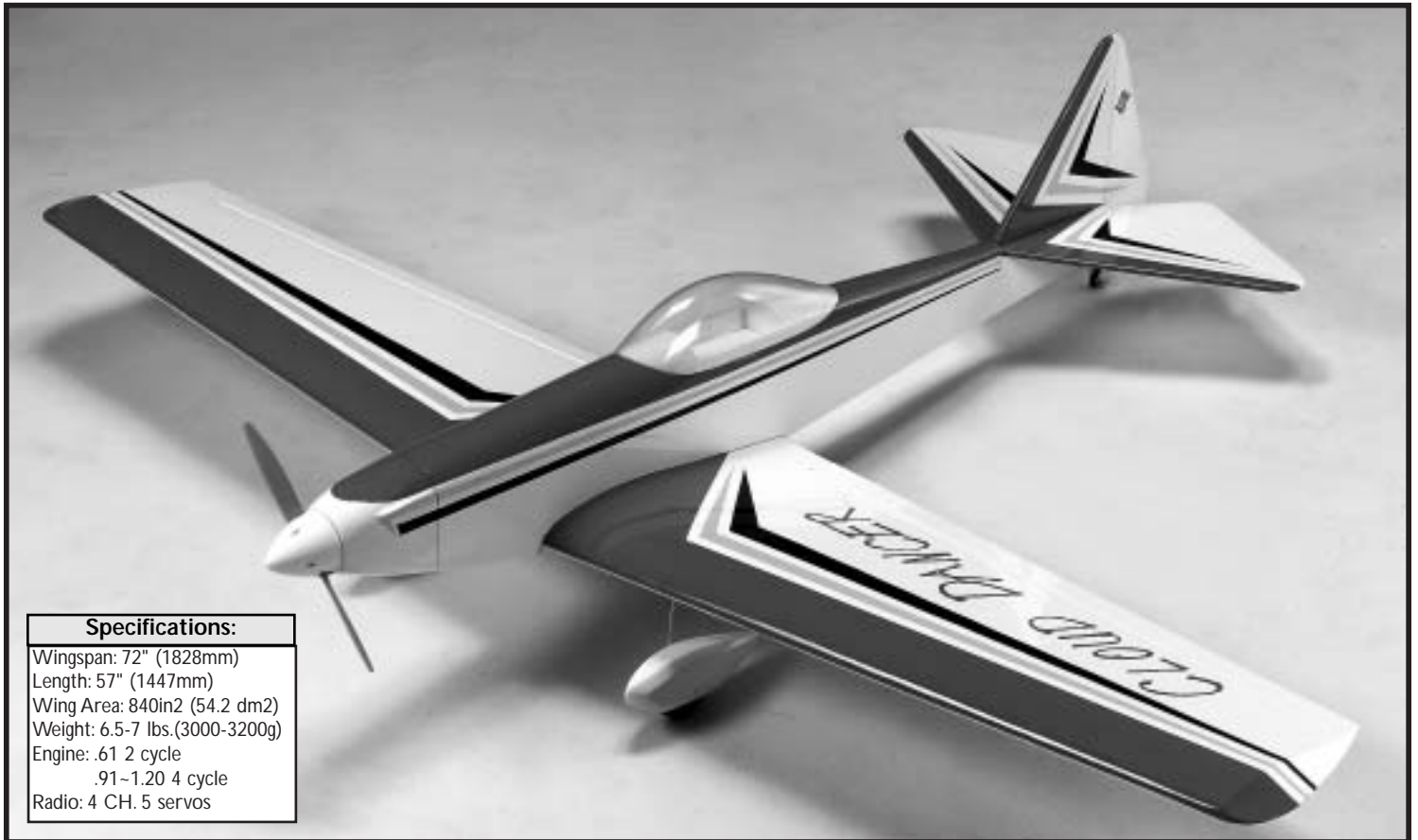


Cloud Dancer 60 ARF

Assembly Manual



Thunder Tiger Cloud Dancer 60 ARF (TTR4559)

Distributed in North America by Ace Hobby Distributors, Inc. • 2682 Walnut Avenue, Tustin, CA 92780
Phone: 714-544-0330 • www.acehobby.com • email: service@acehobby.com

Warranty

This kit is guaranteed to be free from defects in material and workmanship at the date of purchase. It does not cover any damage caused by use or modification. The warranty does not extend beyond the product itself and is limited only to the original cost of the kit. By the act of building this user-assembled kit, the user accepts all resulting liability for damage caused by the final product. If the buyer is not prepared to accept this liability, it can be returned new and unused to the place of purchase for a refund.

Notice: Adult Supervision Required

This is not a toy. Assembly and flying of this product requires adult supervision.

Read through this book completely and become familiar with the assembly and flight of this airplane. Inspect all parts for completeness and damage. If you encounter any problems, call us for help.



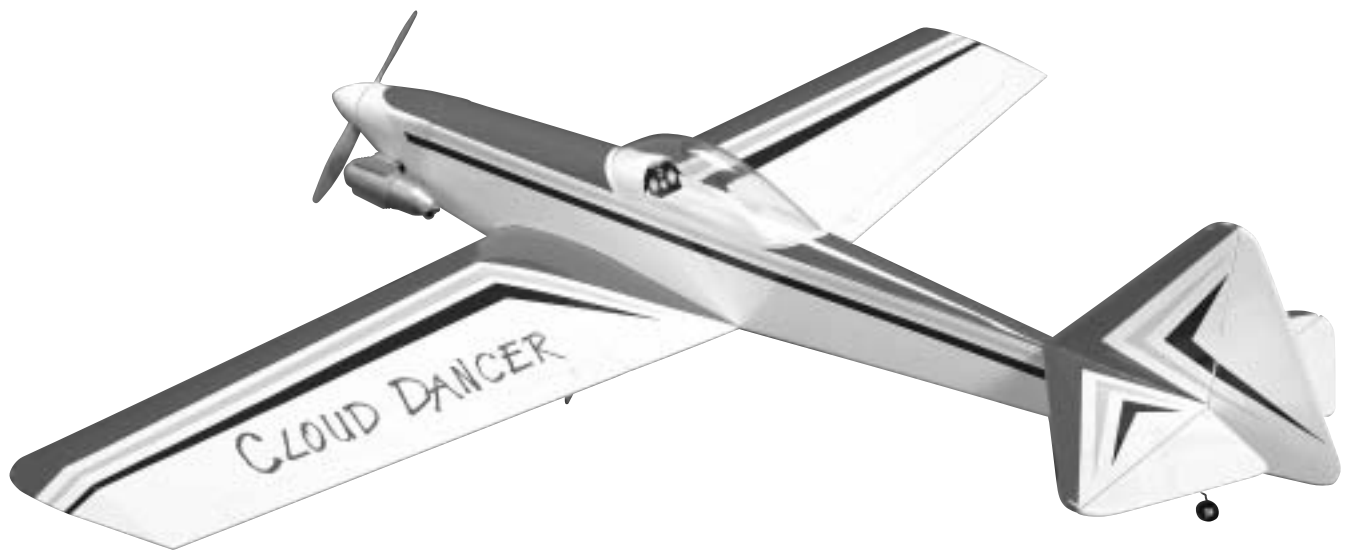
INTRODUCTION



All of us at Thunder Tiger want to thank you for choosing one of the finest 60 sized sport planes available, the Cloud Dancer 60. Designed by the late Fred Reese, this airplane offers a unique appearance and sprightly, yet predictable performance. This model features state-of-the-art engineering that provides quick and easy assembly of a strong, yet lightweight airplane that will give you an enjoyable and thrilling experience.

To gain the most from this airplane kit, it is important that you read the instructions thoroughly and then follow them exactly. We strongly suggest that you read through the instructions completely *before* beginning construction. This will give you a good idea of the construction sequence and eliminate many questions you might have if you did not read the manual prior to starting the actual construction. Due to the nature of this design, this airplane is not intended for a beginner's first model and the instructions are written with this in mind. We assume you have a working knowledge of airplane and radio terminology.

The first thing you should do before beginning assembly is to check the contents of your kit against the parts list on pages 4. If any parts are missing, contact your dealer immediately for replacement. Customers in the United States and Canada may contact Ace Hobby Distributors for replacement parts. **Under no circumstances can a kit be returned if assembly has already been started.**



OPTIONAL RETRACTS



Experienced pilots who want to maximize their enjoyment of the Cloud Dancer 60 should consider installation of the optional retracts. The instructions have complete details.

See your hobby dealer for addition information on these 60 sized retracts, Thunder Tiger part number 3008.

You will also need a 180° retract servo that is compatible with your 5 or more channel radio system.

OTHER ITEMS REQUIRED FOR ASSEMBLY

A checklist is also provided on the next page which will make shopping for these items easier.



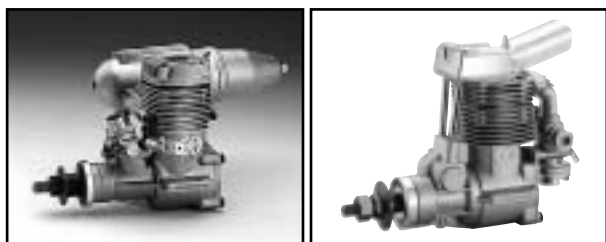
Radio - A 4-channel radio with 5 standard servos is required. (If you are installing retracts, you need a radio that has at least 5 channels and a 180° Retract Servo that is compatible.)



Adhesives - You will need two types of adhesives for this ARF - Epoxy and Instant (cyanoacrylate) adhesives. We recommend that you purchase both 5-minute and 30-minute epoxy to cut down on assembly time, but you can get by with only 30-minute epoxy if time is not important. You will also need a small bottle of both "Thick" and "Thin" instant adhesive.



Tools - Model assembly can be much easier if the proper tools are used. Therefore, we have included in our checklist to the right, a complete listing of all the tools we used to assemble our prototype models. As you will notice, many household tools can be utilized during construction.



Engine - The Thunder Tiger PRO-61 or 91 is the ideal engine for this airplane. It is a quiet running engine that is easy to start and require no special break-in period, is very easy to maintain, and will last for years.

Flight Equipment - There are several "support" items that you will need to purchase in order to get your engine running and your plane in the air.



Comprehensive Items Needed Check List

- 4-Channel Radio with 4 Standard Servos
- 5-Minute Epoxy (4 ounces or so)
- 30-Minute Epoxy (4 ounces or so)
- "Thin" Instant Adhesive (1/2 ounce)
- "Thick" Instant Adhesive (1/2 ounce)
- Hobby Knife and Blades
- Epoxy Mixing Sticks and/or Brushes
- Sandpaper (150 grit)
- Masking Tape
- Rubbing Alcohol
- Paper Towels
- Ruler
- Waxed Paper
- Fine-Point, Felt-Tip Pen
- Misc. Household Tools
- Drill and Bits (1/16", 1/8", 9/64", 1/4", 5/16")

Flight Equipment

- Foam Rubber Padding for the radio
- Stick on Lead Strip for balancing the plane
- 3 or 4 Props (see engine instructions)
- 10%-15% Glow Fuel
- Fuel Pump or Bulb
- Electric Starter or "Chicken Stick"
- Glow Plug Clip and Battery
- Extra Glow Plug(s)



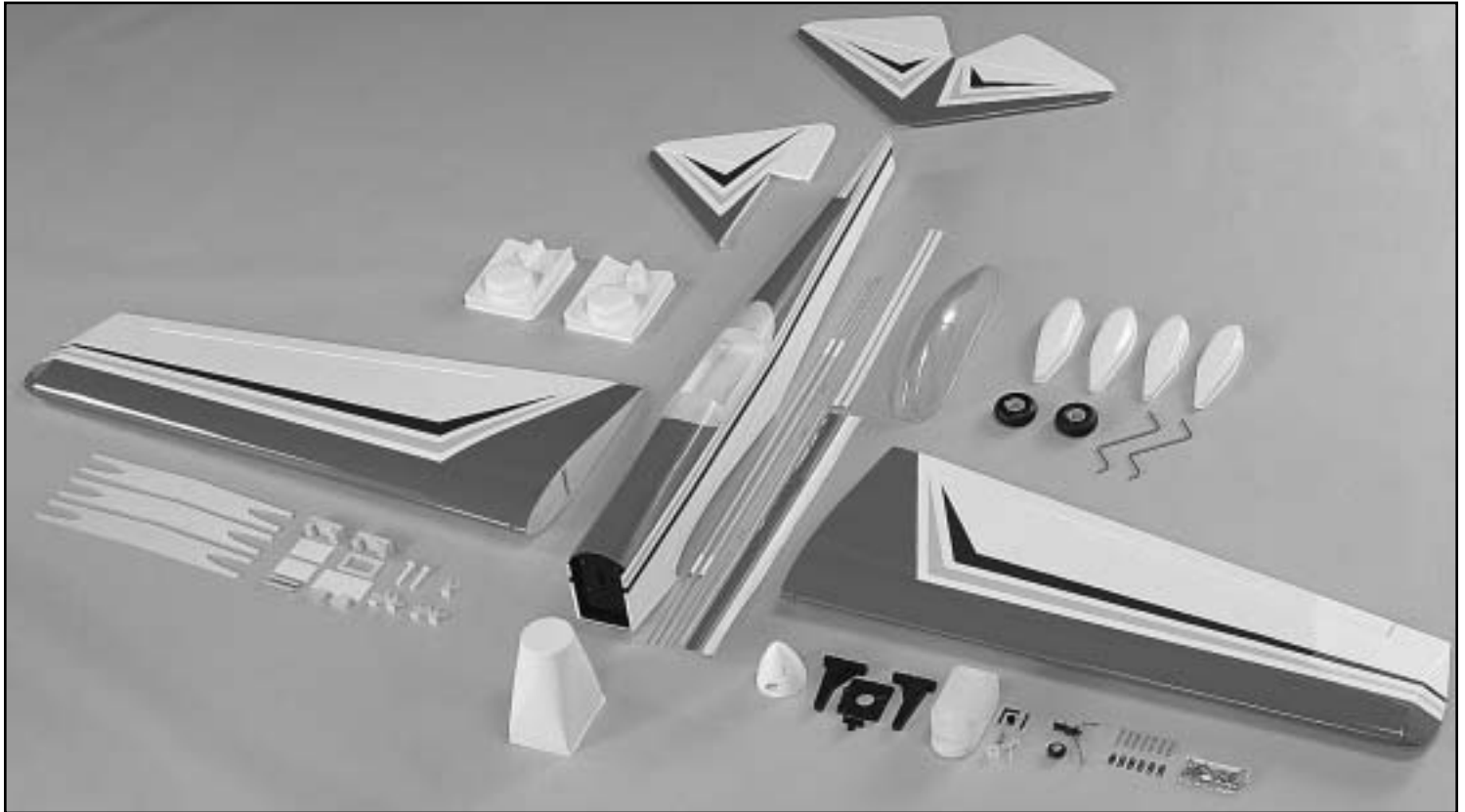
A Breakthrough in Field Equipment!

The CarryMaster's "Organization Plus" allows you to transport all your field essentials in a rugged and compact case that will fit about anywhere in about any vehicle. A complete "turn-key" combo is available as well as the case by itself.

Combo contents include:

- 3 liter fuel cell
- 12v HD starter
- 12v starting battery/charger
- 4-way wrench
- glow starter/charger

Kit Contents:



Main Wing

Left Wing x 1pc
 Right Wing x 1pc
 Hatch Cover Plate x 2pcs
 2x8mm Wood Screw x 8pcs
 Wing Protector x 1pc
 Dihedral Wing Joiner x 3pcs
 Dowel x 2pcs
 Wing Bolt x 2pcs
 Trim Tape(white) x 1pc
 Trim Tape(Green) x 1pc

Tail

Vertical Fin/Rudder x 1pc
 Horizontal Stab/Elevator x 1pc

Fuselage x 1pc

Engine Cowl

Engine Cowl x 1pc
 2x8mm Mounting Screw x 4pcs

Fixed Landing Gear

Fixed Landing Gear L/1pc R/1pc
 Wood Block x 2pcs
 Wheel x 2pcs
 Wheel Pants L/1 set R/1 set
 Collar x 4pcs
 Mounting Plate x 6pcs
 3x3mm Set Screw x 4pcs
 3x8mm Wood Screw x 8pcs
 M3 Locknut x 4pcs
 3X6MM Machine Screw x 6pcs

Retract Landing Gear

Retract Landing Gear (Not included, P/N 3008)
 3x8mm Sink Wood Screw x 8pcs
 Retract Servo Tray x 1pc
 Retract Servo Tray Mount x 2pcs
 Wheel Well Template x 1pc
 Wheel Well L/1 R/1

Tail Gear Set

Tail Gear x 1pc
 Tail Wheel x 1pc
 Collar x 2pcs
 3x3mm Set Screw x 2pcs
 3x8mm Wood Screw x 1pc
 3x15mm Wood Screw x 1pc

Engine Mount

Beam x 2pcs
 Backplate x 1pc
 4x24mm Engine Mounting Screw x 4pcs
 6/32 x24mm Machine Screw 4pcs
 Blind Nut x 4pcs(installed on firewall)

Spinner

Spinner x 1pc
 Backplate x 1pc
 3x14mm Self-Tapping Screw x 4pcs

Pushrod

Rudder Pushrod x 1pc
 Elevator Pushrod x 1pc
 Aileron Pushrod x 2pcs
 Throttle Pushrod x 1pc

Plastic Tube Guide x 1pc
 Retract Pushrod x 2pcs
 Clevis x 7pcs
 M2 Nut x 7pcs

Control Horn

Control Horn & Backplate x 5pcs
 2x22mm Screw(for aileron) x 4pcs
 2x15mm Screw(for rudder and elevator) x 6pcs

EZ Connector

Connector x 1pc
 M2 Nut x 1pc
 3x3mm Set Screw x 1pc

Fuel Tank

Tank x 1pc
 Clunk x 1pc
 Nipple x 1pc
 90-degree Nipple x 1pc
 Fuel Stopper x 1pc
 Fuel Tube x 1pc
 Cap x 1pc

Canopy x 1pc

Trim Tape(white/narrow) x 2pcs
 CA Hinges x 15pcs
 Decal x 1pc
 Manual x 1pc

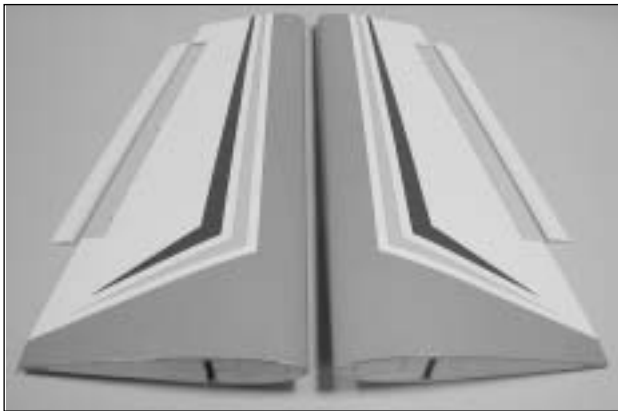
WING ASSEMBLY

I. Pre-Assembly Notes

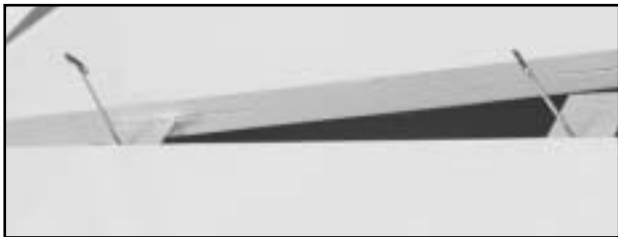
1. Please assemble your model according to these instructions. Do not attempt to modify or change in any way as doing so may adversely change its flying characteristics.
2. Before you begin, please check the entire contents of this kit against the parts list and photo to make sure that no parts are missing or damaged. This will also help you to become familiar with each component of your plane.
3. Each step of these instructions is preceded by a box which can be checked off as you complete the step. This will allow you to follow your progress and quickly find your starting place after any interruptions or breaks.

Note: Your dealer cannot accept kits for return if construction has begun.

II. Aileron Servo Installation



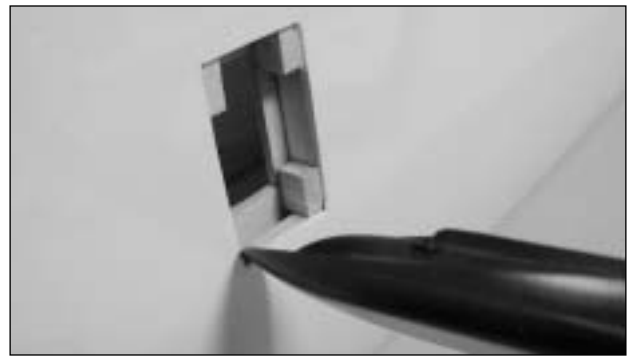
- To hinge the aileron to the wing, begin by removing it from one of the wing panels. Install the "CA" hinges into the aileron and use T-pins to hold them in place while inserting the hinges in the wing (or simply use thin CA and permanently glue them in place in the aileron.)



- Install the aileron onto the wing, keeping the gap to a minimum, wick thin CA onto the hinges, making sure you get glue on all surfaces. Firmly tug on the aileron to make sure it is secure. Repeat for the other wing panel.



- With the wing panel upside down, locate the servo well and cut an X from corner to corner using an hobby knife.



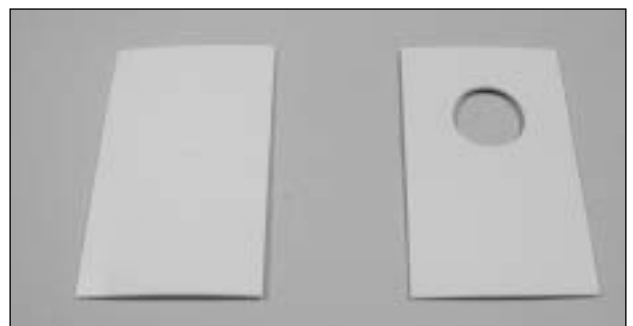
- Use a sealing iron to tack down the covering inside the servo well.



- With the wing right side up, locate the servo wire exit hole and remove covering.
- Thread the servo wire through the ribs to the first wing panel then place the servo on the servo mount. Use needle nose pliers or tweezers to take connector out. You might wisely use a piece of clear tape to temporarily hold the servo pigtail to the wing to prevent it from slipping back into the wing while you are working.



- Secure the servo with the self-tapping screws which come with your radio.

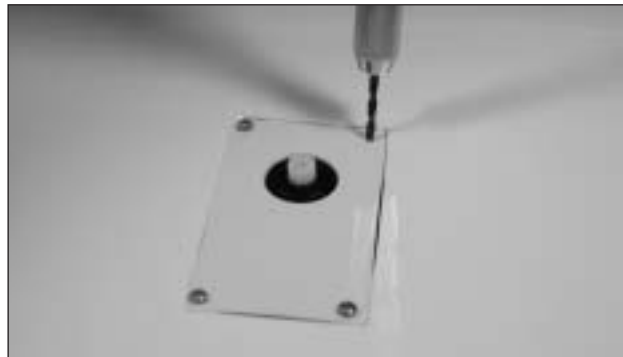


- Locate the hatch cover plate and drill a hole so the servo drive shaft goes out as show.

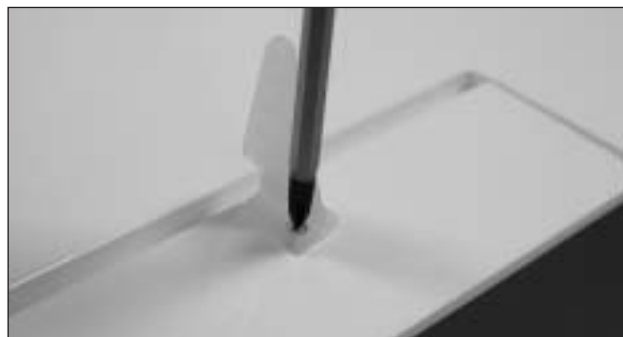
III. Decide On Retracts

Before assembling the wing, you must decide whether or not you are going to install the optional retracts. If you fly off a grass field, we recommend you stay with the stock fixed gear. Instructions are provided for either event.

Fix Gear



- ❑ Secure the hatch cover plate with four 2x8mm wood screws.



- ❑ Use a pen or marker to mark the positions for the Aileron Control Horn. Drill out the 2mm holes and secure with 2x22mm screws as shown.



- ❑ With the servo at neutral position, attached the clevis to the threaded end of aileron pushrod and snap on to the control horn. Mark the pushrod for Z-bend end. Insert the Z-bend end to servo horn and secure the servo horn onto the servo.

If you are going to use Flapron on Cloud Dancer, two aileron extension cords will be needed. If not then you will need a Y cord to connect two aileron servos.



- ❑ With a wing panel upside down on your work surface, cut away the material that covers the landing gear block area.



- ❑ With the landing gear block centered over the hole, mark around the block. Next, cut away the balsa sheeting from this area.

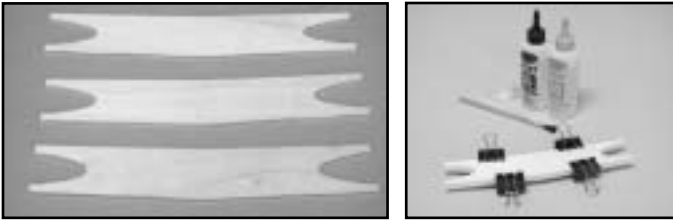


- ❑ Note that each landing gear block has a hole pre-drilled. This hole goes to the center of the wing. With this in mind, securely glue the landing gear blocks in place with 30 minute epoxy. Wipe away any excess. Repeat the same procedure on the other wing half.

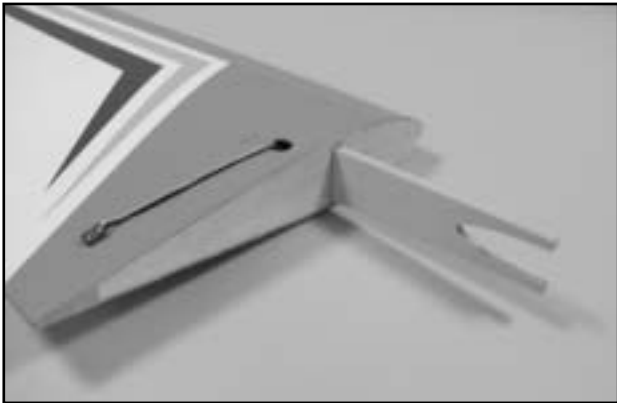
RETRACT INSTALLATION

Retract Installation (Optional)

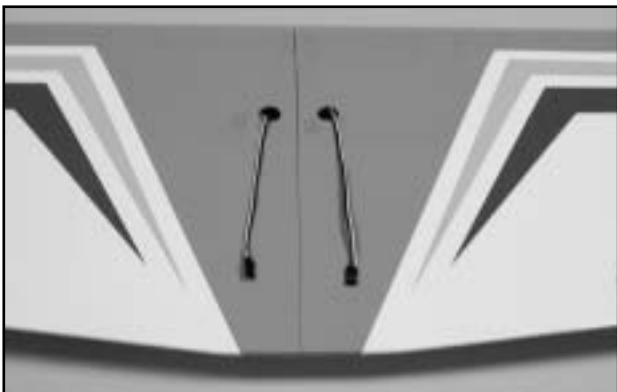
See page 2 for a discussion on the retracts we recommend. Begin by hinging the ailerons to the wing panels as shown in the section on fixed gear.



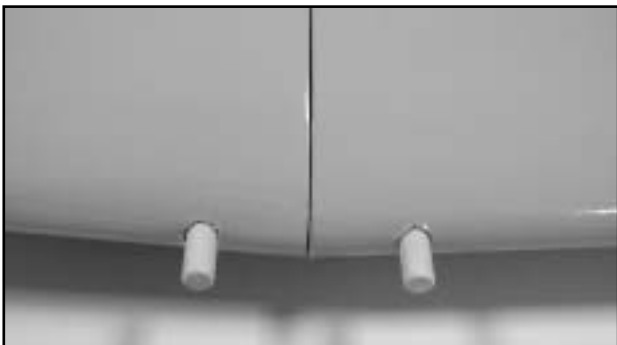
- ❑ Locate the three plywood dihedral braces. Using epoxy or thick CA, glue and clamp these pairs of pieces together. Keep the edges of the pieces lined up and wipe off any excess glue.



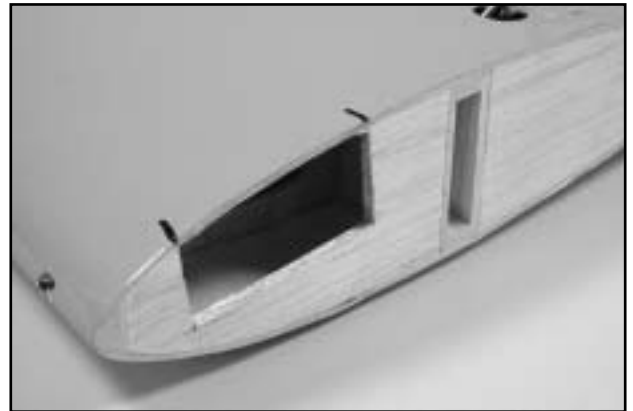
- ❑ Before gluing the two wing halves together, trial-fit the wing joiner into both wing panels. If it is not easy to slide into the wing, sand it until it will. To fit properly, note that the wing has an upward "bend" in it, called dihedral.



- ❑ With 30 minute epoxy, liberally coat all sides and edges of the wing joiner and slip it into one wing half. Join the two wing halves and firmly press wing panels together. Wipe off any excess epoxy with a paper towel and rubbing alcohol. Make sure the two panels are accurately aligned with each other and hold together with several strips of masking tape.



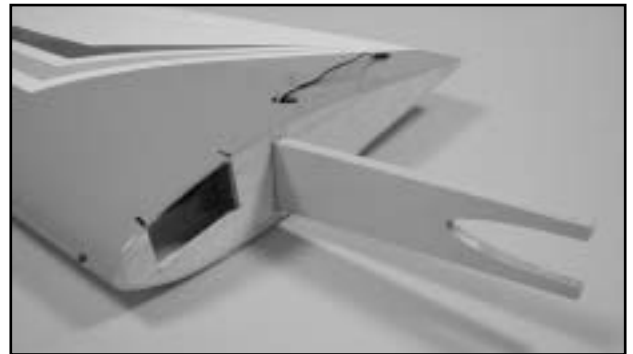
- ❑ Glue the wing dowel in place as shown



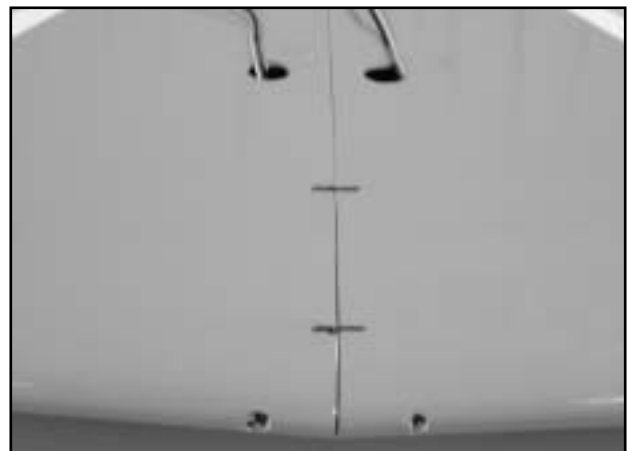
- ❑ Remove the forward area that houses the retract servo from the root rib and make marks on the sheeting where we will cut after wing halves are joined. Repeat the same procedure on the wing.



- ❑ Laminate the three ply dihedral braces together.

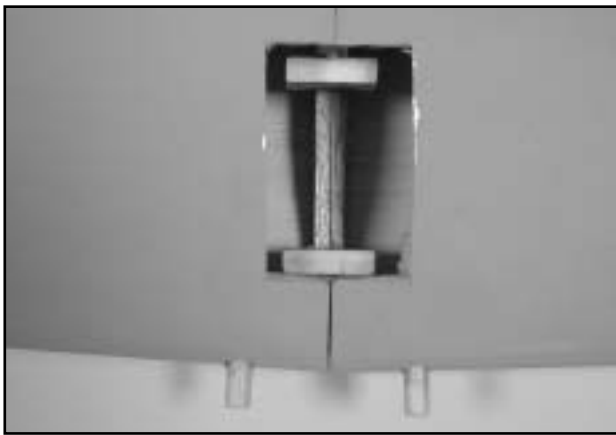


- ❑ Test fit the dihedral brace into both wing halves and sand as needed for a good fit.

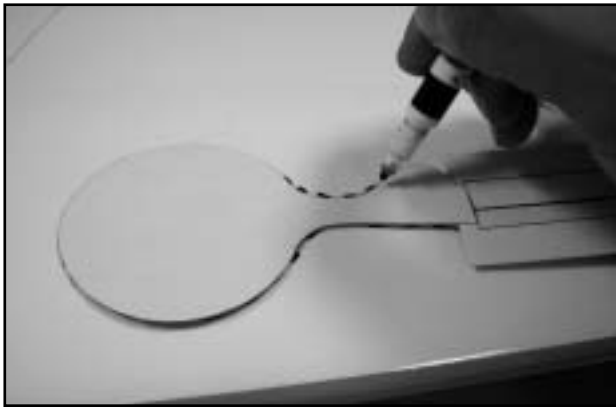


- ❑ Epoxy the wing halves together, making sure you coat all sides of the dihedral brace plus where the ribs join. Use some masking tape to hold the wing together as the glue sets.

RETRACT INSTALLATION



- ❑ Cut away the balsa sheeting to expose the retract servo location. Glue the retract servo mount and wing dowel in place as shown.



- ❑ Use the template and mark where the retract goes.



- ❑ Remove the covering material that covers the landing gear hole in the bottom of the wing. Next cut away the sheeting to accommodate the plastic wheel well.



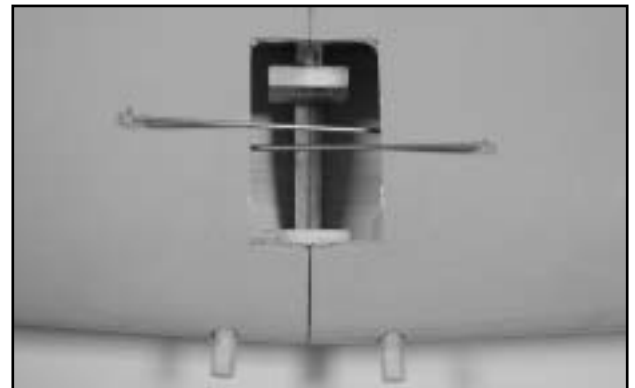
- ❑ Trim the plastic wheel wells as shown.



- ❑ Glue the wheel wells into the wing using a compatible glue such as "Zap-a-dap-a-goo", RC 56, or "Shoe-Goo ". Drill pilot holes for the retract assemblies.



- ❑ Attach pushrod with metal clevis to the retract assembly, move it into position.

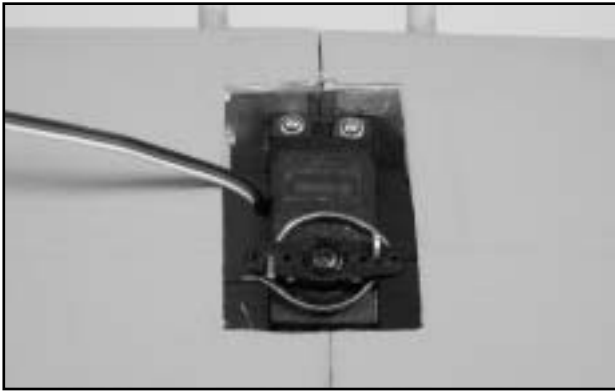


- ❑ Let the other end of pushrod goes out the opening then secure the retract to the hardwood blocks.



- ❑ Mount the retract servo in place as shown.

RETRACT INSTALLATION

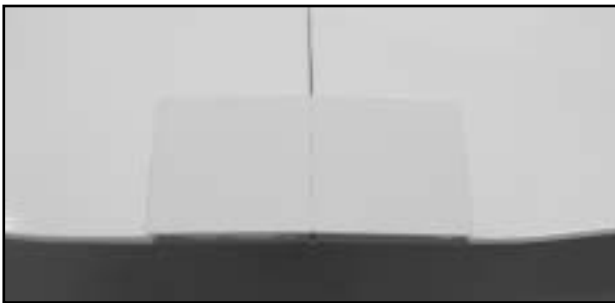


- ❑ Bend the pushrods for proper clearance and connect to servo arm with "Z" bend or "EZ connects". Install the wheels and check for proper operation.

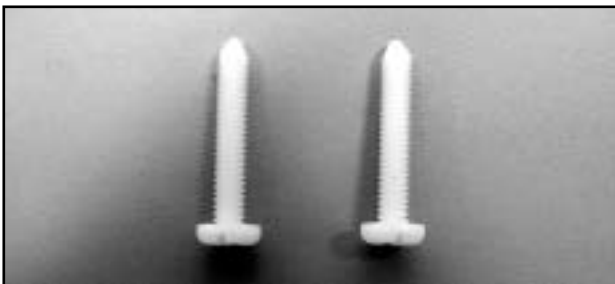
IV. Wing Bolts



- ❑ Measure the top and bottom to find center of the Wing Protector. This will be used to center the protector on the trailing edge of the wing panel. Place the protector on the wing panel and mark around the three sides with a pen or marker. Remove the protector and then remove the covering material inside the lines. Be careful not to push through the balsa; remove only the covering.



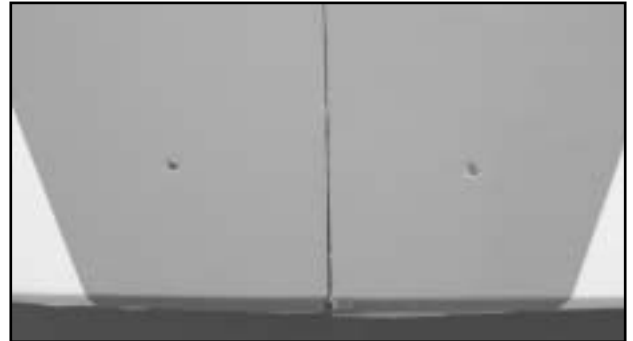
- ❑ Apply a liberal amount of medium CA to the exposed wing panel and place the Wing Protector on it, holding it until the CA sets.



- ❑ Sharp the Wing Bolts as shown.



- ❑ Screw the Wing Bolts inversely so the sharp ends just a little higher than the saddle of fuselage.

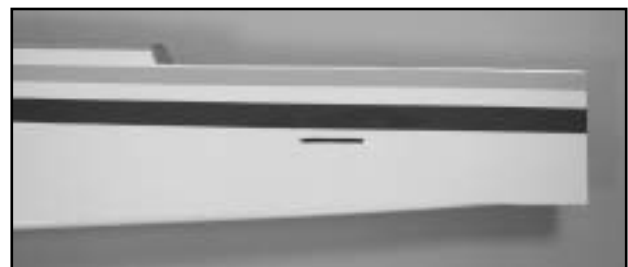


- ❑ Be careful install the main wing on the fuselage and not to touch the sharp end of wing bolts. Push it to mark the points on the wing when wing is aligned. You can see the two points at the trailing edge of wing panel.

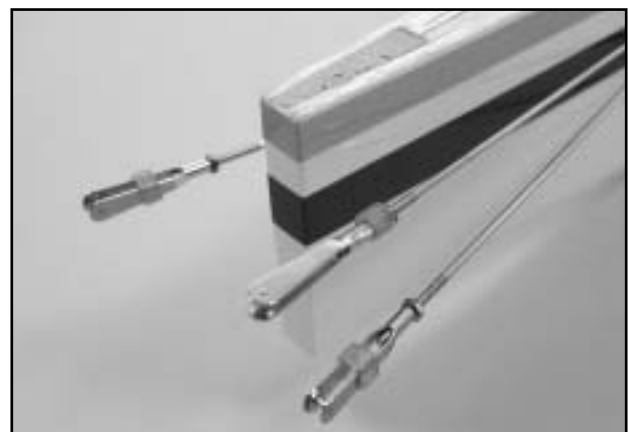


- ❑ Drill 6mm(1/4") holes at the points. Note: The bit should be about 75-degree angled to the wing surface when you are drilling the hole. Strips of covering film are provided to trim out the center joint. You will need to use a covering iron or a household iron to secure the film.

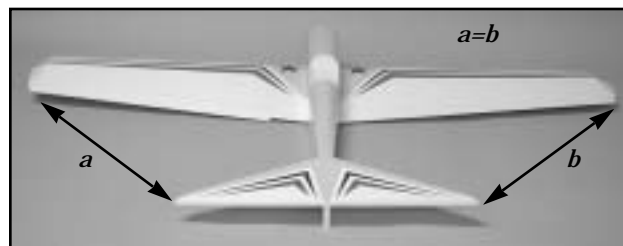
V. Fuselage



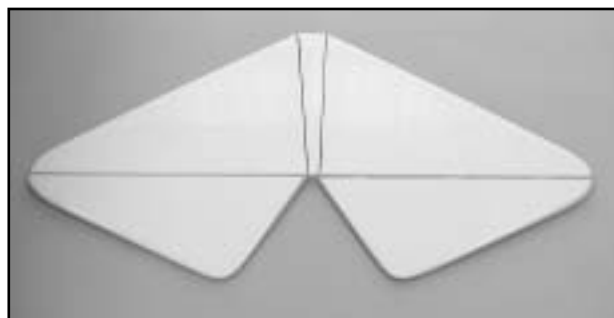
- ❑ Locate the pushrods for elevator and rudder. At the aft end of the fuselage, find the pushrod exit holes and remove the covering for the elevator on both sides of the fuselage. Next locate the hole for the rudder pushrod on the right side of the fuselage and remove the covering. Next install the elevator pushrod first and the rudder pushrod last.



- ❑ Locate three metal clevises, two for elevator pushrod and one for rudder. Next cut three pieces of fuel tubing, make each piece of fuel tubing about 1/4" in length. This will keep the clevis from coming detached in flight.



- ❑ Temporarily mount the wing to fuselage, so that stabilizer can be properly aligned. Measure from stab tip to wing tip on both sides. This will ensure that the stab is square in the saddle. Also check the alignment of the stab horizontally. Once satisfied with the position of the stab, mark it so the covering can be removed on the bottom side of the stab. When removing the covering from the bottom of the stab, be very careful not to cut too deep with your hobby knife, as this will weaken the stab.

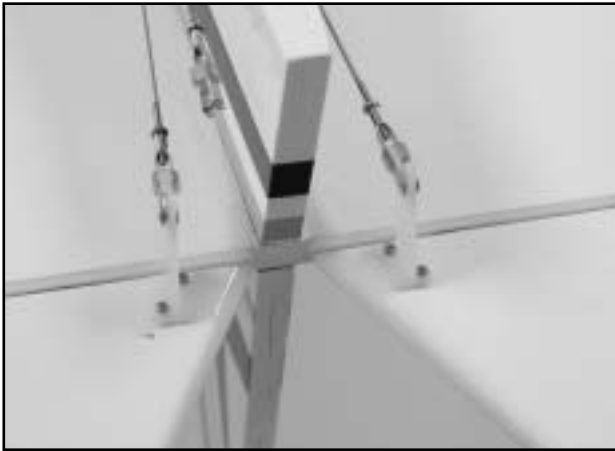


- ❑ Cut away the covering from notched area on top of the stab and prepare to mark the covering that will be removed for the vertical fin to be glued into place. Align vertical fin and draw a line on both sides of the fin. Now remove the covering between the lines as shown in the picture. Mix up a small amount of 30 minute epoxy to install the stabilizer and fin to the fuselage. Recheck the alignment to ensure that the stab and fin will be in the correct place when the epoxy cures.



- ❑ Locate the two elevator halves and six of the C.A. hinges. Glue the elevators to the stab as same as the aileron installation in the prior assembly.

RUDDER/TAILWHEEL

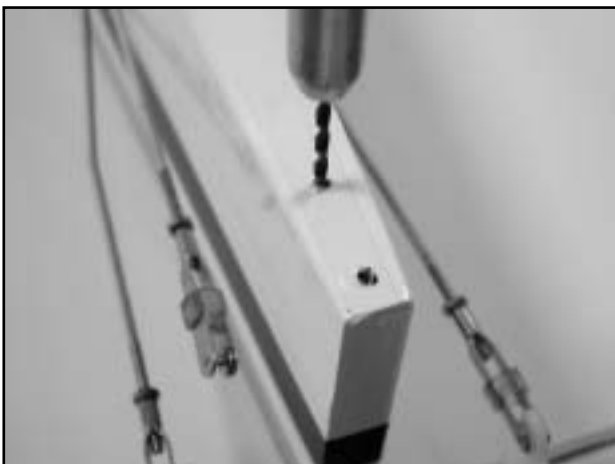


- ❑ Locate two control horns for the elevators. You will also need four 2mm x 15mm bolts to attach the control horns to the elevators. Mark and drill the holes for the control horn screws on each right and left elevators. Attach the clevises to the control horn as shown.

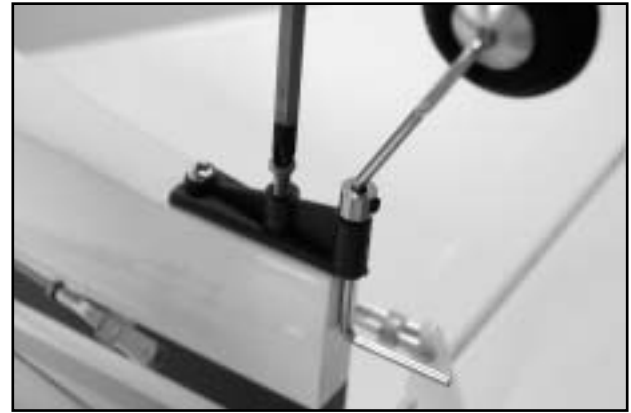
VI. Rudder and Tailwheel



- ❑ Locate the tail wheel assembly then mark and drill the holes in the bottom of the fuselage for the tailwheel bracket.



- ❑ Drill 1/8" (3mm) holes at the mark.

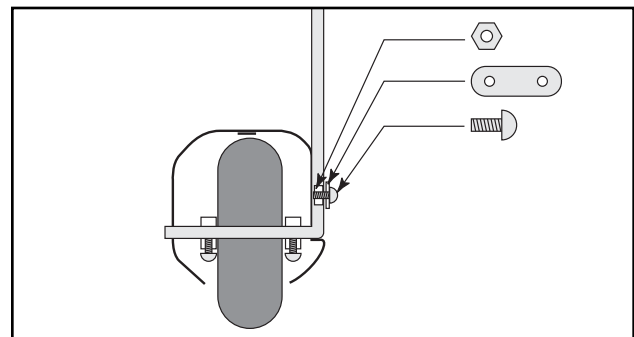


- ❑ Push the tailwheel bracket into the holes then secure with 3x8mm and 3x15mm wood screws.



- ❑ With the tailwheel bracket installed, make a mark on the rudder so the tailwheel wire can recess on the rudder. You might need to cut a slot at the bottom of the rudder for the tailwheel torque wire. This could make rudder closer to the fuselage. Install the hinges on the rudder same procedure of aileron installation. Install the rudder control horn and connect the rudder pushrod. Install the tailwheel by using the 3mm x 3mm set screw and the small wheel collar.

VII. Fixed Landing Gear



- ❑ Cut away the excess plastic from each wheel pant half. Trial fit the halves together and trim as needed. Use thick CA to join the halves at the overlap and let cure.
- ❑ Drill two 5/16" holes on either side of the pants where marked.
- ❑ Slip the wheel pant onto the landing gear and at the same time install the wheel and wheel collar on either side. The landing gear strut will extend beyond the outside of the wheel pant.
- ❑ Secure the pants with a metal landing gear strap and 3 x 6 mm bolts and nuts. Pre-drill 1/8" (3mm) holes.

CANOPY/TANK/MOTOR MOUNT



- ❑ Install the fixed landing gear assembly into the slots/holes in the landing gear blocks. Secure with metal landing gear straps and screws. Pre-drill the screw holes with a 1/16" bit.

VIII. Canopy



- ❑ Install the instrument panel, and if desired, a pilot figure in the cockpit. Trim the canopy to fit on top of the cockpit. Glue into place using RC-56 canopy glue or equivalent. Locate the canopy trim tape to give the canopy a finished look and a good seal.

IX. Fuel Tank



- ❑ Assemble the fuel tank by first cutting the silicone tube to 3 1/8" in length. Press the straight plastic nipple (the 90-degree nipple is not used in this plane) into the rubber stopper (saliva will ease insertion.) Now slip the silicone tubing onto the nipple and insert the metal clunk into the other end of the tubing. Insert this assembly into the tank clunk- first and securely tighten the threaded cap on to hold everything together.



- ❑ Attach a 6" piece of standard fuel line (not furnished) to both the fuel outlet nipple and the vent nipple on the tank. The vent nipple is the top one with the hole.

Slide the fuel tank cap end-first into the front of the fuselage, threading the fuel lines through the oblong hole in the firewall. The tubing coming from the tank's fuel outlet (center) goes to the carb and the tubing from the vent (upper) goes to the muffler's pressure fitting. Trim the length as needed. Wedge some pieces of foam rubber or "bubble wrap" (not furnished) beside and on top of the tank to gently hold it in place.

X. Motor Mount



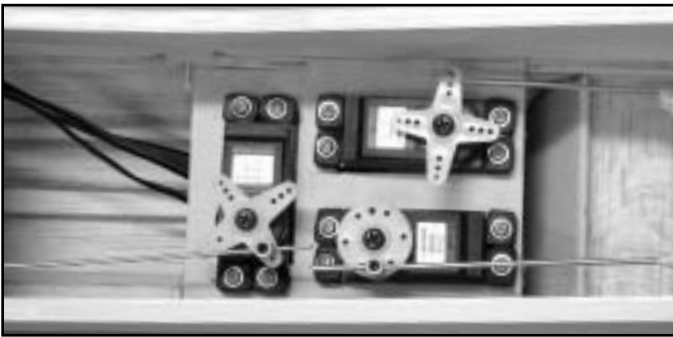
- ❑ Set your engine on the motor mount. We have chosen the Thunder Tiger .61 engine, which will provide plenty of power for aerobatics and general flying. With your engine on the mount, you will need to measure 4 3/4" from the firewall to the front of the drive of the engine. Mark the engine mounting lug holes. Use a 9/64" (3.5mm) drill bit to drill the holes for the engine. Now install the engine using the four 4 x 24mm self-tapping screws. With the engine mounted in place, find the throttle push rod wire and make a Z-bend at one end. Install and attach the Z-bend end to the engine as shown in the picture.

XI. Cowl



- ❑ Make a template for your cowl cut out, making sure to leave enough room for the muffler and engine so the cowl does not rub anywhere. Now install the spinner and propeller.

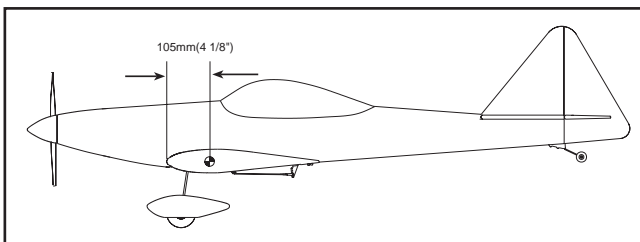
XII. Radio



- ❑ Install the three servos as shown in the picture. Make a mark on the elevator push rod for a Z-bend to be made. You can use a Z-bend or an E-Z connector for the rudder. For the throttle we used an E-Z connector for ease of set up.

XIII. Center of Gravity and Control Throws

IMPORTANT- Do not attempt to fly your model before completing this very important section. A model that is not properly balanced will be unstable and could cause serious damage and/or injury. Balance the airplane right side up with your index finger tips in the center of the main spar. Adjust the battery location or add weight as needed to achieve level balance. Once you have everything positioned as necessary, wrap your receiver and battery pack in 1/4" or 1/2" thick foam for protection.



Center of Gravity (Balance Point) = Center of Wing Main Spar

Using the switch cover as a template, cut an opening in the side of the fuselage to mount the switch in. It should be on the right side of the fuselage. Drill two " 1/16" holes for the switch mounting screws and install the switch. Drill a " 1/16" hole through the fuselage side, about one inch behind the switch mount. From the inside out, thread the receiver antenna through this hole. You may want to tie a knot in the antenna 3" or 4" from the receiver to act as a strain relief.

Attach the end of the antenna to the top of the vertical fin with a small #10 rubber band and a T-pin. Maintain only a slight amount of tension on the antenna wire.

Set-up your radio so the airplane has the following throws. Make sure the directions of the surfaces corresponds with the commands from the transmitter; i.e., right is right and up is up.

Rudder = 2 1/2" Right and Left

Elevator = 1" Up and Down

Ailerons = 1/2" Up and Down

(Throws are measured at the rearmost edge of the surface.)

XIV. Spare Parts

Cowl AS6184

Canopy AS6185

XV. Locate A Good Flying Site

Generally, the best place to fly your model is at an AMA (Academy of Model Aeronautics) chartered club field. Your local hobby dealer can tell you if there is such a club in your area or write the AMA for information. It is also a good idea to join this organization before flying your model since they offer liability insurance that can protect you if your model causes damage or injury to others.

Academy of Model Aeronautics

5151 East Memorial Dr.

Muncie, IN 47302-9252

If there is not a chartered club field in your community, you will need to find a large area free of obstructions that has a smooth grass or asphalt surface to be used as a runway. For safety's sake, it should be located well away from houses, building, schools, power lines and airports. If you will be flying within 6 miles of an airport, you should check with the airport manager before flying your model.

XVI. A Note On Batteries

The batteries are the heart of your radio system. Make sure you have fully charged batteries! With rechargeable batteries, follow the manufacturers instructions to make sure the batteries are fully charged, especially the first time the radio is used.

If your radio uses dry cells, make sure your batteries are in new condition. You have a lot of money invested in this project, so it is not worth the risk of using old batteries.

XVII. Flying Your Cloud Dancer

Flying the Cloud Dancer is different from most other .60 sized models. The model is bigger yet weighs less so it takes less power to keep it flying. The Cloud Dancer 60 is very predictable in its flight manners and we hope you can just relax and have fun with it. With its light wing loading it will hover in a good breeze, yet it is streamlined and can keep up with the faster models. Take offs can be forced and the Cloud Dancer 60 can be off the ground in a couple of fuselage lengths, or it can be held on the ground with a little forward stick and it will run the length of the runway and gently lift off or it will rocket vertically with full power, your choice. We think you will enjoy the versatility of this model.

Because the Cloud Dancer 60 can maintain flight at power settings just barely above idle, landing approaches will need to be flown a little longer and lower than most of the aircraft that you are used to. Knowing this, shoot a few landing approaches in the middle of the first flight to get the feel of it, before you are about out of fuel and have to land. Once you get used to the Cloud Dancer 60's predictable behavior, you will learn to make short landings also.

XVIII. Pre-flight Checks

You should perform these checks before each flying session.

1. Check all control surfaces for possible looseness or deterioration.
2. Check all screws, clevises, nuts and all other connectors to make sure they are securely fastened.
3. Check which radio frequencies are being used. Do not turn on your radio until absolutely sure you are the only one operating on that frequency.
4. Check for proper operation of all control surfaces.
5. Check the level of charge in both the transmitter and receiver batteries before flying.
6. Range check the radio both with and without the engine running! Follow the radio manufacturers instructions for this.

XIX. Post-flight Checks

1. Be sure that both the transmitter and receiver switches are turned off.
2. Drain all excess fuel from the tank. Fuel left in the tank for extended periods can "gunk up" the tank, fittings and carburetor.
3. Clean the plane with paper towels and a light-duty spray cleanser. Keeping your plane clean will make it last longer and keep it looking nice.
4. Put a few drops of after-run or light oil in the carburetor and turn the prop over a few times (without the glow plug ignited) to distribute the oil throughout the engine.
5. Inspect the prop and replace it if any chips or cracks are found.
6. Inspect the entire plane for covering tears, new dings and dents, loose screws and connectors and any other wear and tear.
7. Use a voltmeter to check the receiver battery voltage. If it is low, you now know not to fly so long next time. If it is still high, you should be able to fly a little longer next session.

XX. Safety Precautions

1. Wear safety glasses when starting and running all model engines.
2. Model engine fuel is very flammable and the flame is very dangerous because it is almost invisible! Do not smoke or allow sparks, high heat or other flames near the fuel.
3. Do not run model engines inside a garage or other closed room as they give off large amounts of deadly carbon monoxide gas.
4. Do not run model engines around gravel, sand or other loose debris. These materials will be ingested through the carburetor and can also be kicked up by the prop.
5. Always stay behind the propeller when the engine is running. Make all engine adjustments from behind the engine. Under no circumstances should you allow your face or body near the plane on rotation of the propeller when the engine is running.
6. Do not allow loose clothing or other loose objects close to the prop.
7. To stop an engine, cut off the fuel or air supply to the engine. Do not throw rags or other objects into the prop to stop the engine.
8. Do not touch the engine or muffler during or right after it has been running—it gets very hot!
9. If you hear any unusual noises while your plane is flying, land at once and determine the problem before returning to the air. Control surface flutter, which often emits a low-pitched "buzz", can quickly destroy an airplane and should not be ignored. Flutter is usually caused by sloppy control surfaces and is generally relatively easy to cure.

Try these other great Ace R/C and Thunder Tiger products:

The perfect engine for your Cloud Dancer!



TTR9800 Thunder Tiger F-54S

The F-54S is the perfect engine for your Cloud Dancer, with plenty of power and a great, realistic sound.



Ace Electronics

Choose from any of Ace's battery maintenance electronics including our world-famous Digipace 3 to the revolutionary Smart Charge. Time proven usefulness for any R/Cer.



CARRY MASTER

A Breakthrough in Field Equipment!

The CarryMaster's "Organization Plus" allows you to transport all your field essentials in a rugged and compact case that will fit about anywhere in about any vehicle. A complete "turn-key" combo is available as well as the case by itself.

Combo contents include:

- 3 liter fuel cell
- 12v HD starter
- 12v starting battery/charger
- 4-way wrench
- glow starter/charger

THUNDER TIGER



TTR4550 G-202 140

Wing Span: 70 in(1776mm)
Wing Area: 1022 in²(66dm²)
Length: 70 in(1770mm)
Weight: 10-10.5 lbs(4540-4800g)
Engine: 1.08-1.6 2 Cycle
1.2-1.8 4 Cycle
Radio: 4 CH
w/6 Servos

U L T R A C O T E C O V E R E D

GILES G-202 140 A R F



Thunder Tiger's first venture into giant scale aerobats is impressive, to say the least. This 70" G-202 is perfect for those modelers who want an impressive airplane that will provide TOC-type performance, but don't want to take out a second mortgage or invest several winter's of spare time building and covering.

This Almost-Ready-To-Fly airplane is meticulously built from balsa/ply and covered with UltraCote. A few hours of final assembly plus radio and engine installation and you are ready to head for the tarmac and wave to the crowd after a successful airshow performance.

- Skilled craftsmen completely build this model from top quality balsa and plywood.
- Covered in Ultracote, the G-202 color scheme is bright, tough, and repairable.
- A flawlessly painted fiberglass cowl, wheel pants, and bottom wing cover are furnished.
- Quality accessories include pilot figure, instrument panel, scale tail-wheel assembly, flexible engine mount, and heavy duty linkage.

S-300 Staudacher 60

ALMOST READY TO FLY



Specifications:

Wing Span: 65"(1650mm)
 Wing Area: 780in² (50.3dm²)
 Length: 55.2"(1400mm)
 Weight: 7.5-8 lbs.(3400-3600g)
 Engine: .61 2 cycle
 .91-1.20 4 cycle
 Radio: 4 channel, 5 servos
 Scale: 21.3%



Combine the scale appearance and striking color scheme of Diane Hakala's legendary Staudacher S-300 with the late Fred Reese's genius for light-weight yet sturdy construction, and you have an Almost-Ready-To-Fly airplane that will turn heads both on the ground and in the air. Now you can enjoy the experience of scale modeling without investing the hundreds of hours of time necessary to achieve satisfactory results.

Just because this is a scale airplane, don't think it is a "lead-sled". It is an extremely pleasurable airplane to fly with characteristics akin to a comfortable sport airplane rather than a fickle scale beauty. Solid tracking, instant acceleration, nimble aerobatics, and predictable landings make this airplane fly as good as it looks.

Completely built from balsa/ply and covered with UltraCote, this Almost-Ready-To-Fly airplane is ready to load up for the field in only a few short hours.

- Impressive scale appearance with sport performance
- Completely built from balsa/ply and covered with UltraCote
- Quality epoxy/fiberglass cowl is flawlessly painted



The Staudacher 60 is performance matched for either the Thunder Tiger PRO-61(#9160) or the F-91S(#9801) engines.

UltraCote® is a registered trademark of Horizon Hobby, Inc.