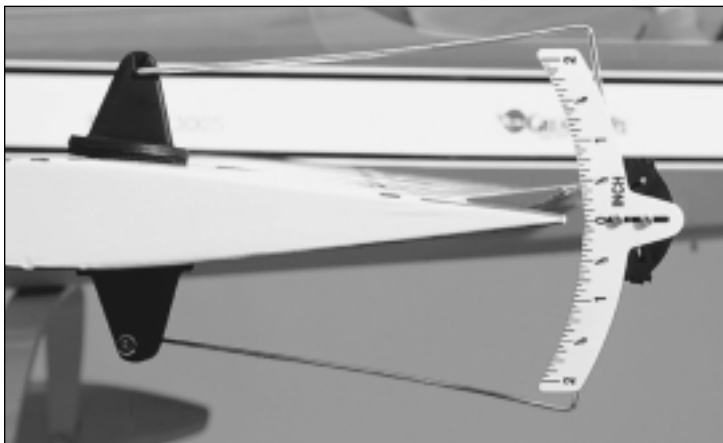
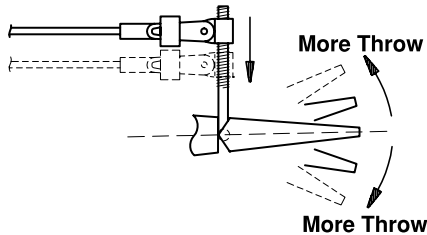
4. Check the movement of the control surfaces. Use a ruler to match our measurements listed below. If your radio features dual rates, set up both the high and low rates following the radio system's instructions. If your radio does not have dual rates, set up the plane using low rates first and increase the throws as you get familiar with the plane.

	Low Rate	High Rate
Aileron	5/16" (8mm) up 5/16" (8mm) down	7/16" (11mm) up 7/16" (11mm) down
Elevator	1/4" (6.5mm) up 1/4" (6.5mm) down	3/8" (9.5mm) up 3/8" (9.5mm) down
Rudder	1/2" (13mm) left 1/2" (13mm) right	3/4" (19mm) left 3/4" (19mm) right

These are the suggested deflections from center.

If you need more control movement, you can move the nylon horn closer to the control surface or you can move the rod at the servo away from the center of the process. If you have too much movement, reverse the process.

Move the Nylon Torque Rod Horn down on the rod to get more control movement.



One leading cause of crashes is flying an airplane with its control throws set differently from those recommended in the instructions. The Great Planes AccuThrow™ lets you quickly and easily measure actual throws first, so you can make necessary corrections before you fly. Large, no-slip rubber feet provide a firm grip on covered surfaces without denting or marring the finish. Spring tension holds AccuThrow's plastic ruler steady by each control surface. Curved to match control motions, the ruler provides exact readings in both standard or metric measurements. **GPMR2405.**

BALANCE YOUR MODEL

CHECK THE LATERAL BALANCE

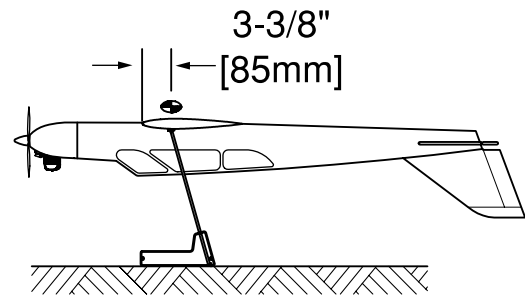
Now that you have the model completed, this is a good time to balance the airplane laterally (side-to-side). Here is how to do it:

1. Attach the wing to the fuselage.
2. With the airplane sitting level, lift the model by the engine propeller shaft and the bottom of the fuselage at the tail (this may require two people). Do this several times.

3. If one wing always drops when you lift the model, it means that side is heavy. Balance the airplane by attaching weight to the lighter wing tip. **Note:** An airplane that has been laterally balanced will track better in loops and other maneuvers. Balancing weight is available from your local hobby dealer.

CHECK THE FORE-AFT BALANCE (CENTER OF GRAVITY)

Note: This section is **VERY** important and must **NOT** be omitted! A model that is not properly balanced will be unstable and possibly unflyable.



1. Accurately mark the balance point on the bottom of the wing on both sides of the fuselage. The balance point is located 3-3/8" (85mm) back from the leading edge. This is the balance point at which your model should balance for your first flights. Later, you may wish to experiment by shifting the balance up to 1/4" (6mm) forward or back to change the flying characteristics. Moving the balance forward may improve the smoothness and arrow-like tracking, but it may then require more speed for takeoff and make it more difficult to slow down for landing. Moving the balance aft makes the model more agile with a lighter and snappier "feel." In any case, please start at the location we recommend and do not at any time balance your model outside the recommended range.

2. With the wing attached to the fuselage, all parts of the model installed (ready to fly), and an **empty** fuel tank, position your fingertips at the marked balance point.

3. Lift the model. If the tail drops when you lift, the model is "tail heavy" and you must add weight* to the nose. If the nose drops, it is "nose heavy" and you must add weight* to the tail to balance.

Note: Nose weight may be easily installed by using a Heavy Spinner Hub or gluing lead weights to the firewall. Tail weight may be added by using Great Planes (GPMQ4485) "stick-on" lead weights.

*If possible, first attempt to balance the model by changing the position of the receiver battery and receiver. If you are unable to obtain good balance by doing so, then it will be necessary to add lead weights to the nose or tail to achieve the proper balance point.



Improve the flight of your SkyVista with the Great Planes C.G. Machine's exact balancing. The C.G. Machine's stable, "hands-off" operation eliminates the potential for error. It works with all airplanes weighing up to 40 pounds—regardless of size or wingspan. **GPMR2400.**

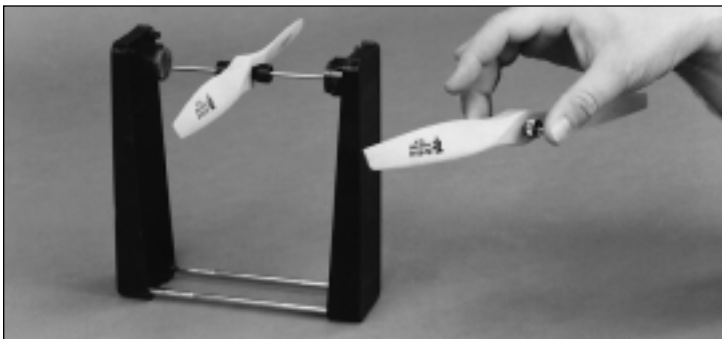
PREPARING TO FLY YOUR SKYVISTA

CHARGE THE BATTERIES

Follow the battery charging procedures in your radio instruction manual. You should always charge your transmitter and receiver batteries the night before you go flying, and at other times as recommended by the radio manufacturer.

BALANCE THE PROPELLER

Balance your propellers carefully before flying. An unbalanced prop is the single most significant cause of damaging vibration. Not only will engine mounting screws and bolts vibrate out, possibly with disastrous effect, but vibration will also damage your radio receiver and battery. Vibration may cause your fuel to foam, which will, in turn, cause your engine to run rough or quit.



We use a Top Flite® Precision Magnetic Prop Balancer (#TOPQ5700) in the workshop and keep a Great Planes® Fingertip Balancer (#GPMQ5000) in our flight box.

FIND A SAFE PLACE TO FLY

The best place to fly your R/C model is an AMA (Academy of Model Aeronautics) chartered club field. Ask your hobby shop

dealer if there is such a club in your area and join. Club fields are set up for R/C flying and that makes your outing safer and more enjoyable. The AMA also can tell you the name of a club in your area. We recommend that you join the AMA and a local club so you can have a safe place to fly and have insurance to cover you in case of a flying accident. (The AMA address is listed on page 2 of this instruction book).

If a club and its flying site are not available, you need to find a large, grassy area at least 6 miles away from any other R/C radio operation like R/C boats and R/C cars and away from houses, buildings and streets. A schoolyard may look inviting but it is too close to people, power lines and possible radio interference.

GROUND CHECK THE MODEL

If you are not thoroughly familiar with the operation of R/C models, ask an experienced modeler to check to see that you have the radio installed correctly and that all the control surfaces do what they are supposed to. The engine operation also must be checked and the engine "broken-in" on the ground by running the engine for at least two tanks of fuel. Follow the engine manufacturer's recommendations for break-in. Check to make sure all screws remain tight, that the hinges are secure and that the prop is on tight.

RANGE CHECK YOUR RADIO

Check the operation of the radio before each time you fly. First, make sure no one else is on your frequency (channel). With the transmitter antenna collapsed and the receiver and transmitter on, you should be able to walk at least 100 feet away from the model and still have control. Have someone help you. Have them stand by your model and, while you work the controls, tell you what the model's various control surfaces are doing.

Repeat this test with the engine running at various speeds with an assistant holding the model. If the control surfaces are not always acting correctly, do not fly! Find and correct the problem first.

ENGINE SAFETY PRECAUTIONS

Note: Failure to follow these safety precautions may result in severe injury to yourself and others.

Keep all engine fuel in a safe place, away from high heat, sparks or flames, as fuel is very flammable. Do not smoke near the engine or fuel; and remember that the engine exhaust gives off a great deal of deadly carbon monoxide. Therefore do not run the engine in a closed room or garage.

Get help from an experienced pilot when learning to operate engines.

Check the engine bolts occasionally and retighten.

Use safety glasses when starting or running engines.

Do not run the engine in an area of loose gravel or sand, as the propeller may throw such material in your face or eyes.

Keep your face and body as well as all spectators away from the rotation of the propeller as you start and run the engine.

Keep items such as these away from the prop: loose clothing, shirt sleeves, ties, scarfs, long hair or loose objects (pencils, screwdrivers) that may fall out of shirt or jacket pockets into the prop.

Use a "safety stick" device or electric starter; follow instructions supplied with the starter or stick. Make certain the glow plug clip or connector is secure so that it will not pop off or otherwise get into the running propeller.

Make all engine adjustments from **behind** the rotating propeller. **IMPORTANT: Never reach around a rotating propeller.**

The engine gets hot! Do not touch it during or after operation. Make sure fuel lines are in good condition so fuel will not leak onto a hot engine.

To stop the engine, cut off the fuel supply by closing off the fuel line or follow the engine manufacturer's recommendations. Do not use hands, fingers or any body part to try to stop the engine. **Do not throw anything into the propeller of a running engine.**

AMA SAFETY CODE (excerpt)

Read and abide by the following Academy of Model Aeronautics Official 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 aircraft higher than approximately 400 feet within 3 miles of an airport without notifying the airport operator. I will give right of way to, and avoid flying in the proximity of, full scale aircraft. Where necessary an observer shall be used 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.

7. I will not fly my model unless it is identified with my name and address or AMA number, on or in the model.

9. I will not operate models with pyrotechnics (any device that explodes, burns, or propels a projectile of any kind).

RADIO CONTROL

1. I will have completed a successful radio equipment ground 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. I will perform my initial turn after takeoff away from the pit or spectator areas, and I will not thereafter fly over pit or spectator areas, unless beyond my control.

4. I will operate my model using only radio control frequencies currently allowed by the Federal Communications Commission (FCC).

FLYING YOUR SKYVISTA

The moment of truth has finally arrived. You've put a lot of effort into building your model and it looks great! Protect your investment by following a few simple tips:

1. Do one last look over before you head out to your flying field. It's easier to fix problems in the workshop instead of the flight line.

2. Become familiar with starting your engine, and break it in before going for your first flight. Be sure the engine will stop when the trim lever is pulled all the way back.

3. Check your flight box. It should include a starting battery and glo-plug clip (or ni-starter), "chicken stick" for flipping the prop, fuel and a means of filling the tank, a couple of small screwdrivers, #64 rubber bands, spare prop and glo-plug, 6" adjustable wrench, and a pair of needle nose pliers. In addition to tools, you should also take along some paper towels and spray window cleaner to remove fuel residue after each flight.

4. When you load up to go to the flying field be sure that the batteries have charged for at least 14 hours, and that you have your fuselage, wing, transmitter, and flight box. And, most important, you have your AMA license.

5. Range check the radio! See page 17.

USING RUBBER BANDS

The rule of thumb is to use two #64 rubber bands per pound of model weight. If your model weighs in at 6 pounds, you need 12 rubber bands. It doesn't matter too much how many you run straight across the wing or how many are criss-crossed, so long as the last two are criss-crossed. This trick stops the other bands from popping off. Do not use oily rubber bands for more than a few flying sessions. Check each rubber

band before using it; discard any that have cracks. Rubber bands can be conditioned by storing the oily ones in a zip-top storage bag partially filled with talcum powder or corn starch. Both products will absorb the oil.

TAXIING

Start the engine and set the throttle trim for a slow, steady idle. Have a helper hold the plane while you work the controls. Upon release, advance the throttle slightly to start rolling, then back-off the power to prevent going too fast and possibly taking off.

When you feel comfortable, advance the throttle a little while standing behind the plane to get the feel of a takeoff roll, but pull back on the power before the model lifts off. Try this several times, adding a little more power each time. If the plane starts to veer off, immediately cut the power to prevent a mishap.

TAKEOFF

Taxi into position, pointing directly into the wind. Although this model has good low speed characteristics, you should always build up as much speed as your runway will permit before lifting off, as this will give you a safety margin in case the engine stops. Advance the throttle smoothly to the wide-open setting. When the plane has sufficient flying speed, lift off by smoothly applying a little up elevator (don't force it off into a steep climb!), and climb out **gradually**, trying to keep it straight and the wings level. Climb to about 100 feet before starting a VERY gentle turn by moving the aileron stick. Apply a little more back pressure on the elevator stick as the model turns. Stop the turn by moving the aileron stick in the opposite direction until the wings are level, then return the stick to the neutral position. Pull the power back to 1/2 throttle.

FLYING

We recommend that you take it easy with your model for the first several flights and gradually "get acquainted" with the plane as your engine becomes fully broken-in.

Add and practice one maneuver at a time, learning how your model behaves in each one. For ultra-smooth flying and normal maneuvers, we recommend using the low rate settings. High rate control throws will give your model enough control for loops, barrel rolls, and many other basic aerobatic maneuvers.

After you are comfortable flying the SkyVista, it is time to try some basic aerobatics. When learning a new maneuver, stay plenty high so you can recover if you make a mistake. It takes a lot of practice to do these precisely. Practice and master them one at a time. Practice as often as you can. Eventually the flying will become instinctive whereas you won't think about moving the sticks (like driving a car). Just keep on burning fuel and you will be an expert in no time!

The Loop

Enter straight and level, gradually add up elevator, just before the top of the loop, reduce the elevator slightly to keep the loop round. Once on top of the loop, cut the engine power and pull the airplane around to end up at the same point where you started.

The Roll

From straight and level, pull the nose up slightly just before giving smooth aileron input. This will help keep altitude during the maneuver. As the plane rolls inverted give a very slight amount of down elevator (not too much or too fast) to keep altitude. As the plane continues to roll past inverted, release the elevator. When the plane approaches upright, release the ailerons.

The Split "S" Turn

The Split "S" is a turn around maneuver that is easy to do and looks impressive to your friends. Please note that you will lose altitude with this maneuver so don't do it too close to the ground. Fly straight and level, roll the plane until it is inverted, cut the throttle down to 1/3 and simply pull the elevator to complete the down side of a loop. You will exit facing the other direction upright and level.

The Immelmann Turn

This maneuver is similar to the Split S. Fly straight and level, pull up as if doing a loop. Just before you reach the top of the loop, roll the plane upright with aileron. You will exit facing the other direction upright and level.

The Stall Turn (commonly referred to as the Hammerhead)

Enter the maneuver straight and level at full throttle. Pull up gently (1/4 loop) until you are vertical, slowly reduce the throttle to 1/3 and apply full rudder. Once the plane turns reduce the throttle to idle and let it come straight down. Gently pull up elevator so the plane will exit the maneuver at the same altitude it was when it entered. Slowly add power and fly out straight and level. This maneuver can be rather difficult to do consistently. Here are some tips that work for the experts...Give a blip of throttle at the top to help pull the model around. Apply a small amount of opposite aileron to help keep the wings lined up through the stall. Hold the rudder through the stall until the down line is established to keep the tail from wagging.

CAUTION (THIS APPLIES TO ALL R/C AIRPLANES): If, while flying, you notice any unusual sounds, such as a low-pitched "buzz," this may be an indication of control surface "flutter." Because flutter can quickly destroy components of your airplane, any time you detect flutter you must immediately cut the throttle and land the airplane! Check all servo grommets for deterioration (this will indicate which surface fluttered), and make sure all pushrod linkages are slop-free. If it fluttered once, it will probably flutter again under similar circumstances unless you can eliminate the slop or flexing in the linkages. Here are some things which can result in flutter: excessive hinge gap; not mounting control horns solidly;

sloppy fit of clevis pin in horn; elasticity present in flexible plastic pushrods; side-play of pushrod in guide tube caused by tight bends; sloppy fit of Z-bend in servo arm; insufficient glue used when gluing in the elevator joiner wire or aileron torque rod; excessive flexing of aileron, caused by using too soft balsa aileron; excessive “play” or “backlash” in servo gears; and insecure servo mounting.

LANDING

When it’s time to land, fly a normal landing pattern and approach as follows: Reduce the power to about 1/4 and fly a downwind leg far enough out from the runway to allow you to make a gentle 180 degree turn. As you make the turn into the wind for your final approach, pull the throttle back to idle. Allow

the plane to keep descending on a gradual glide slope until you are about 3 feet off the runway. Gradually apply a little up elevator to flare for landing. You should apply just enough up elevator to hold the plane just off the runway while the excess speed bleeds off. The model should settle onto the runway for a slow, slightly nose-high landing. If your approach looks short, add in a little power to extend the glide. If you are too high, add throttle slowly and go around for another try. Do not try to “force” the airplane to land.

Good luck and have fun flying your model, but always stay in control and fly in a safe manner.

BUILDING NOTES

Kit Purchased Date: _____
 Where Purchased: _____
 Date Construction Started: _____

Date Construction Finished: _____
 Finished Weight: _____
 Date of First Flight: _____

FLIGHT LOG
