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Welcome to the World of hobby Zece The Place to Start^m

Congratulations on your purchase of the HobbyZone® Firebird Phantom™ RTF electric airplane. Your Firebird Phantom comes complete with everything you need, all in one box, to get you in the air and flying. A video compact disk (VCD) is also included to give you some helpful hints before you take to the sky. Your Firebird Phantom uses advanced Anti-Crash Technology™ (ACT) that allows you to safely train with a fully proportional 3-channel aircraft and radio system. The Firebird Phantom has built-in sensors that look for the sky and horizon, and thanks to the specially programmed software, it can temporarily "take over" in the event that your aircraft is put in danger from incorrect transmitter input. This will help to prevent a crash, and keep you in the air! Once you are more experienced and no longer need the training software, you can simply turn off ACT with the push of a button. When this is done, you will have full control, at all times, allowing you to perform exciting maneuvers, such as loops and spirals.

Please read this instruction manual thoroughly and watch the VCD prior to flying for the first time. This will greatly add to your flight experience and help to ensure success on your first flight.

Crash damage is not covered under the warranty.

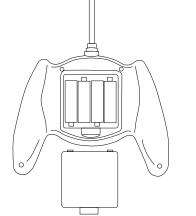
Be sure to read the warranty on page 30 and "Warnings and Safety" on page 27 before you proceed to Step 1.

Transmitter

1. Remove the transmitter back cover.

- 2. Install the included "AA" batteries. Use four fresh 1.5V "AA" batteries only.
- 3. Be sure to observe proper polarity when installing the batteries, and then replace the cover.
- 4. To test, switch on the transmitter. The LED should glow brightly.
- Replace the batteries when you hear the low battery alarm (beeping sound).
 Note: You may notice a small switch immediately below the LED and the power switch. This small switch determines the controls for the transmitter with default position to the left. It is not recommended to change it.



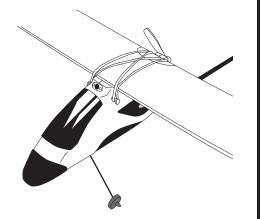


Wing Attachment

Needed for Step 2

Rubber Bands (x4)

- Center the wing on the fuselage by aligning the center dot on the wing with the fuselage top seam and by centering the half circle on the wing's trailing edge over the fuselage center.
- Secure the wing in place by attaching two rubber bands across the middle and one on each side as shown. Locate the rubber bands on the peg hooks as close as possible to the fuselage sides.
- 3. Before each flight, make sure the front and trailing edges of the wing are exactly centered on the fuselage.



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Motor Test and Battery Discharging

Adult Supervision Required WARNING: Keep everything clear of the propeller AT ALL TIMES and hold the plane securely. A moving propeller can cause severe injury.

- 1. Turn on transmitter.
- 2. Install the flight battery into the fuselage and plug it into the connector.
- Move the transmitter's left stick all the way down and hold for one second. This will arm the motor.
- Move the transmitter's left stick up. Since most batteries come partially charged, the prop should spin at high speed. (If the motor does not run, proceed to charging the battery.)
- 5. In order to fully discharge the battery, run the motor at high speed until it shuts off. If there is not enough charge in the battery to power the propeller, then proceed to step 4.
- 6. When finished with the motor test, be sure to disconnect the battery first, then turn off the transmitter.

Charging the Battery

Note: Never charge a hot battery that is still very warm and has just been discharged. For longer battery life wait until the battery has cooled prior to recharging it.

See "Warnings and Safety" on page 27

 The charger supplied with the Firebird Phantom[™] is a peak detection charger that can be powered by the included AC power adapter. First, plug the battery into the charger.

Next, plug the charger into a 12V DC power supply (such as the cigarette lighter of a car). You can also choose to use the included AC adapter to power the DC Peak charger. Simply plug the charger into the AC power supply and plug the power supply into a standard 110/120V wall outlet. The LED on the charger will begin to blink and will turn to solid red when charging is complete.



Note: The included variable rate peak charger allows for charging up to 500mA (1/2A). We suggest charging your pack at a 1C charge rate (300mA), especially on the first several charges.

Important: Charge the battery shortly before flying. While charging, place the battery on a heat-resistant surface. Do not lay it on carpet or upholstery while charging.

Note: If the weather is cold, keep the battery in a warm place until you are ready to fly. A cold battery will have dramatically reduced performance, and the throttle will shut off early.

Tail Control Test

- Switch on the transmitter. Check the LED. Do not touch the sticks for 2 seconds while the transmitter automatically calibrates the controls.
- 2. Install the battery in the fuselage slot and plug in the connector. Do not arm the motor.
- 3. The small buttons under and to the side of the sticks are the digital trim buttons and are used to adjust the "neutral" point of your control stick. Each time the transmitter is powered up, it should reset the trim automatically. These should self-center when you turn the transmitter on.
- If you find that the control surface flap is not level with the rest of the tail surface, you can correct this with a few pushes of the appropriate trim buttons.
- 5. Move the right stick side to side while observing that the tail flaps are moving as shown.
- 6. Move the right stick up and down while observing that the tail flaps are moving as shown.

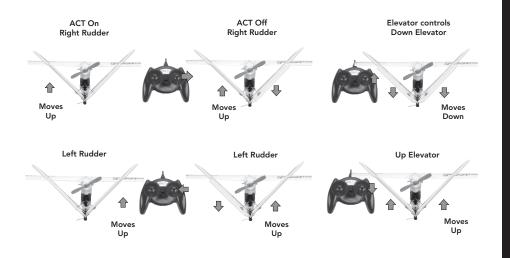




The transmitter included with your Firebird Phantom includes new digital trim buttons.

WARNING: Keep everything clear of the propeller when you conduct the tail control test in the event that you accidentally turn on the motor.

Tail Control Test (continued)



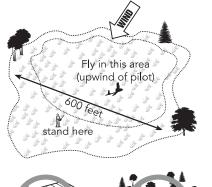


Choosing a Flying Field

In order to have the most success, and to protect property and your Firebird Phantom[™] from any damage, it is very important to select a place to fly that is very open. The site should:

- Have a minimum of 300 feet of clear space in all directions.
- Be clear of pedestrians.
- Be free of trees or buildings that could interfere with your sightline, or power lines that could entangle your airplane.
- Be clear of automobiles and other property that could be damaged by your plane if you have problems coming in for a landing.

Remember, your Firebird Phantom flies approximately 15–20 mph, so it covers ground fast. The bigger the field, the better!





Important: Do not fly over or near people, buildings, power lines, highways, train tracks, vehicles, trees, water, pavement, gravel, any hard surface or any object you don't want to crash into. Please take this warning seriously to keep people, property and the Firebird Phantom safe. Crash damage is **not** covered by the warranty.

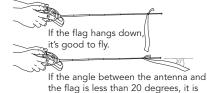
Choose a Calm Day

We know you want to have fun and fly your Firebird Phantom[™]. However, flying in too much wind can place your airplane in jeopardy. On your first flight, make sure the winds are no stronger than 5 mph.

- To check wind conditions:
- 1. Tie the included red ribbon to the end of the transmitter antenna.
- 2. Hold the transmitter so that the antenna is parallel to the ground. If the flag hangs down, you're good to fly. If the angle between the antenna and the flag is less than 25 degrees, it's too windy for beginning pilots to fly.

Always position yourself so that when you are flying, the airplane is UPWIND of you. Never let the airplane come too far downwind where it can be carried farther and farther away from you and be lost. Additionally, the winds are stronger at higher altitudes. Do not climb too high, or you could lose control of your airplane. It is ok to fly higher, just make sure you are watching carefully to see how the aircraft is reacting. Generally a good altitude to fly is approx 300 feet.





the flag is less than 20 degrees, it is too windy and you need to postpone your flight.

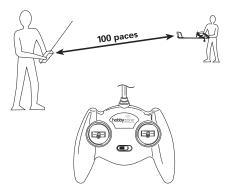
HINT: In many places, you will find that the winds are the most calm in the mornings (shortly after sunrise) and evenings (about an hour prior to sunset). You may want to prepare and fly your first flights during those times. Flying in too much wind is by far the number one reason for crashes/lost planes.

Range Test

You will need two people to do the range test: one to hold the transmitter and one to hold the airplane.

- 1. One person holds the transmitter; the other person walks 100 paces away with the airplane.
- 2. Extend the transmitter antenna completely and turn the transmitter on.
- 3. Plug in the airplane battery and close the hatch cover.
- 4. Pull the throttle stick back to arm the motor.
- 5. As the first person moves both of the transmitter controls at the same time, the other person watches to be sure the airplane's motor and tail controls operate smoothly.

If model does **not** range test correctly, do not fly. Call the Horizon Hobby Product Support staff toll-free at 1-877-504-0233 for directions on how to proceed. **WARNING:** The person holding the airplane should hold it so that the propeller does not come near any part of their body.



Anti-Crash Technology (ACT)

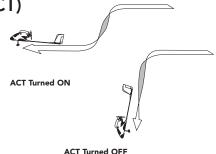
Your Firebird Phantom[™] comes equipped with exclusive Anti-Crash Technology.[™] This software helps prevent crashes due to overcontrol by the pilot. The sensors included in the fuselage "see" the horizon. One sensor is above the canopy and faces forward. The other is at the bottom of the fuselage and faces backward.





ottom sensor

The electronic system connected to them knows the airplane should not be allowed to enter a steep dive or aggressive bank. If you give transmitter input that causes the plane to enter into a spiral dive that may threaten your aircraft, the ACT software will override your input to help prevent the aircraft from



crashing to the ground (providing you have sufficient altitude). The ACT will intervene for you when the aircraft is in jeopardy by reducing throttle and adding some up elevator as well. This causes the nose of the airplane to pull up, thereby helping to prevent your Firebird Phantom from crashing, provided there is enough altitude for recovery. The ACT software will only interrupt flight in extreme situations, allowing you to enjoy as much control of the airplane as you need. 0

Anti-Crash Technology (ACT)

The Firebird Phantom's ACT software will help prevent you from crashing into the ground. If you enter a severe dive while flying with ACT engaged, you will notice the following take place:

- You will hear the motor speed reduce as the ACT programming overrides your input. This slows the descent of the aircraft to help prevent a crash.
- The ACT software will give up elevator input to the aircraft's electronics to help pull the plane out of a dive.
- There will be a noticeable change in the movement of the aircraft and the diameter of turns will be larger.
- The nose of the airplane will only be allowed to reach a limited angle, and then will rise up in order to prevent too much speed from being generated.
- Once the ACT software has taken over, you will not be able to give control input until you have released the steering stick, allowing it to return to neutral.

Remember, the purpose of ACT is to help you learn to fly properly and smoothly. When ACT is engaged, and overrides your input, it means that you have placed your aircraft in jeopardy. Keeping the stick more in the middle, and less in the corners, will allow you to fly more smoothly and prevent ACT from engaging. ACT should be the backup for you. The key is to learn to make minor movements on the controls because the transmitter is proportional and is sensitive to movements of the control stick. Once you have gained more experience, and feel more comfortable flying, you can turn the ACT software off to enter "Expert Mode." It is possible to change flight modes in the air, but sufficient altitude is required.

To turn ACT off:

Push down on the right stick and the red LED will flash indicating that you have disabled ACT. To turn ACT back on, push down on the right stick again. The red LED will be solid when ACT is on. (see page 19 for photo)

Anti-Crash Technology (ACT) Flying Tips

- You must be at an altitude of at least 150 feet for the software to be able to help prevent crashes due to incorrect transmitter input. If you fly at too low an altitude, ACT will not have enough time to recover your Firebird Phantom[™].
- Even when flying with ACT on, if you feel that your airplane is beginning to enter a steep dive, release both sticks immediately. This should slow the descent and help to level the wings.
- Because the Phantom's ACT uses sensors to activate the protective software, there could be times when the sensors could be fooled. This may be especially true when flying in very bright sunshine and/or when the sun is close to the horizon.
- Don't fly (with ACT on) over water, light sand, snow, ice, asphalt or anything else that can reflect light and temporarily fool the sensors.

- Don't fly in too small of an area, as the ACT technology will not help to prevent crashes into trees, buildings or other obstacles.
- Make several successful flights (including soft landings) prior to attempting to fly without the aid of the ACT software.
- Remember, it is possible to turn ACT on and off in flight, but make sure you have sufficient altitude and the plane is in level and controlled flight.
- Do not let the airplane drift too far down wind from you, as it can become very difficult to get it back.

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Using Elevator

Your Firebird Phantom[™] is equipped with a third channel for pitch control (elevator). Pulling back on the right stick provides UP elevator that allows for better flares for landing, a better climb rate and more effective turns. However, giving too much UP elevator (pulling back to far on the right stick) will cause the airplane to enter a stall, especially at slower speeds.

Just after a stall occurs, the nose of the airplane will go down, and the airplane will begin to enter a dive. To recover from a stall, pull the right stick back slowly (UP elevator) once the nose of the airplane goes down and the plane has built up airspeed. Pulling back slowly on the stick will put the nose up, and cause the plane to exit the stall and return to straight and level flight. Be careful, as pulling back too quickly or too far will once again cause the airplane to stall.

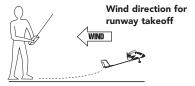
Taking Off

- 1. Make sure the battery is fully charged.
- While holding the transmitter in one hand, push the throttle stick to full-on (up) with thumb.
- 3. Your Firebird Phantom will need to be hand-launched. On first flights, have a second person (adult recommended) launch your Firebird Phantom while the pilot controls with the transmitter. Adult assistance is always recommended for pilots 12 years of age or younger.
- 4. Take a couple of steps and launch the model directly into the wind. Keep the wings level. Use medium force. Do not throw it up or down. Point it level (parallel) with the ground when releasing. Think of it as a javelin that you are throwing 20 feet away.

Watch out! Keep the spinning propeller away from your hair, head and hands or injury may occur.



Important: Before launching, determine the wind direction by watching which way the red transmitter ribbon is blowing.



Runway Takeoff (ROG)

Recommended for experienced pilots only.

- If you are an experienced pilot, and have a smooth and long surface, you can take off from the ground. Make sure your landing gear is properly installed and is securely in the slot on the fuselage before you attempt takeoff.
- 2. Stand behind the Firebird Phantom[™] and point it directly into the wind on smooth asphalt or concrete.
- 3. Apply full power and adjust the right control stick as necessary to keep the Firebird Phantom headed directly into the wind.
- 4. If the battery is fully charged, the Firebird Phantom should lift off the ground in approximately 40 feet. Apply some UP elevator by pulling the stick back, and the plane will lift off of the ground in a shorter distance. Remember, only a small amount of UP is needed. Too much will result in a stall after the plane has left the ground.

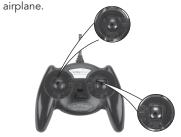
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Flying

- After launching your Firebird Phantom,[™] it will begin climbing at full throttle. With the throttle all the way on, your Firebird Phantom should climb without any elevator input.
- 2. Make right- and left-hand adjustments to keep your airplane heading directly into the wind. Do not attempt a turn until you have reached a minimum of 50–100 feet of altitude. That's about as tall as a 4- to 8-story building. It is hard to determine altitude when you're in a wide and open space outside, so the best rule is to err on the side of caution and allow yourself sufficient altitude when flying.
- 3. Control range is 1300 feet. Don't let the airplane get too far away. Keep the aircraft UPWIND from you. Failure to do this could result in a flyaway! Remember, the wind is stronger as your plane gets higher in the air. It's OK to fly higher, just be cautious and watch how your plane reacts to the wind. Most of the time, you can fly at higher altitudes at

half throttle. This is great for smooth, easy flying when you're first learning to fly and conserves battery power.

- 4. When you have reached higher altitudes and want to practice using the elevator, begin with small and smooth inputs to the transmitter, as very little input is required to get the plane to turn, climb or descend.
- 5. Avoid long vertical dives, with power on or off, as it can cause a lot of stress on the



Left digital trim is for throttle. Trim buttons located directly under right stick are for adjusting rudder trim. Trim buttons to the immediate left of right stick are for adjusting elevator trim.

Flying (continued)

NOTE: Digital trims can be used for making quick in-flight adjustments. Trims will automatically re-center each time the radio is powered on. It is recommended that you first make manual corrections by adjusting the control linkages. See page 22.



Sharp Turns:

Move the stick in the direction you want to turn and add a bit of UP elevator at the same time (pull back on stick). The plane will make a sharper banking turn.

Rudder Trim:

If the Firebird Phantom[™] seems to drift in one direction when the control stick is in the neutral (centered) position, press the rudder trim buttons below the control stick in the OPPOSITE direction of the drift. Adjust until the plane flies straight with the control stick at neutral.

Elevator Trim:

If the model always "hunts" up or down, use the trim buttons to the left of the stick to correct this problem. If it hunts up, push the upper trim button until it flies level. If it hunts down, push the lower trim button until it flies level. The model should fly straight with the stick at neutral. Your Firebird Phantom should have a steady climb at full throttle when it is trimmed properly.

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Throttle Adjustment

- 1. When launching, the throttle should be full on.
- 2. Once you have achieved the altitude where you want to fly you can reduce throttle to about 50% for cruising. This will also allow for longer flights.
- 3. If you want to reduce altitude, reduce throttle to less than 50%.
- 4. To increase altitude again, increase throttle to more than 50%.

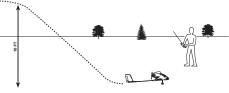
Note: If you fly with the motor off, or at a low speed, allow the Firebird Phantom[™] a bit more area for turns.

SUCCESS TIP: Your Firebird Phantom's transmitter has a throttle stick that gives power to the motor. It has proportional control, meaning you can advance the motor as much or little as needed in flight. In order to have the most success, it is important to operate the throttle stick smoothly, as well as the steering and elevator stick.

Landing

When you notice that your Firebird Phantom™ no longer climbs well under full power, normally after 6–8 minutes, the battery is getting low and it is time to land. Line the airplane up directly into the wind toward the desired landing spot. At about 10–15 feet of altitude, reduce the throttle gradually until it is completely shut off. Your Firebird Phantom will glide in for a landing.

Auto Cutoff: When the battery gets low enough, this feature will automatically shut off the motor and save enough battery power to maintain control of the tail so you can land correctly and safely. If the motor cuts off, prepare to land immediately. **WARNING:** Do not attempt to catch the airplane or injury may result. Turn the motor off prior to touchdown in order to prevent damage to the wing and/or propeller.



Reduce power at 10 feet

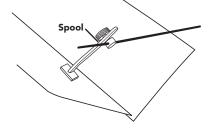
EXPERT TIP: As you get more experienced at flying, try adding a bit of UP elevator (pull back on right stick) just before touchdown to "flare" the plane. With some practice, your landings will be smooth and on target.

50% Throttle Full Throttle Full Throttle

Making Adjustments: Plane Turns to the Left or Right

If you notice that your airplane wants to turn to either the left or right when the control stick is centered, some adjustments are needed as the control surfaces may not be at neutral. To make in flight adjustments simple and accurate, there are digital trim buttons located to the bottom and side of the control sticks. In most cases, a few clicks in the needed direction (right or left) on the digital trim buttons below the right-hand control stick will correct the problem. Always make sure the control sticks are centered at neutral prior to making any adjustments.

- 1. With the transmitter on, the flight battery plugged in and both sticks at neutral, loosen the spool on the control surface.
- Move the control surface back to neutral, or even with the rest of the tail, and re-tighten the spool.





Control surfaces neutral after correction

Making Adjustments: Plane Turns to the Left or Right

If you are certain the control surfaces are at neutral and the plane still "wanders" to the left:

- 1. Adjust the tail (see below) so that the left tail control surface is 1/16" above the rest of the tail. This can be done by pushing the digital trim button located to the lower right of the right-hand control stick.
- 2. Test fly.
- 3. If it is still flying on its own to the left, repeat the above procedure until it flies straight.

If the plane still "wanders" to the right:1. Adjust the tail so that the right tail control surface is 1/16" above the rest of the tail. This can be done by pushing the digital trim button located to the lower-left of the right-hand control stick.

2. Test fly.

3. If it is still flying on its own to the right, repeat the above procedure until it flies straight.





IMPORTANT: If there is a bend (even a small one) in the tail or wing or a tear near the flap areas, it will be impossible to have correct flight control. Replace the damaged part immediately!

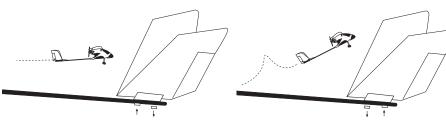
Adjusting the Climb Rate

If your Firebird Phantom[™] does not climb fast enough when at full throttle and with a full charged battery pack, you can adjust the climb rate by:

- 1. Tightening the front screw one full turn and loosening the back screw one full turn.
- 2. Test flying.
- 3. Repeat the above procedure until your plane climbs adequately under full power.

If your Firebird Phantom climbs too fast at full throttle by climbing at a steep angle, stalling and keeps repeating climbing sharply and stalling, do the following:

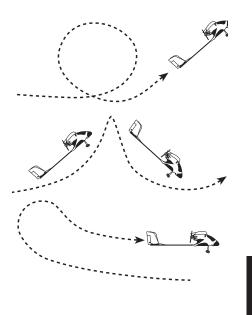
- 1. Loosen the front tail screw one full turn and tighten the back tail screw one full turn.
- 2. Test flv.
- Repeat the above procedure, if necessary, until your Firebird Phantom climbs at a steady rate.



Screw In Screw Out

Screw Out Screw In

Aerobatic Flight



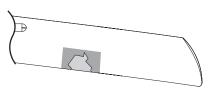
Your Firebird Phantom[™] comes out of the box with the controls set for beginning pilots, with the control linkages attached in the outer holes of the control surfaces. By adjusting the control linkages so they are attached in the holes on the tail that are closer to the control surfaces, you will give your Firebird Phantom more control response for more aerobatic maneuvers, such as loops and tail slides.

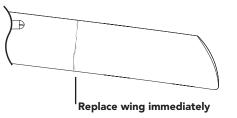
CAUTION: Do not attempt aerobatic maneuvers until you have gained sufficient flying experience with the ACT[™] software turned off.

If a Crash Occurs

If you happen to crash and part of the foam wing or tail breaks, it can be repaired using packing tape to cover missing pieces.

If damage is severe or if the wing or tail is bent, replace damaged parts. See page 36 for a complete replacement parts list.





Warnings and Safety Checklist

- Read and follow this manual and included video CD completely, observing all instructions and safety directions. Otherwise, serious injury and damage can occur. Think safety first.
- 2. Keep propeller away from all body parts at all times! Beware of loose clothing or hair becoming entangled in the propeller.
- Never fly when it is too windy or you may lose control of the airplane. Never fly near people, vehicles, train tracks, buildings, power lines, water, hard surfaces or trees, and never attempt to catch the Firebird Phantom.[™]
- 4. Adult supervision is recommended for ages 12 and under.
- 5. Only use a battery charger intended for use with the Firebird Phantom battery. We recommend using the charger that comes with your airplane. Never leave the charger unattended while charging! During charging, place the battery and charger on a heat-resistant surface. Do not place them on carpet or upholstery.

- Never cut into the battery charger or airplane wires as serious injury can occur. Causing the battery to short out (crossing negative and positive bare wires) can cause a fire, serious injury and damage.
- 7. Hold the plane securely and keep all body parts away from the propeller at all times.
- After you have finished flying, or at any time you have the radio system on, ALWAYS unplug the battery prior to turning the transmitter off. ALWAYS turn on the transmitter prior to plugging flight battery in.
- Never fly on the same frequency as another RC vehicle in your area. Doing so will cause you, or the other person, to lose control of the plane.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION	
Unit does not operate	 Transmitter "AA" batteries are depleted or installed incorrectly as indicated by a dim or unlit LED on the transmitter or the low battery alarm No electrical connection Aircraft battery is not charged Crash has damaged the radio inside the fuselage 	 Check polarity installation or replace with fresh "AA" batteries Push connectors together until they click Fully charge the battery Replace the fuselage 	
Aircraft keeps turning in one direction	1. Tail flaps need adjustment	 Adjust stick trim lever (see page 19) or adjust tail flap position (see pages 22-23) 	
Aircraft is difficult to control	 Tail flaps aren't adjusted properly Wing or tail is damaged 	 Adjust tail flaps (see pages 22-23) Repair or replace tail 	
Aircraft keeps pitching up steeply 1. Tail incidence needs adjustment 2. Wind is too gusty or strong		 Adjust tail screw (see page 24) Postpone flying until wind is more calm 	
Aircraft won't climb	 Battery isn't fully charged Tail needs adjustment 	 Charge battery shortly before flying Adjust tail screws (see page 24) 	

Success Tips

- Do not fly in winds over 7 mph, especially during first flights. Flying in too much wind is by far the number one reason for crashes and flyaways.
- 2. Choose the flying area carefully. A grassy field or soft ground that is about 600 feet in diameter is optimum. It's also best to fly in an area with very few or no trees.
- 3. ALWAYS fly the airplane UPWIND! Never allow your Firebird Phantom™ to fly too far downwind, as it will get farther and farther away from you. If you find that the plane has gotten downwind, reduce throttle and point the nose directly into the wind to bring it back closer to you.

6. Always make sure the flight battery is fully charged immediately prior to flying.7. Do not attempt maneuvers beyond your abilities, especially with the ACT program-

Wear sunglasses on sunny days.
 Avoid flying directly overhead.

ming off.

airplanes, locate your nearest AMA club, learn the AMA safety code and frequency guidelines, and much more, we highly recommend that you contact:

To learn more about flying RC model

The Academy of Model Aeronautics 5161 East Memorial Drive Muncie, IN 47302 Toll-Free (800) 435-9262 www.modelaircraft.org

Warranty and Follow-Up Procedures

Horizon Hobby, Inc. guarantees this merchandise to be free from defects in material and workmanship at the date of purchase. This warranty does not cover any component parts, or damage by use or modification. In no case shall Horizon Hobby's liability exceed the original purchase cost of this item. Further, Horizon Hobby reserves the right to change or modify this warranty without notice.

This warranty covers only those products purchased from an authorized Horizon Hobby dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Due to the nature and operation of this product, the warranty does not extend beyond the initial pre-use testing. Carefully check the parts and operation BEFORE your first use. If you discover defects during pre-use testing, please call our Product Support Team toll-free at 877-504-0233 for technical support.

In that Horizon Hobby has no control over the final assembly, or material used for final assembly,

no liability shall be assumed nor accepted for any damage resulting from 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. Please note that once assembly has been started, you must contact Horizon Hobby, Inc. directly regarding any warranty questions. Please do not contact your local hobby shop regarding warranty issues. This will enable Horizon to better answer your questions and service you in the event you need warranty assistance.

Horizon Hobby, Inc. reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon Hobby, Inc. Collateral damage is not covered under this warranty. If you, as the buyer or owner, are not prepared to accept the liability associated with the use of this product, you are advised to return this product immediately in new and unused condition to the place of purchase.

If you have any questions concerning your HobbyZone product, please contact our Product Support staff toll free at 1-877-504-0233.

If your merchandise requires inspection, please follow these steps in order to return it to us:

- 1. Call our Product Support team for return authorization.
- 2. Use the "Service and Repair Checklist" from www.horizonhobby.com under the support tab or write a detailed letter that includes:
- Your name, address, home phone number, and davtime phone number:
- A list of the products being shipped for inspection or repair;
- A detailed account of the type of problems you are incurring; and
- The payment method you wish to use for any purchases or charges, including credit card type, number, expiration date and your name as it appears on the card.

- 3. Submit proof of purchase, including purchase date and retailer information.
- Make sure that the batteries are unplugged and removed. Please use packing material to separate them from the main HobbyZone product.
- Pack the entire product, including all components and accessories, in the original box and pack it in a sturdy box with packing materials for safe shipping.
- 6. For inspection and/or repair, please ship your product to:

Horizon Service Center Attn: HobbyZone Department 4105 Fieldstone Road Champaign, IL 61822

We suggest you ship your product via a carrier that provides package tracking and/or requires a signature. Horizon Hobby, Inc. is only responsible for product once it arrives and is accepted at our facility. Most carriers require optional insurance to cover damage or loss in transit, so please consider this when shipping merchandise.

Warranty and Follow-Up Procedures (continued)

Warranty Service

Providing all warranty conditions have been met, defective parts will be repaired or replaced without charge and shipped to you via ground freight prepaid. Again, crash or other collateral damage or expense is not covered under warranty. Proofof-purchase date and location is required for all warranty service.

Non-Warranty Service

If upon our inspection we find that the repair cost exceeds \$50 or more than 50% of the value of your product, we will contact you with a repair estimate and advise you of the available options.

Warranty Period:

Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

Limited Warranty

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Further, Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect. these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any goods by Purchaser must be approved in writing by Horizon before shipment.

Damage Limits:

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability.

If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions:

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs:

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby. com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs To receive warranty service, you must include your original sales receipt verifying the proof-ofpurchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be

disposed of accordingly. Please note: non-warranty repair is only available on electronics and model engines.

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Center 4105 Fieldstone Road Champaign, Illinois 61822

All other Products requiring warranty inspection or repair should be shipped to the following address:

Horizon Product Support 4105 Fieldstone Road Champaign, Illinois 61822

Please call 877-504-0233 with any questions or concerns regarding this product or warranty.

Replacement and Optional Parts

Keep your Firebird Phantom[™] in the air! Spare parts are available from your dealer or from Horizon Hobby direct (www.horizonhobby.com). Please check with your dealer first—by supporting your dealer, they'll be there when you need them. To locate your local dealer, go to www.hobbyzonerc.com.

PART#	DESCRIPTION	MSRP	PART#	DESCRIPTION	MSRP
		¢1/0.00	HBZ4771	Phantom Trans: CH1, 26.995	\$29.99
HBZ4700	Firebird Phantom RTF Electric		HBZ4771	Phantom Trans: CH2, 27.045	\$29.99
HBZ4707	Propeller: FBP	\$1.49			
HBZ4710	Decal Sheet: FBP	\$2.99	HBZ4773	Phantom Trans: CH3, 27.095	\$29.99
HBZ4715	Instruction Manual: FBP	\$0.99	HBZ4774	Phantom Trans: CH4, 27.145	\$29.99
HBZ7416	Instructional Video CD:FBP	\$2.99	HBZ4775	Phantom Trans: CH5, 27.195	\$29.99
HBZ4717	Canopy Cover w/HDWR: FBP	\$1.49	HBZ4776	Phantom Trans: CH6, 27.255	\$29.99
HBZ4718	Black Nose Piece: FBP	\$1.49	HBZ1014	8.4V 300mAh Battery Pack: FE	3P \$11.99
HBZ4720	White Wing: FBP	\$10.99	HBZ4541	Landing Gear:FBS, FBP	\$2.99
HBZ4727	White Rubber Bands (6): FBP	\$0.99		-	
HBZ4731	Tail w/Accessories: FBP	\$6.99			
HBZ4735	Tail Horn and Keeper (2): FBP	\$0.99			
HBZ4739	Tail V-Brace: FBP	\$0.99			
HBZ4740	Tail Screws (2): FBP	\$0.99			
HBZ4745	4-7 Cell DC Variable Charger	\$15.99			
HBZ4747	12V 500mA AC Power Adapte	r \$9.99			
HBZ4761	Phantom Fuselage: CH1, 26.99	5 \$39.99			
HBZ4762	Phantom Fuselage: CH2, 27.04	5 \$39.99			
HBZ4763	Phantom Fuselage: CH3, 27.09	5 \$39.99			
HBZ4764	Phantom Fuselage: CH4, 27.14	5 \$39.99			
HBZ4765	Phantom Fuselage: CH5, 27.19	5 \$39.99			
HBZ4766	Phantom Fuselage: CH6, 27.25	5 \$39.99			

Future RC Flight

Once you've mastered flying your Firebird Phantom,[™] we recommend that you try another 3-channel plane from HobbyZone® for the most successful transition to using larger and faster 3-channel airplanes. The HobbyZone Super Cub is a great semi-scale airplane that is perfect for both beginner and intermediate pilots. The Aerobird Swift[™] is also an excellent airplane if you are looking to advance to aileron controls. Both of these aircraft are X-Port[™] equipped, so you can add exciting Plug-N-Play[®] accessories if you so choose. If you choose to go from flying the Firebird Phantom to flying the Aerobird Swift, we recommend that you have a very experienced RC pilot with you for your first flights until you get comfortable flying a larger, faster airplane.

We hope you enjoy flying your new Firebird Phantom, and thank you for supporting HobbyZone. Please let us know how we can help you in the future. We hope your flights with this plane are just the beginning of a long and positive RC experience. Best wishes in the hobby.

Sincerely, The HobbyZone Team