Superfloats 36 ARF

WARNING

A radio-controlled model is not a toy and is not intended for persons under 16 years old. Keep this kit out of the reach of younger children, as it contains parts that could be dangerous. A radio-controlled model is capable of causing serious bodily injury and property damage. It is the buyer's responsibility to assemble this aircraft correctly and to properly install the motor, radio, and all other equipment. Test and fly the finished model only in the presence and with the assistance of another experienced R/C flyer. The model must always be operated and flown using great care and common sense, as well as in accordance with the Safety Code of the Academy of Model Aeronautics (www.modelaircraft.org). We suggest you join the AMA and become properly insured prior to flying this model. Also, consult with the AMA or your local hobby dealer to find an experienced instructor in your area. Per the Federal Communications Commission, you are required to use only those radio frequencies specified "for Model Aircraft."

LIMITED WARRANTY

Carl Goldberg Products, Ltd. has inspected and certified the components of this aircraft. The company urges the buyer to perform his own inspection, prior to assembly, and to immediately request a replacement of any parts he believes to be defective for their intended use. The company warrants replacement of any such components, provided the buyer requests such replacement within a period of 90 days from the date of purchase and provided the defective part is returned, if so requested by the company.

No other warranty, expressed or implied, is made by the company with respect to this kit. The buyer acknowledges and understands that it is his responsibility to carefully assemble the finished flying model airplane and to fly it safely. The buyer hereby assumes full responsibility for the risk and all liability for personal or property damage or injury arising out of the buyer's use of the components of this kit.

CARL GOLDBERG PRODUCTS, LTD.

P.O. Box 818 Oakwood GA 30566 Phone #678-450-0085 Fax # 770-532-2163 www.carlgoldbergproducts.com

Welcome to the exciting world of flying off water. The CGP Superfloats ARF were designed specifically for the CGP Cub either the Kit version or the Almost-Ready-to-Fly version, yet will work very well with almost any plane in the 6 to 9 lb., .50 to .90 engine range. Please follow the instructions carefully. We also recommend the ventral fin, because as in the full-size seaplanes it can help directional stability, making the model even easier to fly.

ITEMS NEEDED FOR INSTALLATION ON MODELS OTHER THAN CGP CUB

- ☐ 2 24” LENGTHS OF 5/32” WIRE (FOR NEW STRUTS)
- ☐ 2 CG 5/32 LANDING GEAR CLAMPS

NOTE: The Superfloats ARF covering matches: Silver (Oracover)

TOOLS AND SUPPLIES FOR ASSEMBLY.

- ☐ MODELING OR UTILITY KNIFE
- ☐ WORK SURFACE (24" X70")
- ☐ ELECTRIC DRILL
- ☐ 1/16”, 3/32”,1/8", 3/16”, 5/32”, 1/4”, 5/64” 7/32” DRILL BITS
- ☐ SMALL STANDARD & PHILLIPS SCREW-DRIVERS
- ☐ MASKING TAPE
- ☐ NEEDLE NOSE PLIERS
- ☐ MOTO TOOL
- ☐ 24” RULER
- ☐ FLEXIBLE STRAIGHT-EDGE
- ☐ LEVEL
- ☐ SOFT PENCIL
- ☐ WIRE CUTTER (DYKES)
- ☐ OPTIONAL HEAT GUN/COVERING IRON
- ☐ ACID BRUSH
- ☐ ELECTRICAL TAPE
- ☐ SOLDERING IRON, FLUX, SOLDER
- ☐ PIECE OF MEDIUM SANDPAPER

INTRODUCTION

USING THIS INSTRUCTION MANUAL

Before you begin assembling your Superfloats ARF, take some time to read through this entire instruction book. It is designed to take you step-by-step through the process and to give you added information on set-up, balancing your aircraft, and flying your model. The time you spend will speed the assembly process and help you avoid problems.

PREPARING FOR ASSEMBLY

You will need a work area of approximately 24 x 70" which has been covered to protect it from adhesive, as well as cuts and other damage. Many people cover their work area with a sheet of dry wall (sheet rock) and/or waxed paper to prevent CA Glue and Epoxy from ruining the work surface.

CONSTRUCTION TIPS

IMPORTANT: ALWAYS READ A FEW STEPS AHEAD. This will alert you to coming instructions and will help you plan accordingly.

As you work, CHECK OFF EACH STEP in the box provided, so that you are sure you do not forget anything.

Do not hesitate to ask questions. Your local hobby dealer and area flyers will most likely be happy to help, as they want you to have a successful flying experience. You may also receive technical assistance from Carl Goldberg Products, Ltd. via e-mail (questions@carlgoldbergproducts.com) or by telephone 1-678-450-0085.

ADHESIVES & GLUING TECHNIQUES

CA adhesives are specially formulated to firmly glue the plywood, hardwood, and balsa used in your model and to withstand the vibration and stresses of high performance flight. However, there are times, such as when you are installing the stabilizer and fin on the fuselage and want more set-up time for careful alignment and positioning, then you should use epoxy.. Occasionally, you also will want to use thin CA, which "wicks" into the surrounding areas. Aliphatic resin glue or similar water-based glues can also be used, but they will add to the assembly time because they dry so much more slowly than CA glue. Remember, when ever using any CA, you must be careful to read instructions thoroughly, as you will have only seconds for positioning of parts. Be sure to trial fit parts together before gluing. Also, never use watery THIN type CA glue for gluing plywood and hardwood parts. Thin CA's do not adequately bond these areas.

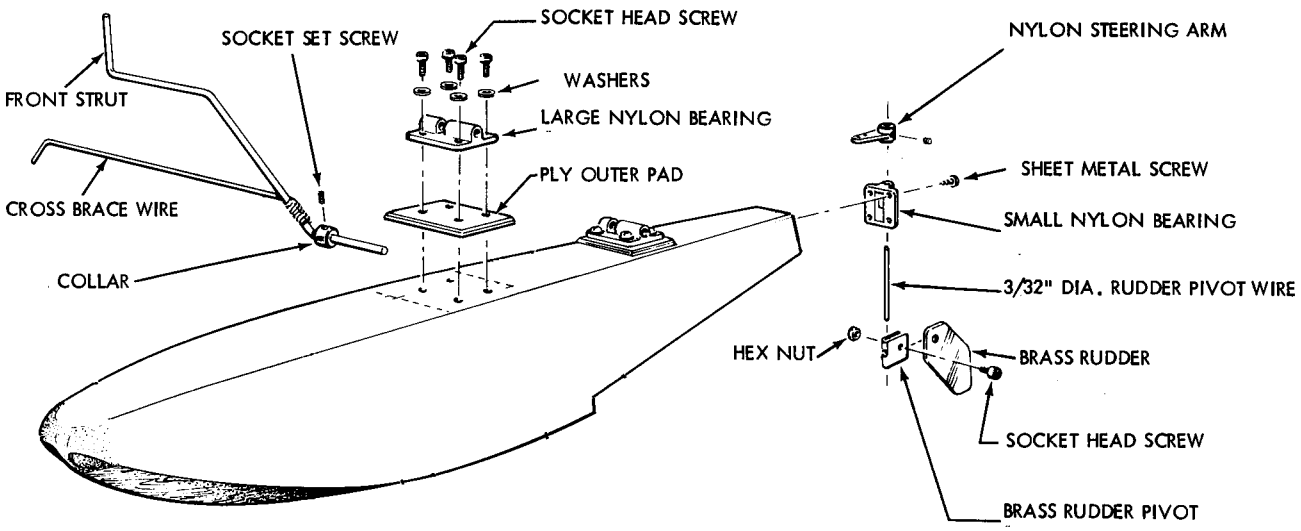
CAUTION

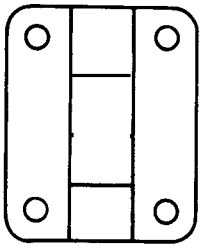
Some people may experience an allergic reaction when exposed to fumes from CA glue or epoxy. As with paints, thinners, and solvents, it is always important to use glues only where there is adequate ventilation to carry fumes away. A fan is recommended. Also, special care must be taken when using CA, as it will bond skin as well as other surfaces. Before using any CA, carefully read all label precautions. When using CA, protective eye-wear and care in keeping the glue away from the face is highly recommended. If CA does happen to get into the eye, hold lid open and flush with water only. Seek immediate medical attention.

COVERING

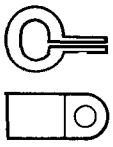
The Superfloats ARF is covered in a premium polyester film chosen by many of the world's top flyers for its beauty, toughness, and ease of application and repair. It is not uncommon for ARF's to develop a few wrinkles in transit. If this is true of your model, the situation is easily corrected. Before you begin putting the pieces together, run over the seams of the covering to make sure they are secure. Then apply heat to the center surfaces of each section with an iron (either specially designed for airplane use or the more cumbersome household iron) or use a modeling heat gun. Apply the heat (set at about 350° F), following along with a soft cloth and pressing down on the covering as you go around. This will more firmly set the covering adhesive into the wood and keep your aircraft covering tight and smooth in the future.

One of the great advantages of polyester film is that it can be applied over itself without causing gas bubbles. This allows you to repair your aircraft, as well as to customize it in a number of ways. If, due to a flight mishap, you get a hole or similar covering damage, simply trim away the ragged edges and then apply a patch, following the directions that come with your covering , which is available at your hobby dealer.





NYLON BEARING FOR FLOATS AND RUDDER

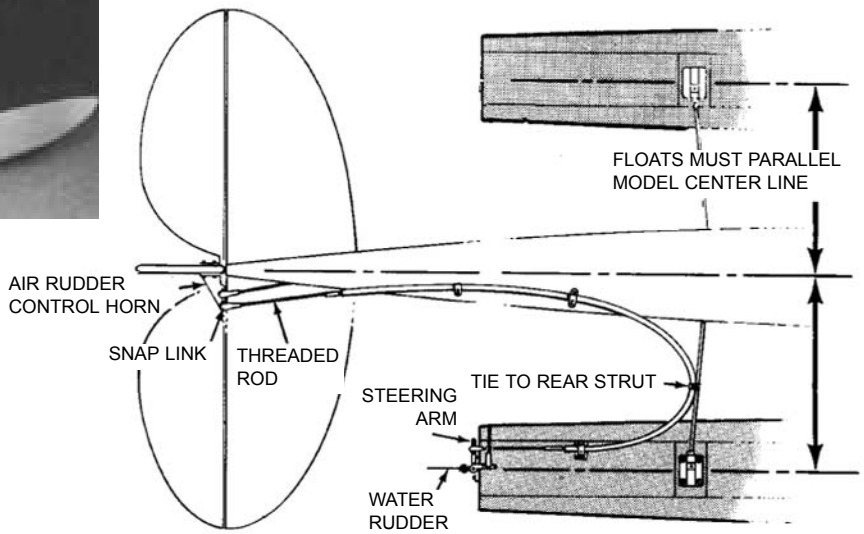


FOR STRUT AND PUSHROD MOUNTING

PARTS LIST

- ☐ (1) Rudder
- ☐ (1) 1/2” Rudder Pivot
- ☐ (1) 5/32 x 2-1/16” Rudder Shaft
- ☐ (5) Nylon Bearings
- ☐ (5) Brass Collars
- ☐ (1) Steering Arm
- ☐ (16) 4-40 x 1/2 “ Socket Head Screw
- ☐ (4) #4 x 3/8” Philips Head Screw
- ☐ (4) #2 x 5/16 Philips Head Screw
- ☐ (6) 4-40 x 1/8 Cup Screw
- ☐ (1) 4-40 Lock Nut
- ☐ (1) 4-40 x 1/4 Socket Head Screw
- ☐ (2) Nylon Clevises
- ☐ (2) Pushrod Clamp
- ☐ (2) .072 x 3-1/4” Double Threaded Rod
- ☐ (1) 1/8 x 30-1/2” Inner Nylon Tube
- ☐ (1) 3/16” x 30-1/2” Outer Nylon Tube

TOP VIEW
FLOAT INSTALLATION



WATER PROOFING.

We have found other than the floats are absolutely water proof, the plane need only be water resistant. For example, you should use a hooded exit guide for the the pushrod. And the fit between the wing and the fuselage should be tight to keep the water spray out(a seal of silicone caulk works well.

In fresh water flying if you “dunk” and get the radio wet, generally just drying it out quickly is enough. If not then it should be sent to be serviced.

In salt water flying you must be more careful as salt water is very corrosive. After each flying session rinse exposed parts with fresh water then dry and oil metal parts that may rust. It is also a good idea to wrap the receiver and battery in plastic bags, you can also place your servos in plastic bags.

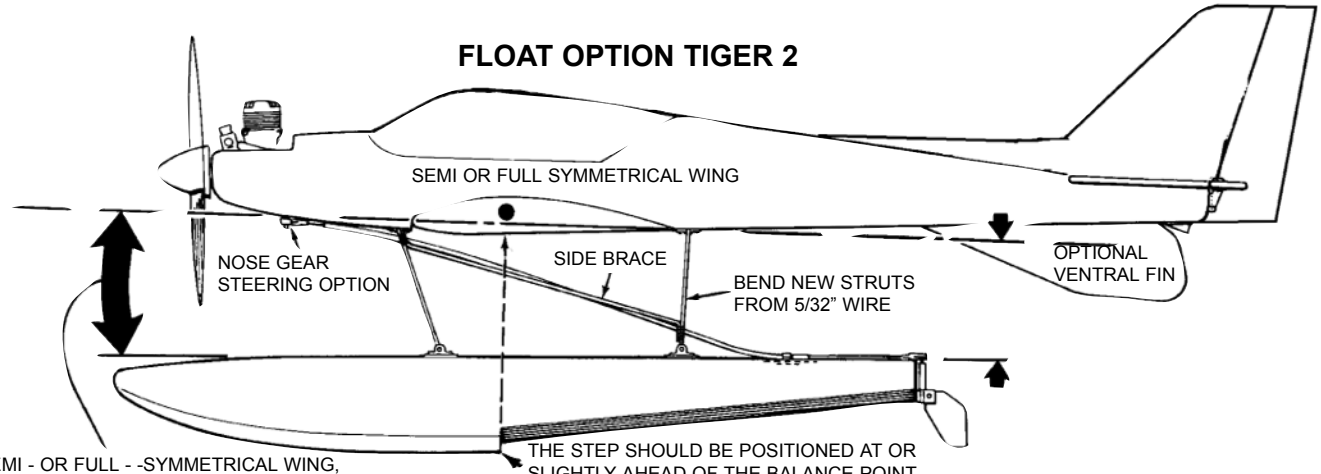
STRUT ASSEMBLY AND MOUNTING

Before installing the floats, refer to sketches on these pages to familiarize with the proper float set-up and mounting.

The placement of the float step in relation to the balance point (CG) is also important.To start with, we recommend that the float step be near the balance point (CG). We have found that having the step slightly ahead of the CG (1/2”) works better. And when the step is behind the balance point the plane tends to “stick” to the water slightly.

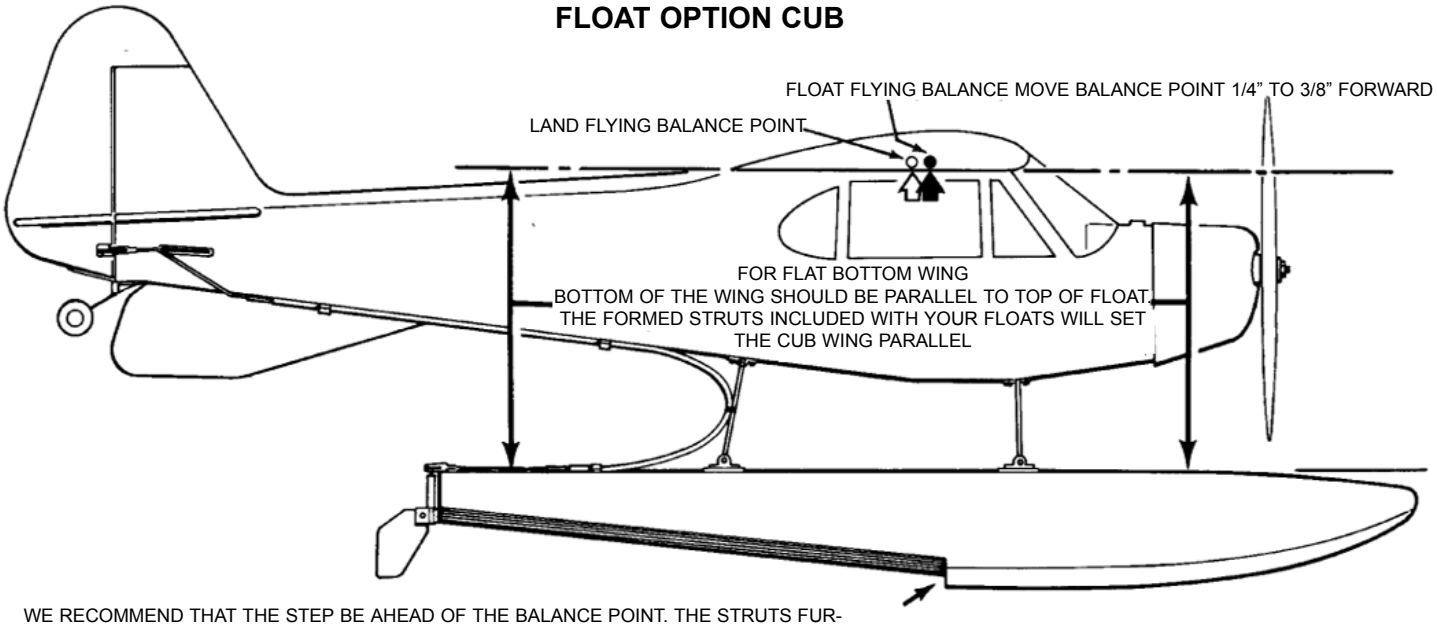
Another important relationship is the angle that the floats are mounted at. Generally, the top of the float and the bottom of the wing should be parallel. Because the Cub has basically a flat - bottom airfoil, this relationship yields a slightly “positive” relationship to the float. If you add positive angle(lower the front of the float)you should find the plane more willing to lift off from the water, but might tend to “porpoise” on landing. Conversely, if you lessen this angle the model might tend to “stick” to the water but the landings should be fine.

FLOAT OPTION TIGER 2



FOR SEMI - OR FULL - -SYMMETRICAL WING, MOUNT THE FLOATS SO THE WING IS AT A GREATER ANGLE OF ATTACK

FLOAT OPTION CUB



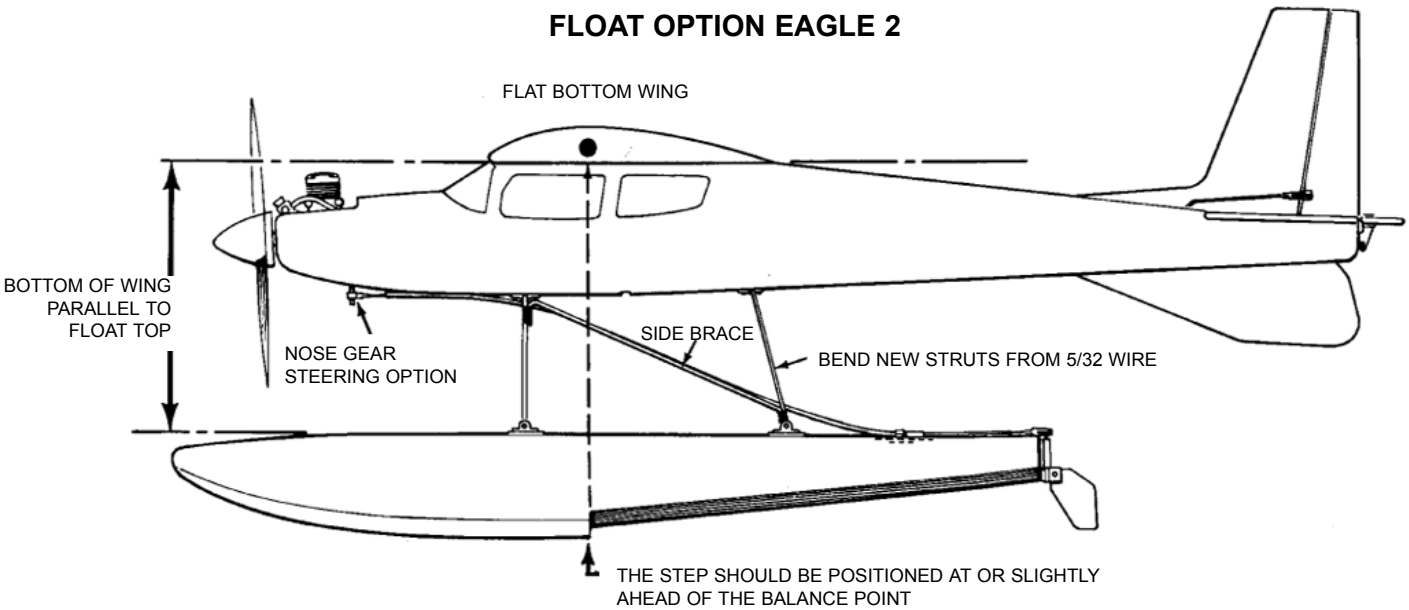
WE RECOMMEND THAT THE STEP BE AHEAD OF THE BALANCE POINT. THE STRUTS FURNISHED WITH THE FLOATS WILL SET THE FLOATS AS DESCRIBED HERE

Please note:
If your model has a semi - symmetrical or full - symmetrical airfoil, you will need additional positive angle to be able to take off and land properly. also, the thicker the airfoil, generally the larger the angle you will require. Some experimentation will be in order to fine - tune your particular model. Float angles can be changed by the addition of plywood shims under the nylon bearings.

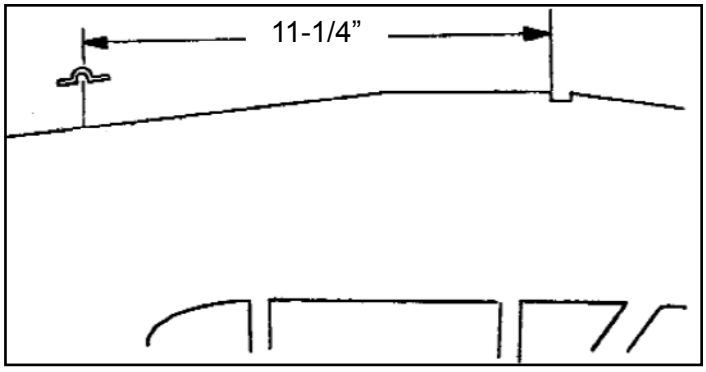
It is also important that the floats be positioned far enough away from the fuselage so the propeller will be out of water spray. Keep these points in mind if you are making struts for your particular model.

The angle at which the floats are mounted will affect how well your plane takes - off and lands on the water. In our test, the cub flew best with the float top parallel to the wing bottom as shown in the drawing above. The wire struts included with your floats are designed to set the floats parallel as shown.

FLOAT OPTION EAGLE 2



The following instructions are for installation of the floats on the CGP Cub.



1. ☐ Remove present landing gear struts and save them for “wheel” operation.

☐ Measure back 11-1/4” from the landing gear groove on both sides of the fuselage

☐ Install new wider front struts in fuselage using the straps and screws that exist on the plane.

Soldering

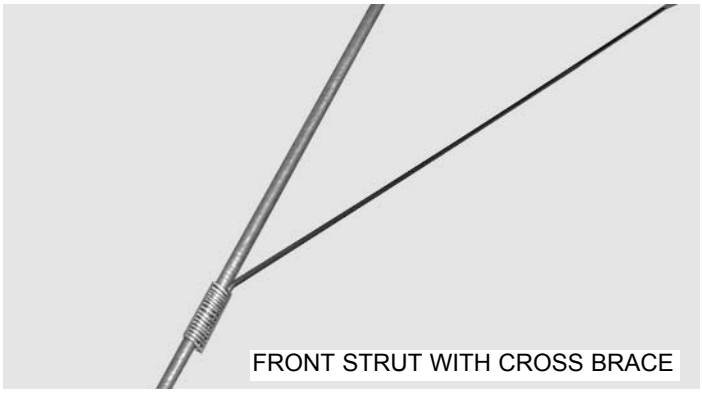
If you are not familiar with soldering, the basic procedure is described here.

A. Prepare by wiping areas to be soldered with steel wool or fine sandpaper so metal is clean and bright.

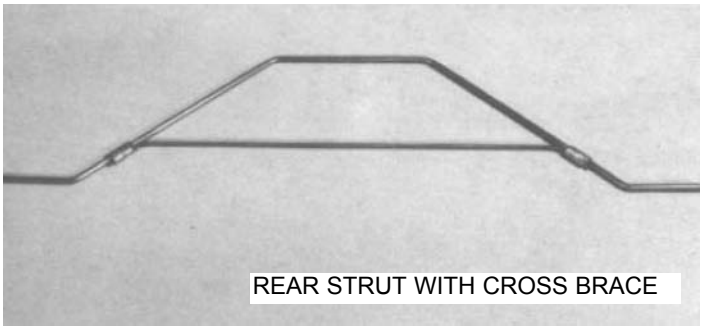
B. Position parts to be joined and bind them with tightly together with wire.

C. When satisfied with fit between parts,apply heat directly to joint and get it very hot - **This is important.**

D. When thoroughly heated, touch the solder to the area and the solder should melt into and fill the joint, producing a good strong bond.



FRONT STRUT WITH CROSS BRACE



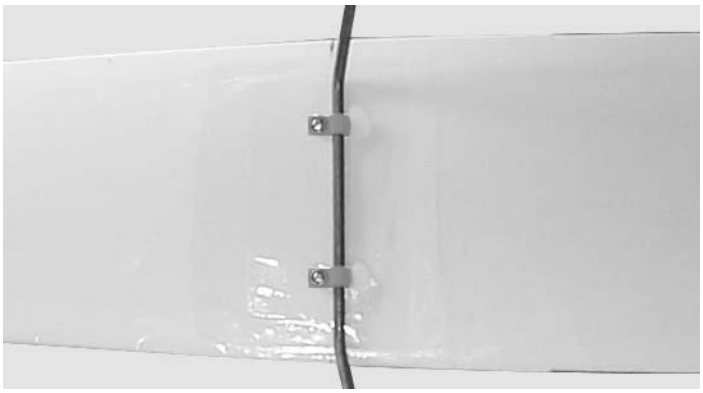
REAR STRUT WITH CROSS BRACE

2. ☐ Position 3/32” diameter cross brace wire behind front struts and adjust for best match of brace bends with struts.

☐ When satisfied with fit, bind together with wire and solder.

Caution: Don’t let any solder drip onto the plane.

3. ☐ Solder second cross brace on to rear strut.



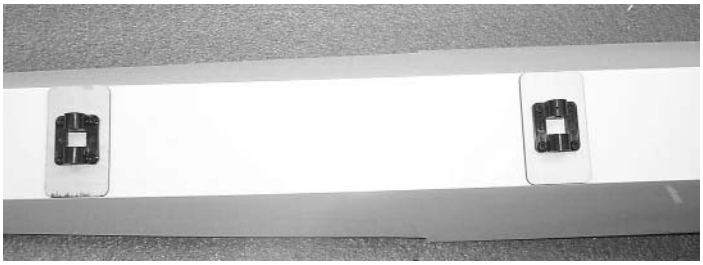
4. ☐ Place brass landing gear clamps on flat center area of rear strut wire, near each bend.

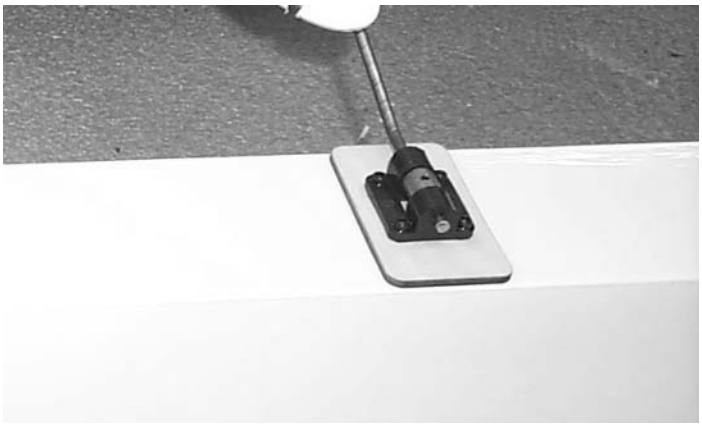
☐ Align rear strut wire over marked locations from previous step.

☐ Mark clamp hole locations on bottom of fuselage.

☐ Drill two 1/16” holes and using the #2 x 5/16” screws, attach rear strut to fuselage.

Option: after installing screws, remove them and add a drop of thin CA to stiffen threads in wood.





MOUNTING FLOATS TO PLANE

1. ☐ Install one nylon bearing and mounting pad at front float hole locations.

☐ Using four #4 x 1/2” socket head screws and washers, mount pads and bearings to float.

☐ Repeat for the other three blocks and pads.

Caution:
Always use thread lock on any type of machine bolt and nut.

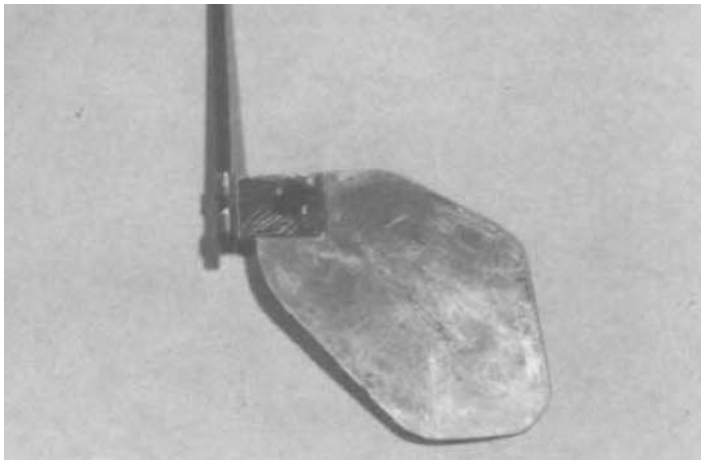
2. ☐ Insert the 4-40 x 1/8” set screw in to each of the brass collars.

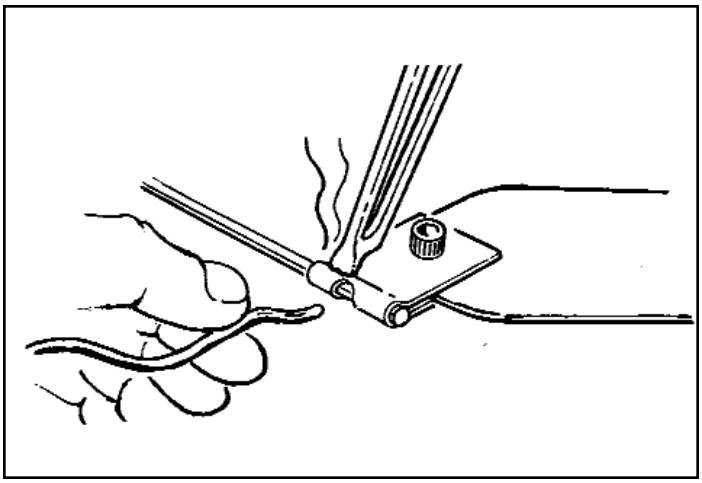
☐ Install floats on struts using the brass collars in the center of the nylon bearing.

☐ Make sure that you keep the floats parallel to the fuselage center line. (See page 5 “ Top view float installation)

☐ Once the floats are aligned, tighten all the set screws in the brass collars.

WATER RUDDER





This is a single rudder system if you would perfer a dual rudder system then you can call us at 678-450-0085 ot order one.

1. ☐ slide the brass rudder pivot on to the end of the 1/8” x 2” rudder shaft.

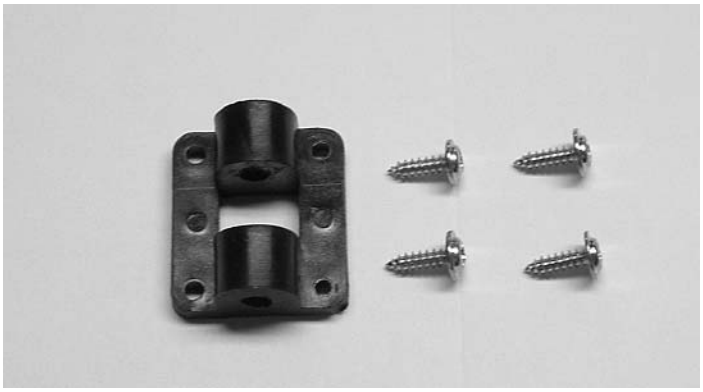
☐ insert the rudder into the rudder pivot.

☐ mount the rudder to the pivot using a 4-40 x 1/4” socket head screw and a 4-40 locking nut.

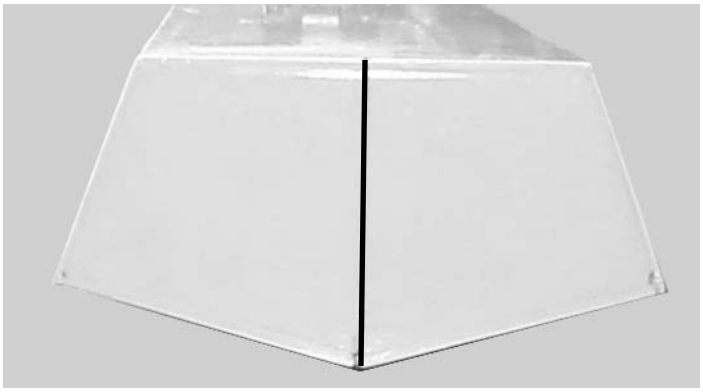
Note: Pivot screw should be snug, not loose. It should be tight enough to allow the rudder to rotate if it strikes an object at speed.

2. ☐ Solder pivot to rudder shaft through hole in pivot.

Important: Be careful not to get solder in rudder area - as it must swing free.



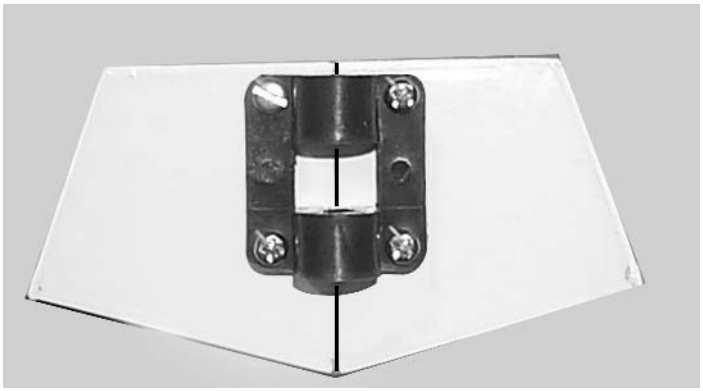
3. ☐ Prepare to fasten the nylon rudder bearing to the rear of the float using four #4 x 3/8” screws.



4. ☐ Look at your rudder control horn linkage on the fuselage.

☐ What ever side the rudder control horn linkage is on, that is the side the to install the water rudder (See page 5 “ Top view float installation)

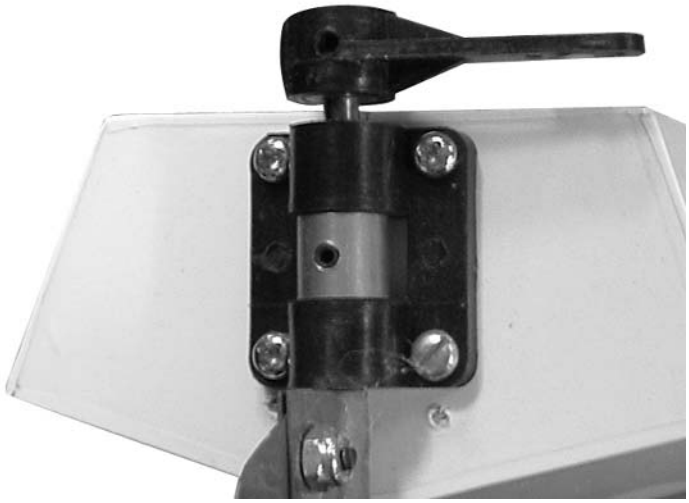
5. ☐ Find the vertical center at the rear of the float.



6. ☐ Place the rudder bearing on the center line and 1/8” down from the top of the float.

☐ Mark the hole locations and drill using a 1/16” bit.

☐ Mount the rudder bearing on the rear of the float using the #4 x 3/8” screws.



7. ☐ Insert the rudder shaft up through the bottom of the rudder bearing.

☐ Place a brass collar with a set screw in the middle of the bearing.

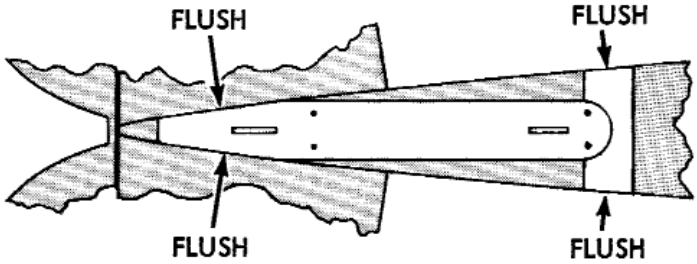
☐ Attach the rudder steering arm to the top of the rudder shaft.

☐ set the steering arm parallel to the rear of the float and tighten the set screw.

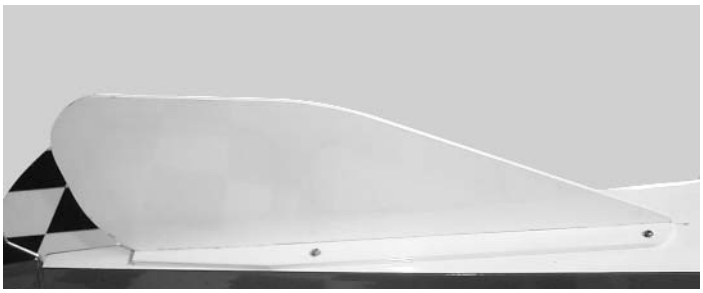
☐ Push the rudder shaft up till the rudder pivot is just missing the bottom of the block, then tighten the set screw in the collar.

VENTRAL FIN

VENTRAL FIN ASSEMBLY

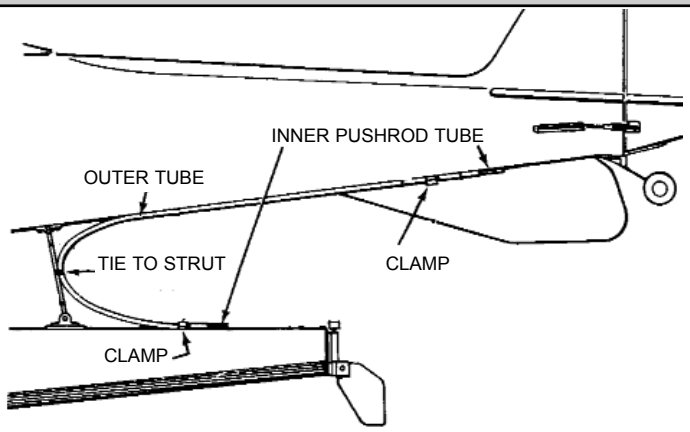


1. ☐ Position ventral fin mount on rear bottom of fuselage flushing as shown. Tape in position.
2. ☐ At four punch-marks in mount, drill 1/16" diameter holes through mount and fuselage bottom.
3. ☐ Remove mount and redrill **only mount holes** to 3/32" diameter.
   ☐ Temporarily install four #2 sheet metal screws in **fuselage** holes. Remove these screws and apply a small drop of Instant Jet in each hole to stiffen threads in wood.

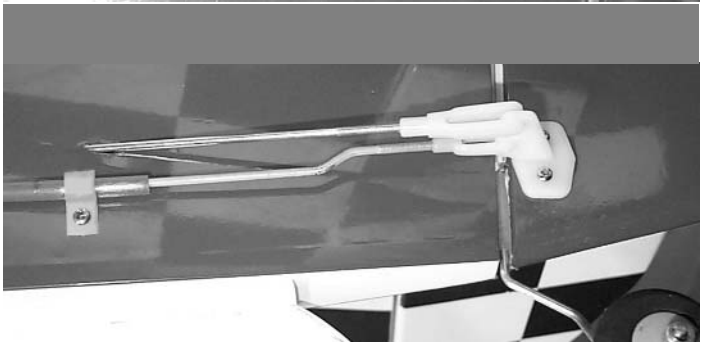


1. ☐ Draw a center line on the bottom of the fuselage just in front of the rudder hinge line.
   ☐ Mount the base of the ventral fin along the center line of the fuselage.
   ☐ Glue the fin on the ventral base using CA glue, make sure the fin stays perpendicular to the base.

WATER RUDDER PUSHROD



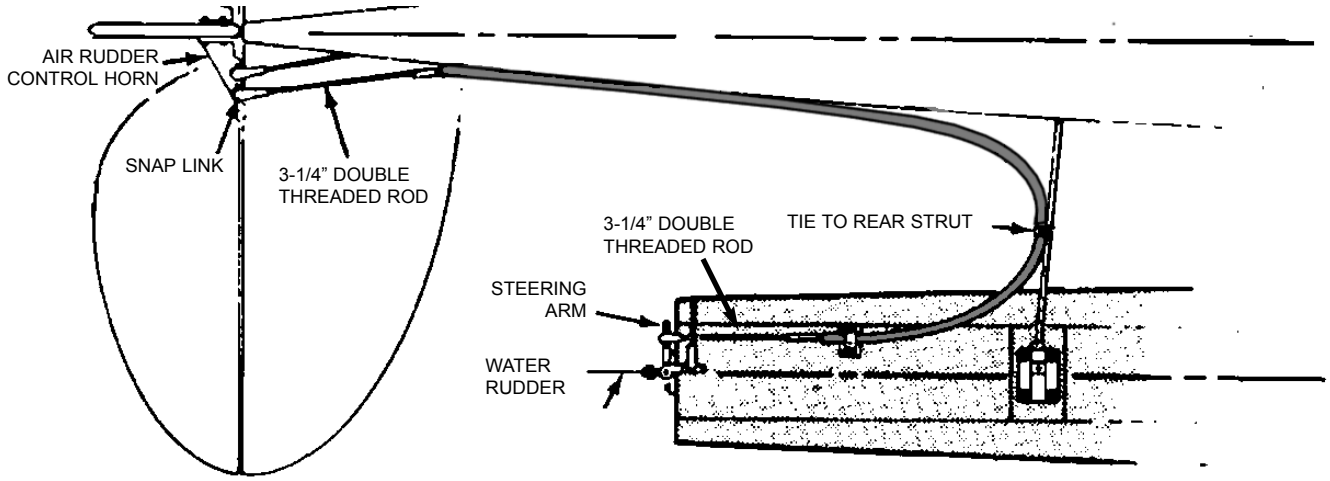
The rudder on the float is driven by the rudder on the plane. The diagram on the left shows a typical pushrod installation.

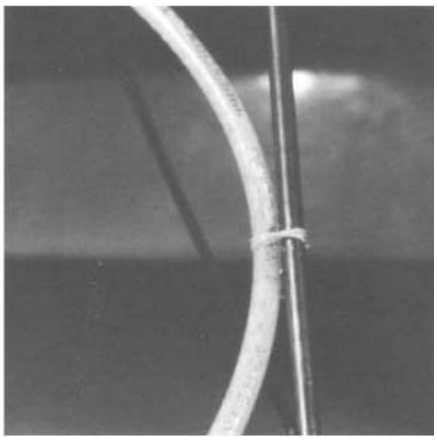


1. ☐ Take a brass clamp and #2 x 5/16" sheet metal screw to attach the larger diameter nylon tube to the fuselage next to the rudder pushrod exit hole.
2. ☐ Thread a 3-1/4"" double threaded rod into one end of the smaller nylon tube.
   ☐ Insert the smaller nylon tube inside the larger tube on the side of the plane.
   ☐ Thread a nylon clevis on to the end of the push rod and connect the clevis to the planes rudder control horn.

Note: You might have to bend the wire to allow the pushrod to move back and forth inside the tubing.

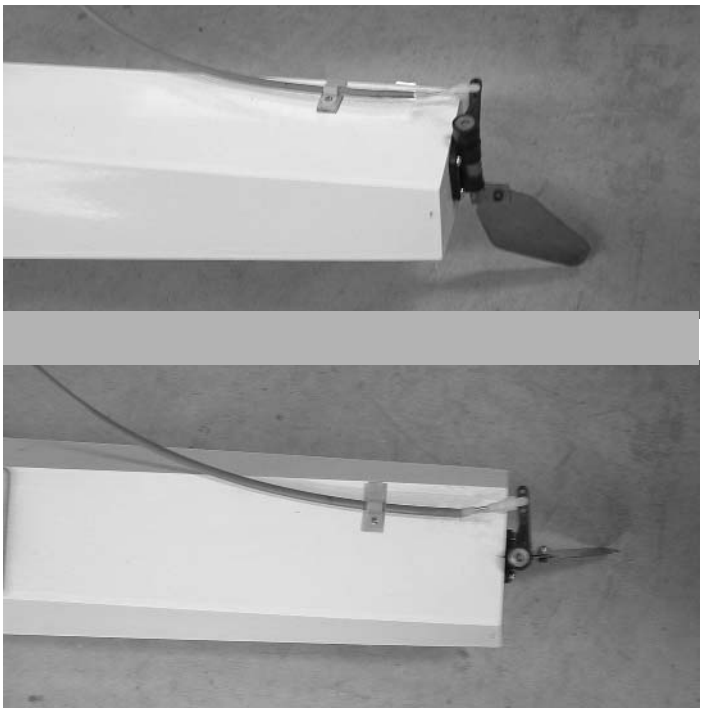
RUDDER PUSHROD DIAGRAM





3. ☐ Bend the pushrod tube around till it is resting on top of the float with the water rudder.

☐ Tie the middle of the tube to the rear strut.



4. ☐ Curve the pushrod tube around to the top of the float till it is pointing towards the rudder steering arm.

☐ Place a mark 1-1/2" back along the pushrod tube.

☐ Place the small wood pad on the mark and outline where the pad sits on the float.

☐ Remove the covering under the pad and glue the pad to the float.

☐ Place a brass clamp over the outer tube and screw it down to the wood pad.

5. ☐ Thread the 3-1/4" double threaded rod into the inner rod.

Hint: you might need to disconnect the upper end of the inner tube from the plans rudder.

☐ Place the nylon clevis on the end of the wire and connect it to the rudder steering arm.

☐ Work your planes rudder back and for to adjust the push rod for smooth movement.

Actual Photos of The CGP Cub ARF.

The Superfloats 36 ARF installed on the

Carl Goldberg Cub!