COMPLETE RTF AIRPLANE



Please retain this information for future reference.

ASSEMBLE ONLY WITH ADULT SUPERVISION

Please read through this instruction booklet to **THOROUGHLY** familiarize yourself with the assembly and flight characteristics of this airplane before beginning to assemble the kit.

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 THESE IMPORTANT SAFETY PRECAUTIONS

Your Beechcraft Staggerwing 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 Beechcraft Staggerwing, if not assembled and operated correctly, could possibly cause injury to yourself or spectators and damage to property.

We highly recommend that you get experienced, knowledgeable help with assembly and during your first flights. This will make your modeling experience more enjoyable. You'll learn faster and avoid risking your model before you are truly ready to fly 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**

FCC REQUIREMENT

FCC This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications to this product not expressly approved by the party responsible for compliance may void the user's authority to operate the equipment.

PRECAUTIONS

1. Assemble the plane **according to instructions**. **DO NOT** alter or modify the model. If you make any modifications, you void your warranty.

2. **Test** the operation of the model **before each flight** to insure that all equipment is operating properly and that the model remains structurally sound.

3. Fly only on calm days (with wind speeds less than 5mph) and in large, open areas free of trees, people, buildings, or any other obstacles.

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

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 assembly and flying instructions carefully and completely. We hope you enjoy flying your Beechcraft Staggerwing.

GLOSSARY

Electronic Speed Control/Receiver (ESC/RX):

This unit controls the speed of the motor and control surfaces.

Elevator: The moving surface on the horizontal stabilizer that controls the pitch of the airplane causing it to climb or descend.

Rudder: The moving surface on the vertical fin that controls movement of the airplane to the left or right.

Nickel-Metal Hydride (NiMH) Battery:

Rechargeable batteries which are used to power the airplane. NiMH batteries are lighter and smaller than most other types of rechargable batteries.

Transmitter (TX): This is the hand-held unit that sends the signal to the control unit (or RX). Moving the sticks controls altitude and direction. The throttle lever on the back of the transmitter controls speed.

AIRFRAME PARTS AND HARDWARE

Before starting to build, 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 you need assistance with assembly, contact Product Support. When reporting defective or missing parts, please use the part names exactly as they are written in the parts list.



- 1. Fuselage
- 2. Cowl
- 3. Propeller Assembly
- 4. Top Wing
- 5. Bottom Wing
- 6. Wing Struts (2)
- 7. Fin
- 8. Fin Holder

- 9. Horizontal Stab
- 10. Tail Mount Hardware
- 11. Main Landing Gear Assembly
- **12.** Tail Wheel Assembly
- **13.** NiMH 7.2V 900mAh Battery
- 14. 12V DC Peak Charger
- 15. Tactic 3-Channel Transmitter

ASSEMBLE THE TAIL

□ 1. Remove all of the components from the plastic packaging and lay them out on your work surface.



 \Box 2. Install the "U" shaped threaded wire into the plastic **fin holder** as shown. The longer end of the wire should be installed at the end of the fin holder that has the angled edge.



□ 4. Slide the wire through the holes in the top of **fuselage**, pressing the horizontal stab onto the top of the fuselage.





□ 3. Slide the wires through the holes in the top of the **horizontal stab**, sliding the plastic fin holder flush with the horizontal stab.

□ 5. Install a plastic nut onto each threaded end of the wire until the horizontal stabilizer fits snug to the fuselage.



□ 6. Install the **fin** into the fin holder.



□ 7. From the *right side* of the fin holder install two 2mm x 8mm machine screws. Tighten the screws until the fin fits snug in the fin holder. Be careful not to overtighten the screws.



□ 8. Remove the pushrod retainers from the pushrod wires. Slide the wire into the outermost hole in both the rudder and elevators' control horns, and then re-install the pushrod retainers.

INSTALL THE LANDING GEAR



□ 1. Slide the **tail wheel wire** into the slot on the bottom of the fuselage.



 \Box 2. Place the plastic tail wheel retainer over the landing gear slot. Secure it to the fuselage with 2mm x 5mm sheet metal screws.



□ 3. There are three components for the **main landing gear**. The landing gear wire, the main

landing gear retaining plug and two 2.5mm x 8mm sheet metal screws. Slide the landing gear wire into the slot in the fuselage. Insert the main landing gear retaining plug into the slot. Then, secure it with the two screws.

INSTALL THE WINGS



□ 1. Begin with the bottom wing (the bottom wing has the black stripe decals). Slide the dowels on the leading edge of the wing into the holes in the fuselage.



□ 2. Press the wing onto the fuselage and secure it with the 3mm x 15mm sheet metal screw. The screw should be tight enough to hold wing snug against fuse, yet not crush the wing. Do not overtighten.



 \Box 3. Repeat these steps to install the top wing. The top wing should be secured with a 3mm x 18mm sheet metal screw.



□ 4. Making sure the curvature on the ends of the strut match the curvature of the wing, slide one of the plastic **wing struts** into the slot in the bottom, left wing and the slot in the top, left wing.



□ 5. Slide the strut locking ring over the tab extending through the wing from the strut. Rotate the locking ring ¹/₄ turn so the tab on the strut aligns with the tabs on the locking ring.

□ 6. Repeat this for the right wing.

GET THE MODEL READY TO FLY

CHARGING THE BATTERY PACK

The battery can be charged using the included **12V peak charger**. To use the 12V peak charger, plug the battery charger into a 12-volt power outlet in a vehicle. When using the 12V charger, place it and battery outside the car, away from flammables

To begin charging the battery pack, plug the battery pack into the 12V peak charger connector. It will only connect one way. Do not force it. Charge the battery for 45 minutes. **Do not have the engine of your vehicle running. Overcharging the battery may result!**

IMPORTANT! NEVER LEAVE A CHARGING BATTERY UNATTENDED.

Always disconnect the charger from the 12-volt power outlet in your vehicle when finished charging.

After each flight, completely discharge the battery and remove the battery pack from the airplane and allow it to cool completely before recharging. To fully discharge your airplane battery, run the motor at high speed until the motor starts to pulse on and off.

BATTERY CHARGING PRECAUTIONS

□ 1. Be careful to avoid overcharging the battery! When you plug the battery into the charger there is no way to know how much charge is left in the battery (unless you have just completed a flight in which the battery was run all the way down or have fully discharged the battery). If you put too much charge into the battery, it will get very hot. This may result in melting the plastic battery cover, causing the cells to vent and damaging the charger! Always remove the battery from your airplane before charging.

□ 2. Remember to check the temperature of the battery every 5 minutes during the charge. Unplug the battery immediately if it begins to get hot.

□ 3. Charging the airplane battery while your car's engine is running can be dangerous, because it increases the chances of overcharging. For this reason, you should never charge your battery while your car's engine is running.

□ 4. If your battery is not completely discharged before charging, the charging time may take less than 60 minutes when using the 12V peak charger. Again, only let the battery get warm to the touch – not hot.

□ 5. If you use a different battery charger, charge this battery pack only at a maximum charge rate of 1 amp. A higher charge rate will charge the battery pack too quickly and heat up the wires.

□ 6. 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.

WARNING: Misuse or malfunction may overheat the battery and charger, resulting in personal injury, fire or damage to surroundings.

BATTERY RECYCLING



ATTENTION: The product you have purchased is powered by a rechargeable battery. At the end of the battery's 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.

WARNING: This product contains a chemical known to the State of California to cause cancer.

INSTALL THE BATTERY



□ 1. Check the switch on the left side of the airplane making sure it is in the off position. When the switch is forward the power to the airplane motor is off. Open the battery cover located on the bottom of the fuselage.

and the wire into the hole inside of the battery compartment. Then, push the battery until it is seated against the bottom of the fuselage.



□ 3. Re-install the battery cover.



□ 2. Plug the **battery** into the connector inside of the battery compartment. Push the connector

BALANCE THE MODEL



□ 1. Use a fine-point felt-tip pen to mark the balance range on the left and right sides of the **top of the bottom wing**. The balance point should be 2-1/4" [57mm] back from the leading edge of the wing, measured at the fuselage sides.



□ 2. With the battery in place, turn the model upside down then lift the model with your fingertips on the lines under the wing. Position your fingertips where necessary to get the model to sit level, or "balance". If your fingertips are on the line, the Staggerwing is ready to fly.

□ 3. If the model balances with your fingertips **ahead** of the lines, weight will have to be added to the **tail** to get it to balance. Tail weight may be stuck to the bottom of the fuselage.

□ 4. If the model balances with your fingertips **behind** the lines, weight will have to be added to the **nose** to get the model to balance. Nose-weight may be stuck to the firewall inside of the cowl. Stick-on lead weight may be purchased from your local hobby shop.

Stick on as much weight as required to get the model to balance when lifted by your fingers. If you added any weight, recheck the balance.

PREPARE THE TRANSMITTER

□ 1. Locate the antenna and screw it into the top of the transmitter.



□ 2. The transmitter that controls your airplane requires power, in the form of eight "AA" batteries. To install the batteries, remove the screw from the battery hatch on the bottom of the transmitter.

□ 3. Install eight new "AA" batteries, following the diagram on the holder.

□ 4. Reinsert the battery holder in the transmitter case. Reinstall the battery hatch on the bottom of the transmitter case and screw it in place.

□ 5. Switch on the transmitter and check the LED on the front of the transmitter. If the LED is green, it is safe to fly. If the red LED is flashing, you need to install fresh batteries.

CAUTION:

- Do not use rechargeable (NiMH) batteries.
- Do not mix old and new batteries.
- Do not mix alkaline, standard (carbon-zinc) or rechargeable (NiMH) batteries.

RADIO ADJUSTMENT



□ 1. Switch on the transmitter and move the throttle slide to the left. Make sure the LED on the radio is green. **IMPORTANT!** When you turn on the transmitter the LED should be green. If it is no longer green and begins to turn to a pale yellow, the battery is getting low. If the LED is flashing red, the battery voltage is unsafe to fly the model. Never fly when the transmitter battery's LED is not green.

□ 2. Install the battery and battery cover. Turn on the radio using the switch on the side of the airplane.

CAUTION: Once the battery is connected to the ESC and the plane is turned on, stay clear of the propeller.



□ 3. Center the rudder and elevator trim. Be sure the elevator is aligned with the horizontal stab and that the rudder is aligned with the vertical fin. If they are not, align them using the trims.

CHECK THE CONTROL DIRECTIONS

□ 1. Be sure your transmitter has fresh "AA" batteries installed (not included). Turn on the transmitter and center the trims. If necessary, adjust the control surfaces with the adjustment knobs to center them or use the trim levers on the radio.

□ 2. Make sure the battery is connected in the airplane. Turn the switch to the on position (towards the back of the plane).

□ 3. Check the operation of all control surfaces. The stick on the front of the radio will control the rudder and elevator. The slide switch on the top, left side of the transmitter controls the throttle. The throttle slide should be to the far left positon.



□ A. When the control stick is moved **down**, the elevator will move **up**. When the control stick is moved **up**, the elevator will move **down**.



□ B. When the control stick is moved **left**, the rudder will move **left**. When the control stick is moved **right**, the rudder will move **right**.



□ C. If stick movement results in control surface movements or thottle operation is opposite as it is described above, flip the appropriate reversing switch on the transmitter and recheck the control directions.

Turn off the airplane and the transmitter.

the tail of the airplane securely. Move the throttle to the far right position and leave it there for approximately 10 seconds. Then, move it back to the far left position. The ESC is now armed. When you move the slider back to the right the motor will accelerate.

□ 3. When you are certain everything is working correctly turn off the radio and airplane.

CHOOSE A GOOD FLYING SITE

The Staggerwing should be flown only when the wind speed is 5 mph or less. Find an area clear of trees, power lines and other structures. A flying field for R/C planes is best. Don't fly around groups of people, especially children or within 6-miles of existing R/C flying fields. **Caution:** If you have not previously flown a trainer R/C airplane it is strongly suggested that you learn to fly with one first. If you do not do this, seek out an experienced pilot to help you with the first few flights.

ARMING THE MOTOR



□ 1. Insert a small wire through the hole in the propeller nut to be sure the nut is tight. If you do not have a small wire, carefully tighten it with pliers.

□ 2. The throttle control should be to the far left position. Turn on the transmitter and the airplane. Keep your hands free of the propeller and hold

PREPARE FOR TAKEOFF

□ 1. Find an open area free of buildings, trees, power lines and people.

□ 2. For your first few flights, fly only when the wind is calm. After you are comfortable with the airplane, you can fly in winds that are no more than 5 miles per hour. If flown in stronger winds, the plane may be blown down wind and not have enough power to get back.

□ 3. Make sure the battery pack is fully charged and that the transmitter has fresh "AA" batteries installed.

□ 4. If others are flying in the same area, make sure that they are not using the same channel radio system you are. The front of your transmitter has a tag with a number on the crystal housing. This is the channel number and frequency you are using. If someone is on the same channel or frequency, **DO NOT** switch on your transmitter until they are finished flying.

FLYING THE STAGGERWING

Your transmitter controls the altitude, direction and speed of the airplane. The control stick controls both the altitude and direction of the airplane.

When the battery power gets too low, the "Auto Cut-Off" feature of the speed control provides an extra degree of insurance. It reacts to low power by pulsing the motor on and off, in effect saving power for the receiver. That way your airplane goes into a glide and you stay in control as you land.

1. Extend the antenna on the transmitter and throttle slider all the way to the left. Then, turn the power switch to the "ON" position.

2. Plug in the battery in the airplane and turn the switch to the "on" position.

3. Move the throttle lever all the way to the right, to arm the motor.

4. Perform a range check with your radio before each flight. Have a helper hold the airplane. With the transmitter and airplane on, collapse the transmitter antenna, walk 100 feet away from the airplane, holding the transmitter with the antenna pointing up. Move the control stick, checking that the control surface responds. Also, turn the motor on and check the range. If you still have control of the airplane, it is safe to extend the transmitter 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 airplane.

5. With the throttle lever moved fully to the right, hand launch the Staggerwing into the wind, at a slight upward angle. **Note:** For the first couple of flights, we recommend having a helper hand launch the airplane. After you become familiar with the flight characteristics of the airplane, it can be flown off a hard surface instead of hand launched.

6. Move the control stick down (towards you) so that the plane climbs at a 20° to 30° angle. Allow the airplane to climb a few seconds before turning it.

7. When your airplane is moving away from you, moving the control stick to the left will make your plane turn to the left. Moving the stick to the right will make the airplane turn to the right. By adding a little up elevator (moving the stick down) during the turn, the airplane will turn much tighter. To stop the turn, move the stick the opposite direction until the airplane is flying straight.

8. Now that you have gained some altitude, it is time to trim the plane for straight, level flight. If the airplane wants to climb when the control stick is released, move the vertical trim lever up away from you. If the airplane wants to dive, move the vertical trim lever down away from you. It should require very little trim. Your goal is to have the airplane fly level with the control stick centered.

9. Now, with the airplane flying level, check to see if the airplane is flying straight. If it wants to turn when the control stick is centered, move the horizontal trim lever opposite the direction the airplane is turning. The airplane should be trimmed so that if you take your hands off of the control stick, the airplane will fly straight and level on its own. Having the airplane trimmed properly makes flying much easier and more enjoyable.

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

11. While becoming familiar with the airplane, it is best to keep the airplane high enough so that if you make a mistake, you have enough altitude to correct the mistake.

LANDING

1. For your first couple of flights we recommend that you attempt to land well before the motor stops.

2. During your first flight, while at a high altitude, turn the motor off and notice how the airplane reacts. This will give you an idea of how the airplane will react during a landing.

3. To land, fly down wind, past the landing area. Gently turn into the wind and reduce the throttle so that the airplane starts to come down. Adjust the throttle as needed to reach the landing area, but not fly past it.

4. Just before landing, at about 1 foot above the ground, apply a little up elevator to flare (raise the nose of the airplane). This will cause the airplane to slow and settle to the ground.

CAUTION: If, during a rough landing, the propeller should become jammed and cannot rotate with the throttle in the run position, the battery and speed control will become very hot. Immediately move the throttle lever to the left to stop the motor. If you fail to do this, the motor, speed control and/or battery will be damaged.

Disconnect the battery from the airplane. Then, switch the transmitter off and remove the battery

AFTER THE FLIGHT

from the battery compartment of the airplane. Allow the motor and battery to cool before recharging. Check the airplane over to make sure nothing has come loose or may be damaged.

REPAIRS

Even the best R/C pilots in the world damage their airplanes every now and then. In the unfortunate event that you damage your airplane, repairs are fairly simple to make yourself. If there are any cracks in the wing or fuselage, apply 6-minute epoxy or white glue to the broken areas and hold together with clear packaging tape. Let the glue cure, leaving the tape in place for added strength.



REPLACEMENT PARTS

To order replacement parts for your Staggerwing, use the order numbers in the list below. Replacement parts are available only as listed. Replacement parts are not available from Product Support, but can be purchased from hobby shops or mail order/Internet order firms. If you need assistance locating a dealer to purchase parts, contact:

Product Support Phone: 217-398-0007 Fax: 217-398-7721 E-mail: productsupport@hobbico.com

HCAA3970 ... Main Wings HCAA3971 ... Propeller Assembly HCAA3972 ... Cowl with Screws HCAA3973...Wing Struts (2) HCAA3974 ... Main Landing Gear Assembly HCAA3975 ... Tail Assembly HCAA3976 ... Battery Hatch HCAA3977 ... Fuselage with Pushrods HCAA3978 ... Tail Wheel Assembly HCAA3979... Motor with Gearbox HCAA3980...Wing Screws (2) HCAA3981 ... Prop Adapter HCAA3982 ... Pushrod Set HCAA3983 ... Decal Set GPMM7702...12V DC Peak Charger 7.2-8.4V NiMH GPMP7702 ... NiMH 7.2V 900mAh Battery HCAQ3503 .. 8x6 Propeller (2) HCAA3913 ... Control Horn Set TACM0100 ... TSX100 Micro Servo TACM5100 ... TSX100 Servo Gear Set TACM5101 ... TSX100 Servo Arms

TACL3036 FM Receiver/ESC Channel 36 TACL3038 FM Receiver/ESC Channel 38 TACL3042 FM Receiver/ESC Channel 42 TACL3044 FM Receiver/ESC Channel 44 TACL3046 FM Receiver/ESC Channel 46 TACL3050 FM Receiver/ESC Channel 50 TACJ1336..... Tactic 3-Ch FM Transmitter Ch 36 TACI1338...... Tactic 3-Ch FM Transmitter Ch 38 TACI1342..... Tactic 3-Ch FM Transmitter Ch 42 TACI1344...... Tactic 3-Ch FM Transmitter Ch 44 TACJ1346..... Tactic 3-Ch FM Transmitter Ch 46 TACJ1350..... Tactic 3-Chl FM Transmitter Ch 50 TACM1301 ... Tactic 3-Ch Tx Antenna TACM1302 ... Tactic 3-Ch Tx Battery Door TACM4403 ... Tactic 3-Ch Tx Battery Holder TACL4036 Tactic FM Tx Crystal Ch 36 TACL4038 Tactic FM Tx Crystal Ch 38 TACL4042 Tactic FM Tx Crystal Ch 42 TACL4044 Tactic FM Tx Crystal Ch 44 TACL4046 Tactic FM Tx Crystal Ch 46 TACL4050 Tactic FM Tx Crystal Ch 50

OTHER FLYZONE PLANES AVAILABLE

PIPER J-3 CUB RTF

Add 8 "AA" batteries to this RTF, and you have everything you need for a low-key afternoon of sport flying. The airframe and reinforced 1-piece wing are molded foam, factory-finished and decaled. And all of the on-board electronics — including a 380-size motor, ESC, receiver and three micro servos — are installed. Charge up the battery and you're ready to go. The included 4-channel Tactic" FM radio has one channel each for throttle, elevator, ailerons and rudder — all you need for lazy loops, unhurried barrel rolls and smooth banking turns. HCAA24**

Wingspan: 36 in Length: 26 in Includes: Tactic radio w/6-channel receiver & 3 micro servos; 380 motor; ESC w/auto cut-off; battery, charger & spare prop Requires: 8 "AA" batteries

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DIABLO EDF JET TRAINER RTF

Learn to fly — with a jet! The Diablo is virtually flight-ready when you open the box. Its advanced AeroCell[™] foam construction makes it virtually immune to crash damage. And since finishing is done, all that's left between you and a first flight are some easy assembly and a quick charge. Add just 8 "AA" batteries; everything else is included — 1500mAh ElectriFly[™] LiPo battery, balancing LiPo charger, Tactic[™] 4-channel radio, ESC, HyperFlow[™] ducted fan unit (and 370 motor) and Tactic[™] 4-channel radio. Wingspan: 40.25 in (1020 mm) Wing Area: 320 in2 (20.6 dm2) Length: 39 in (995 mm) Includes: Tactic[™] 4-channel radio, receiver, servos, speed control, HyperFlow[™] ducted fan system, ElectriFly[™] 3S 11.1V 1500mAh LiPo battery pack, ElectriFly balancing charger w/AC & DC adapters Requires: 8 "AA" alkaline batteries



With this Cessna, no building, painting, or covering is needed. Even the decals are factory-applied and all electronics are preinstalled. The Tactic 4-channel 72MHz FM transmitter features elevator, aileron, rudder and throttle controls, plus a Futaba⁹compatible trainer jack. The cowl and wheel pants are ABS, the foam wheels attach to heavy-duty aluminum landing gear — and the 380-size motor is more powerful than those found in other RTF planes. You can recharge the included NiMH battery right at the field using the included 12V DC peak charger. **HCAA23****



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