

# ZERO DROP TANK

## INSTRUCTION MANUAL



Top Flite Models Champaign, IL

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### WARRANTY

**Top Flite® Model Manufacturing Co.** guarantees this kit to be free from defects in both material and workmanship at the date of purchase. This warranty does not cover any component parts damaged by use or modification. **In no case shall Top Flite's liability exceed the original cost of the purchased kit.** Further, Top Flite reserves the right to change or modify this warranty without notice.

In that Top Flite has no control over the final assembly or material used for final assembly, no liability shall be assumed nor accepted for any damage resulting from the use by the user of the final user-assembled product. By the act of using the user-assembled product, the user accepts all resulting liability.

**If the buyer is not prepared to accept the liability associated with the use of this product, the buyer is advised to return this kit immediately in new and unused condition to the place of purchase.**

To make a warranty claim send **Hobby Services**  
the defective part or item to 3002 N. Apollo Dr. Suite 1  
Hobby Services at this address: Champaign IL 61822 USA

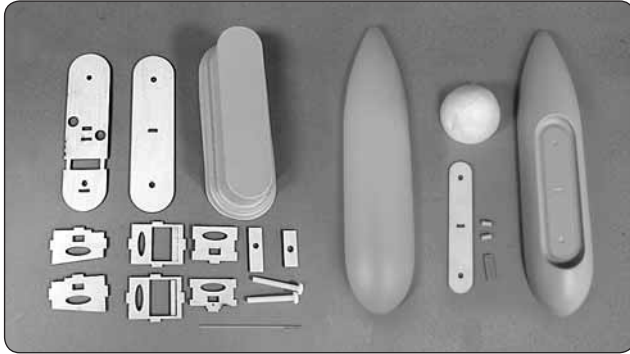
Include a letter stating your name, return shipping address, as much contact information as possible (daytime telephone number, fax number, e-mail address), a detailed description of the problem and a photocopy of the purchase receipt. Upon receipt of the package the problem will be evaluated as quickly as possible.

**READ THROUGH THIS MANUAL BEFORE STARTING CONSTRUCTION. IT CONTAINS IMPORTANT INSTRUCTIONS AND WARNINGS CONCERNING THE ASSEMBLY AND USE OF THIS MODEL.**

## INTRODUCTION

Top Flite is very proud to bring you the giant scale Zero. The Zero became one of the most important fighters of World War II. You will enjoy using this scale accessory to add to the overall look and enjoyment of your Zero.

## KIT CONTENTS



## REQUIRED FOR COMPLETION

- 1- Futaba S3102 Servo 50 oz. in. of torque (FUTM0034)
- ½ oz. Medium Pro CA+ (GPMR6009)

## ORDERING REPLACEMENT PARTS

Replacement parts for the Top Flite Giant Scale Zero ARF are available using the order numbers in the Replacement Parts List that follows. The fastest, most economical service can be provided by your hobby dealer or mail-order company.

To locate a hobby dealer, visit the Top Flite web site at [www.top-flite.com](http://www.top-flite.com). Select "Where to Buy" in the menu across the top of the page and follow the instructions provided to locate a U.S., Canadian or International dealer.

Parts may also be ordered directly from Hobby Services by calling (217) 398-0007, or via facsimile at (217) 398-7721, but full retail prices and shipping and handling charges will apply. Illinois and Nevada residents will also be charged sales tax. If ordering via fax, include a Visa® or MasterCard® number and expiration date for payment.

Mail parts orders and payments by personal check to:  
**Hobby Services**  
3002 N Apollo Drive, Suite 1  
Champaign IL 61822

Be certain to specify the order number exactly as listed in the Replacement Parts List. Payment by credit card or personal check only; no C.O.D.

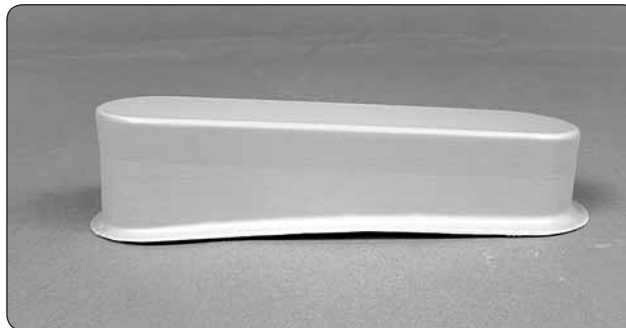
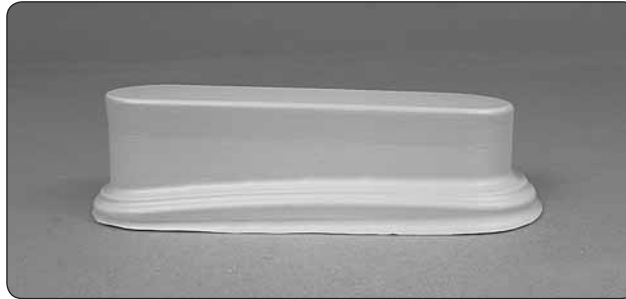
If additional assistance is required for any reason contact **Product Support:**

*by e-mail at* [productsupport@top-flite.com](mailto:productsupport@top-flite.com) *or by telephone at* (217) 398-8970

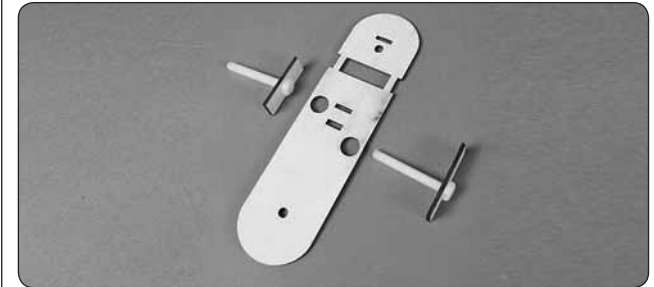
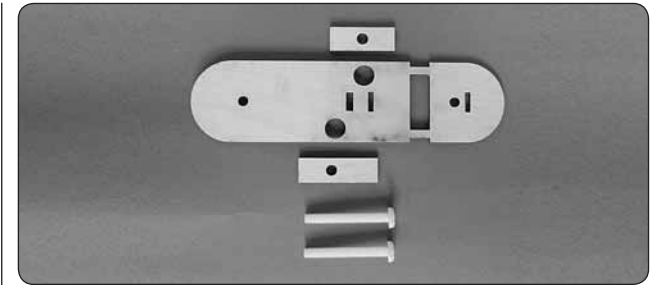
## REPLACEMENT PARTS LIST

- TOPA1956 . . Giant Zero Drop Tank Complete Parts Set
- TOPA1949 . . Giant Zero Drop Tank Release Set
- TOPA1948 . . Giant Zero Drop Tank Set

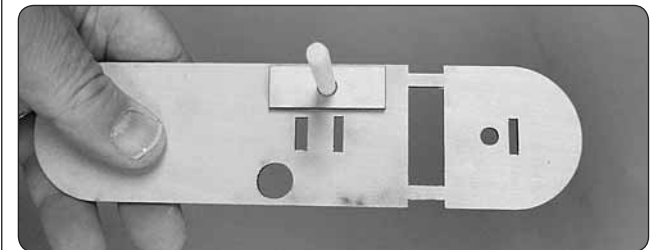
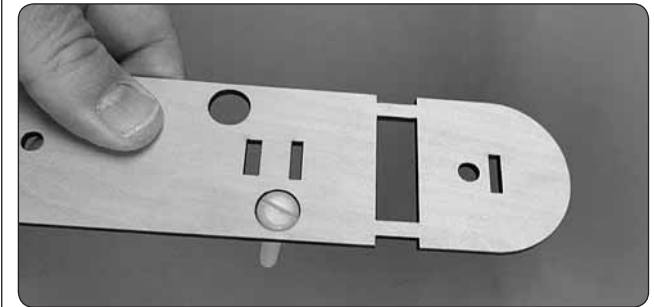
## ASSEMBLE THE DROP TANK MOUNT



1. Locate the ABS drop tank mount. Cut it as shown.

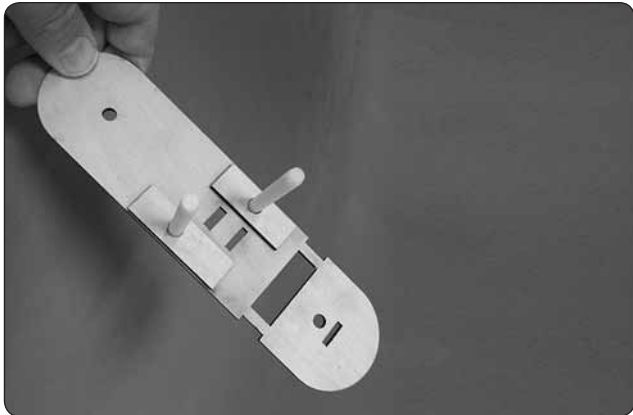
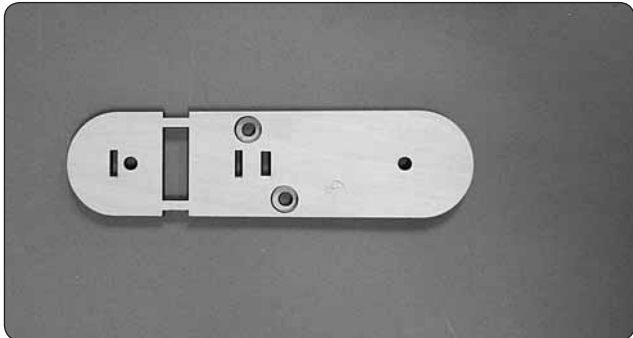
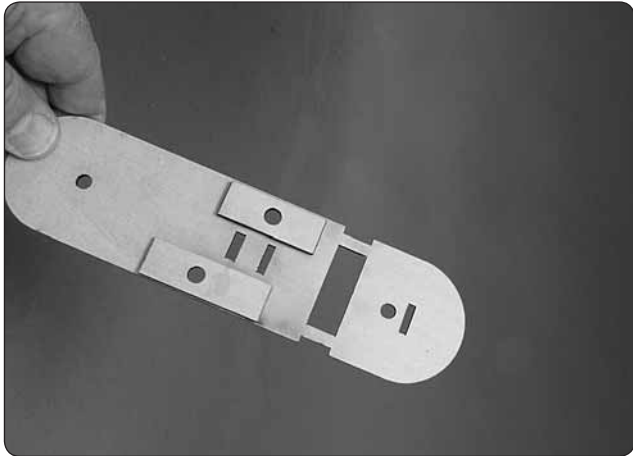


2. Locate the plywood former, plywood mounting screw doublers and 1/4-20 x 2" [51 mm] nylon mounting screws. Insert the screws into the doublers.

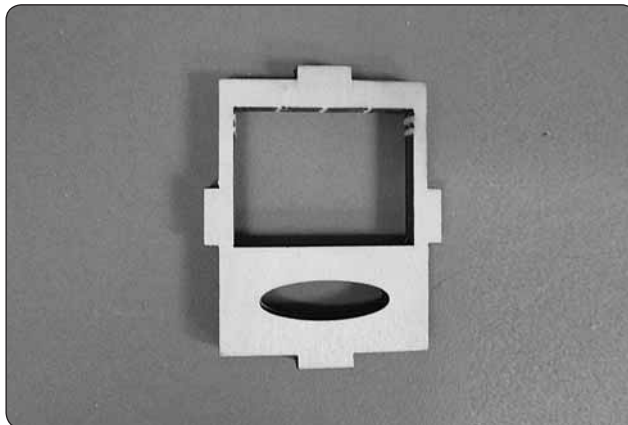
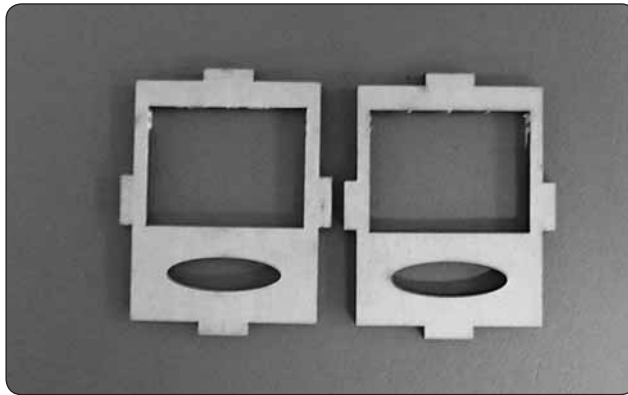
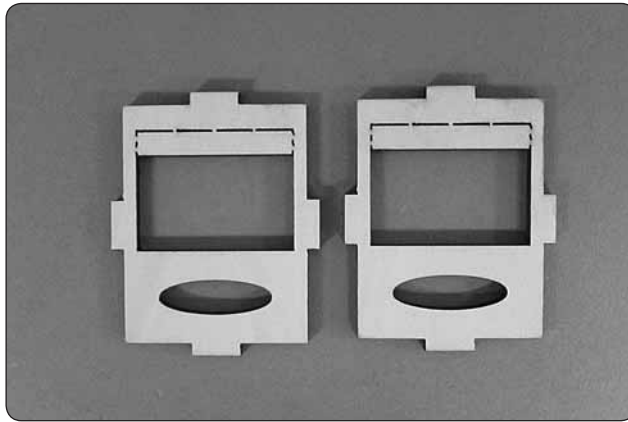


3. **IMPORTANT!** When assembling the parts that follow, pay close attention to the photos. Make sure you assemble the parts exactly as shown. Place one of the doublers and screws in place on the former. Center

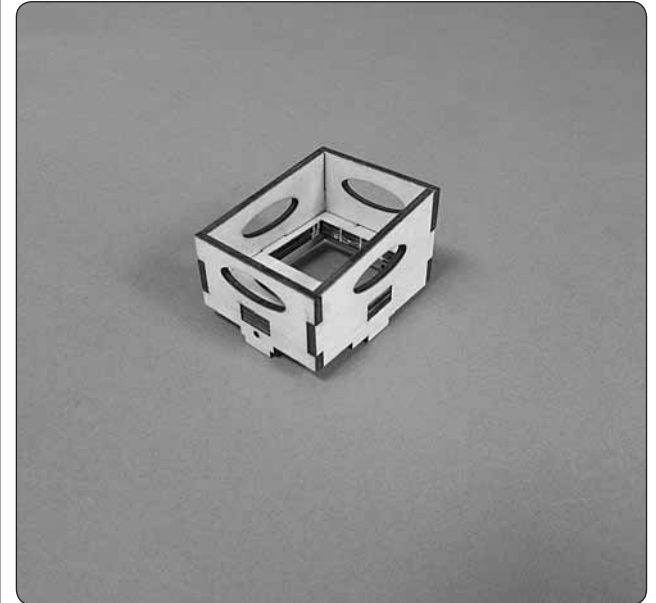
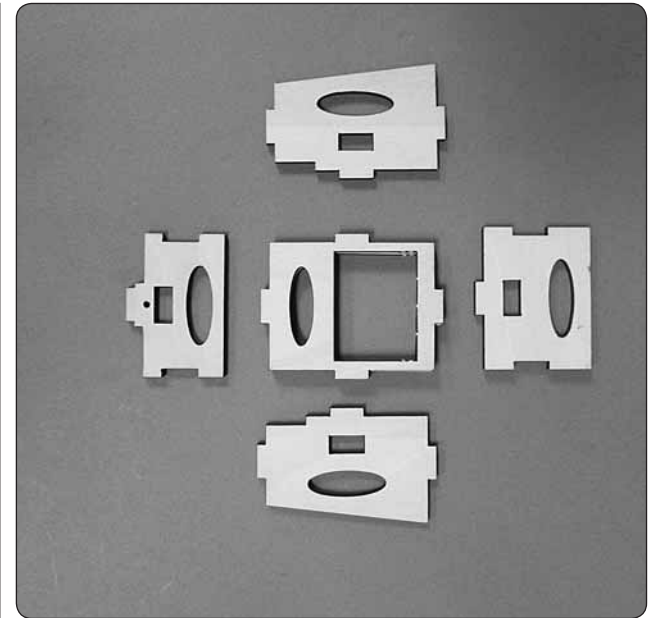
the head of the screw in the hole and then glue the doubler to the former. Repeat this for the other screw and doubler.



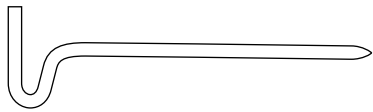
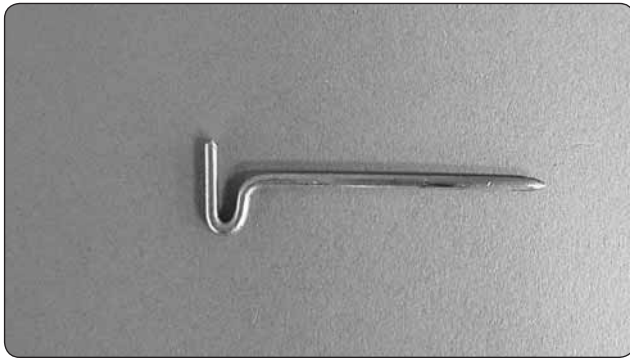
□ 4. Once assembled the former should look like these photos.



□ 5. Determine the size of the servo you will use for your drop tank release. For our servo we needed to cut the servo tray on the laser cut lines in the tray. This can be easily done with a sharp hobby knife. Glue the two parts of the servo tray together.

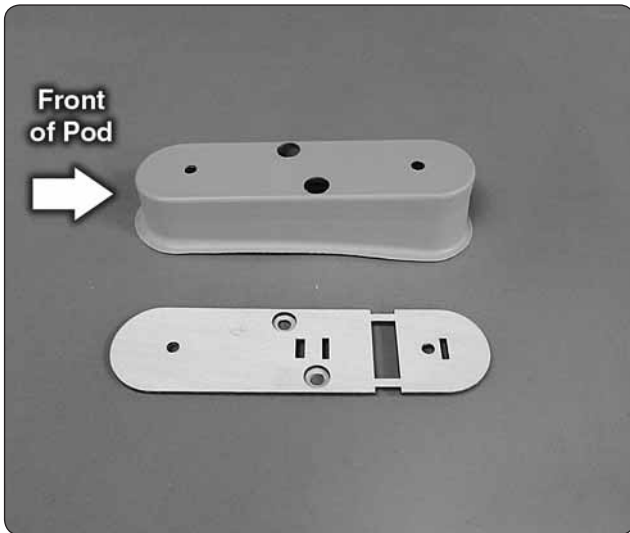


□ 6. Locate all of the plywood parts shown and glue the parts together forming the servo box. Once again, pay close attention to the photos to make sure you assemble the box exactly as shown.

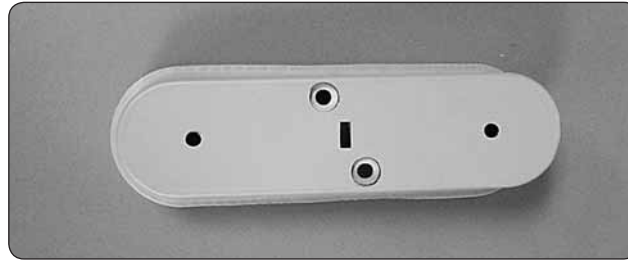
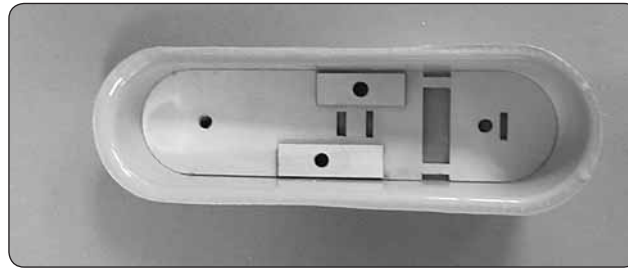


**Release Pin Template**

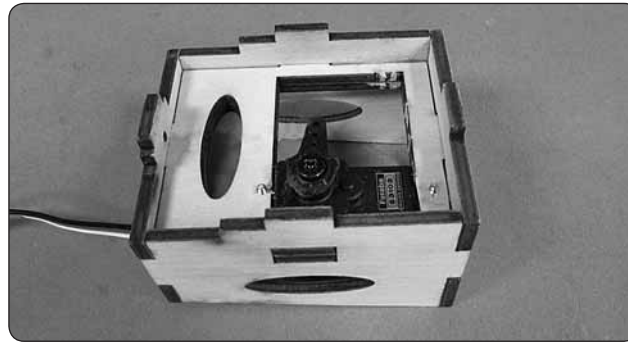
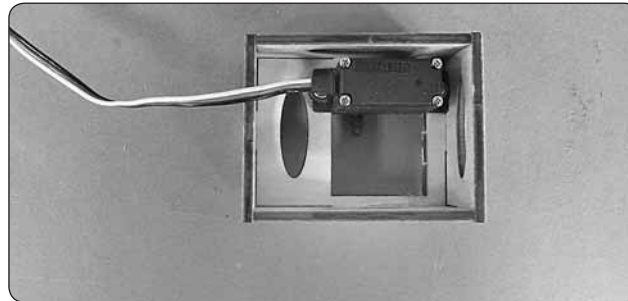
□ 7. If you are using the servo we used, Futaba S3102, the instructions for the release pin that follows will be correct for this servo. You may need to adjust the overall length of the pin for your servo choice. From a 2-56 × 6" threaded wire, bend and cut the release pin as shown in the sketch.



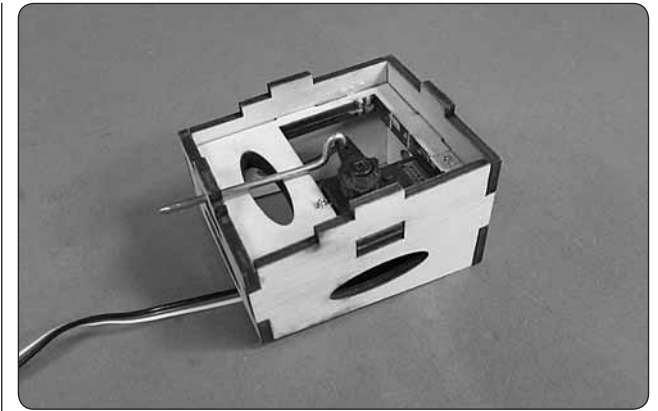
□ 8. This photo shows the former in the orientation it will be when it will be glued into the mount. Use the former as your guide and cut the holes into the ABS plastic mount as shown. Refer to the photos in the next step for a reference of what to cut.



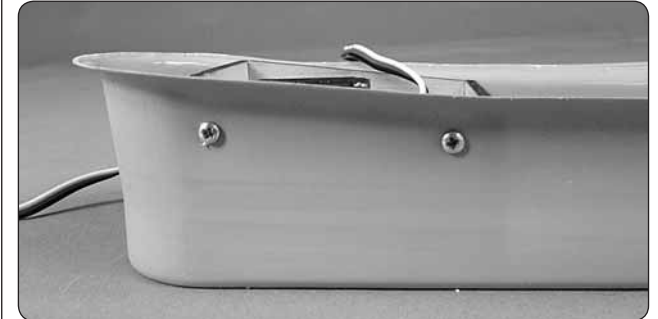
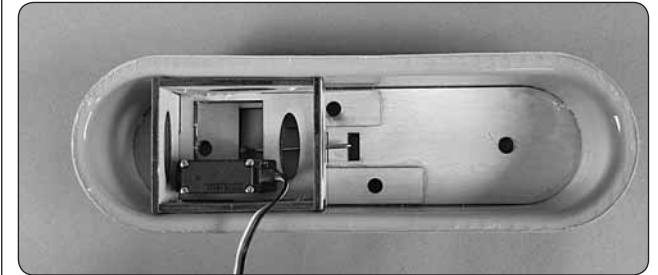
□ 9. Glue the former into the bottom of the plastic mount. For better adhesion, roughen the plastic with some 220 grit sandpaper before gluing the parts together.



□ 10. Install the servo with the screws that came with the servo. Center the servo and install the servo arm.



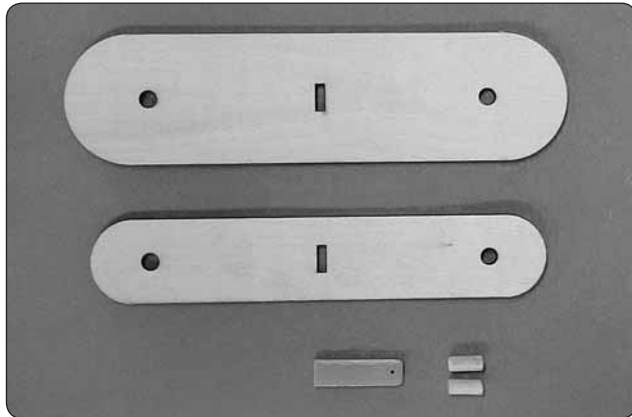
□ 11. Using a 5/64" [2mm] drill open up the outer hole in the servo arm. Install the release pin into the servo horn.



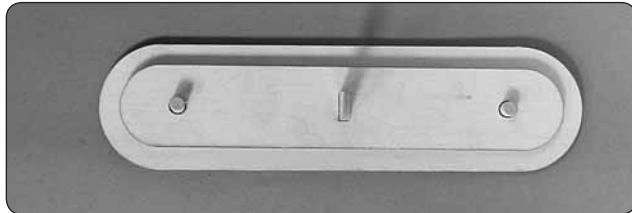
□ 12. Install the servo box into the plywood former **without any glue**. Drill two 1/16" [1.6mm] holes through the ABS plastic mount into the plywood servo box. Do this on both sides of the mount. After installing the screws, remove the screws and the mount. Apply a couple of drops of thin CA glue in the holes. After the glue has hardened, reinstall the servo box and the screws.



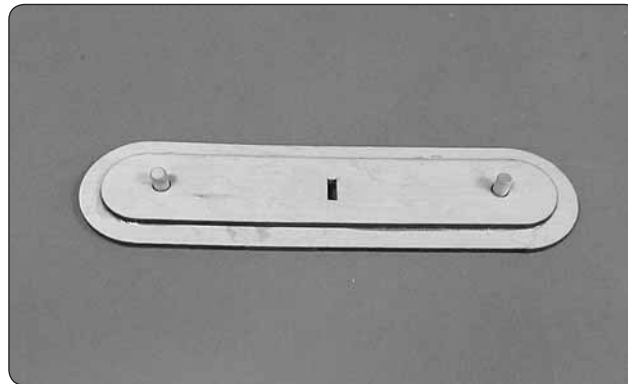
## ASSEMBLE THE DROP TANK



❑ 1. Locate the parts shown here. Glue the two plywood plates together. Use the two wood dowels to align the two plates when gluing them together. Do not glue the wood dowels to the plates



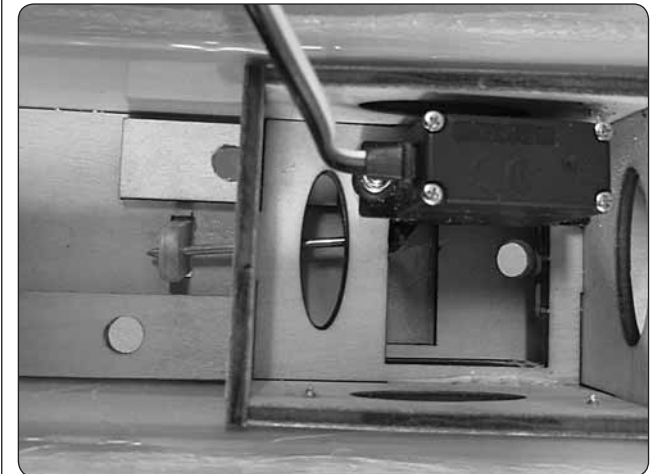
❑ 2. Locate the top half of the drop tank. Cut the two holes and the center slot from the part. These holes will match with the plywood parts you glued together.



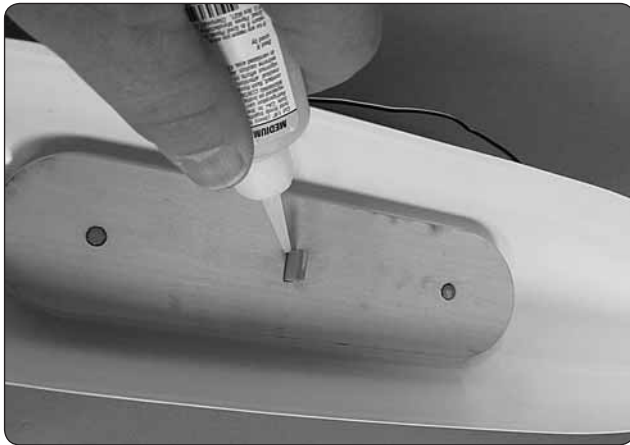
❑ 3. Glue the dowels into the holes as shown.



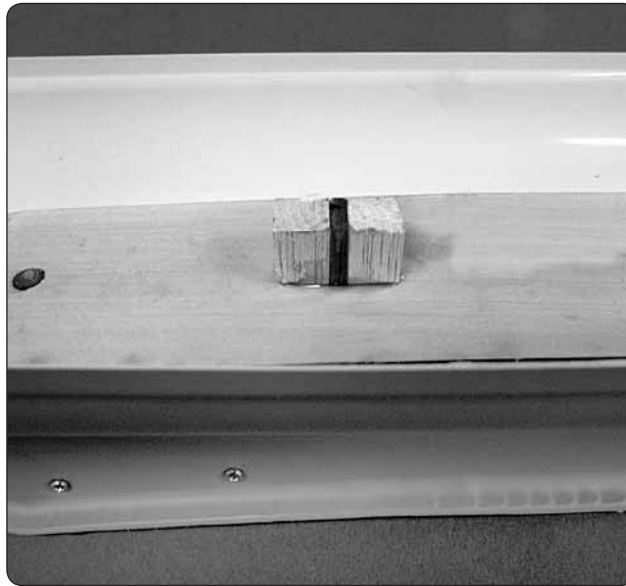
❑ 4. Test fit the plywood assembly into the top half of the drop tank. Once you are satisfied with the fit, glue the plate inside of the drop tank. Use some 220 grit sandpaper to roughen the plastic, giving the best adhesion between the plastic and plywood.



❑ 5. For the next step it will be extremely helpful if you can either use a servo driver to move the servo arm during this installation or put a long servo extension on the servo and plug it into your receiver, allowing you to use your radio to move the servo arm. Locate the hard fiber drop tank retainer. Test fit it onto the release pin. The fiber drop tank retainer should fit loose on the release pin. If it is too tight open the hole with a drill bit.



❑ 6. With the fiber drop tank retainer in place on the release pin, slide the top half of the drop tank onto the retainer. When positioning the tank on the retainer be sure the alignment pins in the drop tank are installed into the pod. Once you are satisfied with the positioning of the pod, apply a drop of CA glue to tack glue the retainer to the drop tank. Once the glue hardens operate the servo several times to make sure the release pin consistently slides freely into and out of the retainer.



❑ 7. When you are satisfied with the position of the retainer, locate two  $3/8" \times 3/8" \times 9/16"$  [ $10 \times 10 \times 14$  mm] hardwood blocks and glue them to the retainer and the plywood former.

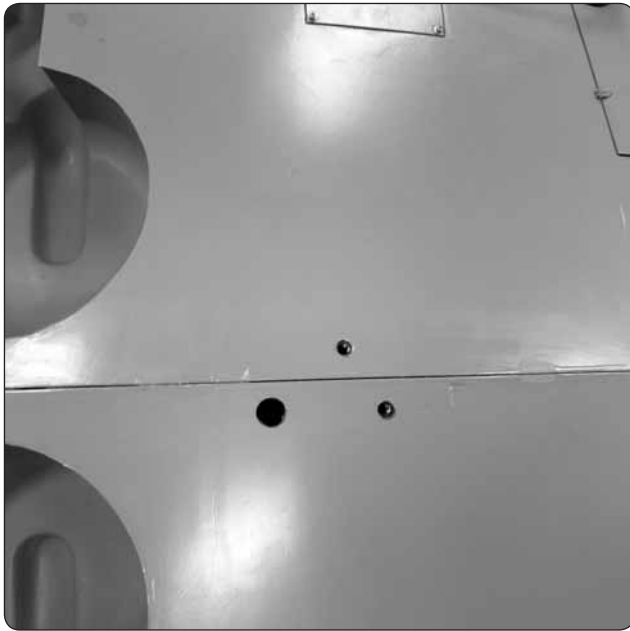
❑ 8. After the glue has hardened, double check to be sure the release pin still moves freely in the retainer.



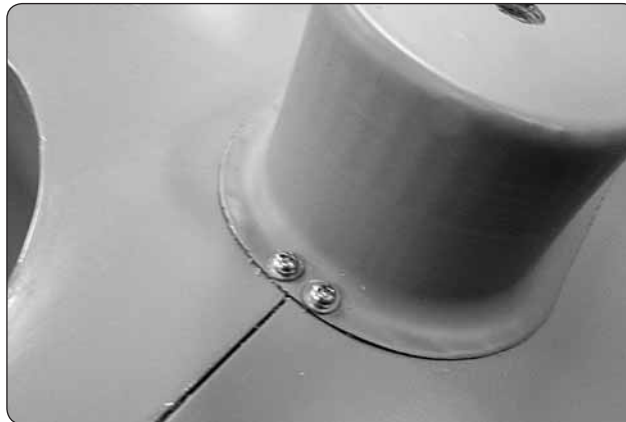
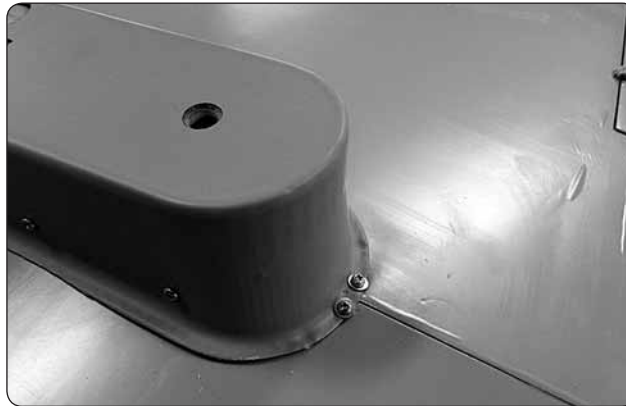
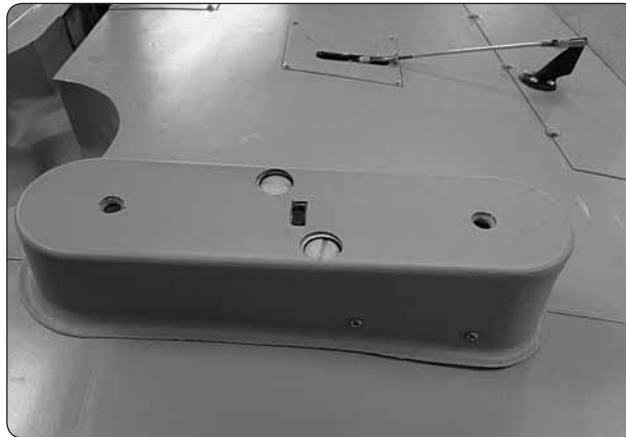
❑ 9. Locate the foam drop tank insert and glue it to the front of the top half of the drop tank.



❑ 10. Once the glue has hardened on the foam insert glue the two halves of the drop tank together, taping the two halves together while the glue dries. We found that using white aliphatic glue like RC Z56 glue works well because it has a long working time, cleans up easily with water and dries clear.



❑ 11. On the bottom of the wing, under the covering, you will find two pre-installed blind nuts and an access hole to feed the servo lead through the wing and into the fuselage. Cut the covering from these holes.



❑ 12. Install the pod to the wing with two 1/4-20 x 2" nylon bolts. Don't worry about feeding the servo lead into the wing. Make sure you have the pod centered on the wing. Drill two 1/16" [1.6 mm] holes into the front

and rear of the pod. Position the holes you drill so that you drill into the root rib of the wing. Install and then remove a #2 x 3/8" screw and #2 flat washer into each of the holes you drilled. Remove the pod from the wing. Apply a couple of drops of thin CA glue into the four holes to harden the threads.

❑ 13. Install a 12" [305 mm] servo extension onto the servo. Secure it with tape, heat shrink tubing or some other method to secure the leads. Feed the servo through the wing and reinstall the pod to the wing.



❑ 14. Install the drop tank to the pod.

