CALYPSO™

INSTRUCTION MANUAL

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

Flyzone™
how high will you soar

Champaign, Illinois   (217) 398-8970
E-mail: airsupport@hobbico.com

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INTRODUCTION

Thank you for purchasing the Flyzone *Calypso*. The Calypso is one of those models that **everyone** must have because it is stable, gentle and durable enough for beginners, yet maneuverable enough for intermediate and experienced pilots who might want to temporarily set their more advanced models aside and enjoy some easy, care-free flying. And who doesn't embrace the challenge of cruising the sky looking for thermals? The recommended 1300 mAh battery is enough "juice" to propel the Calypso to five, approximately one-minute climbs which can provide up to 30 minutes of air time even in "dead" air when no lift is present (but we've routinely flown the Calypso with 1500 mAh – 2100 mAh batteries). Of course, if you can find lifting air your flying time will be virtually unlimited!

We also urge you to consider installing the two additional servos for the optional flaps. With the flaps partially extended you can just about "park" the Calypso in the sky even when there is no lift. And with full flaps and a gentle breeze you can land the Calypso on the ground as light as a feather. The flap servos are also configured to be connected to a single channel via a Y-harness, eliminating the requirement for a computer radio.

NOTE: This instruction manual applies to **RTF**, **Rx-R**™ and **Tx-R**™ versions of the Calypso.

For the latest technical updates or manual corrections to the Calypso, visit the Hobbico web site at www.hobbico.com. Open the "Airplanes" link, then select the Calypso ARF. If there is new technical information or changes to this model a "tech notice" box will appear in the upper left corner of the page.

AMA

If you are not already a member of the AMA (Academy of Model Aeronautics), please join! The AMA is the governing body of model aviation and membership provides liability insurance coverage, protects modelers' rights and interests and is required to fly at most R/C sites:

Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302-9252

Tele. (800) 435-9262
Fax (765) 741-0057

AMA
SINCE 1936

Or via the Internet at: http://www.modelaircraft.org

IMPORTANT!!! Two of the most important things you can do to preserve the radio controlled aircraft hobby are to avoid flying near full-scale aircraft and avoid flying near or over groups of people.

SAFETY PRECAUTIONS

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

1. Your Calypso should not be considered a toy, but rather a sophisticated, working model that functions very much like a full-size airplane. Because of its performance capabilities, the Calypso, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.

2. You must assemble the Calypso **according to the instructions**. Do not alter or modify the model, as doing so may result in an unsafe or unflyable model. In a few cases the instructions may differ slightly from the photos. In those instances the written instructions should be considered as correct.

3. You must use an R/C radio system that is in good condition. All components must be correctly installed so that the model operates correctly on the ground and in the air. You must check the operation of the model and all components before **every** flight.

4. If you are not an experienced pilot or have not flown this type of model before, we recommend that you get the assistance of an experienced pilot in your R/C club for your first flights.

If you're not a member of a club, your local hobby shop has information about clubs in your area whose membership includes experienced pilots.

5. While this kit has been flight tested to exceed normal use, if the plane will be used for extremely high stress flying, such as racing, or if a motor or battery larger than ones in the recommended range is used, the modeler is responsible for taking steps to reinforce the high stress points and/or substituting hardware more suitable for the increased stress.

We, as the kit manufacturer, provide you with a top quality, thoroughly tested kit and instructions, but ultimately the quality and flyability of your finished model depends on how you build it; therefore, we cannot in any way guarantee the performance of your completed model, and no representations are expressed or implied as to the performance or safety of your completed model.

Remember: Take your time and follow the instructions to end up with a well-built model that is straight and true.

REQUIRED FOR COMPLETION

Other than a Phillips screw driver nothing extraordinary is required to assemble your Calypso. Below is a chart with order numbers indicating the rest of the equipment required to get your particular version of the Calypso in the air. Boxes checked with an "✗" indicate that the item is required.

Note: If you plan to fly your Calypso with the optional flaps a minimum 5-channel radio system will be required.

RTF	Tx-R	Rx-R	No.	Equipment
	✗		TACJ2600	Tactic TX600 6 Ch Tx
				–or–
			TACJ2000	Any 4–5 Ch Tx *and* AnyLink 2.4GHz adapter*
		✗	TACJ2600	Any 4–5 Ch Tx & Rx
		✗	HCAA6310	3S (11.1V) 1300 mAh 15 C battery with ST connector
Optional	✗	✗	DTXP4235	LiPo battery charger
			SUPM0070	Charge lead for SuperTigre® connector
Optional	Optional	Optional	FLZA1603	(2) Flap servos
			FLZA6008	(1) Flap linkage set
			FUTM4130	(1) Y-harness for flap servos
			HCAM2000	(2) 6" [150mm] Servo wire extensions
Optional	Optional	Optional	HCAA6430	1800 mAh battery
Optional	Optional	Optional	HCAA6387	2100 mAh battery

* Transmitter must be compatible with AnyLink adapter. Visit tx-ready.com to see AnyLink compatibility chart or contact Product Support at the contact information on this page.

Optional LiPo Battery Charger

The RTF and Tx-R versions of the Calypso include a Great Planes 3S LiPo balancing *Smart Charger*. The Smart Charger is a safe way to charge your LiPo battery, but it's very basic and just enough to get you started. The Smart Charger charges at a rate of .8 Amps, so it will take approximately one-and-a-half hours or more to charge your battery. Eventually, you'll want to get more batteries and an advanced charger to charge faster and fly more! If you've purchased the Rx-R that doesn't come with a charger, or if you would like to replace your *Smart Charger* with a more advanced charger, the Duratrax® Onyx™ 235 AC/DC Advanced Peak Charger (DTXP4235) is highly recommended and perfect for 3S batteries used with the Calypso. Same as the *Smart Charger* the Onyx 235 may be powered either by an external DC power source (such as a 12 battery), or a 110V AC outlet, but the Onyx also has an adjustable charge rate to charge your batteries in as little as a half-hour or less (depending on the condition of your batteries and the manufacturer's specified charge rate). The Onyx can also be used to charge larger batteries and different kinds of batteries so it is a charger you can grow into. The 235 also has an LCD digital display screen, so you can see how much capacity it took to charge the battery (handy for learning the condition of your batteries and calculating optimum flight time).

Note: For use with the Onyx 235 LiPo batteries that come with SuperTigre connectors (such as the Flyzone batteries included or recommended) require a banana plugs-to-SuperTigre charge lead (SUPM0070) and batteries that come with a Deans® Ultra Plug® connector require a Charge Lead with banana plugs/Deans® Ultra Plug® male charge lead (GPMM3148).

KIT INSPECTION

Before assembly, take an inventory of this kit to make sure it is complete, and inspect the parts to make sure they are of acceptable quality. If any parts are missing or are not of acceptable quality, or if you need assistance with assembly, contact **Product Support**. When reporting defective or missing parts, use the part names exactly as they are written in the Kit Contents list.

Hobbico Product Support
3002 N Apollo Drive Suite 1
Champaign, IL 61822

Ph: (217) 398-8970 ext. 5
Fax: (217) 398-7721

E-mail: airsupport@hobbico.com

ORDERING REPLACEMENT PARTS

Replacement parts for the Flyzone Calypso 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 Hobbico web site at www.hobbico.com. Choose "Where to Buy" at the bottom of the menu on the left side of the page. Follow the instructions provided on the page 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 **Hobby Services**
and payments by 3002 N Apollo Drive, Suite 1
personal check to: 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@hobbico.com, or by telephone at (217) 398-8970.

REPLACEMENT PARTS LIST	
Order No.	**Description**
FLZA6000	**Wing Set**
FLZA6001	**Horizontal Stabilizer**
FLZA6002	**Vertical Stabilizer**
FLZA6003	**Fuselage Set**
FLZA6004	**Canopy**
FLZA6005	**Wing Tube**
FLZA6006	**Spinner, Folding Propeller**
FLZA6007	**9x5 Propeller Blade Set (2)**
FLZA6008	**Flap Linkage Set**
FLZA6009	**Wing Screws**
FLZA6010	**Tail Screw**
FLZA6011	**18A ESC**
FLZA6012	**C28-30 1300kV Brushless Motor**
FLZA6013	**Micro Servo**
FLZA6014	**1300mAh 3S LiPo Battery**
TACJ2404	**Tactic TTX404 4-ch. Tx**
TACL0624	**Tactic TR624 6-chc Rx**

CONTENTS

Contents

1. Fuselage, Canopy (w/ESC, motor, propeller, servos, spinner)
2. Wings (w/aileron servo)
3. Horizontal Stabilizer (Stab)
4. Vertical Stabilizer (Fin)
5. Wing Tube
6. Y-Connector (for aileron)
7. Tail Screw

ASSEMBLY

Install the Receiver (Rx-R Only)
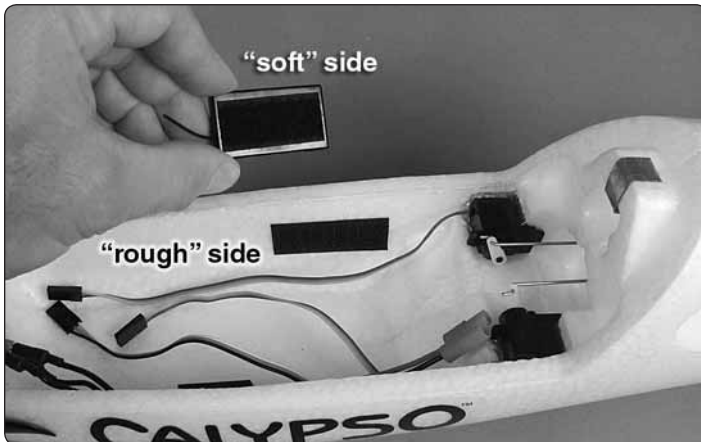
❏ 1. Cut strips from the included, adhesive-backed hook-and-loop material. Stick one to the back of your receiver and the other inside the fuselage as shown—the softer, "loop" side goes on the receiver and the rougher, "hook" side goes in the fuselage.

(White/Orange) — + (Red)

– (Black/Brown)
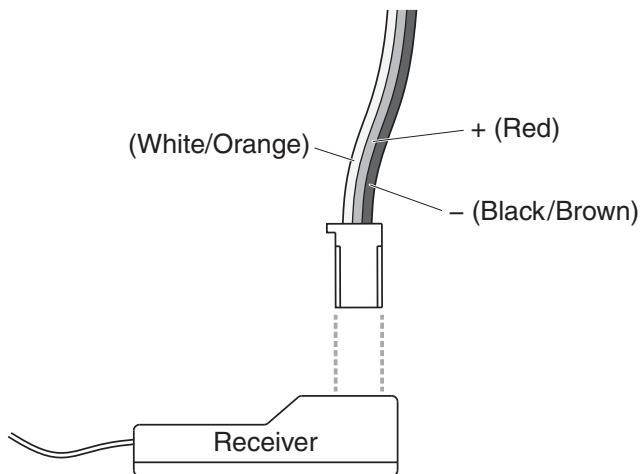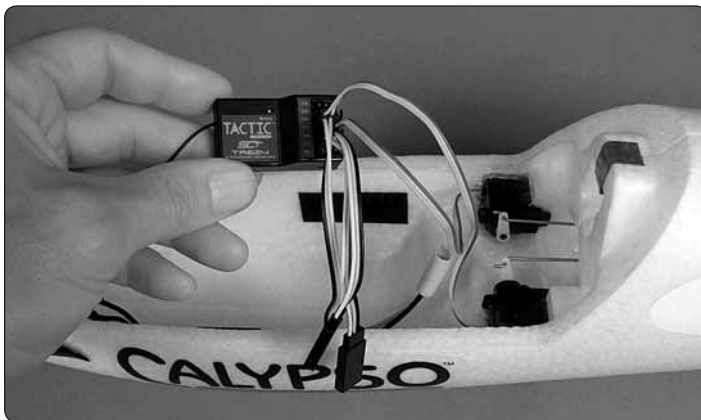
Receiver

❏ 2. Connect the servos and the Y-harness to the receiver as shown.

    Channel 1 (aileron) – dual Y-harness
    Channel 2 (elevator) – elevator servo
    Channel 3 (throttle) – electronic speed control (ESC)
    Channel 4 (rudder) – rudder servo
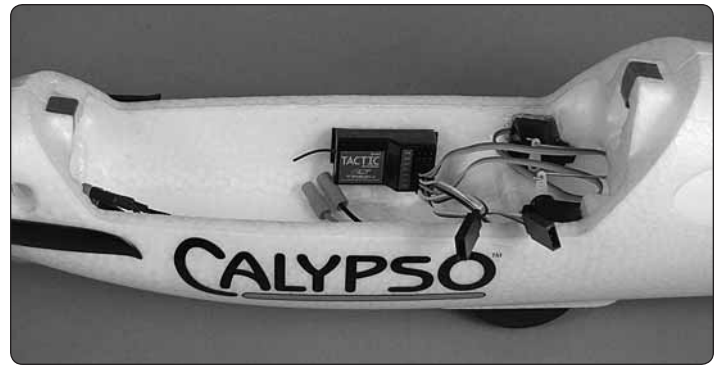
❏ 3. Mount the receiver to the Velcro® strip in the fuselage.
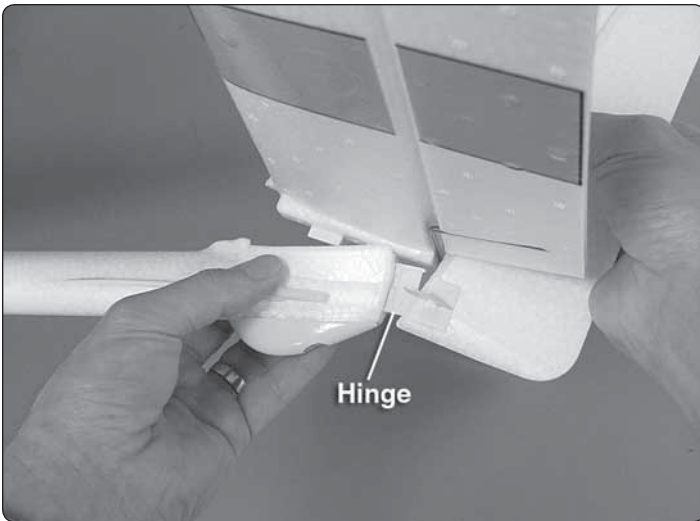
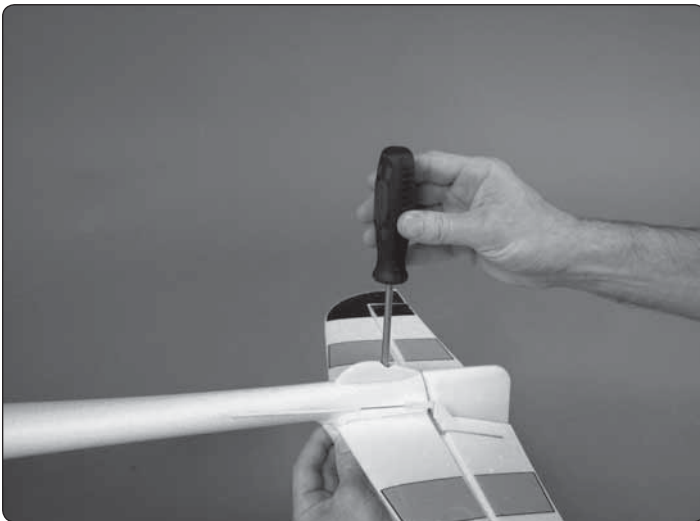### Hook Up the Elevator and Rudder

Rx-R, Tx-R, and RTF
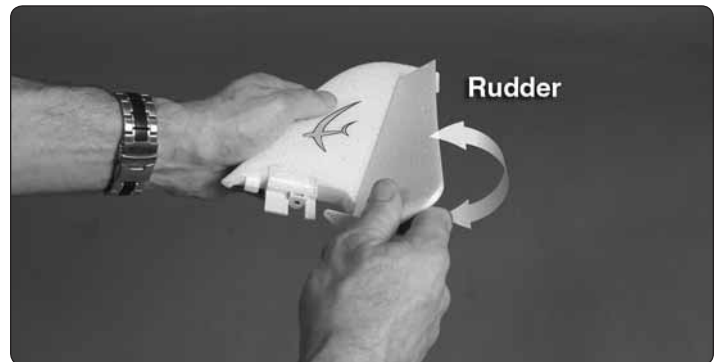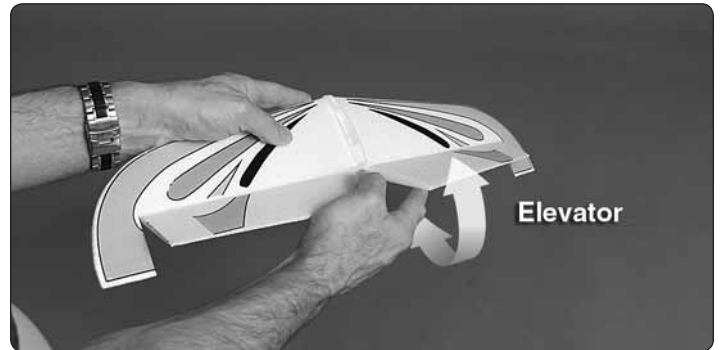
Elevator

Rudder

❏ 1. Flex the elevator up and down and the rudder back and forth several times to break them in.
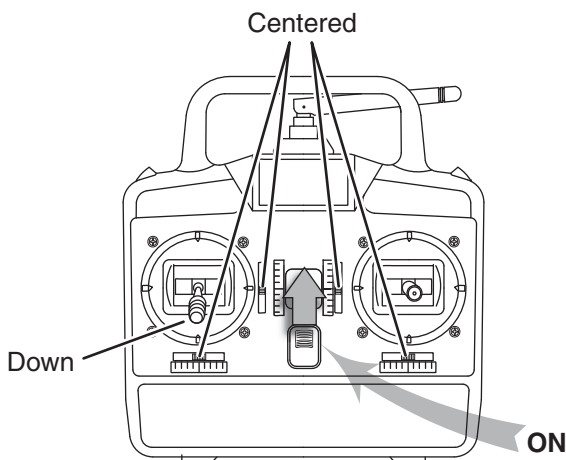

Fin
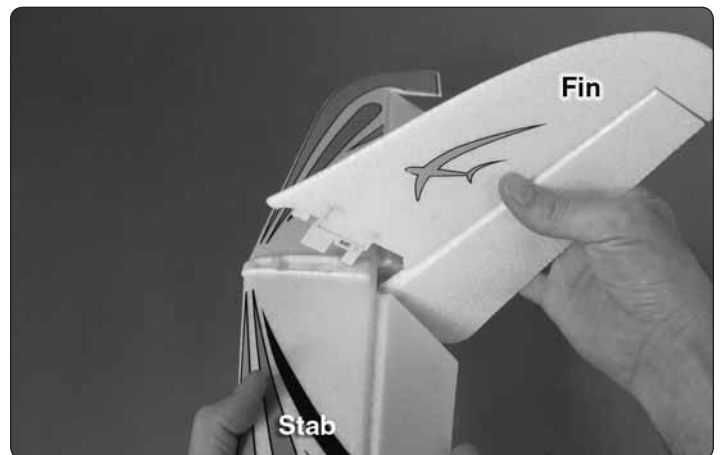
Stab

❏ 2. Fit the vertical stabilizer (fin) into the horizontal stabilizer (stab).

❏ 3. Join the stab/fin assembly to the fuselage, keying the rudder into the hinge.

❏ 4. Tighten the assembly to the fuselage with the included bolt and a Phillips screwdriver.

❏ 5. If necessary, install batteries in your transmitter. Turn on the transmitter, center the trims and move the throttle stick all the way down.
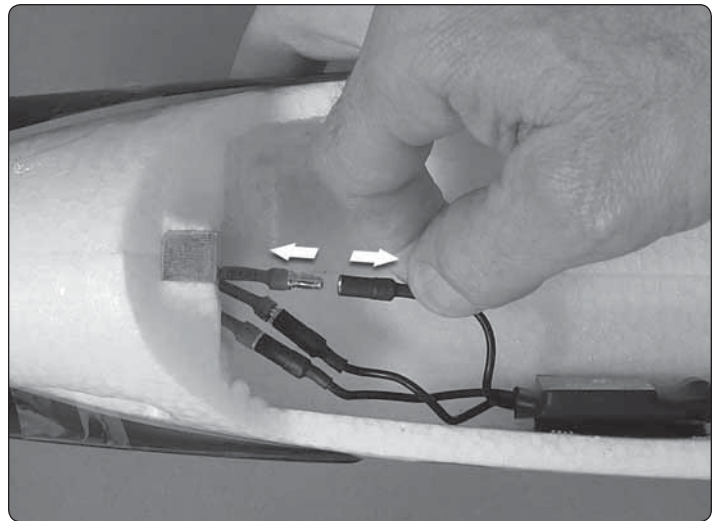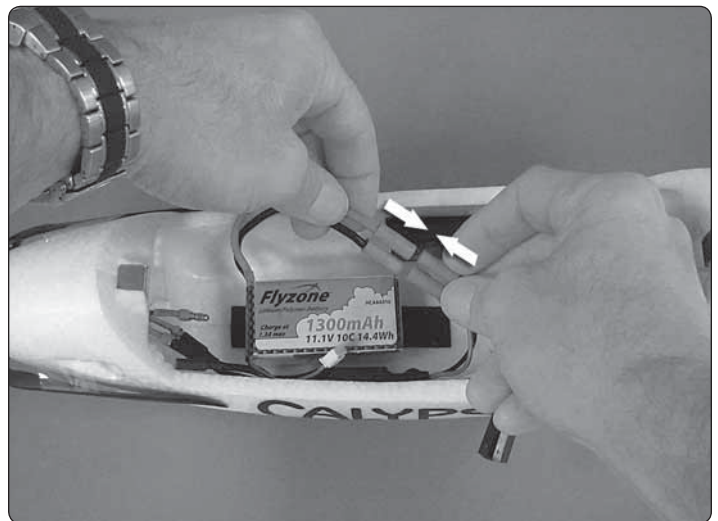
❏ 6. Disconnect any one of the three motor wires so the motor will not turn inadvertently.

❏ 7. If your receiver is not already "bound" or linked to the transmitter, follow the instructions that came with your radio system to bind the two together so the receiver will receive signals from the transmitter.


❏ 8. Attach the softer, "loop" side of the included hook-and-loop strip to the battery.

❏ 9. Connect the battery to the ESC.

Clevis   **3rd Hole**

Control
Horn

Elevator

4th Hole

Rudder

NO ✗

NO ✗

YES ✓
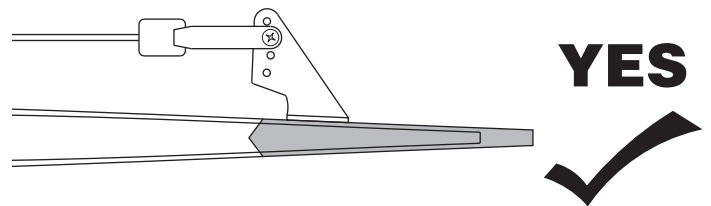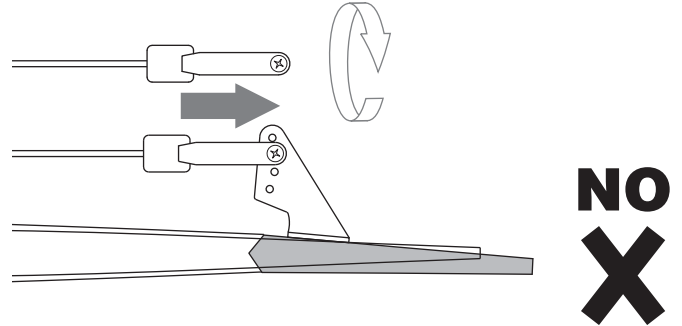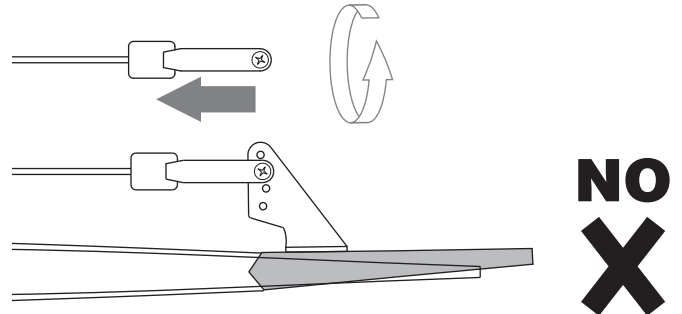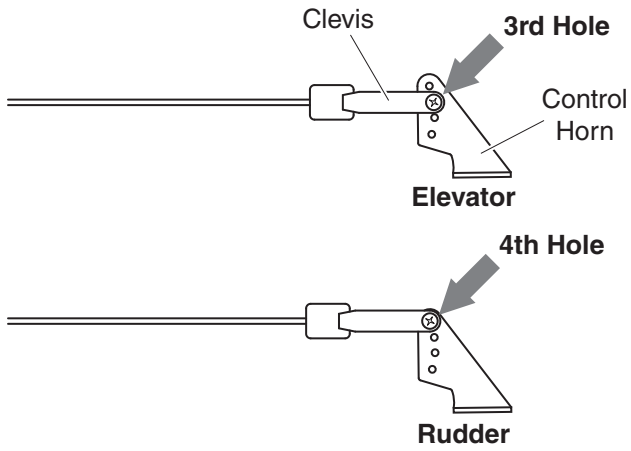
❏ 10. With the transmitter and receiver on and the trims centered, connect the clevises to the hole in the horns shown in the sketch, so the elevator and rudder will be centered by screwing the clevises in or out on the pushrods.

Centered

Centered

✗ NO

✓ YES
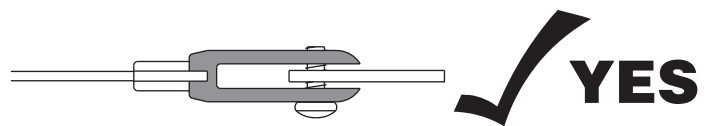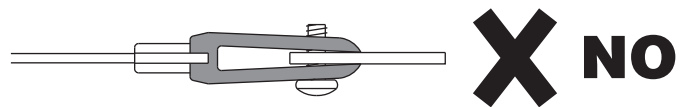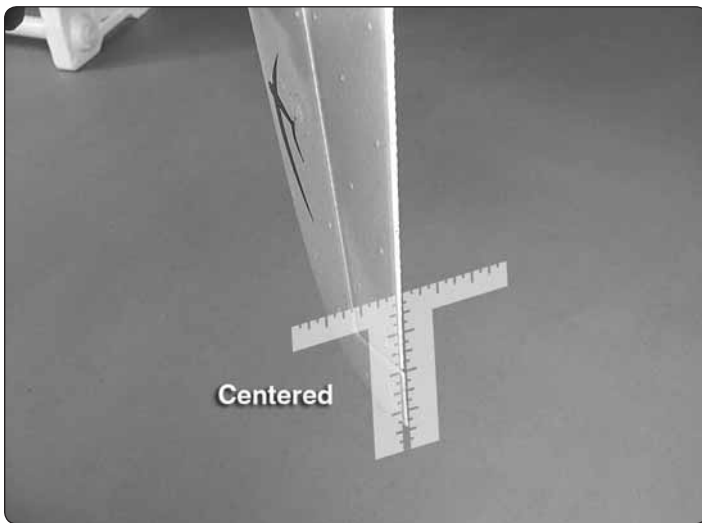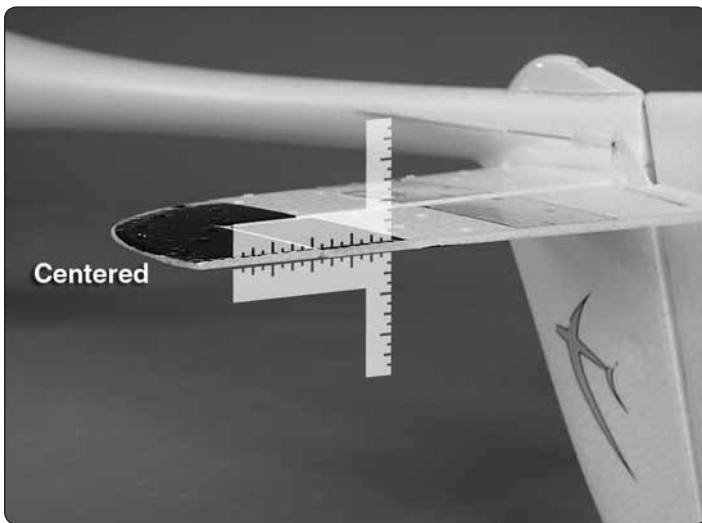
❏ 11. Make sure the screws in the clevises are not overtightened.

Right Rudder

Up Elevator

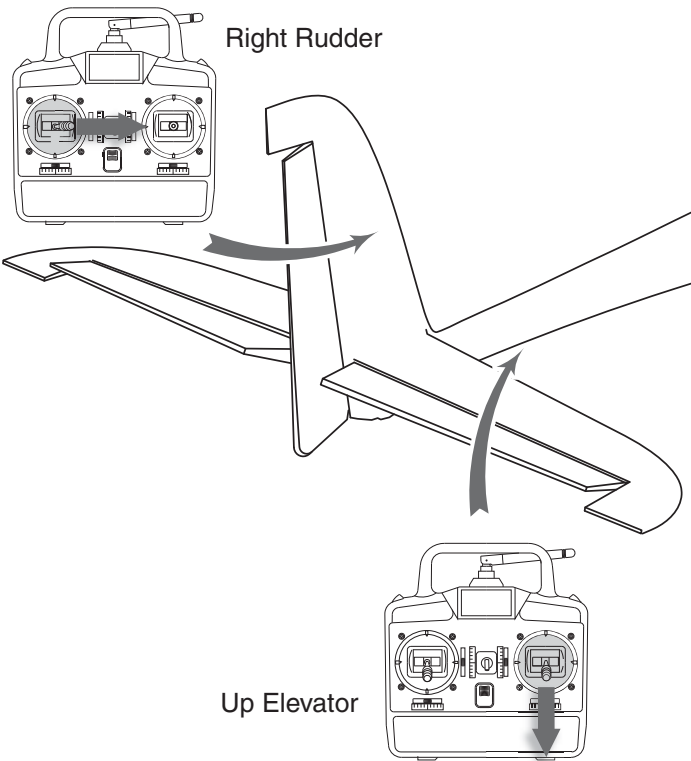❏ 12. Be certain the elevator and rudder respond in the correct directions according to the stick movements on the transmitter. If necessary, use the servo reversing in the transmitter to get the controls to respond correctly.

❏ 13. Disconnect the battery and turn off the transmitter.

Optional Flaps

Minimum 5-channel Transmitter

In addition to the servos, linkages and servo wire extensions listed under "Items Required for Completion" in the front of the instruction manual, a minimum 5-channel transmitter is also required to operate the flaps.

You may do one wing first and then the other, or work on both wings at the same time.
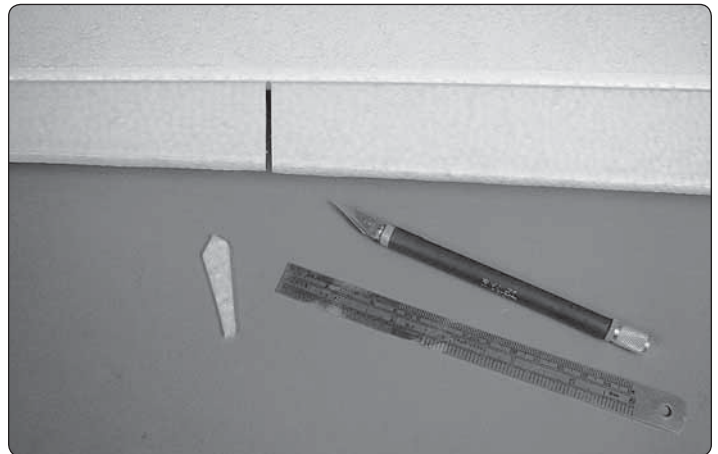
❏ 1. Cut the flap from the aileron.
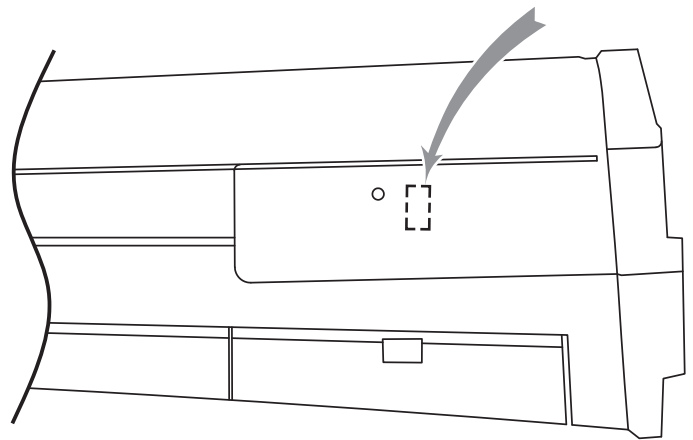
Servo Mount

❏ 2. Cut along the molded line to open the servo mount.
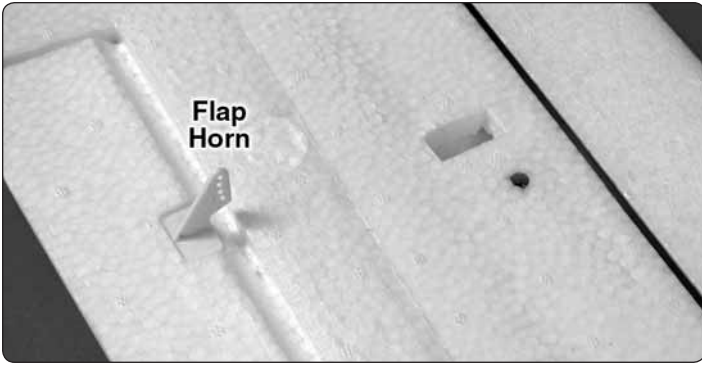
❏ 3. Use CA to securely glue the flap horn to the flap.

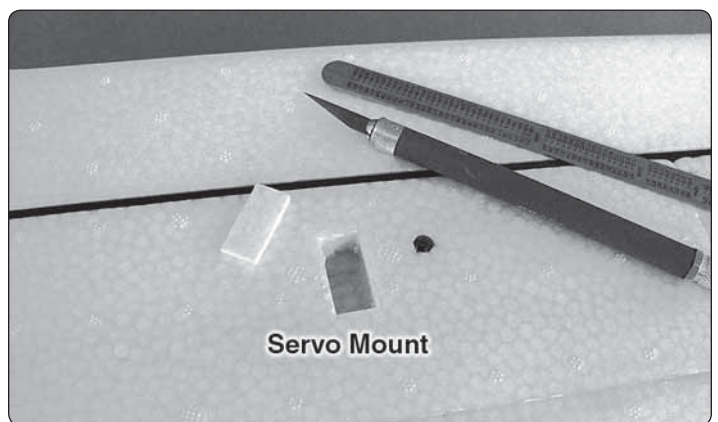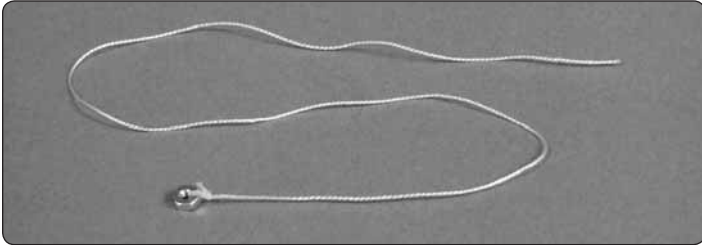❏ 4. Tie a small nut or other small weight to the end of a 12" [300mm] string.
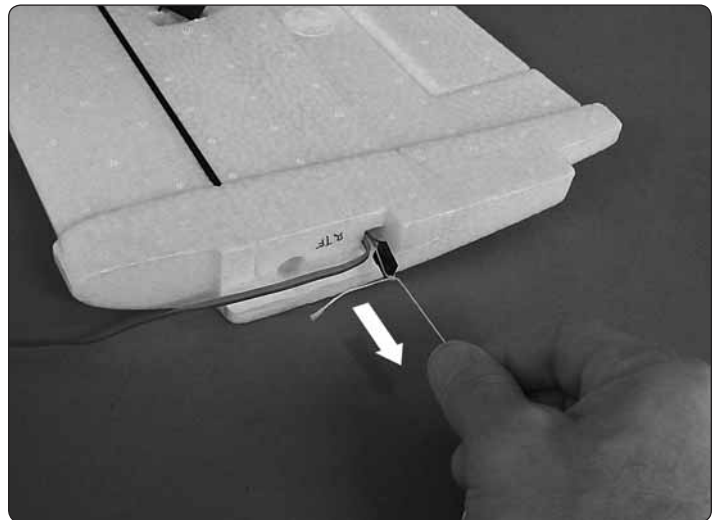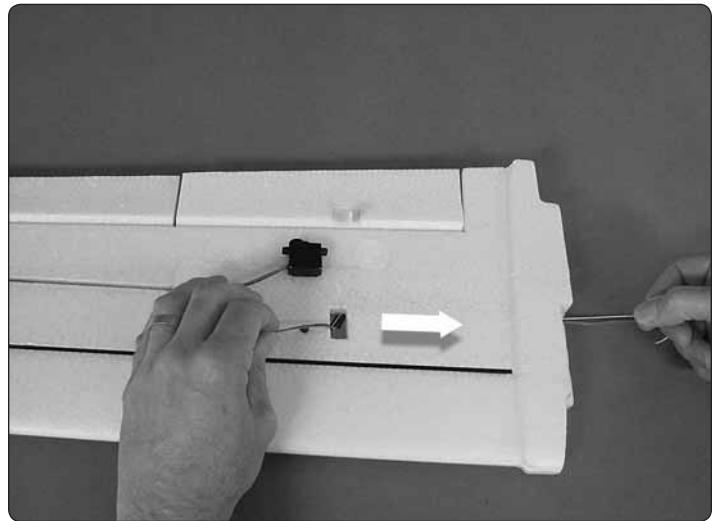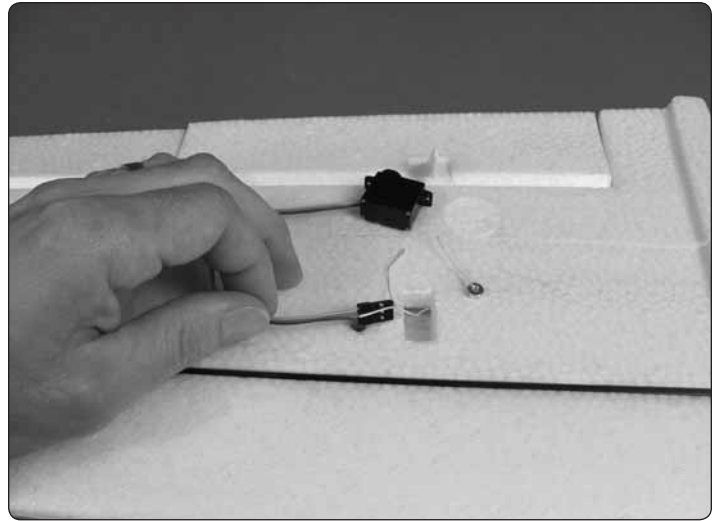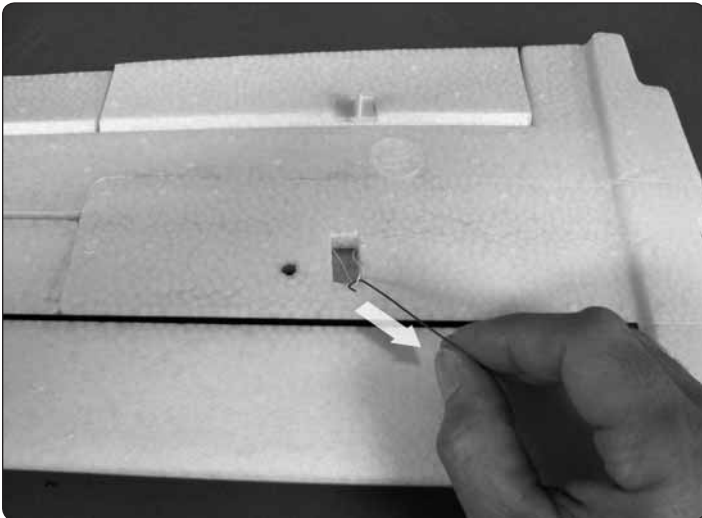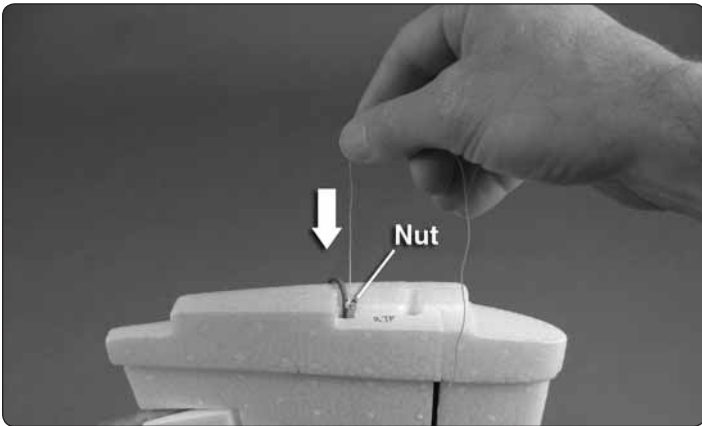
❏ 5. Drop the nut on the string down through the servo wire channel, then cut off the nut and tie the string to the flap servo connector. Pull the string and the servo wire back through the channel.
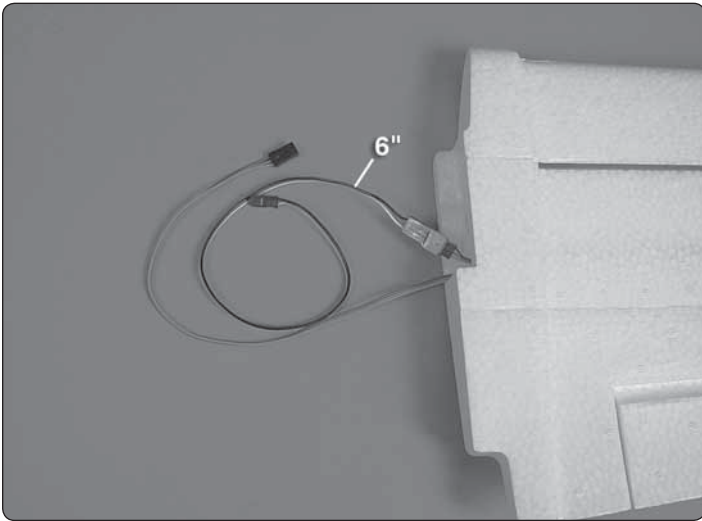
❏ 6. Connect a 6" [150mm] servo extension wire to the flap servo wire.
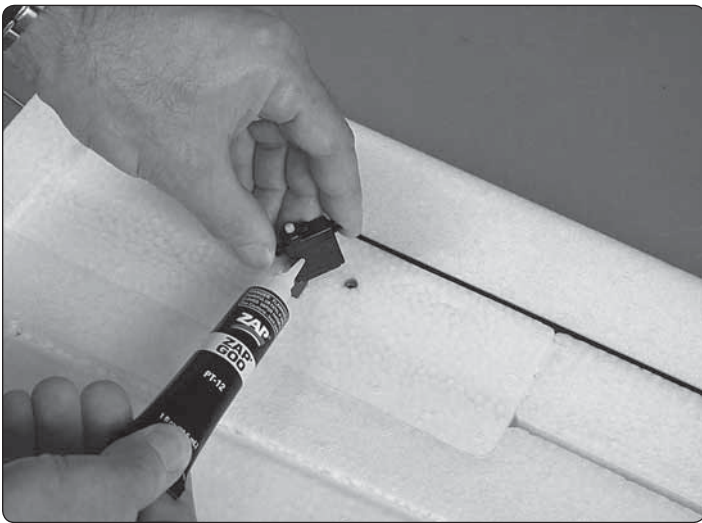
❏ 7. Glue the servo into position as shown in the illustration at step 13—CA may be used, but will be difficult to remove from the servo if you ever want to remove it for another model later—something flexible such as Shoe Goo or canopy glue is recommended for gluing in servos.

Cut
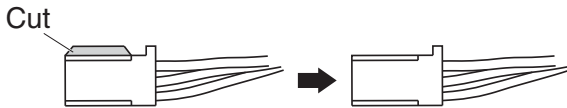
❏ 8. If necessary, cut the *tab* from the servo wire extension so it can be plugged into the Y-harness in the receiver.

Flap Dial
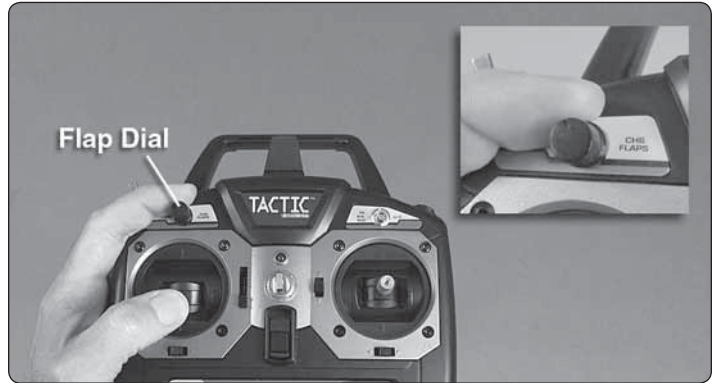
❏ 9. Connect the flap servo to whichever channel in your receiver is controlled by the switch or dial on your transmitter you wish to operate the flaps—some prefer using a switch, but most prefer a dial so the flaps can be moved incrementally. It is not necessary to join the wing to the fuselage at this time.

ON
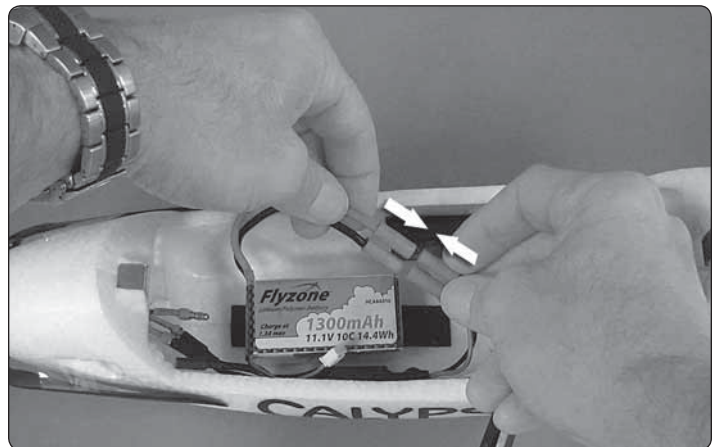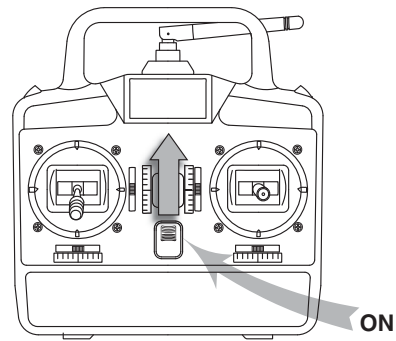
❏ 10. Same as was done for the elevator and rudder, turn on the transmitter and connect the battery to the ESC.

4th Hole

Flap

2nd Hole
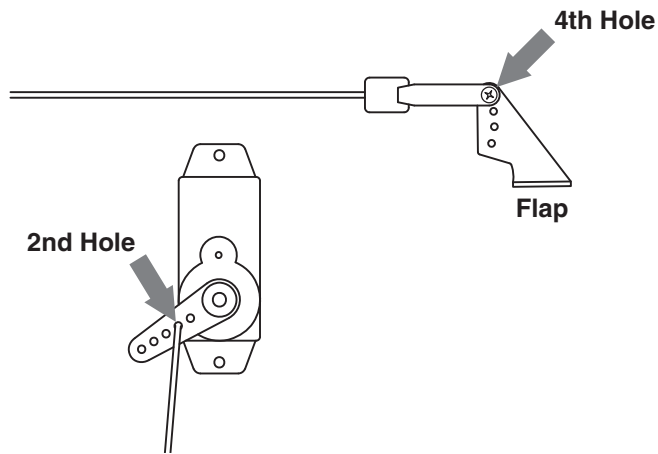
❏ 11. Connect the flap pushrod to the servo arm and flap control horn as illustrated.

❏ 12. Position the servo arm on the servo. Adjust the clevis so the flap will be retracted when the flap switch on the transmitter is in one position, and the flap will be extended when the flap switch is moved to the other position. **Total flap travel should be about 7/8" [22mm]**. (More on flap throw and measuring the throws on page 14.)

Right Wing   Left Wing
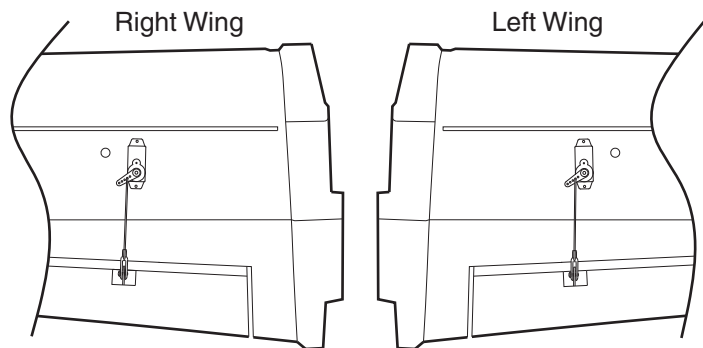
❏ 13. If you weren't working on both wings at the same time repeat the process for hooking up the other flap the same way. When finished, the flap servos should be positioned as illustrated so they work together.

Install the Wings

Recommended C.G.

Spar

− 6.5 mm   −1/4"

+ 6.5 mm   +1/4"

+ 19 mm   + 3/4"
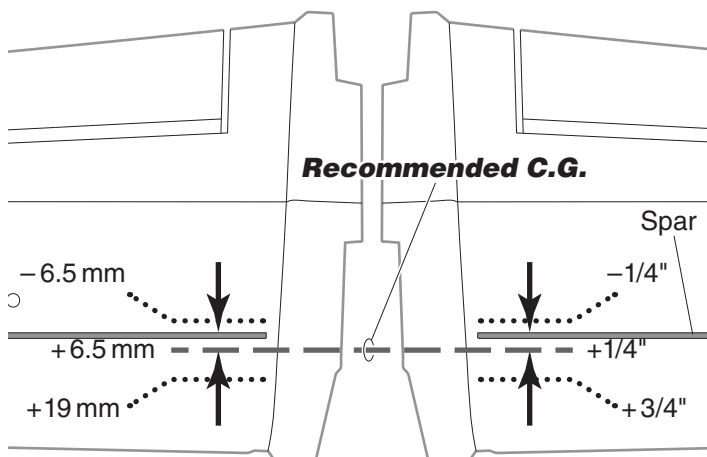
Forward Limit:	3/4" [19 mm] ahead of spar
Recommended C.G.:	1/4" [6.5 mm] ahead of spar
Aft Limit:	1/4" [6.5 mm] behind spar
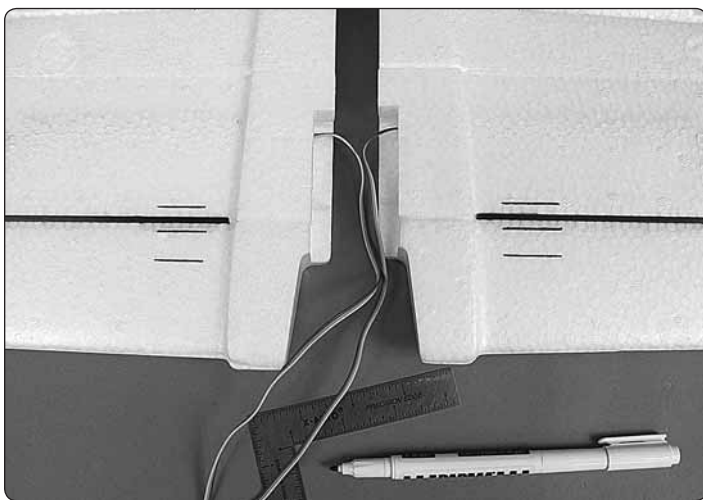
❏ 1. Use a felt-tip pen to mark the C.G. (center of gravity) locations on the bottom of the both wings. The marks will be used later for making sure the Calypso balances correctly, **greatly** affecting the way it flies.

❏ 2. Insert the wing tube and tighten the screw.
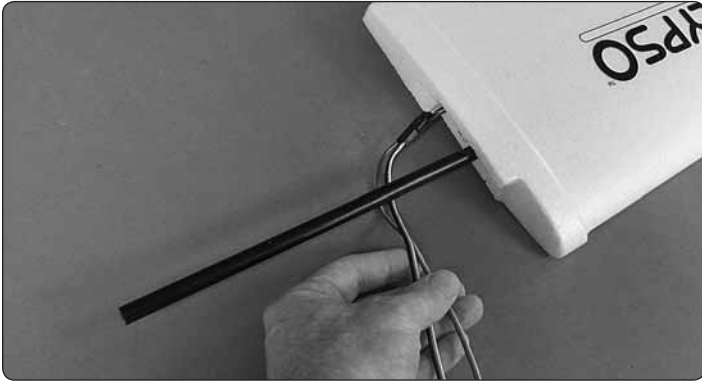
❏ 3. Guide the servo wires *under* the wing tube.
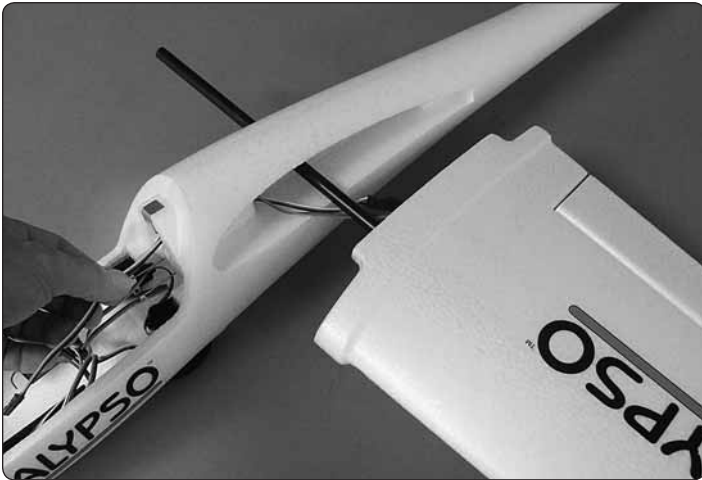
❏ 4. Insert the wing into the fuselage as you guide the servo wires through.

❏ 5. Plug the wing all the way in.
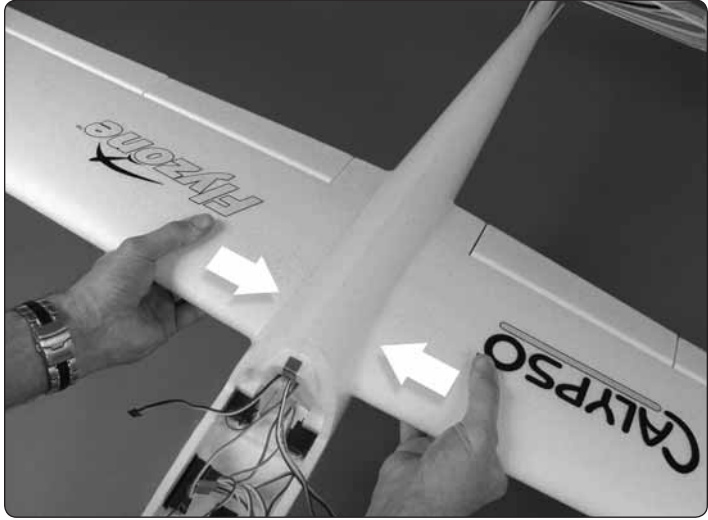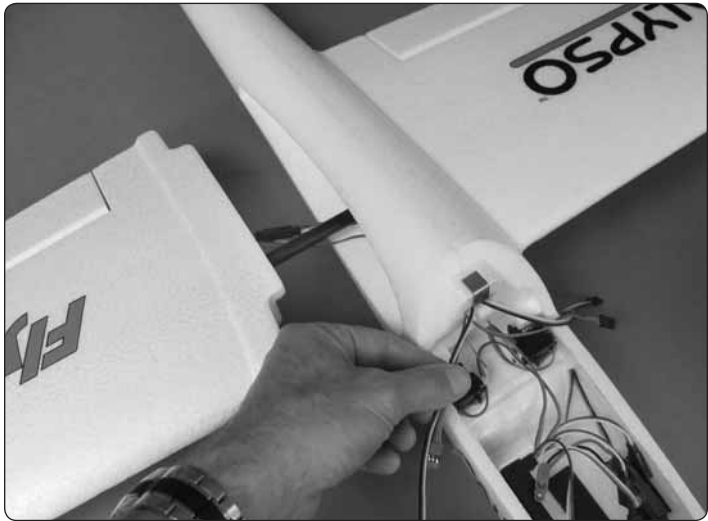
❏ 6. Join the other wing and tightly press them both together.

❏ 7. Tighten the screw in the other wing.

Flaps to Y in channel 6,
Ailerons to Y in channel 1

Second Y-connector

❏ 8. Connect the aileron and flap servo wires to the receiver—a second Y-connector (not included) will be required for the flaps.

❏ 9. Pack the excess flap and aileron servo wires back up through the channel so they don't interfere with the elevator and rudder servos.

Balance the Model

The C.G. (center of gravity) has a great effect on the way the model flies. If the C.G. is not correct the Calypso could be too stable (reacting too slowly to control inputs) or too instable (reacting too quickly to control inputs) possibly causing a crash.

The C.G. must be checked with all of the components installed including the battery.

Install Battery

Flyzone LiPo Battery
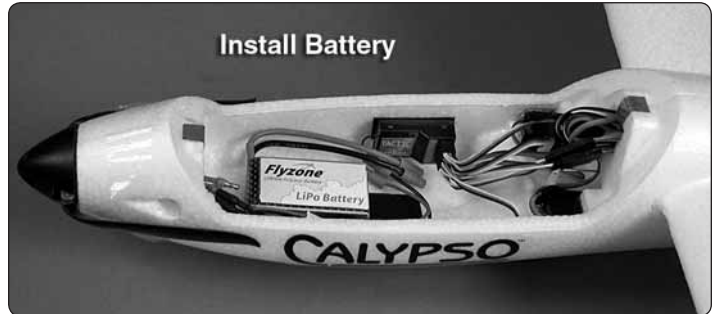
❏ 1. Install the battery and the canopy.

NO
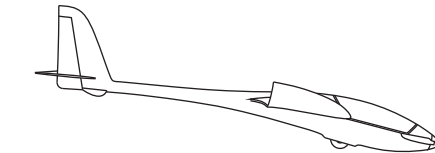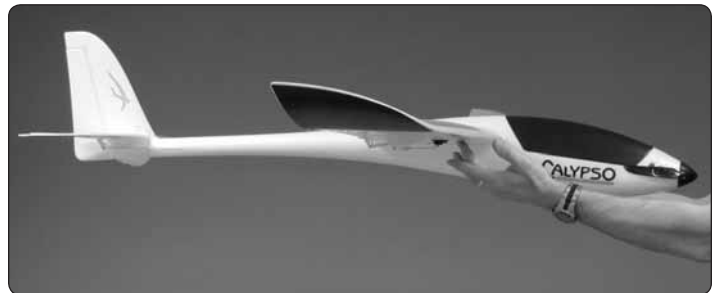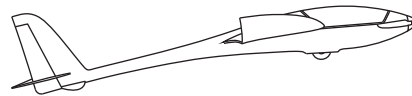
NO
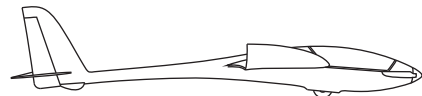
YES

❏ 2. Lift the model with your fingertips on the middle lines, marking the recommended C.G. Shift your fingers as necessary until the model balances. As long as the model balances suspended by your fingers anywhere between the forward and aft lines, the model is within the acceptable C.G. range and is ready to fly. Beginner pilots should strive to get the Calypso to balance directly on the recommended C.G. or between the recommended C.G. and the forward C.G., making the Calypso more stable.

❑ 3. Position the battery where necessary to get the Calypso to balance, or use Great Planes stick-on lead weight.

Check the Control Throws

Same as the C.G., the control surface throws have a great effect on how the model flies. Too much throw will make the model too responsive and difficult to control and too little throw will make the model unresponsive. Measure and correct the control throws if necessary as instructed below.

Left Aileron Moves Down

Right Aileron Moves Up
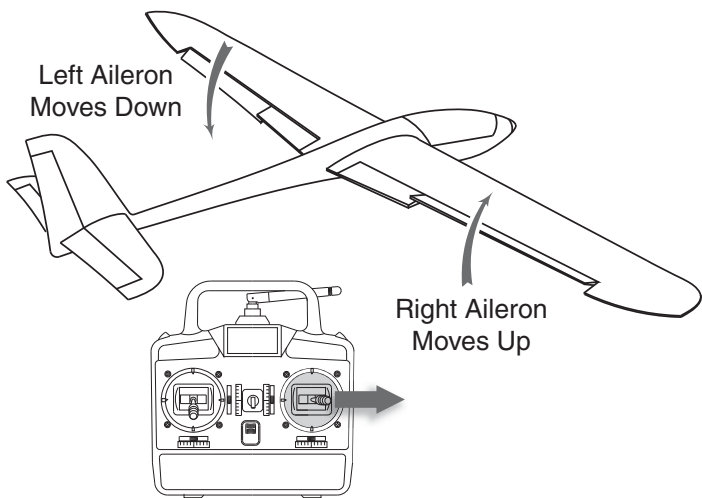
❑ 1. Power up the system. The rudder and elevator response was already checked on page 8. Now check the aileron throw. When moving the stick to the right, the right aileron should

move up and the left aileron should move down. If necessary, use the servo reversing in your transmitter to set the ailerons to respond correctly.
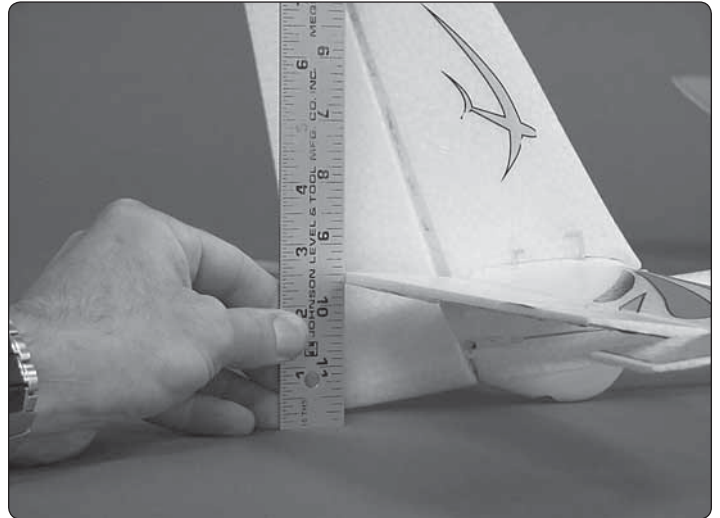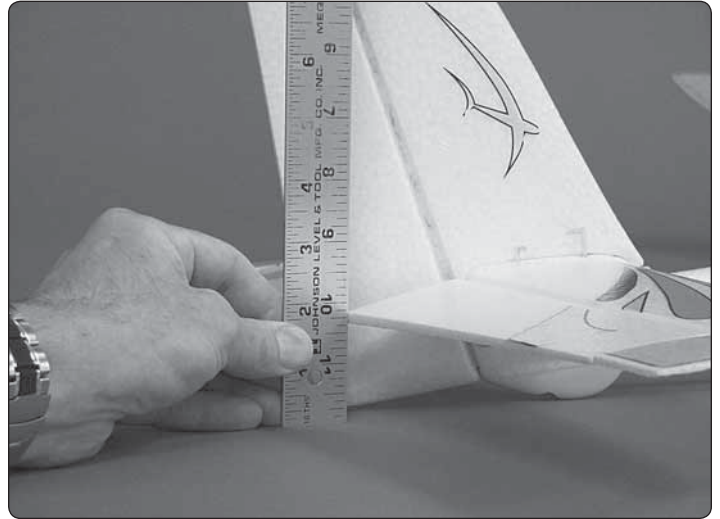
❑ 2. Measure the elevator throw first; power up the system (turn on the transmitter and connect the battery) and move the elevator up and down with the elevator stick on the transmitter. Measure how far up and how far down from center the elevator moves. As shown in the chart the elevator should move 3/4" [19mm] up and 3/4" [19mm] down on high rates and 1/2" [13mm] up and 1/2" [13mm] down on low rates plus or minus 1/8" [3mm].

Aileron Throw

Flap Throw

Elevator Throw
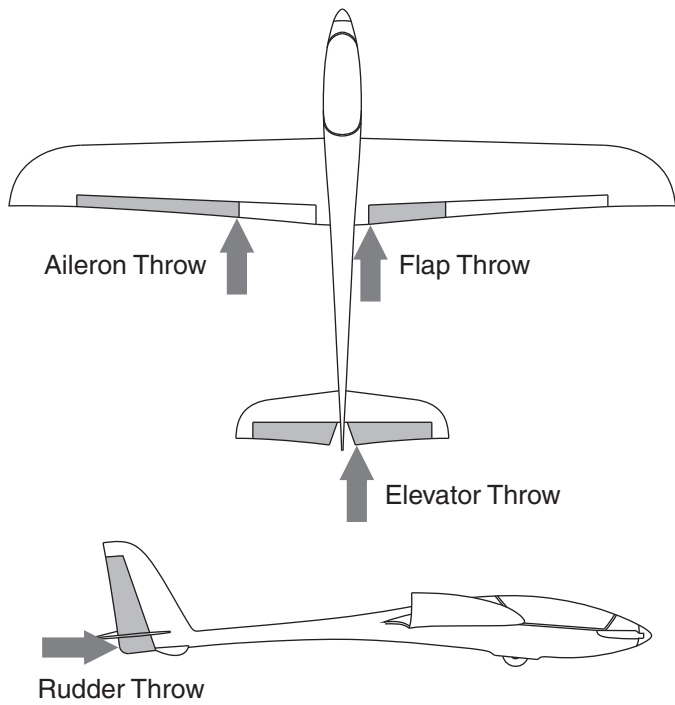
Rudder Throw

❏ 3. Note that the throw measurements for the elevator, rudder and flaps (if used) are taken at the **widest part** (front to back) of each surface, but the **aileron** throw is measured at the split between the flaps and elevator (whether or not you have set up the optional flaps and cut the two apart).

Less Control Throw

More Control Throw

More Control Throw

Less Control Throw
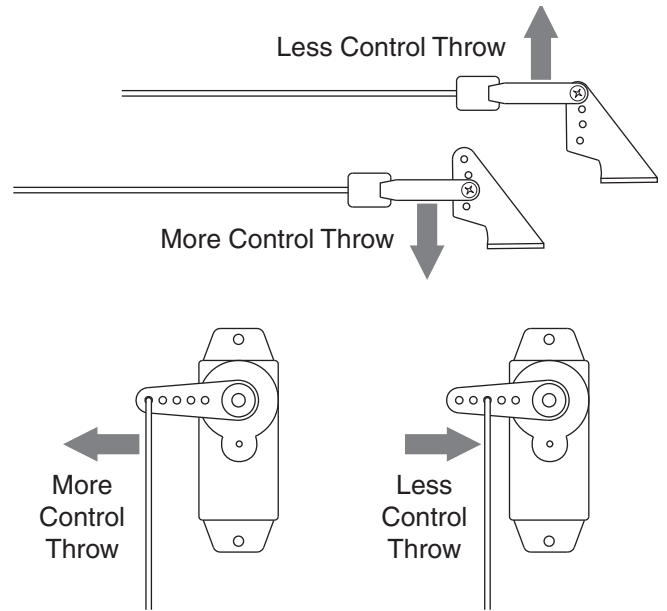
❏ 4. If necessary, use the programming in your transmitter or mount the pushrods in different holes in the control horns or in the servo arms to increase or decrease the elevator throw as required. Moving the pushrods inward in the servo or outward on the control surface horn decreases control throw. Moving the pushrods outward on the servo or inward on the control surface increases the throw.

❏ 5. Measure and adjust if necessary the control throws for the rudder, ailerons and flaps the same way.

Recommended Control Surface Throws				
DEGREES	**HIGH RATE**		**LOW RATE**	
	Up	**Down**	**Up**	**Down**
ELEVATOR	18°	18°	12°	12°
AILERONS	19°	19°	11°	11°
RUDDER (R&L)	19°	19°	14°	14°
FLAP		22°		

Recommended Control Surface Throws				
INCHES	**HIGH RATE**		**LOW RATE**	
	Up	**Down**	**Up**	**Down**
ELEVATOR	3/4"	3/4"	1/2"	1/2"
AILERONS	5/8"	5/8"	3/8"	3/8"
RUDDER (R&L)	1"	1"	3/4"	3/4"
FLAP		7/8"		

Recommended Control Surface Throws				
MILLIMETERS	**HIGH RATE**		**LOW RATE**	
	Up	**Down**	**Up**	**Down**
ELEVATOR	19 mm	19 mm	13 mm	13 mm
AILERONS	16 mm	16 mm	10 mm	10 mm
RUDDER (R&L)	25 mm	25 mm	19 mm	19 mm
FLAP		22 mm		

Calibrate the Throttle

This procedure applies only to Tx-R or Rx-R versions of the Calypso, or any other time a transmitter different than the one originally calibrated to the included ESC is used.

At this time one of the motor wires should still be disconnected from the ESC to prevent accidental starting of the motor.

UP

ON
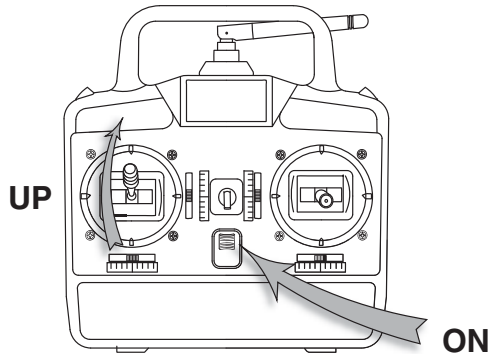
❏ 1. Turn on the transmitter and advance the throttle stick all the way forward.

♪ ♪ ♪
Beep Beep

❏ 2. Connect the battery to the ESC. Listen for the three tones… "♪1 2 3" followed by two short beeps…"beep beep."

DOWN

Lower the throttle stick all the way down.

Beep
Beep Beep
Beeeeeeep
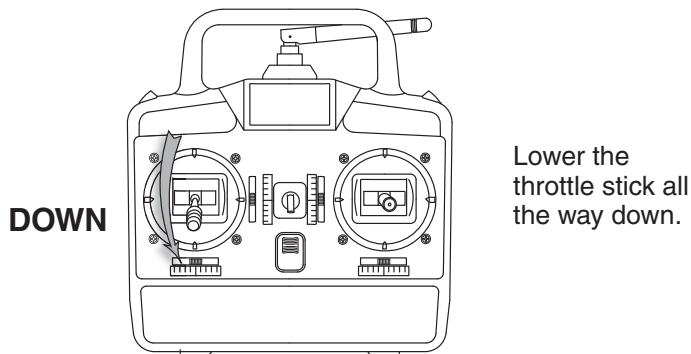
❏ 3. Listen for the three short beeps…"beep beep beep" followed by one longer beep…"beeep."

❏ 4. Now the throttle is calibrated and the battery can be disconnected and the transmitter turned off.

NOTE: If at any time you encounter problems calibrating the throttle, or the ESC or motor do not function properly, refer to the *Troubleshooting Guide* on page 19 or refer to complete ESC programming instructions at flyzoneplanes. com or contact Product Support for assistance.

While we're working with the transmitter and the ESC, this would be a good time to run through the normal startup procedure…

Normal Startup Procedure

❏ 1. Reconnect the disconnected motor wire to the ESC. If you haven't yet done so, you may remove the tape from around the folding propeller holding it to the fuselage.

DOWN

ON
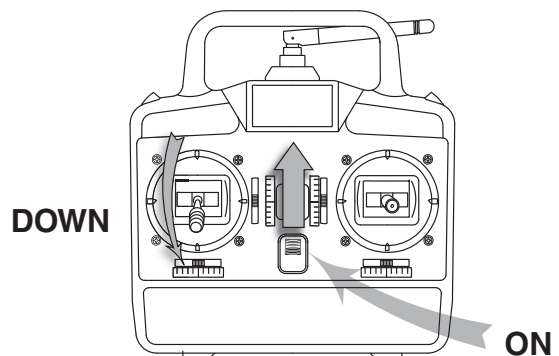
❏ 2. Unless calibrating the throttle or programming the ESC, *always* turn on the transmitter with the throttle stick all the way down. Turn on the transmitter.

♪ ♪ ♪
Beep
Beep Beep
Beeeeeeep

❏ 3. Connect the battery to the ESC. Listen for the three tones…"♪1 2 3" followed by three short beeps…"beep beep" beep" followed by one long beep…"beeep".

Now the ESC is "armed" and the model is ready to fly. The propeller will turn whenever the throttle stick is advanced, so use caution. When you are done running the motor or flying the plane simply disconnect the battery and turn off the transmitter.

Charge the LiPo Battery
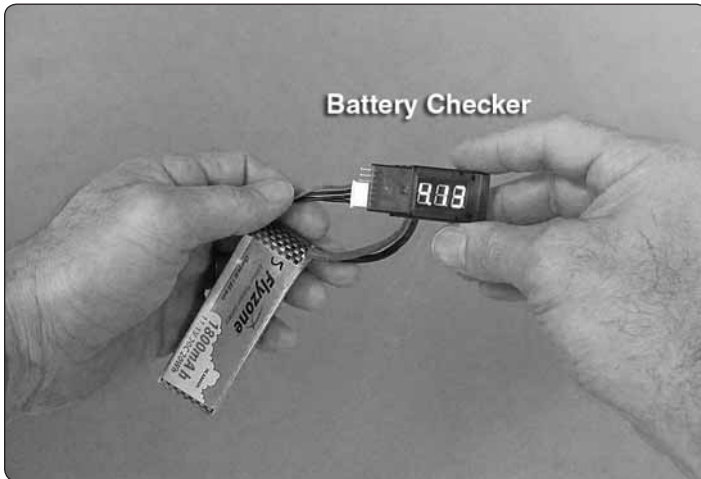
Battery Checker

If you haven't yet done so, charge your LiPo battery following the instructions that came with your charger. If uncertain of the state-of-charge of your battery, you can either reconnect it to your charger, or use a battery checker (HCAP0275) to check the condition of the battery. A battery checker is the best way to check the condition of your batteries at the flying field to make sure you don't inadvertently fly your plane with a partially-discharged battery.

Note: LiPo batteries require special care and handling. Be certain to follow the instructions that came with your LiPo battery and charger to charge and handle them correctly. If using the **Smart Charger**, refer to Smart Charger instructions for charging. Note that the Smart Charger has an internal timer that automatically discontinues the charge after 160 minutes (2 hours, 40 minutes). Some larger batteries that are deeply discharged may require longer than 160 minutes to charge, prompting the Smart Charger to shut off. If this happens, simply disconnect the battery from the charger, wait for the GREEN LED to illuminate, then reconnect the battery to the charger to continue charging.

Range Check

Most radio systems have a procedure for ground-checking the operational range. This usually involves something such as the pilot walking a distance away from the model while operating the controls, with an assistant holding the model and confirming that everything is operating correctly. Follow the manufacturer's instructions that came with your radio to perform this check with the motor off and with the motor running at various speeds. If the radio does not pass the range check **do not fly!** Find and correct the problem first.

AMA SAFETY CODE

Read and abide by the following excerpts from the Academy of Model Aeronautics Safety Code. For the complete Safety Code refer to *Model Aviation* magazine, the AMA web site or the Code that came with your AMA license.

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 and avoid flying in the proximity of full-scale aircraft. Where necessary, an observer shall be utilized to supervise flying to avoid having models fly in the proximity of full-scale aircraft.

3) Where established, I will abide by the safety rules for the flying site I use, and I will not willfully and deliberately fly my models in a careless, reckless and/or dangerous manner.

5) I will not fly my model unless it is identified with my name and address or AMA number, on or in the model. Note: This does not apply to models while being flown indoors.

7) 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) At all flying sites a straight or curved line(s) must be established in front of which all flying takes place with the other side for spectators. Only personnel involved with flying the aircraft are allowed at or in the front of the flight line. Intentional flying behind the flight line is prohibited.

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

5) **I will not knowingly operate my model within three miles of any pre-existing flying site except in accordance with the frequency sharing agreement listed** [in the complete AMA Safety Code].

9) Under no circumstances may a pilot or other person touch a powered model in flight; **nor should any part of the model other than the landing gear, intentionally touch the ground, except while landing.**

FLYING

NOTE: Heat from hot, sunny conditions may blister the foam beads under the black paint on the canopy. If your Calypso will be laying in the sun, cover the canopy with a towel or remove the canopy and place it in the shade.

The Calypso is suitable for beginners because it can fly slowly and react predictably and gently, but it is still *highly* recommended that those who have no radio control flying experience seek the assistance of an experienced pilot—especially for the first couple of flights.

Beginners should fly only in calm conditions, but experienced pilots will embrace the challenge of flying the Calypso in winds up to 20mph!
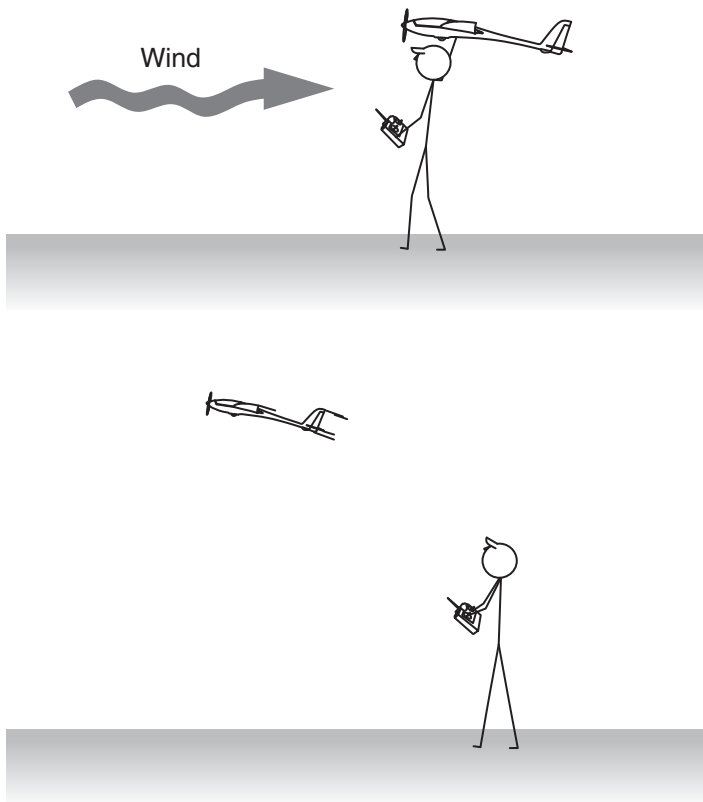
Wind

The Calypso is simply hand-launched by advancing the throttle and giving it a gentle toss directly into any prevailing wind—it will basically fly out of your hand, so a gentle throw is all that is needed. You'll probably want to launch it at full-throttle the first time, but once you get used to the Calypso and get it trimmed you could launch it at reduced power.

Once airborne the first priority will be to get your Calypso trimmed for straight-and-level flight using the flight trims on the transmitter. The elevator may trim out differently at full power than it does power off, so trim it for the type of flying you will be doing most—sport-flying or thermaling (if thermaling you will want the Calypso to trim out with the power off).

You can maneuver the Calypso around the sky rather like a sport model performing gentle aerobatics such as loops, rolls, Cuban 8s, stall turns and even inverted flight, or you can fly it like a glider using motor power to climb to altitude, then shut off the power to search for lifting air. When searching for thermals you'll find that the Calypso will appear to just about "hang" in the air with the flaps extended.
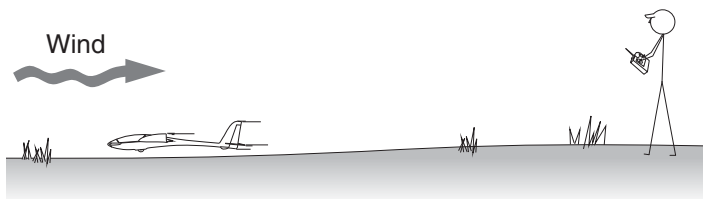
Wind

When ready to land simply bring the Calypso around into the wind, cut the power and allow it to descend. You can extend the flaps to slow the Calypso's descent, but this may also extend the glide path so modulate the flaps as necessary. In breezy conditions the Calypso may descend almost vertically.

However you fly you should calculate your fight time and use a timer so you don't over discharge your battery or end up having the motor quit unexpectedly causing a dead-stick landing. Dead-stick landings are usually no problem unless you are flying on a windy day and cannot get your Calypso back to the landing area.

EXPERT TIP: At full-throttle the Calypso consumes approximately 210 mAh/minute which should provide at least 5 minutes of motor run time on a 1300 mAh battery—usually enough for five one-minute, full-throttle climbs. But the actual run time you can expect may vary depending on several factors such as the condition of your batteries, the average throttle setting and even the wind conditions (flying on windy days you seem to use more power than when flying on calm days).

To find out for yourself how long you can fly, set your timer to 3 minutes for the first flight. Fly until the timer sounds, then land. Use a charger with a digital display to find out how much capacity it took to recharge the battery (indicating how much capacity was used). To ensure against over discharging the target is to use 80% of your battery's capacity, so multiply your battery's capacity by .8 to find out how much you have available. Compare the capacity used to 80% of your battery's capacity and adjust your flight time accordingly.

For example: If using the recommended 1300 mAh battery, your target capacity you want to use for a flight is 1040 mAh (1300 mAh x .8 = 1040 mAh). If you flew for three minutes and it took 660 mAh to recharge your battery, you still had 380 mAh to go before you could have landed, so adjust your timer to increase your flight time accordingly until you reach your 1040 mAh target. (You could also divide 660 mAh by three minutes to figure a current consumption rate of 220 mAh/minute. Divide 1040 mAh by 220 mAh/minute to conclude that you can fly for 4.7 minutes [4 min. 40 sec.]—but round down to 4-1/2 minutes.)

Keeping records over a period of time will allow you to accurately calculate your target flight time.

One final note about flying your model. Have a goal or flight plan in mind for **every** flight. This can be learning a new maneuver(s), improving a maneuver(s) you already know, or learning how the model behaves in certain conditions (such as on high or low rates). This is not necessarily to improve your skills (*though it is never a bad idea!*), but more importantly so you do not surprise yourself by impulsively attempting a maneuver and suddenly finding that you've run out of time, altitude or airspeed. Every maneuver should be deliberate, not impulsive. For example, if you're going to do a loop, check your altitude, mind the wind direction (anticipating rudder corrections that will be required to maintain heading), remember to throttle back at the top, and make certain you are on the desired rates (high/low rates). A flight plan greatly reduces the chances of crashing your model just because of poor planning and impulsive moves. **Remember to think.**

## Have a ball! But always stay in control and fly in a safe manner.

GOOD LUCK AND GREAT FLYING!

ESC TROUBLESHOOTING GUIDE

TROUBLESHOOTING GUIDE

Problem	Reason	Action
Motor does not work, no tones or beeps are coming from the ESC.	The ESC is not receiving power from the battery.	Check the battery or plugs or change the plugs if the wires are damaged.
Motor does not work, Alert Tone sounds ("beep-beep," "beep-beep," "beep-beep,"…).	Battery Voltage is too high or too low.	Make sure the battery is charged and/or you are using the correct battery.
Motor does not work, Alert Tone sounds (long beeps: "beeeep-beeeep-beeeep…").	The ESC is receiving power from the battery, but is not receiving a signal from the receiver.	Make sure the transmitter is turned on and that the receiver is linked to the transmitter and receiving a signal.
Motor does not work, Alert Tone sounds (rapid beeps: "beepbeep beepbeepbeep…").	Throttle stick is not in the lowest position, or throttle needs to be calibrated.	Lower the throttle stick all the way, or recalibrate the throttle per calibration instructions.
Motor does not work, five tones are sounded ("♪1 2 3 4 5") after the two beeps.	The direction of the throttle channel is reversed and the ESC has entered the Programming Menu.	Set the throttle direction the other way in the transmitter.
The motor turns the wrong direction.	The three motor wires are incorrectly connected to the ESC.	Swap any two of the motor/ESC wire connections with each other.

For complete ESC specifications and full programming instructions visit *flyzoneplanes.com* and click on the *Calypso* page.

MAKING REPAIRS
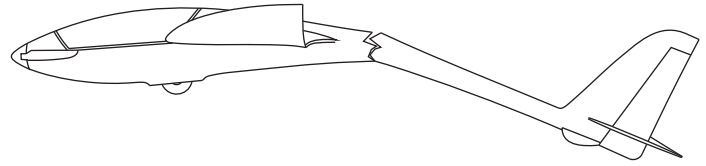
See the replacement parts list at the front of the manual. Often, parts can be repaired and you can get your Calypso back into the air with a little ingenuity.


The Calypso is made from injection-molded EPO (expanded polyolefin) foam. It can be glued with just about anything. Repairs are often made with regular CA—simply apply CA where necessary, squeeze and hold the parts together, wipe away excess CA with a cloth, then spray with CA accelerator and hold for a few seconds until the CA hardens (the final two steps may require an assistant while you hold the parts). Repairs can also be made with white glue or Shoe Goo, but tape will have to be used to hold the parts until the glue dries—usually overnight.
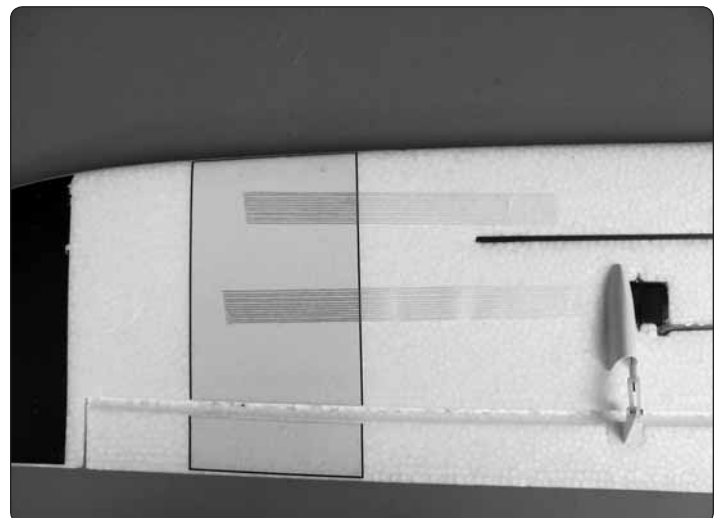
Fiber-reinforced "strapping" tape is also good for reinforcing structural repairs after the parts have been glued back together.

Bottom Panel
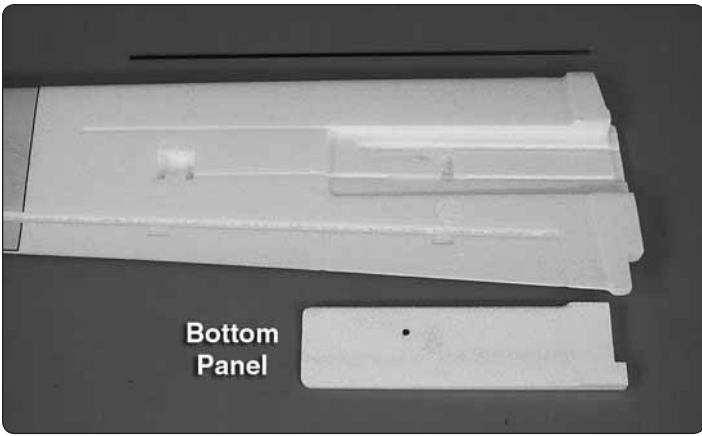
Some replacement parts are sold as assemblies (such as the wing). If the servos in your crashed wing (or fuselage) are still functioning you can remove them, peel off any excess glue, then glue them into your new wing or fuselage—CA is suitable for gluing in servos, but something pliable such as canopy glue or Shoe Goo is recommended. When gluing the bottom panel cover into the wing, use care not to get excess glue in the wing tube channel.
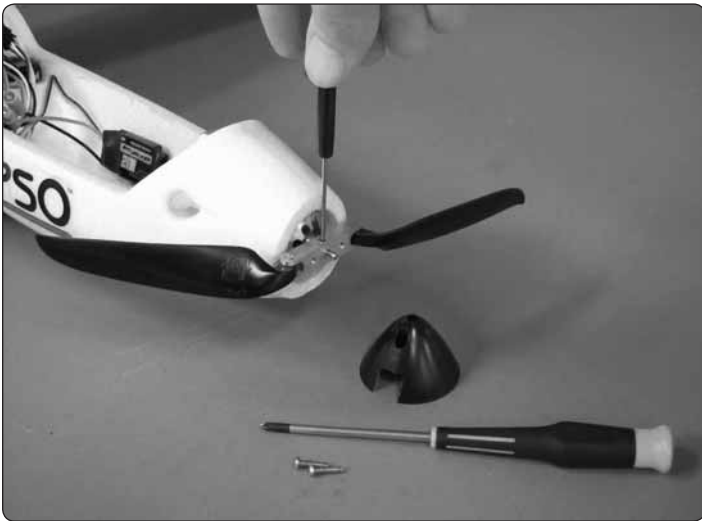
Remove

To remove the motor, first remove the spinner screws with a Phillips screwdriver, then remove the folding propeller bracket with a 1.5mm hex key wrench. Then disconnect the motor wires and unscrew the mounting screws from inside the fuselage and the motor will come out the front.

This model belongs to:

Name

Address

City, State, Zip

Phone Number

AMA Number