

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®, 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.

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



Champaign, Illinois

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

Your **SkyFly** 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 SkyFly, 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 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 number below.

Academy of Model Aeronautics

5151 East Memorial Drive Muncie, IN 47302-9252 Tele. (800) 435-9262 Fax (765) 741-0057

Or via the Internet at: www.modelaircraft.org

PRECAUTIONS

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

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

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 SkyFly airplane.

GLOSSARY

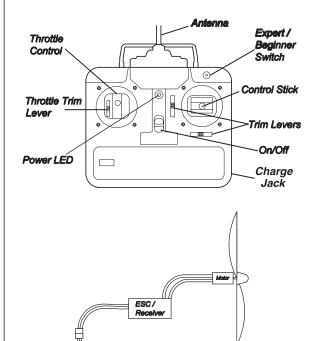
Electronic Speed Control / Receiver (ESC / RX) – This unit controls the speed of the motor and control surfaces.

Elevator – Controls altitude

Rudder - Controls direction

Nickel – Metal Hydride (NiMH) Battery – Rechargeable batteries which are used to power the airplane. NiMH batteries are lighter and smaller that most other types of rechargeable batteries.

Transmitter (TX) – This is the hand-held unit that sends the signal to the control unit, or RX. Moving the sticks controls speed, altitude and direction.



Battery

AIRFRAME PARTS AND HARDWARE

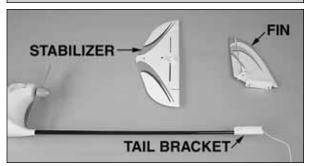


UNPACKING THE BOX

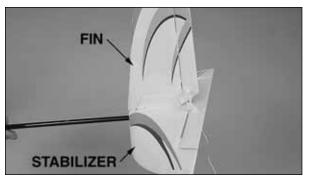
Check the parts against the list below. If any parts are damaged or missing, give us a call at: (217) 398-8970.

Part Name Qty.	
 □ 1. Transmitter Antenna	Part Name Qty. Wing Mounting Bands4 Control Bands2 Instruction Manual1

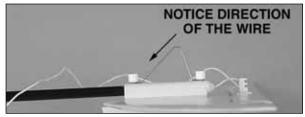
ASSEMBLE THE TAIL



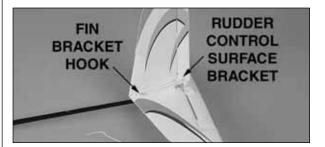
Remove the **fuselage** from the packaging. Be careful when removing the fuselage from the packaging as the **control wire** is preinstalled in the fuselage and connected to the control surfaces. Lay the parts out on a table ensuring the control wires are not intertwined or twisted together. Remove the twist tie around the antenna wire and let the excess wire hang freely from the fuselage as shown in the pictures below. **DO NOT CUT OFF EXCESS ANTENNA WIRE!**

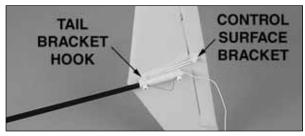


Remove the retaining nuts and **tail skid wire** from the bolts of the fin. Position the **stabilizer** on the bracket on the tail of the fuselage. The indentations on the underside of the stabilizer will line up with the pegs on the **tail bracket**. The control wire should be on top of the stabilizer. Make sure the control wires are out of the way, then slide the **fins** threaded posts through the stabilizer until the fin and stabilizer are seated together as shown. Be sure that the antenna wire that passes through the fuselage will not become damaged by the threaded posts. If necessary, use a toothpick or something similar to insert into the threaded post holes and push the wire aside.



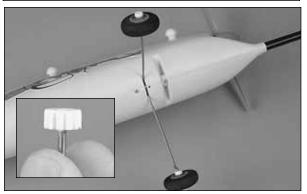
Replace the metal tail skid wire; note the direction of the wire. Attach two **nylon retaining nuts** to the bolts on the fin. Tighten these nuts down to hold the tail assembly together. Do not over tighten as the elevator and rudder could become damaged.



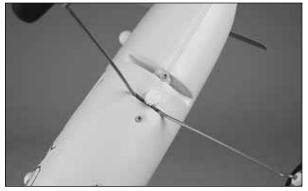


Locate the two small control surface bands. Attach one band to the outer hook on the fin bracket and the rudder control surface. Attach the second band to the hook on the tail bracket and the underside of the elevator control surface.

INSTALL THE LANDING GEAR



Locate the **main landing gear**. Remove the **thumb screw** and insert the landing gear into the slot on the fuselage as shown.



Replace the thumb screw to hold the main gear in place.



Follow the same procedure to install the **nose gear** as shown.

CHARGING THE BATTERY PACK





The included 12V DC Peak Charger can be plugged directly into an automobile 12 V receptacle. The charger can also be powered with 120V AC by using the AC wall adapter. The AC wall adapter can be plugged into any household outlet and when connected to the charger, it provides a convenient way to recharge the SkyFly battery when a 12V source is unavailable. **NEVER PLUG THE BATTERY DIRECTLY INTO THE AC WALL ADAPTER!**

- To begin charging the battery pack, plug the 12v peak charger into your automobile or 12V AC outlet (using the AC adapter).
- Connect the pack to the white connector on the charger.
 The battery can only connect to the 12v charger in one direction, do not force it. If using the charger in an automobile,
 Do not have the engine running Overcharging the battery may result!
- Press the start/stop button on the charger to initiate peak charge. The red light on the charger will illuminate indicating that charge has begun. You can press the start/stop button at any time during peak charge to terminate the process. The red light will go out indicating that peak charge has been stopped.

The peak charger will automatically detect when the battery pack is fully charged and terminate peak charge. The red light will go out when this has occurred. Typical charge time for a depleted pack is approximately 1 hour. The actual time the charger takes to fully charge the SkyFly battery pack may vary.

IMPORTANT! NEVER LEAVE A CHARGING BATTERY UNATTENDED

Although the 12V DC Peak Charger automatically detects when the battery is full and terminates peak charge, the battery pack must not be left unattended during charging. It is normal for the battery pack and charger to become warm during peak charge. If however the battery pack becomes too hot to handle, immediately terminate peak charge by pressing the start/stop button and disconnect the pack from the charger.

A properly cared for battery will last a long time. Always allow a hot battery pack to cool before use or recharge, and be sure to fully discharge the battery pack before recharging. To fully discharge the battery pack, run the motor at high speed until the motor starts to pulse on and off. Remove the pack from the airplane and allow it cool if necessary.

CHARGING PRECAUTIONS

- ALWAYS place battery and charger outside of the vehicle!
- NEVER use this charger with your vehicle engine running!
- ALWAYS completely discharge your battery before charging!

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.

CONNECT THE BATTERY

Remove the canopy by turning the locking knob 90° either direction and lifting the rear of the canopy.

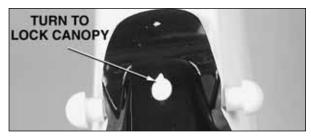


Slide the **battery** in at a slight angle in the nose of the plane. While pushing it forward, gently push down on the rear of the battery to fit it in place. It will be a snug fit but the battery should rest fully in the battery compartment as shown. **Do not connect the battery until you are ready to fly.**

ATTACH THE CANOPY

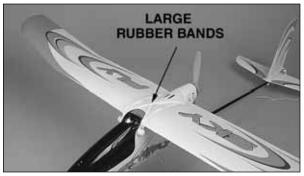


On the underside of the canopy there is a retaining tab. This will slide into the hole in the front of the fuselage.



Once the canopy is in place, secure it by rotating the **locking knob** at the top of the canopy.

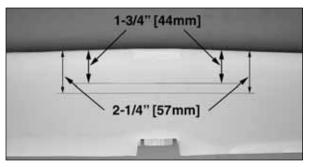
ATTACH THE WING



Slide the front of the wing under the canopy and position the wing flat and centered on the fuselage. Secure the wing with two rubber bands, straight from the front to rear pegs. Attach two additional rubber bands diagonally over the top of the wing. Only use four rubber bands to attach the wing to the fuselage.

BALANCE THE MODEL

Your model comes out of the box "factory balanced." The following information takes you through the process of balancing the model should you need to do so.



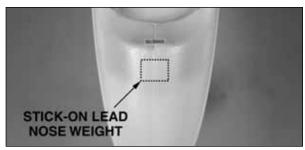
Use a fine-point felt-tip pen to mark the balance range on both sides of the **bottom** of the wing according to the measurements shown in the photo. Note that the measurements are from the **front**, or leading edge of the wing.



With the battery in place, 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 SkyFly 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 bottom of the stabilizer at the center. Be sure that any added weight does not interfere with the operation of the elevator.



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 upper inside of the fuselage just in front of the hole for the canopy retaining tab. 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 between the lines. If you added any weight, recheck the balance.

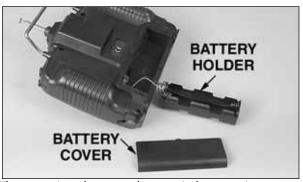
PREPARE THE TRANSMITTER

The SkyFly transmitter is equipped with an Expert/Beginner switch. When this switch is in the "Beginner" position, the transmitter will automatically combine or "mix" a small amount of up elevator when rudder input is provided to help maintain altitude when turning. In "Expert" mode, there are no flying aids or "mixing" to help the pilot.





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



The transmitter that controls your airplane requires power, in the form of eight "AA" batteries. To install the batteries, remove the battery cover on the back of the transmitter.

Pull the battery holder out of the transmitter case and install eight new "AA" batteries, following the diagram on the holder.

Reinsert the battery holder in the transmitter case. Reinstall the battery cover on the back of the transmitter case.

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 LED is flashing red and beeping repeatedly, you need to install fresh batteries. Note: The transmitter will always beep twice when first turned on.

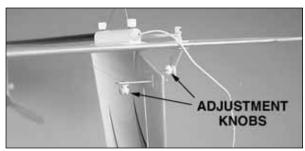
CAUTION

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

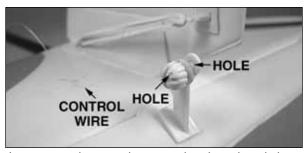
Note: The SkyFly transmitter is equipped with a charge jack that allows NiCd or NiMH batteries to be charged without removing them from the transmitter. In order to use the charge jack, a separate charge jack conversion kit (HCAP6010) must be purchased. The kit comes with (8) "AA" rechargeable NiCd batteries and a 2-3 hour quick charger.

CHECK THE CONTROL DIRECTIONS

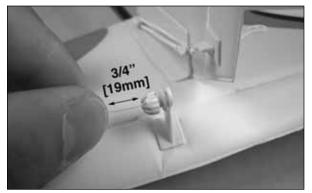
Be sure your transmitter has fresh "AA" batteries installed (not included). Turn on the transmitter and center the trims tabs. **Staying clear of the propeller**, remove the canopy from the SkyFly and connect the battery to the **receiver/ESC**. If necessary, adjust the control surfaces with the adjustment knobs to center them or use the trim levers on the radio.



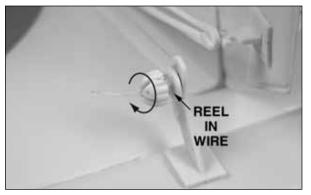
Using the **adjustment knobs** on the elevator and rudder **control horn,** adjust each control line until the control surfaces are level with the fin and stabilizer.



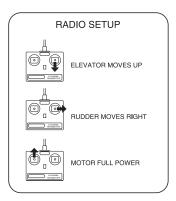
If at any time the control wire needs to be rethreaded onto the adjustment knobs, rotate the knob until the small hole in it aligns with the outer hole in the control horn.



Feed the control surface wire through the hole in the control horn and then through the hole in the adjustment knob. Pull approximately 3/4" [19mm] of excess wire through the knob.



While holding the excess wire taught, rotate the knob so that the wire is reeled in. A few rotations will then keep the wire tight on the knob. Adjust the knob until the control surface is level.



Check the operation of all control surfaces. If the motor begins rotating with the throttle at its lowest position, adjust the throttle trim to stop the motor from turning.

CHOOSE A GOOD FLYING SITE

The SkyFly should be flown only when the wind speed is 5 mph or less. If the wind is calm or very light, the SkyFly will be docile and easy to control. Also, 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.

PREPARE FOR TAKEOFF

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

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

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 it (i.e. 1 through 6 and 26.995 through 27.255). 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 SKYFLY

Your transmitter controls the altitude, direction and speed of the airplane. The right stick controls the altitude and direction and the stick on the left side of the transmitter controls the speed.

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.

First, extend the transmitter antenna and switch your transmitter power switch "ON." Be sure your throttle stick is moved all the way to the bottom position.

Second, connect your battery to the electronic speed control in the fuselage.

Caution: Keep your hands away from the propeller.

The throttle stick must be first moved to the idle (bottom) position in order to activate the throttle function. Once this is done, the propeller is now armed. Moving the throttle stick upward will cause the prop to rotate. The farther the stick is moved, the faster it will spin.

Perform a range check your radio before each flight. Switch on the airplane and then switch on the transmitter. Have a helper hold the airplane. With the transmitter waist high and the antenna collapsed, walk 100 feet away from the airplane, holding the transmitter with the antenna pointing up. Move the control stick, checking that the control surfaces respond. 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 extended out the back of the airplane.

With the throttle stick moved fully upwards, hand launch the SkyFly 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 being hand launched.

Pull the right stick toward you so that the plane climbs at a 20 to 30 degree angle. Allow the airplane to climb a few seconds before turning it.

When your airplane is moving away from you, moving the right 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 right stick towards you) 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. **Caution:** It only requires a small amount of up elevator. If using the beginner mode, this is done for you.

When the airplane is coming toward you, moving the right stick left still causes left rudder, but your airplane goes to your right. In short, you have to reverse the way you control the rudder. Here's a good way to familiarize yourself with the controls: When the airplane is coming toward you, turn your body so that you are facing the same direction the airplane is going, looking over your shoulder at the airplane. Now when you move the rudder stick left, the plane will go to your left.

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 elevator stick is released, move the elevator trim lever up. If the airplane wants to dive, move the elevator trim lever down. It should require very little trim. Your goal is to have the airplane fly level with the elevator stick centered.

Now, with the airplane flying level, check to see if the airplane is flying straight. If it wants to turn when the rudder stick is centered, move the rudder 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.

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.

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

IT'S NOW TIME TO LAND

It's a known fact among fellow R/C pilots that your airplane **will** land. It is up to you as to where and how it lands. For your first couple of flights we recommend that you attempt to land before the motor stops. Your SkyFly comes with an auto cut-off feature which reserves battery power for safe landings. During your first flight, while at a high altitude, turn the motor off and notice how the SkyFly reacts. This will give you an idea of how the airplane will react during a landing.

To land the SkyFly, 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.

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 on the SkyFly 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 stick down to stop the motor. If you fail to do this, the motor, speed control and/or battery will be damaged.

AFTER THE FLIGHT

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

SAFETY CHECKLIST

Always follow this sequence before and after each flight.

TO FLY:

- 1. Move throttle stick to the "motor off" position (off).
- 2. Turn on transmitter and extend antenna.
- 3. Plug in airplane battery (motor is now armed).

AFTER FLIGHT:

- 1. Move throttle stick to the "motor off" position (down).
- 2. Unplug battery from the airplane.
- 3. Turn off transmitter.

REPLACEMENT PARTS

To order replacement parts for your SkyFly, use the order numbers in the parts list. 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

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.

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.

PARTS LIST

Stock #	Description
HCAP9925	CHARGER 12V DC PEAK w/blk plus
HCAP9951	CHARGER 12V DC PEAK w/red 2 pi
HCAP9926	AC WALL ADAPTER w/blk plug
HCAP9950	AC WALL ADAPTER w/red 2 pin
HCAA3850	BATTERY 7.2V 900MAH NIMH
HCAA3851	MAIN WING
HCAA3852	VERTICAL STABILIZER W/ACCY
HCAA3853	HORIZONTAL STABILIZER W/ACCY
HCAQ3490	PROPELLER
HCAA3854	CONTROL LINKAGE
HCAG1055	MOTOR 380
HCAG056	MOTOR MOUNT PLATE W/SCREW
HCAM7525	RECEIVER UNIT
HCAL7550	CRYSTAL SET 26.995
HCAL7551	CRYSTAL SET 27.045
HCAL7552	CRYSTAL SET 27.095
HCAL7553	CRYSTAL SET 27.145
HCAL7554	CRYSTAL SET 27.195
HCAL7555	CRYSTAL SET 27.255
HCAL7575	TRANSMITTER
	MAIN LANDING GEAR
	FRONT LANDING GEAR
	SCREW LANDING GEAR (2)
	WING MOUNTING BAND (4)
	TAIL CONTROL BAND (2)
HCAA3867	TAIL BRACE
	CONTROL HORN/KEEPER (2)
	CANOPY COVER
	ANTENNA TX (2)
HCAA3873	HOLD DOWN ROD/CAPS (4)
	BATTERY COVER TX
	FUSELAGE W/ BOOM
	TAIL SKID WIRE
HCAA3872	VERTICAL STAB NUTS (2)



Sea Scout™ Ready-to-Run Micro R/C Sub HCAB0020

The nearly 5" long Sea Scout with working lights takes R/C "undersea" - so easily that even 8-year-olds can be the commander. Two motors turn propellers for steering and forward/reverse thrust. A third motor offers instant diving or surfacing ability (even straight up and down!). The Sea Scout's built-in NiMH battery recharges in just minutes on the provided DC battery charger. A 3-channel transmitter is also included. Available on 27MHz (Black, HCAB0020) or 49MHz (Gray, HCAB0021) - requires only one 9V and 6 "C" batteries.



Reef Racer 2™ Ready-to-Run Electric Boat HCAB14**

The 15" long Reef Racer 2 comes with radio gear, 380-size motor and ESC installed...and a 6-cell NiMH battery and 12V DC charger included. Drop in the charged battery pack, bury the throttle and it leaps into action! You'll enjoy quick response and "turn on a dime" maneuverability - even at top speed. If you happen to flip or roll - don't worry! The self-righting hull gets you back into action in seconds. And if you're a southpaw, you can quickly adapt the included AquaCraft pistol for left-hand use with just a Phillips screwdriver. Available in six sizzling colors. Requires only 8 "AA" batteries.



1/10 Scale Ready-to-Run R/C Electric Stadium Truck DTXD20**

Check it out, and you'll agree: Nothing can touch the 1/10 scale Evader ST RTR electric stadium truck for convenience, set-up ease, performance extras or toughness. It comes assembled, painted, and equipped for fast, easy racing...with a 20-turn Photon Speed™ motor, reversible Sprint™ electronic speed control with brake, and a DuraTrax 2-channel radio system made by Futaba®. All you add are a 6-7 cell NiCd battery and charger! See www.duratrax.com for more information.



NexSTAR™ Ready-to-Fly R/C Trainer HCAA17**

No other trainer offers so much for the first-time pilot: a Futaba® radio, an O.S.® engine, and a special NexSTAR edition of the Great Planes® RealFlight™ R/C Simulator! The 4YBF 4-channel is factory-installed and features AFS™ (Active Flight Stabilization), which automatically detects and corrects any signs of uneven flight. The .46 FXi™ engine starts easily and effortlessly every time, and requires no adjustments. And RealFlight lets you practice flying the NexSTAR anytime, using your Futaba transmitter as the controller, right on your PC. You'll develop confidence in piloting all of the plane's special features before you even take your 69" span NexSTAR to the flying field for the first time!