

USER MANUAL



MICRO ULTRIX™ Biplane



Quiet Electric Flight

Requires 6 "C" and 1 "9V"
Alkaline Batteries (Not Included)

Radio-controlled!
READY-TO-FLY

ASSEMBLE ONLY WITH ADULT SUPERVISION

- Please read through this instruction booklet to **THOROUGHLY** familiarize yourself with the assembly and flight characteristics of this airplane.
- Please inspect all parts carefully before starting assembly! If any parts are missing, broken or defective, or if you have any questions about the assembly or flying of this airplane, please call us at **(217) 398-8970** and we'll be glad to help.

WARRANTY

- **Hobbico®** 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 Hobbico's liability exceed the original cost of the purchased kit.** Further, Hobbico reserves the right to change or modify this warranty without notice.
- In that Hobbico has no control over the 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 buyers are not prepared to accept the liability associated with the use of this product, they are advised to return this kit immediately in new and unused condition to the place of purchase.

To make a warranty claim send the defective part or item to Hobby Services at the address below:

Hobby Services
3002 N. Apollo Dr., Suite 1
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.

**PROTECT YOUR MODEL, YOURSELF
AND OTHERS.
FOLLOW THIS IMPORTANT
SAFETY PRECAUTION**

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

We highly recommend that you get experienced, knowledgeable help with assembly and during your first flights, to make your R/C modeling experience totally enjoyable. You'll learn faster and avoid risking your model before you're truly ready to solo. Your local hobby shop has information about flying clubs in your area whose membership includes qualified instructors. You can also contact the national Academy of Model Aeronautics (AMA), which has more than 2,500 chartered clubs across the country. Instructor training programs and insured newcomer training are available through any one of these clubs.

Contact the AMA at the address or toll-free phone number below.



Academy of Model Aeronautics
5151 East Memorial Drive
Muncie, IN 47302
(800) 435-9262
Fax: (765) 741-0057

or via the internet at: www.modelaircraft.org

PRECAUTIONS

1. Do not alter or modify the model. If you make any modifications, you will void your warranty.
2. Test the operation of the model before each flight to ensure that all equipment is operating properly and that the model remains structurally sound.
3. Fly only on calm days (with wind speeds less than 3 mph) and in large open areas free of trees, people, buildings or any other obstacles.

The R/C model hobby becomes more and more enjoyable as your experience grows. Your chances for success and graduation to higher levels are very good if you take your time and follow the flying instructions carefully and completely. We hope you enjoy flying your MICRO ULTRIX Biplane.

GLOSSARY

Electronic Control Unit: This unit controls the motors. Also, it monitors the battery voltage and turns off the motors when the voltage gets low. That way there will be enough battery power to operate the motors for steering during the landing.

Motors: The motors rotate the props to provide thrust.

NiMH Battery: Rechargeable batteries which are used to power the airplane.

Transmitter (TX): This is the hand-held unit that sends the signal to the receiver. As you move the sticks on the transmitter, the motors in the airplane will react accordingly.

PARTS AND HARDWARE



UNPACKING THE BOX

Check the parts against the list below. If any parts are damaged or missing, please call us at: (217) 398-8970.

Transmitter Antenna (1)
Transmitter (1)
Airplane (1)
Charger (1)
Extra Propellers (2)

Items not shown:
Instruction Manual (1)

LET'S GET STARTED

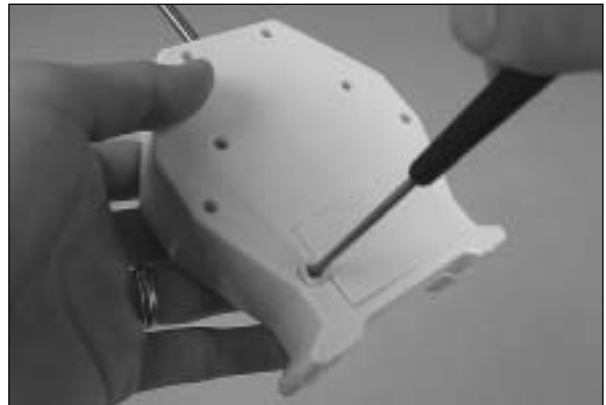
Welcome to the world of R/C aero modeling. You will find your new hobby to be exciting, very interesting and most of all, a lot of fun. You have purchased, quite possibly, the best flying, the most reliable and the easiest flying R/C airplane available today. Be sure to follow the written instructions completely and in detail. Doing this will assure you of a successful first flight and many continued hours of enjoyment from your new R/C hobby.

PREPARE THE TRANSMITTER

Caution: Do not use rechargeable (NiCd) batteries.



❑ 1. Place the transmitter antenna into the top of the transmitter case as shown above. Tighten it down "clockwise" until it has a snug fit. Do not overtighten the antenna.



❑ 2. The transmitter that controls your airplane requires one alkaline "9V" battery. To install the battery, turn over the transmitter, remove the battery hatch using a Phillips screwdriver and install the battery. Be sure to follow the diagram inside the battery compartment.



❑ 3. Reinstall the battery hatch, switch on the transmitter and check the LEDs on the front of the transmitter. If the green light is on, it is safe to fly. If not, you need to install fresh batteries. Also check to make sure that the batteries are installed correctly.

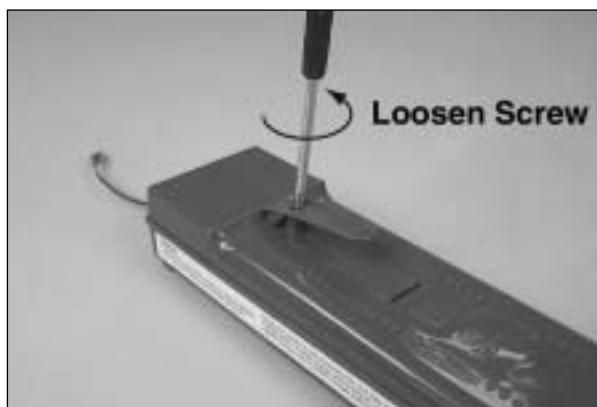
INSTALL BATTERIES IN THE CHARGER

CAUTION:

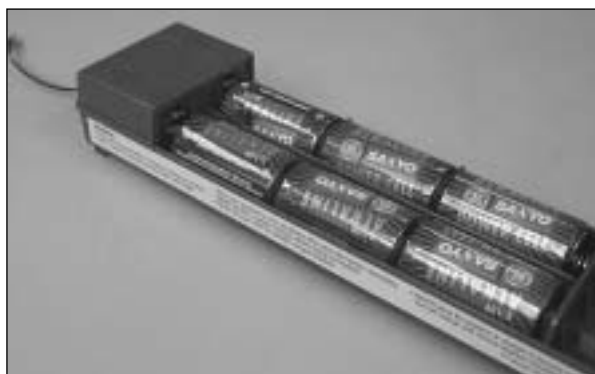
Do not use rechargeable (NiCd) batteries.

Do not mix old and new batteries.

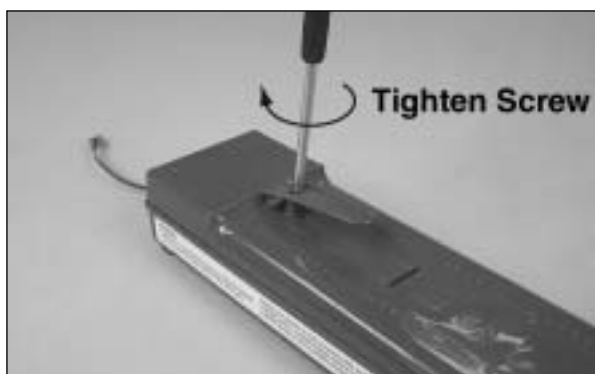
Do not mix alkaline, standard (carbon-zinc) or rechargeable (NiCd) batteries.



❑ 1. Remove the battery hatch from the charger by removing the hatch screw with a Phillips screwdriver.



❑ 2. Following the diagram in the charger, install six "C" size batteries. Make sure the positive (+) and negative (-) poles match up correctly with the diagram molded inside the battery compartment.



❑ 3. Reinstall the battery hatch by replacing the screw and switch on the charger. If the red light is flashing, the charger is ready to be used. If no lights come on, check to make sure that the batteries are installed correctly. If they are, you need to install fresh batteries.

CHARGE THE MOTOR BATTERY



❑ 1. Before operating your MICRO ULTRIX Biplane you will need to charge the NiMH battery pack in the airplane. To do so, make sure the airplane is switched off (OFF is toward the front of the airplane).



❑ 2. Turn on the charger. Plug the charger cable into the charge socket on the airplane. The charger will plug in only one way.



❑ 3. Switch on the charger to begin charging. The red LED will flash as long as the battery is charging. Once the battery is charged, the red LED will turn off and the green LED will turn solid. Be aware that during the charging, the green LED will turn on momentarily. Charging should take 5 to 10 minutes.

NOTE: DO NOT CHARGE THE AIRPLANE'S BATTERY UNLESS IT HAS BEEN FULLY DISCHARGED. To discharge the battery, turn on the airplane and the radio and apply full power until the propellers stop turning.

SAFETY PRECAUTIONS FOR CHARGING BATTERIES

- Make sure the battery is fully discharged before charging.
- Never leave a charging battery unattended.
- Never let the battery charge until it feels hot. A hot battery is an overcharged battery. Only let the battery get warm to the touch.
- A properly cared for battery pack will last a long time. If the battery pack is continually overcharged or charged at too high of a rate, the life of the battery pack will be shortened.

BATTERY RECYCLING



ATTENTION: The product you have purchased is powered by a rechargeable battery. At the end of its useful life, under various state and local laws, it may be illegal to dispose of this battery into the municipal waste system. Check with your local solid waste officials for details in your area for recycling options or proper disposal.

This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

BEFORE GOING TO THE FIELD

Before attempting to operate or fly your MICRO ULTRIX Biplane, please make sure you fully understand its operation outlined in this section.

HOW DOES THE MICRO ULTRIX BIPLANE WORK?

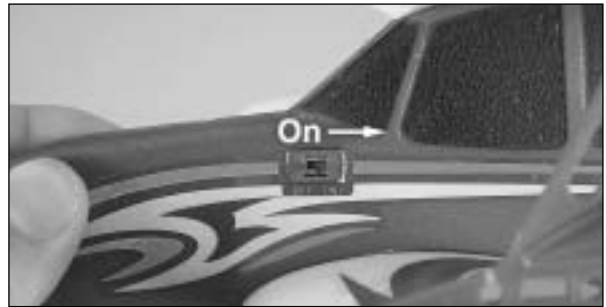
Note: The following is a detailed description of how you will control your MICRO ULTRIX Biplane in flight. Please study it carefully so you will become familiar with the operation of the transmitter before you head for the flying site.

Your transmitter controls the height of the airplane by operating both motors and the direction of the plane by slowing down either the left or right motor.



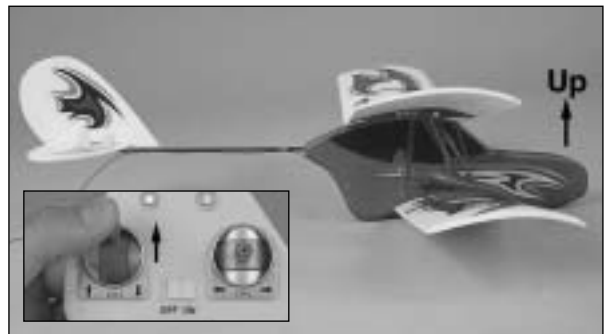
❑ 1. First extend the transmitter antenna. Then switch on the transmitter and make sure the green light is on.

❑ 2. Make sure the airplane's battery is charged.

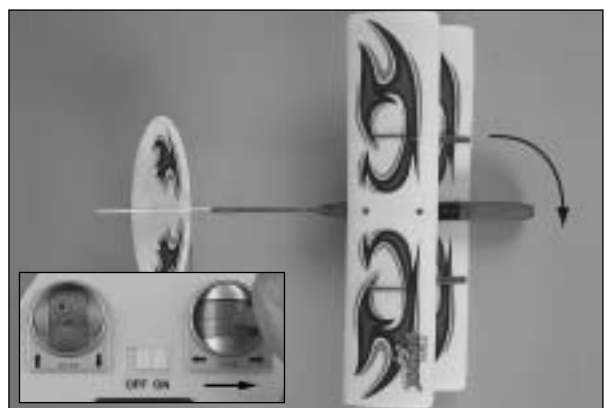


❑ 3. Move the switch located on the left side of the fuselage backward to the "ON" position.

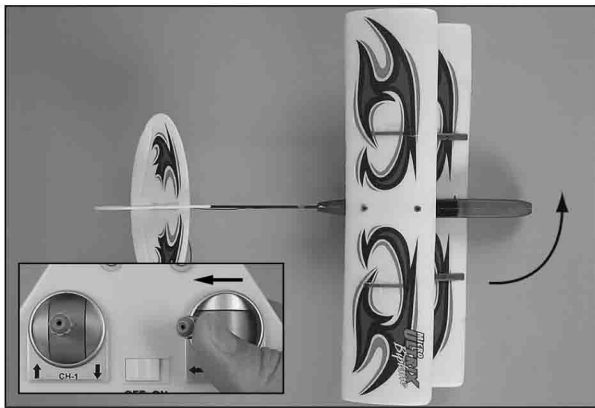
CAUTION: Stay clear of the propellers once the airplane's switch is turned on.



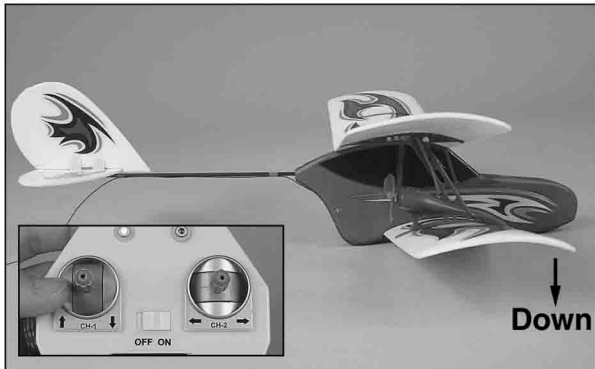
❑ 4. Moving the left stick forward will cause both motors to run at full power. At this setting, the plane should climb at a 10-15° angle. **NOTE:** For most of the flight, you will be pushing the stick forward.



❑ 5. Moving the right stick to the right will cause the right motor to slow down. This will cause the plane to turn to the right.



- ❑ 6. Moving the right stick to the left will cause the left motor to slow down. This will cause the plane to turn to the left.



- ❑ 7. By releasing the left stick, your airplane will slowly descend for landing. Fly downwind, pass your landing spot and turn back into the wind. Release the left stick and the airplane will glide in for a landing.

AT THE FIELD

PREPARE FOR FIRST FLIGHT

It is best to fly on calm days, at least for your first few flights, when there is little or no wind (3 mph maximum). Also, find an area clear of trees, power lines and other structures. Your flying location should be about the size of a baseball diamond. The best place to fly your R/C Micro Ultrix BiPe is a flying field. Don't fly around groups of people, especially children or within 6 miles of where other R/C airplanes are being flown.

Make sure the airplane's battery pack is fully charged and that the transmitter has a fresh "9V" battery installed.

If others are flying in the same area, make sure that they are not using the same frequency as your radio system. The frequency sticker is located on the back of your transmitter. This is the frequency you are using. If someone is on the same frequency, **DO NOT** switch on your transmitter until they are done flying.

ELEVATOR TRIMMING

- ❑ 1. **Caution:** Always launch the airplane away from people and obstacles. It is important to adjust or "trim," your airplane before each flight. Select an open area to test your plane.

- ❑ 2. With the motor off, grasp the airplane fuselage and gently toss the airplane into the wind. It should glide straight ahead and settle gently to the ground. See the diagram below. If your plane dives (A) or stalls (B) follow the steps included below until you have a correct path (C).



- A = Dive.
B = Stall and crash.
C = Correct flight path.

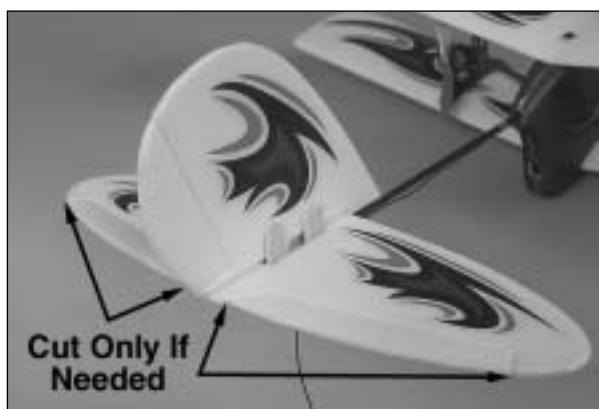
Note: If your airplane flies flat and level the first time (path C), DO NOT make any adjustments!

"NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER AUTHORITY TO OPERATE THE EQUIPMENT."

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

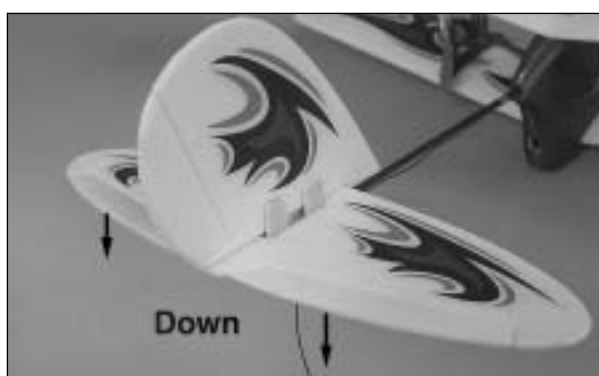
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



If you have an airplane that follows either path (A) or (B), cut the sides of the elevators as shown in the photo above.



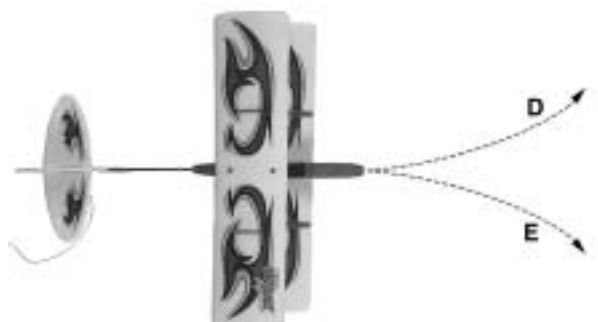
If your airplane follows path (A), bend the elevator tabs up.



If your airplane follows path (B), bend the elevator tabs down.

□ 3. Repeat step 2 until your airplane follows path C.

RUDDER TRIMMING

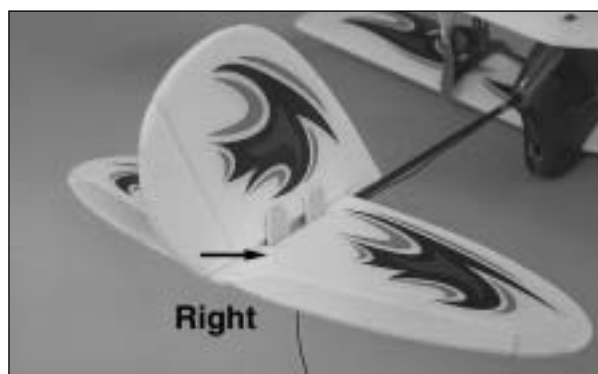


D = Airplane turns left.

E = Airplane turns right.



If your airplane turns to the right (E) during glide tests, bend the rudder to the left.



If your airplane turns to the left (D) during glide tests, bend the rudder to the right.

RANGE CHECK

Range check your radio before each flight. Switch on the transmitter first and then the airplane. Have a helper hold the airplane. With the transmitter antenna collapsed, walk 50 feet away from the airplane. Move both control sticks, checking that the motors run and turn off following the control stick movement. If you still have control over the airplane, it is safe to extend the antenna and fly the airplane. If you do not have control of the plane, make sure the batteries in the transmitter are fresh and the battery in the plane is charged. Also, make sure the wire antenna is extending out the back of the plane. **Do not cut the antenna wire on the plane.**

FLYING THE MICRO ULTRIX BIPLANE

If you have never flown an R/C airplane before, we recommend that you get help from an experienced R/C pilot. Most R/C clubs have training programs that will help you learn to fly quickly. If you cannot find an experienced pilot to help you learn, the following will help you get your airplane into the air.

1. First, turn your transmitter power switch "ON." This immediately puts you in control. Be sure to extend your antenna completely.
2. Move the airplane's switch to the "ON" position.
Caution: Stay clear of the propellers.
3. Have an assistant help with the launch. Move the throttle stick (left) forward so that both motors are running. Have your assistant launch the plane into the wind.
4. Allow the airplane to climb at a 10-15° angle for a few seconds before turning it. This will allow the plane to gain altitude and air speed.
5. To turn the MICRO ULTRIX Biplane, move the right stick to the left or right until the plane has turned. When the MICRO ULTRIX Biplane is moving away from you, moving the right stick to the left will

make your plane turn to the left. Moving the right stick to the right will make the plane turn to the right.

6. When the plane is coming toward you, moving the right stick left still causes the plane to turn left, but it appears to turn to **your right**. In short, you have to reverse the way you control the right stick. A good way to familiarize yourself with the controls is when the plane is coming toward you, turn your body so that you are facing the same direction the plane is going, looking over your shoulder at the plane. Now when you move the right stick left the plane will go to your left.

7. Don't let the airplane get too far away from you. The farther away it is, the harder it is to see what the plane is doing.

8. When learning to fly, it is best to keep the plane high so that if you make a mistake, you have enough altitude to correct the mistake.

LANDING

It's a known fact among fellow R/C pilots that your airplane **will** land. It is up to you as to where and how it lands.

1. The MICRO ULTRIX Biplane will fly for approximately 3 to 5 minutes at full throttle on a fully charged battery. For your first couple of flights we recommend that you attempt to land before the motors stop. This will allow enough power to abort the landing and try again if you miss your landing area. When the transmitter battery power is getting low, the green light will turn OFF. Once the green light is off, it is time to land your MICRO ULTRIX Biplane.
2. During your first flight, while at a high altitude, turn the motors off and notice how the MICRO ULTRIX Biplane reacts. This will give you an idea how the plane will react during landing.
3. To land the MICRO ULTRIX Biplane, fly downwind and a few feet past the landing area. Gently turn into the wind and turn the motors off. The plane will start to come down. If it appears that the MICRO ULTRIX