

# 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 this model.

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<sup>®</sup>, Inc. 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 model. 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

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

2. Assemble the plane **according to the instructions**. **Do not** alter or modify the model. If you make any modifications, you will void your warranty.

3. Testing has proven that the Ventura may be flown by experienced pilots in winds of up to 15mph, but beginners should fly the Ventura only when wind speeds are 5mph or less. The Ventura should be flown only in large, open areas free from trees, people, buildings, telephone or electric lines or any other obstacles.

4. The Ventura RTF is offered on six different channels (1 through 6) that are on a "shared" frequency band of 27 MHz (mega Hertz). This means that both the Ventura and ground-based models (cars and boats) may use these channels. If two or more models are being operated in the same area on the same channel, radio interference may occur resulting in a crash of one or both models. There is also a chance that someone at a nearby R/C airplane flying site could be flying on the same frequency as you. If this happens a crash may result-with the person flying the more expensive airplane suffering the greater loss (and having greater potential for property damage or injury). To avoid frequency conflicts look for other R/C activity at the flying site you have chosen. If there is another R/C model in the vicinity kindly ask the pilot/driver what is his frequency. If you are on different frequencies you may both confidently operate your models without fear of a crash from radio interference. If you happen to be on the same frequency you will have to take turns.

The best way to avoid radio interference (and to get flight instruction) is to join an R/C club where frequency control measures will be in effect. If you insist on flying elsewhere, always be aware of your proximity to R/C flying sites and other modelers who could be using the same frequency as you.

If you're an inexperienced modeler, we recommend that you get assistance from an experienced, knowledgeable modeler to help you with assembly and your first flights. 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. Through any one of them, instructor training programs and insured newcomer training are available. 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: http://www.modelaircraft.org



Attention: The Ventura 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 the 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.

# GLOSSARY



**Vertical Stabilizer (Fin):** Vertical tail wing that stabilizes the model in the "right/left" direction by keeping the tail behind the nose.

**Rudder:** Movable surface connected to the fin. Controls the turning direction of the model.

**Horizontal Stabilizer (Stab):** Horizontal tail wing that stabilizes the model in the "up/down" direction.

**Elevator:** Movable surface connected to the stabilizer. Controls the main wing angle to make the model climb or descend.

**Transmitter (Tx):** Hand-held control box operated by the pilot that sends signals to the receiver to control the model for flying.

**Receiver (Rx):** Electronic unit in the airplane that receives signals from the transmitter and relays them to the servos to operate the controls.

**Servo:** An electronic unit inside the model with a small motor, gears and an external arm that moves the pushrod connected to the control surface (elevator and rudder for the Ventura).

**Electronic Speed Control (ESC) with Auto Cut-off:** Electronic unit in the airplane that controls the speed of the motor. When the battery voltage drops to a certain point the ESC will automatically cut off the motor, reserving enough battery power to operate the radio while you glide and land the airplane.

**Trim Tabs:** The sliding tabs on the transmitter that allow fine adjustments of the control surfaces.

**Volt (V):** A Volt is a measure of a battery's "muscle." The battery pack for your Ventura is made up of seven individual 1.2V batteries. Connected together the total voltage is 8.4 Volts ( $1.2 \times 7$ ).

**Ampere (A):** An Ampere, or "Amp," is a measure of the flow of electricity, or "current." A milliamp (mA) is one one-hundredth of an Amp.

**Milliamp-Hours (mAh):** Indicates the "size," or capacity of a battery pack (how much energy it can store). The capacity of the Ventura's battery is a 900 mAh (.9Ah), so if the battery was connected to an electric motor that required .9A to run, the battery could run the motor for about one hour. However, at full power the Ventura's motor uses about 11 Amps, so it will run for about five minutes on the 900 mAh battery (.9Ah battery/11A = .082 hours (4.9 minutes).

**Nickel-Metal Hydride (NiMH) Battery:** There are a few different types of rechargeable batteries. The Ventura battery pack is a rechargeable NiMH battery. NiMH batteries are lighter and smaller than most other types of rechargeable batteries.

# **KIT INSPECTION**

Before starting 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 on this page.

> Hobbico Product Support: 3002 N Apollo Drive, Suite 1 Champaign, IL 61822 Telephone: (217) 398-8970 ext. 3 Fax: (217) 398-7721 E-mail: <u>airsupport@hobbico.com</u>



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10. Stabilizer 11. Rubber Bands

Kit Contents (RTF Version)	Kit Contents (ARF Version)
Fuselage (w/Preinstalled ESC) Flag 8.4V 900mAh NiMH Battery Pack Transmitter Spare Propeller, Spinner and Spinner Screw Spare Fin Mounting Nuts Charger Wing Fin with Fin Mounting Nuts Stabilizer Rubber Bands	<ol> <li>Fuselage (w/Preinstalled ESC)</li> <li>8.4V 900mAh NiMH Battery Pack</li> <li>Spare Propeller, Spinner and Spinner Screw</li> <li>Spare Fin Mounting Nuts</li> <li>Charger</li> <li>Wing</li> <li>Fin with Fin Mounting Nuts</li> <li>Stabilizer</li> <li>Rubber Bands</li> <li>Note: Numbers not in numerical sequence to match the RTF version photo above.</li> </ol>
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# FLYZONE 3-CHANNEL FM TRANSMITTER (TX)



# ASSEMBLY

**IMPORTANT:** The Ventura manual has been written to cover the ARF (Almost Ready to Fly) and the RTF (Ready to Fly) versions of the aircraft. Certain steps and instructions may not apply to your model. Please read the manual completely prior to assembly.



□ 1. Unscrew the **fin mounting nuts** from the fin mounting rods.



 $\Box$  2. Join the fin to the top of the stab by inserting the fin mounting rods all the way down into the holes while holding the elevator in the full "up" position. (The bottom of the stab is the side that doesn't have the stickers and has the control horn on the elevator.)



 $\Box$  3. Insert the fin mounting rods all the way down through the fuselage. Push down on the fin until there is

no gap between the fin and the stab and between the stab and the fuselage. Install the fin mounting nuts until they contact the fuselage. Then, tighten them three more full turns. This will securely tighten the fin and stab without overtightening.

# **FLIGHT PREPARATION**

# RADIO SETUP (ARF VERSION)



 $\Box$  1. Install two micro, or mini servos in the servo trays as shown using the hardware provided by your radio manufacturer.

□ 2. Temporarily connect the servos to your receiver. Center all trims on your transmitter and turn it on. Plug the ESC into the throttle channel on your receiver and then connect the battery to the ESC. This should center the servos. Disconnect the battery from the ESC and turn off your transmitter.



□ 3. Attach servo arms to each servo, trimming as necessary to allow both arms to travel freely. Insert the elevator and rudder pushrods into the 2nd hole from center as shown.



□ 4. Ensure all servos are connected to the receiver and mount the receiver as shown using hook and loop tape or thick double sided tape. Route the antenna through the fuse and out of the small hole in the tail of the Ventura.

□ 5. Continue to *"Radio Setup (RTF Version)"* and follow the instructions.

# **RADIO SETUP (RTF VERSION)**



□ 1. Install eight "AA" alkaline batteries in the back of the transmitter and then replace the battery cover. **Note:** Alkaline batteries are preferred over rechargeable batteries because alkalines have a higher voltage.



□ 2. Center the elevator and rudder trim levers on the transmitter. Move the elevator and rudder servo reverse switches to the down position.

**IMPORTANT!!! ALWAYS** reduce the throttle lever and turn on the transmitter **before** plugging in the battery. Similarly, **NEVER** plug in the battery before reducing the throttle lever and turning on the transmitter.



 $\Box$  3. Move the throttle lever on the transmitter all the way to the left (when viewing the transmitter from the front), to the **off** position.

□ 4. Switch on the transmitter. Check the battery condition. Both the red and green lights should glow. When the green light becomes dark the batteries are too low and the model should not be flown. If the green light becomes dark while flying, land the plane immediately or loss of control may result.



□ 5. Install the battery. Connect the battery to the plug in the fuselage. Tuck in the wires so the hatch can close.

□ 6. See if the battery has any power by moving the control stick on the transmitter and seeing if the servos move. If the servos do not move, or if they stop working while setting up the radio in the following steps, disconnect the battery and refer to the *"Battery Charging"* and *"Battery Charging Safety Precautions"* sections on page 10.



□ 7. Adjust the clevis on the end of the **elevator pushrod** so that when connected to the **outer hole** in the elevator control horn, the elevator will be centered. Connect the clevis to the elevator horn and pinch it together until the pin in the clevis snaps in.



□ 8. Adjust the clevis on the end of the **rudder pushrod** so that when connected to the **outer hole** in the rudder control horn, the rudder will be centered. Connect the clevis to the rudder horn and pinch it together until the pin in the clevis snaps in.

**Note:** Beginners should connect the clevises to the **outer holes** in the control horns as shown in steps 7 and 8. When the clevises and pushrods are connected to the outer holes the elevator and rudder will have less movement, or "throw." This will allow the Ventura to fly smoother and more docile so beginners will be less likely to over control the model when learning to fly.





□ 9. Move the elevator using the control stick on the transmitter. Make certain that the elevator responds in the correct direction: Moving the stick **downward** (pulling it back) should make the elevator move **up**. In flight, this will lower the tail to raise the angle of the wing, making the model climb. Pushing the elevator stick **forward** will have the opposite effect. If the elevator does not respond in the correct direction, check the **elevator servo reverse switch** on the front of the transmitter.



□ 10. Move the rudder using the control stick and make certain the rudder responds in the correct direction: Moving the stick to the **right** should make the rudder move **right**. In flight, this will make the model turn right. Moving the stick to the **left** will make the model turn **left**. If the rudder does not respond in the correct direction, check the **rudder servo reverse switch** on the front of the transmitter.

Now it's time to check the motor operation. **Use caution** and **always** beware of the spinning propeller. Even though the Ventura is a small, electric-powered model airplane, the propeller turns at a high RPM and could cause bodily harm.







□ 11. **Securely hold the model.** Make sure the throttle lever on the back of the transmitter is in the **off** position all the way to the left. Press the red motor start button. Carefully advance the throttle lever and observe that the propeller will turn. The more you advance the throttle lever, the faster the motor will turn until it reaches full power. Return the throttle lever to the off position.

Now the controls are set. Disconnect the battery and turn off the transmitter. **Note:** There is no on/off switch

on the airplane, so whenever the battery is connected the airplane is "on." Therefore, the battery should always be disconnected when the model is not in flight.

## PREFLIGHT

# **IDENTIFY YOUR MODEL**



Use a fine-point felt-tip pen to write your name, telephone number and address directly on the model, or write it on a piece of masking tape and apply it to the model.



 $\Box$  1. Use a fine-point felt-tip pen to mark the balance range on both sides of the **bottom** of the wing according to the measurements shown in the photo. Note that the measurements are from the **front**, or leading edge of the wing.

2. Install the battery (it is not necessary to hook it up).

 $\Box$  3. Mount the wing to the fuselage with two rubber bands.



□ 4. Lift the model with your fingertips between the lines under the wing. Position your fingertips where necessary to get the model to sit level, or "balance." If your fingertips are between the lines, the Ventura balances and is ready to fly.



□ 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 side of the fuselage or to the bottom of the stabilizer.



L 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. Stick-on lead weight may be purchased from the hobby shop. Nose-weight may be stuck to the inside of the hatch.

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

#### **BATTERY CHARGING**

WARNING: Before charging the battery you must read and follow ALL of the Battery Charging Safety Precautions and the Battery Charging Instructions.

#### BATTERY CHARGING SAFETY PRECAUTIONS

**Warning: DO NOT overcharge the battery!** Unless you have just completed a flight and run the battery all the way down, there is no way to know how much charge is left. Overcharging the battery may result in melting the plastic cover, damaging the vehicle, or causing the battery to explode.

□ 1. The battery should always be discharged before charging. If the battery is not discharged, a 30-minute charge will overcharge the battery. If it has been a while since you last flew your Ventura, or if for any other reason you do not remember how much "charge" is left in the battery, it should first be discharged before charging. To discharge the battery, install and connect it to the model. Turn on the transmitter and run the motor until it stops and the battery has been discharged. Now the battery is ready to be charged.

□ 2. Never charge the battery while the car engine is running. This will increase the output of the charger and overcharge your battery.

 $\square$  3. Always place the batteries and charger outside the car while charging.

□ 4. Frequently touch or handle the battery to monitor its temperature while charging. Use caution while touching the battery as it could become hot if overcharged. It is okay and normal for the battery to be warm to the touch, but never allow it to become hot. If the battery has become hot it is overcharged and should be disconnected from the charger immediately.

**5**. Never leave a charging battery unattended.

 $\Box$  6. If you ever use a different battery charger, charge this battery pack only at a maximum charge rate of 750 mA. A higher charge rate will charge the battery pack too quickly and heat up the wires.

□ 7. 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.

□ 8. After each flight, remove the battery pack from the airplane and allow it to cool completely before recharging.

# BATTERY CHARGING INSTRUCTIONS

 $\Box$  1. Discharge the battery by installing it in the model and running the motor until it stops.



□ 2. Set the Voltage switch on the charger to the **8.4V** setting all the way over to the left.

□ 3. Connect the battery charger to a 12-volt accessory socket (cigarette lighter) in a vehicle. The vehicle's engine must not be running. Place the charger outside the vehicle. Do not let the battery or charger hang by the wires. If necessary, place the charger and battery on a stand.

□ 4. Connect the battery pack to the charger. **Note:** The connectors will plug in only one way.

□ 5. Rotate the timer dial to 30 minutes. The red light on the charger will illuminate when the battery is charging. If the red light does not illuminate, check the connection between the charger and the 12-volt accessory socket (cigarette lighter) output and between the charger and the battery.

# WARNING! NEVER LEAVE A CHARGING BATTERY UNATTENDED.

 $\Box$  6. During charging, periodically feel the battery to see if it is becoming warm. A warm (but not hot) battery pack is a sign that it is fully charged. Once the pack is warm,

disconnect it from the charger. Depending on how much charge was already in the pack, you may have to disconnect the battery before the 30 minutes are up.

□ 7. When the timer dial has returned to "0" disconnect the battery from the charger and disconnect the charger from the vehicle.

## FIND A SUITABLE FLYING SITE

Though the Ventura is a "Park Flyer," the **best** place to fly **any** model is at an AMA chartered club field. The AMA address and telephone number are on page 2.

**IMPORTANT!!!** When flying at a radio control model airplane club flying site, **never** turn on the transmitter until you have the matching frequency pin in your possession indicating that there is no one else flying on your frequency.

If not flying at a model airplane flying site, find an area clear of trees, power lines and other structures. Do not fly within 6 miles of existing R/C flying fields or around groups of people–especially children.

# **FLYING**

Review these flying procedures so you will have an idea of what to expect when you meet your instructor.

# MOUNT THE WING





Place the wing on the fuselage. Center the wing from side-to-side, aligning the arrows with the seam on the

top of the fuselage. First secure the wing with two rubber bands-one on each side, then with two more rubber bands in a crisscross fashion.

## **OPTIONAL: INSTALL THE WIND FLAG**

Tie the red ribbon to the tip of the transmitter antenna. This will serve as a wind flag to indicate the wind direction.

## **CHECK THE CONTROLS**

Don't forget to scan the area for other modelers who may be operating R/C models that may be on the same frequency as you.

Fully extend the transmitter antenna. Make sure the throttle lever is in the **off** position and then turn on the transmitter. Install the battery; then plug it in. Be careful not to inadvertently bump the motor start button.

Check the controls **before every flight** by moving the control stick in all directions, observing how the controls react, and making sure they respond in the correct direction. Most malfunctions can be discovered by performing this simple, last-second procedure, saving your model from a crash.

Perform a range check before each flying session of the day. Do not push the motor start button during the first range check. With the antenna collapsed, walk 50 feet [15m] from the airplane. Move the rudder and elevator control stick, making sure the controls respond. Have an assistant hold the airplane and press the motor start button to start the motor. Perform the range test with the motor running. The controls should respond as expected. If there are any "glitches" or unexpected control movements, the plane is not safe to fly. Make sure the transmitter batteries are in good condition and make sure the motor battery in the plane is adequately charged.

## TAKEOFF

Caution: It is likely that the Ventura will not fly straight ahead on the first launch. It may suddenly dive or climb or turn to the right or the left. This is impossible to predict because the model has not yet been adjusted, or "trimmed" for straight-and-level flight. Even though the controls were centered visually at home, minor trim adjustments will probably still be required to get the model to fly straight. This means you will have to be ready on the control stick to give corrections immediately after launching. Instructions are provided for how to trim the model after it has reached a comfortable altitude. but until then continual control stick input may be required. After the model has been trimmed it should fly straight-and-level on its own-this will make the next hand launch easier. Just remember to be ready to give immediate control stick inputs after launching.

Extend the transmitter antenna. Do not press the motor start button until you are actually ready to launch the airplane. Scan the area one last time to make certain there are no spectators, or that any spectators present are standing **behind** you.

Hold the transmitter in your left hand and hold the airplane in your right hand (or better, have your assistant launch the model). When ready to launch, raise the model over your head and point the nose **directly into the wind**. Press the motor start switch, fully advance the throttle, then toss the model into the air at a level, or **slightly** nose up attitude. Make sure you launch with the wings level. **Note:** A good launch is important–it would be better to gently toss the model rather than throw it into the air at a bad angle that will make recovery difficult. Be careful on your first launch and make sure you get it going **straight ahead** and **into the wind**.

**Immediately** transfer your right hand to the transmitter so you can operate the control stick. Use the control stick to steer the Ventura straight ahead while establishing a gradual climb.

When you get to a comfortable altitude make your first turn **AWAY** from yourself and any spectators that may be present. Generally (but not always), slight "back pressure," or "up" elevator will be required to maintain altitude during turns.

#### FLIGHT

# Here are a few things to keep in mind while flying your Ventura:

1. Don't let it fly too far away. The farther away, the harder it will be to see what the Ventura is doing and give the correct control inputs to fly it back.

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

Your first objectives will be to gain altitude (so you will have time to think and react) and make the first turn (so the model does not get too far away). When the plane is flying away from you, the Ventura will respond the way you would expect; moving the rudder stick to the right will make the plane turn to your right. When the Ventura is flying toward you it appears to respond in the opposite direction, but in actuality it is responding the same way; moving the rudder stick to the right will still make the plane turn to its right, but when it is facing you it will turn to your left. Beginning modelers can avoid this initial disorientation by turning their body away from the model and holding the transmitter so they are facing the same direction that it is flying. In this case you will have to look over your shoulder until the model passes by.

The next objective is to trim the plane for straight-andlevel flight. With the Ventura flying **directly into the wind**, see what it does when you let go of the control stick. It should fly straight-and-level. If the Ventura climbs, it will need some down trim. Push the elevator trim tab forward (giving it down trim) until the Ventura flies level. Do the opposite if the Ventura dives when the control stick is released. If the plane turns to the left when the control stick is released, move the rudder trim tab to the right until it flies straight, and vice versa. Continue to adjust the trims so the Ventura will fly straight when going into the wind.

The last exercise for your first flight will be to turn off the motor and see how the Ventura reacts so you will know what to expect when it's actually time to land. Again, flying into the wind, reduce the throttle and observe how your Ventura reacts. It should just glide straight ahead and establish a gentle nose-down attitude. Allow the model to glide as long and far as you like-you can even execute turns. When ready, apply full power and regain altitude. Do this a few times to get used to poweroff flight. Remember, the Ventura is a "motor glider," so you can turn off the motor at any time. In fact, flying with the motor off is the best way to extend flight time. Use full power to climb to a high altitude, then shut the motor off and glide. When you've lost too much altitude apply power and climb back into the sky. In conditions where there is no rising air, flight times of 8 to 11 minutes should be possible. When there is rising air, or "lift," indefinite flight times are possible.

#### LANDING

Attempt a few practice landing approaches before the battery discharges so you can see what it will be like to land–without actually doing so. This is done by cutting the power, allowing the Ventura to lose altitude and gliding it by in front of you five or so feet [1.5m] above the ground. After it gets too low add full power, climb out and go around again. This will give you an indication of what to expect, how to line it up with your landing spot and how much room it will take to land.

When you are ready to do a practice landing cut the power when the model is flying down wind (with the wind) in front of you. Make a turn into the wind allowing the Ventura to lose altitude. Be ready to apply power if you get too far away or too close to the ground. You can always apply power, then cut power as needed to bring it closer in. Allow the Ventura to glide by about ten feet [3m] in front of you. When it gets too low or after it goes by add power and do it again. When you are ready to actually land do the same thing, only this time simply don't add power. As the Ventura gets closer to the ground apply more and more "up" elevator until it slows to a stop–right on the ground. The propeller will fold back preventing damage.

Retrieve the model and make a post-flight inspection by looking at the propeller, wings and tail for any damage.

# **AFTER FLIGHT**

If any elevator trim was required, take a look at the elevator and make a mental note of its position. With the transmitter on and the battery plugged in, remove the elevator clevis from the control horn, return the elevator trim tab to center, then turn the clevis in or out until the elevator will be in the same position it was before you disconnected the clevis. Connect the clevis. Perform the same operation for the rudder. The objective is to have the model fly straight-and-level with the trims centered.

Unplug the battery and then turn the transmitter off. Remove the battery and allow it to cool before recharging. Allow the motor to cool before the next flight.

**Caution:** If the propeller is ever stuck and cannot rotate when power is applied, the battery and speed controller will overheat. Immediately cut the throttle lever to stop the motor. If you fail to do this, the motor, speed control and/or battery will be damaged.

### **AEROBATICS**

In the hands of intermediate or advanced pilots the Ventura is capable of aerobatics. Among many thrilling maneuvers, stall turns and loops are fairly easy and fun.



When ready to attempt aerobatics, you may move the clevis inward on the control horns. The closer in on the control horns that the clevises are, the more control throw the control surfaces will have and the more aerobatic the Ventura will be. The middle holes are for **intermediate** pilots. **Advanced** pilots may fly the Ventura with the clevises in the innermost holes.

Beginners should not attempt aerobatics until...they are no longer beginners and are able to react quickly and get the model out of adverse situations or avoid adverse situations altogether!



**Stall Turn:** First attempts at stall turns should be initiated with plenty of altitude and with the wind, so that the maneuver finishes into the wind. Stall turns are best done off to the left or right of the pilot. Fly the model straight-and-level under full power. Pull elevator until the model is vertical. Allow the model to climb vertically while reducing power to half-throttle. Just before the model stops its vertical ascent, apply full left rudder until the model pivots around the wing and is now pointing downward. Continue the vertical dive until the Ventura has gained enough speed to level out and re-enter straight-and-level flight as you apply full power.



**Loop:** Loops should always be done into the wind. A proper loop should be done on-center, in front of the pilot. Fly straight-and-level under full power. Gradually pull up elevator, allowing the model to perform the loop. After the model passes through the top of the loop reduce power. As the model completes the loop apply full power and relax the elevator to return the model to straight-and-level flight.

#### REPAIRS

Minor damage to the wing and tail parts can be repaired with epoxy. Use tape to hold the parts together while the epoxy hardens.



Do not attempt to repair a damaged propeller. **Minor** chips or scratches to the tips of the propeller are acceptable, but performance may be reduced. If the propeller ever suffers major damage such as cracks near the base of the blade, the propeller must be replaced. To replace the propeller use a small Phillips screwdriver to remove the spinner, then loosen the screws in the hub. Replace the propeller and hub, tighten the screws, then replace the spinner. Be certain the spinner and propeller hub can spin freely and are not contacting the fuselage.

## **ORDERING REPLACEMENT PARTS**

Replacement parts for the Hobbico Ventura are available using the order numbers in the "*Replacement Parts List*" shown at the right. The fastest, most economical service can be provided by your hobby dealer or mail-order company. Parts may also be ordered directly from Hobby Services, but full retail prices and shipping and handling charges will apply. Illinois and Nevada residents will also be charged sales tax. To locate a hobby dealer, visit the Hobbico web site at <u>www.hobbico.com</u>. 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. If a hobby shop is not available, replacement parts may also be ordered from Tower Hobbies at <u>www.towerhobbies.com</u>, or by calling toll free (800) 637-6050.

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

Mail parts orders and payments by personal check to:

Hobby Services 3002 N Apollo Drive, Suite 1 Champaign IL 61822

Be certain to specify the order number exactly as listed in the **Replacement Parts List**. Payment by credit card or personal check only; no C.O.D. If additional assistance is required for any reason contact Product Support by e-mail at <u>productsupport@hobbico.com</u>, or by telephone at (217) 398-8970.

# **REPLACEMENT PARTS LIST**

#### How to Purchase:

Missing Pieces Instruction Manual

#### Order Number

HCAA3268 HCAA3267 HCAA3496 HCAQ3482 HCAM7034 HCAA3497 HCAA3457 HCAA3457 HCAG3478 HCAP9915 HCAM7112 HCAA3266

#### Contact Product Support Contact Product Support

#### Description

Wing Stab, fin and fin mounting nuts Canopy Propeller and spinner Electronic speed control Fuselage Decal set Motor Battery charger 8.4V 900mAh NiMH battery Clevis/Control Horns (2 sets)

BUILDING NOTES	
DUILDING NOTES	
Kit Purchased Date:	Date Assembly Finished:
Where Purchased:	Finished Weight:
Data Associably Started	Data of First Flight
Date Assembly Started:	Date of First Flight:
FLIGHT LOG	