# Super Cub LP
## instruction manual

**BNF**™
**hobbyzone**®

**X PORT**
**ACT ANTI-CRASH TECHNOLOGY**

**Z1**

# Table of Contents

## Welcome to the World of hobbyzone®

Congratulations on your purchase of the HobbyZone® Super Cub LP BNF. Your Super Cub LP BNF comes with everything needed to get you in the air and it is specifically designed for you to be able to teach yourself to fly.  You will only need to thoroughly read the instruction manual, attach the wing, tail and landing gear, and then charge the flight battery and bind your transmitter prior to your first flight.

HobbyZone's innovative Anti-Crash Technology™ (ACT) makes teaching yourself to fly even easier and safer than before. With ACT, anyone can fly. Two sensors on the Super Cub LP, one on the top and one on the bottom of the fuselage, monitor the position of the plane in relation to the ground. When the plane is flying level, the top sensor sees the sky, while the bottom sees the ground, and they tell the on-board computer the plane is flying correctly. If the plane enters a dive and the sensors detect that the plane's orientation is incorrect, the system will automatically correct the control inputs and help prevent the plane from crashing, allowing you time to regain control.

ACT lets you fly without worry. And once you've gained experience with your Super Cub LP, you can turn ACT off for more complete control and increased maneuverability.  A DVD is included to give you some helpful hints before you take to the sky for the first time, and includes flying footage.  You may choose to watch the DVD while the flight battery is charging.

Crash damage is not covered under the warranty.

Be sure to read the warranty on page 36 and "Warnings and Safety" on page 33 before you proceed to Step 1.

# Charging the Aircraft Battery

The charger included with your Super Cub LP BNF uses unique circuitry that ensures an accurate charge every time and protects your Li-Po battery from the dangers of overcharging. This charger continually monitors the battery and automatically stops charging when the battery is fully charged.
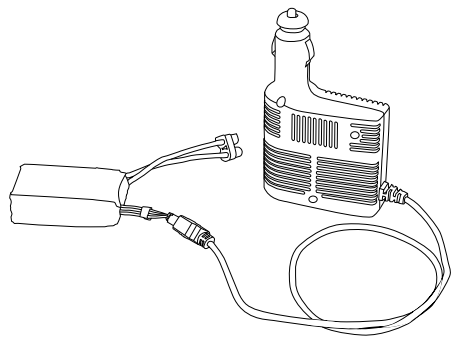


**DC Li-Po Balancing Charger Features**

• Charges 3-cell lithium polymer battery packs at 1.3-amps

• LED charge status indicator

• 12V accessory outlet input cord You must charge the included Li-Po battery pack with a Li-Po specific charger only (such as the included charger). Never leave the battery and charger unattended during the charge process. Failure to follow the instructions properly could result in a fire. When charging, make certain the battery is on a heat-resistant surface.

1. The 12V DC 3S Li-Po balancing charger provides a charge current of approximately 1.3-amps. The typical charge time for the included 11.1V 1300mAh Li-Po is approximately 1 hour.

2. Locate the safety charge lead on the battery pack. Connect the battery pack to the charger. Charge through the balance lead on the battery pack. The blue

EC3 connector will remain disconnected when using the included charger.

3. Connect the charger to either a 12V power outlet in a vehicle or the AC adapter included with your Super Cub LP. Please note that some 12V outlets require your vehicle to be running for the outlet to be operational. It is recommended to consult your vehicle owner's manual if you are unsure. The LED will continually blink while the battery charges. It is not recommended to charge batteries while the vehicle is in motion.

4. Charging is finished when the LED indicator glows steadily.

# Installing Aircraft Battery

The battery for the Super Cub has a power lead and a balancing lead. The power lead is the blue plug and the balance lead is the white plug. **The white balance plug should only be plugged into the charger and NEVER into the X-Port receptacle on the bottom of the fuselage.** The X-port will have a sticker placed over the socket. For information on X-port see page 29 of this manual.



Balance plug

X-port receptical
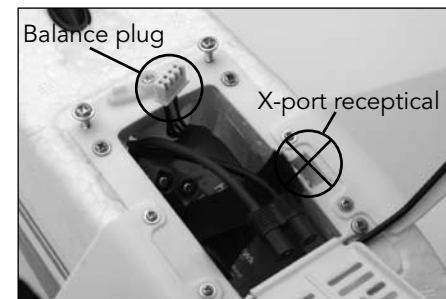
Open the battery door on the fuselage of the Super Cub and insert battery into battery cavity. The battery cavity has been designed to be a snug fit for the battery to prevent the battery from shifting in flight. Once the battery is inserted into the battery cavity, secure the battery in place with the hook and loop straps.





To power the airplane, plug the blue EC3 connectors together. The white balance plug on the battery will be tucked into the battery cavity.

# Transmitter Identification

Note: The DX5e is used as a reference throughout this manual.

Note: You will need to reverse the aileron channel for the rudder to travel in the correct direction.

## Mode 2

Rudder/Throttle Functions

Aileron/Elevator Functions

Rudder Trim

Throttle Trim

Aileron Trim

Elevator Trim

## Mode 1

Rudder/Elevator Functions

Aileron/Throttle Functions

Rudder Trim

Elevator Trim

Aileron Trim

Throttle Trim

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# Binding

Note: Binding allows your transmitter to connect to the receiver. The bind plug is the small black connector with the orange label. Plug the bind plug into the Batt/Bind port of the receiver to enter bind mode.

Note: The rudder comes plugged into the aileron port of the receiver to allow the use of the aileron stick for directional control. You will need to reverse the aileron channel for correct direction of travel. Check the tail control test for correct travel of control surfaces.

Note: Once you bind your Super Cub LP to a transmitter, the throttle will be armed. Use caution when the airplane is powered. Make sure the throttle stick is in the off position and the throttle trim is in its lowest position. Once binding is complete unplug the flight battery to continue the assembly of the Super Cub LP.



**DX5e:**

A. To bind your Super Cub LP BNF to the DX5e, confirm the bind plug is installed in the Batt/Bind port on the receiver.

B. Plug the battery into the ESC of the airplane. The LED on the receiver will begin flashing rapidly.

C. Move the sticks and switches on the transmitter to the desired failsafe positions (low throttle and neutral control positions).

D. Pull and hold the Trainer Switch on the transmitter while turning the transmitter on. Release the trainer switch once the LEDs on the front of the transmitter flash.

E. The LED on the receiver will go to a slower flashing red and the system will connect after several seconds.

F. Remove the bind plug and store in a safe place.

G. Unplug the flight battery, then plug it back in. The LED on the receiver will be solid red.

H. After you have completed the binding process, unplug the flight battery, and turn off the transmitter. You are now ready to begin the assembly of the aircraft.

**DX6i:**

A. To bind your Super Cub LP BNF to the DX6i, confirm the bind plug is installed in the Batt/Bind port on the receiver.

B. Plug the battery into the ESC of the airplane. The LED on the receiver will begin flashing.

C. Move the sticks and switches on the transmitter to the desired failsafe positions (low throttle and neutral control positions).

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# Binding (continued)

**DX6i continued:**

D. Pull and hold the Trainer Switch on the transmitter while turning the transmitter on. Release the trainer switch once the word BIND flashes on the LCD screen on the front of the transmitter.

E. The LED on the receiver will go to a slower flashing red and the system will connect after several seconds.

F. Remove the bind plug and store in a safe place.

G. Unplug the flight battery, then plug it back in. The LED on the receiver will be solid red.

H. After you have completed the binding process, unplug the flight battery, and turn off the transmitter. You are now ready to begin the assembly of the aircraft.

**DX7(se) or X9303:**

A. To bind your Super Cub LP BNF to the DX7(se) or X9309, confirm the bind plug is installed in the Batt/Bind port on the receiver.

B. Plug the battery into the ESC of the airplane. The LED on the receiver will begin flashing.

C. Move the sticks and switches on the transmitter to the desired failsafe positions (low throttle and neutral control positions).

D. Press the bind button on the back of the transmitter while turning the transmitter on. The bind button on the back of the transmitter will flash. Release the button after 2–3 seconds.

E. The LED on the receiver will go to a slower flashing red and the system will connect after several seconds.

F. Remove the bind plug and store in a safe place.

G. Unplug the flight battery, then plug it back in. The LED on the receiver will be solid red.

H. After you have completed the binding process, unplug the flight battery, and turn off the transmitter. You are now ready to begin the assembly of the aircraft.

# Binding (continued)

**Brownout Detection**
The DSM2™ ESC/Receiver features Brownout Detection.

- Should an interruption of power occur (brownout), the system will reconnect immediately when power is restored.

- The LED on the receiver will flash slowly indicating a power interruption (brownout) has occurred.

- Brownouts can be caused by an inadequate power supply (weak battery or regulator), a loose connector, a bad switch, an inadequate BEC when using an electronic speed controller, etc.

- Brownouts occur when the receiver voltage drops below 3.5 volts thus interrupting control as the servos and receiver require a minimum of 3.5 volts to operate.

**How Brownout Detection Works**

- When the receiver voltage drops below 3.5 volts the system drops out (ceases to operate).

- When power is restored the receiver immediately attempts to reconnect to the last two frequencies that it was connected to.

- If the two frequencies are present (the transmitter was left on) the system reconnects typically within a second.

Brownout Detection is designed to allow you to fly safely through most short duration power interruptions; however, the root cause of these interruptions must be corrected before the next flight to prevent catastrophic safety issues.

**Note:** If a brownout occurs in-flight it is vital that the cause of the brownout be determined and corrected.

**Note:** Brownout can also occur if the battery is disconnected from the ESC/Receiver and a new battery is plugged in if the transmitter power is not cycled off then back on.

# Landing Gear Attachment

1. Locate the included wire landing gear.

2. Slide the landing gear into the allotted slot on the bottom of the fuselage.

3. Make sure the gear is securely in the slot by gently pulling on it after it is attached.

4. Attach the white plastic scale covers with the included four (4) screws as shown.  They are located in the small bag labeled "A."
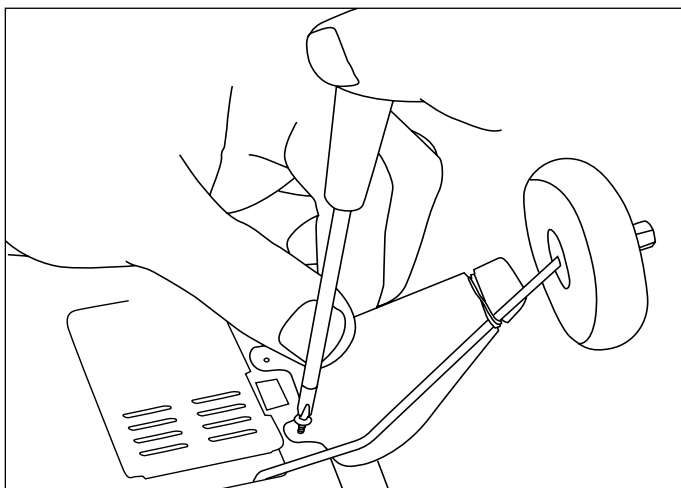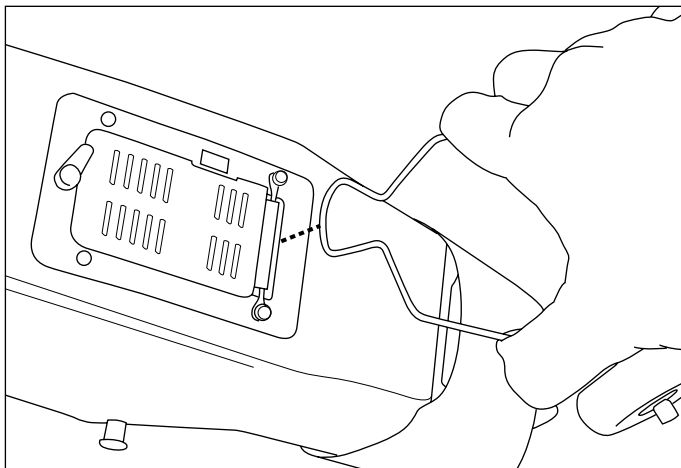




# Attaching the Wing

1. Locate the wing and strut screws that are included.

2. Place the wing so that it is centered on the top of the fuselage.

3. To secure the wing with the included rubber bands, attach two bands straight across the top of the wing, attaching each end to each set of wing hold-down rods. Then criss-cross two diagonally across the top of the wing.

4. After you are satisfied that the wing is properly centered on the fuselage, turn the plane over and complete the wing attachment by attaching the struts as shown.  The screws used to attach the struts are in the small bag labeled "B."

5. Make certain the wing is properly attached and centered prior to each flight.
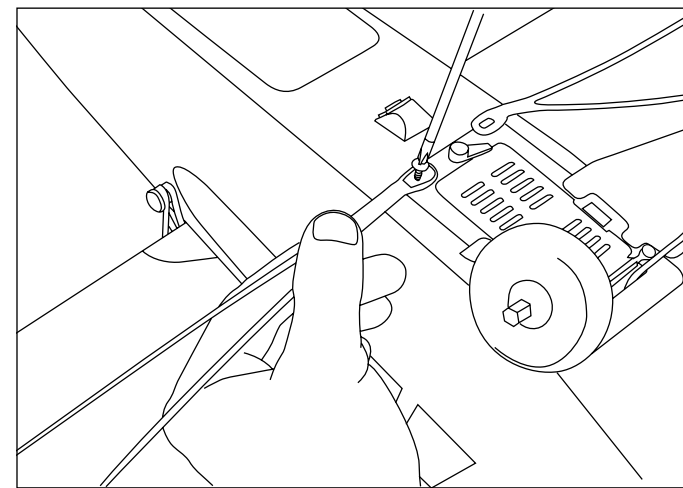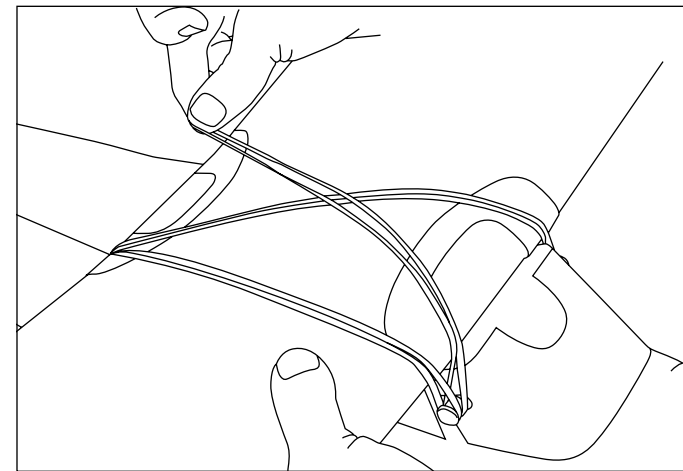
# Attaching the Tail

1. Locate the rudder and horizontal stabilizer assemblies and carefully remove them from the box.

2. Install the rudder assembly into the horizontal stabilizer, as shown.

3. Install the complete tail assembly into the fuselage, as shown.

4. Secure this assembly to the fuselage, from the bottom, with the included screws.  The two screws needed for this step are in the small bag labeled "C" and are the two longest included.

5. Clip the tail wheel wire into the plastic wheel housing by pulling down slightly on the tail wheel, at the same time you are pushing up on the plastic molding until the two parts "snap" together. Make sure to support the tail when doing this so that no damage is done to the aft fuselage area.
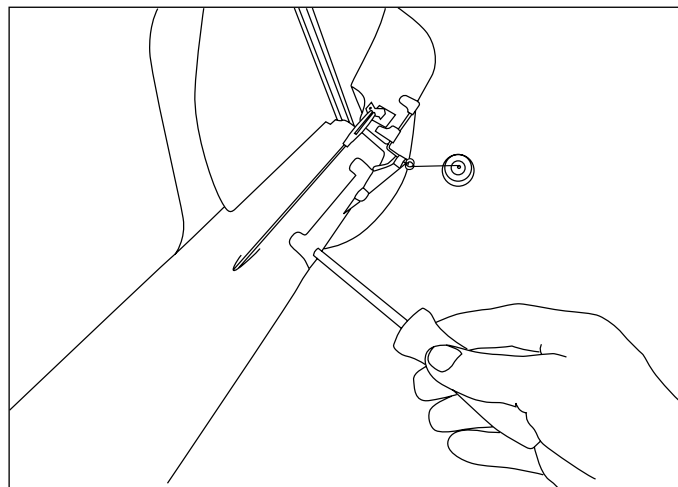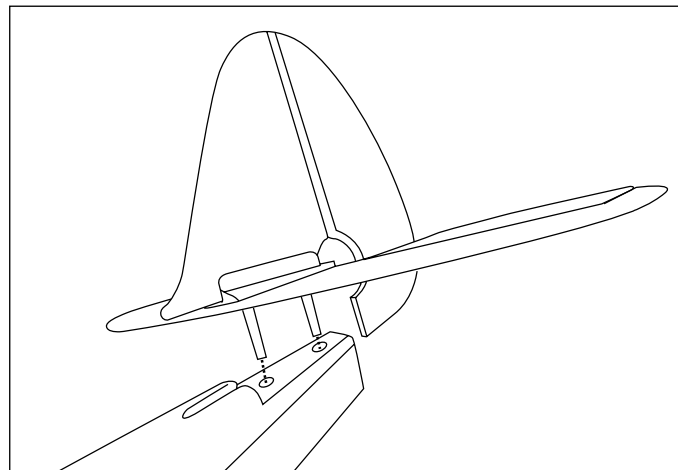




# Attaching the Tail (continued)

6. Attach the clevis from the rudder pushrod into the outermost hole of the control horn on the rudder, and slide the clear rubber sleeve down over the clevis.

7. Attach the clevis from the elevator pushrod into the outermost hole of the control horn on the bottom of the elevator.  Slide the clear rubber sleeve down over the clevis.  Again, refer to the instructional video for a more detailed explanation.



pull down

push up
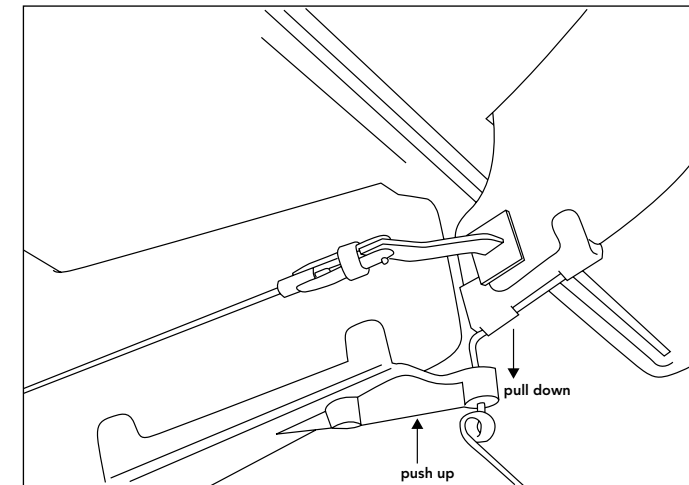
# Tail Control Test

Note: You will need to reverse the aileron channel for the rudder to travel in the correct direction. Refer to your specific transmitter manual for information on reversing.

1. Make certain the throttle stick is in the "off" position. Turn on the transmitter.

2. Install the flight battery in the fuselage and plug the battery lead into the lead inside the airplane.

3. Move the stick on the transmitter (rudder control) side to side, observing the vertical control surface moving per your input, as shown.

Mode 2    Mode 1

Right

Mode 2    Mode 1

Left
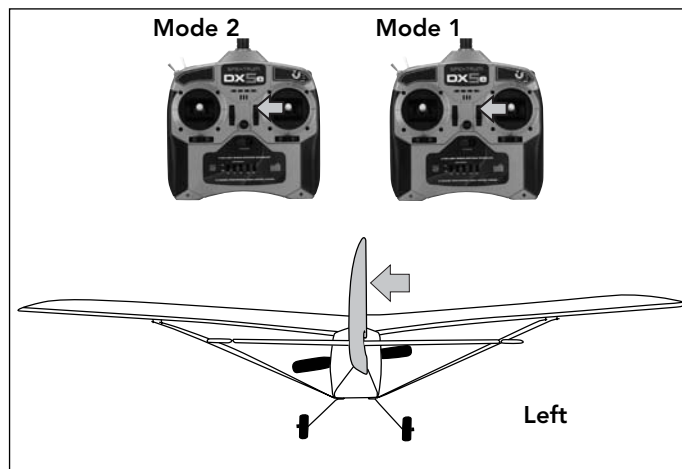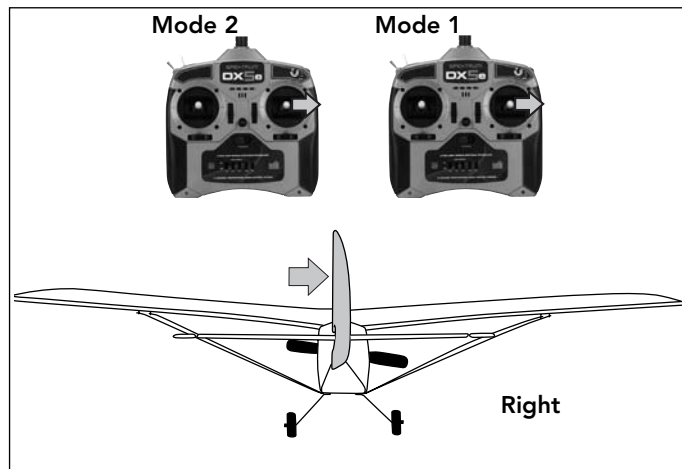
# Tail Control Test (continued)

4. Push the stick full forward (elevator control). When this is done, the horizontal control surface should move down (as shown), causing the plane to pitch down.

Mode 2    Mode 1

Down
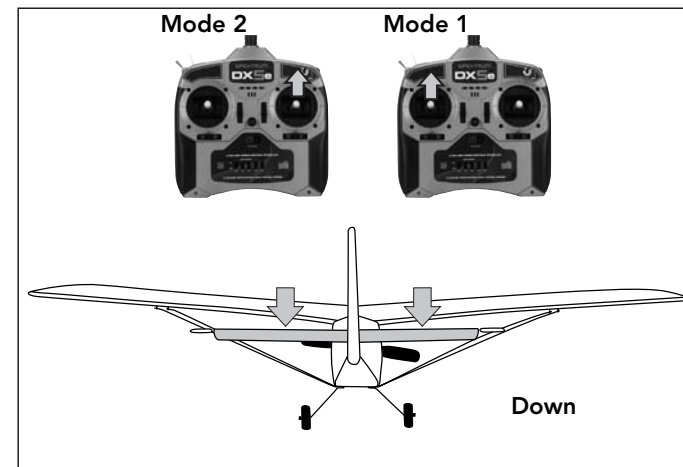
5. Pull back on the stick (elevator control). When this is done, the horizontal control surface should move up (as shown), causing the plane to pitch up.

Mode 2    Mode 1

Up

# Tail Control Test (continued)

6. If your airplane is not responding, DO NOT FLY IT! Please refer to the Troubleshooting section at the back of this manual for more information.  If you still need assistance, call the Horizon Support Team at 877-504-0233, Horizon Hobby UK at +44 (0) 1279 641 097 or Horizon Technischer Service, Germany at +49 4121 46199 66.

7. When satisfied your airplane is set up properly, you can unplug the flight battery and then turn off the transmitter.  This should be done every time you have finished flying.
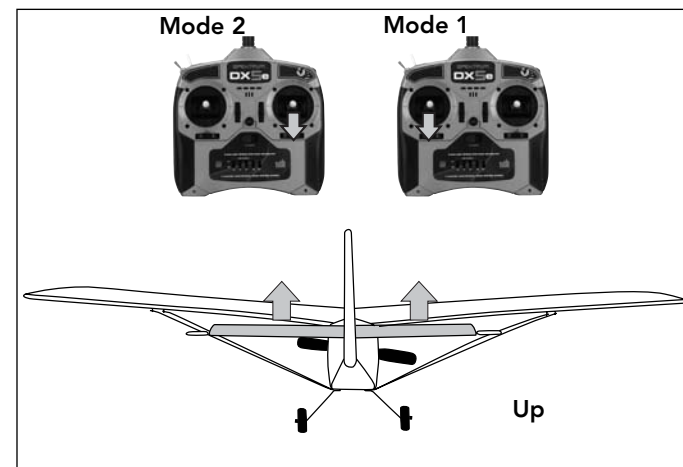
**Note: It is very important to make sure the control surfaces (rudder and elevator) are at neutral, or 0 degrees. Ideally, they will be at neutral when the levers are centered. The next step explains how to make adjustments to the control surface.**

# Making Adjustments to the Control Surfaces

1. You should be able to make any changes necessary to bring both the rudder and the elevator to neutral (zero degrees) by using the trim levers on the transmitter. To do this, place the control stick at center, and use the trim lever below the stick to adjust the rudder (vertical surface) until it is in line with the vertical fin. To adjust the elevator so it is in line with the horizontal stabilizer, use the elevator trim lever.

2. After making adjustments using the trim levers, if you find you are unable to position the control surfaces at neutral, do not fly until making corrections.

3. If corrections are needed and moving the trim lever(s) is not adequate, you will need to perform the following steps:

   a. Turn on the transmitter.

   b. Insert the battery pack into the fuselage and plug the battery into the lead from the airplane.

   c. Return the trim levers to center.

   d. Remove the clevis from the control surface horn and adjust the length of the pushrod by turning the clevis in the appropriate direction. Turning clockwise makes the pushrod shorter and counterclockwise makes it longer.

# Choose a Large, Open Grassy Field

In order to have the most success, and to protect property and your Super Cub LP, it is very important to select a place to fly that is very open.

The site should:

- Have a minimum of 300 feet (90 meters) of clear space in ALL directions.

- Be clear of pedestrians.

- Be free of trees, buildings, cars, power lines, or anything that could entangle your airplane or interfere with your sightline.

- Remember, your Super Cub LP can reach speeds of up to 30 mph (48km/h), so it can cover ground quickly.

- Plan on flying in an area that gives you more space than you think you need, especially with first flights.



WIND

600 feet

Fly in this area
(upwind of pilot)

stand here
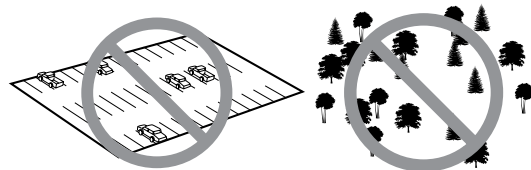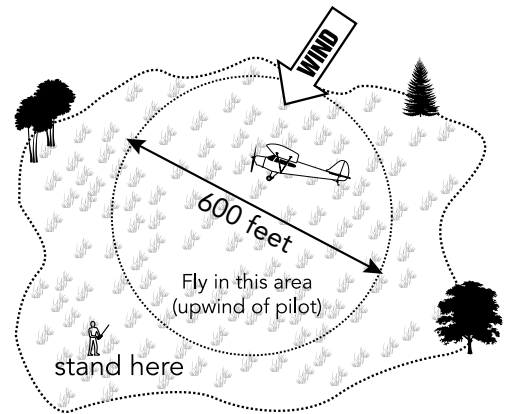
# Choose a Calm Day

We know you want to fly your Super Cub LP as soon as you have it. However, flying in too much wind can place your aircraft in jeopardy. On your first flights, make sure that the winds are no more than 5–7 mph (8–11km/h).

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# Anti-Crash Technology (ACT™)

Your Super Cub LP comes equipped with exclusive Anti-Crash Technology. This software will help prevent crashes due to over-control. The sensors that are located on the fuselage "see" the horizon. One sensor is located at the top of the windshield and the other is on the bottom side of the fuselage, in front of the landing gear.
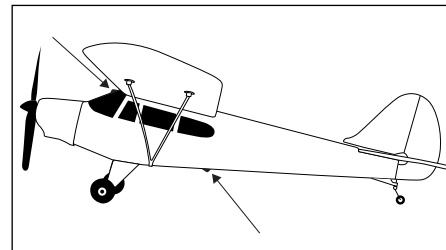


The electronic system connected to the sensors knows that the airplane (with ACT "on") should not be allowed to enter a steep dive. If you give transmitter input that causes the plane to enter into a steep dive that could lead to a crash, the ACT software will override your input to help prevent the aircraft from crashing to the ground. ACT will cut the power going to the motor and add some up elevator, as well. This causes the nose of the airplane to pull up, thereby helping to prevent

your aircraft from crashing. However, in order for ACT to work properly, there has to be sufficient altitude for recovery (at least 200 feet or 61 meters). ACT will only interrupt flight in extreme situations, allowing you to enjoy as much control of your Super Cub LP as you need.



With ACT

Without ACT
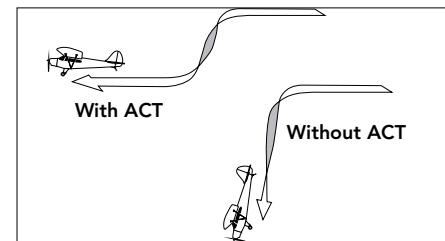
If, with ACT on, you enter into a threatening dive, you will notice the following:

- You will hear the motor power decrease as the ACT programming overrides your input. This slows the speed of the airplane and will reduce the risk of a crash.

- The ACT software will give up elevator input to help pull the nose up and out of the dive.

- Once the ACT software has been engaged (takes over), you will not

regain control until after you have released the steering stick and returned it to neutral.

Remember, the purpose of Anti-Crash Technology is to help you learn to fly properly and smoothly. When ACT is engaged, it means you have placed your aircraft in jeopardy. Keeping the stick more in the middle, and less to the "corners" of the transmitter, will allow you to fly more smoothly and prevent ACT from engaging.

The key is to learn to make minor movements on the controls. The transmitter is proportional and is sensitive to movements of the control stick. Once you have gained more experience, and feel comfortable flying, you can turn off ACT and have full control at all times. It is possible to change flight modes (turn ACT on or off) while in flight, but sufficient altitude is required. To turn off ACT, simply move the switch on the top of the transmitter to the appropriate position.

Note: Refer to page 30 for switch positions to activate and disable ACT.

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# Anti-Crash Technology (ACT) (continued)

### ACT Flying Tips

• Never fly at too low of an altitude and expect ACT to save you from a crash. You must maintain an altitude of at least 200 feet (61 meters) for the software to be able to help prevent crashes.

• Even when flying with ACT on, if you feel your aircraft is in jeopardy, reduce the throttle immediately and release the stick. You can then add a small amount of up elevator (pull back slightly on the stick), as well, to aid the recovery.

• Because the sensors are used to activate the protective software, there may be times when they can be fooled. This may be especially true when flying in very bright sunshine and/or when the sun is close to the horizon.

• With ACT on, never fly over water, light colored sand, ice, snow or anything else that can reflect light and "fool" the sensors.

• Never fly in too tight of an area. Anti-Crash Technology will not prevent you from crashing into trees, buildings or other obstacles.

• Make several successful flights (including several soft landings) prior to attempting to fly with ACT off.

• Never let the aircraft fly too far downwind from you, which can cause the aircraft to fly away.

• It is always a good idea to have an experienced pilot who has mastered control with at least a 3-channel radio system to help you on your first flights.

# Using Elevator (Pitch Control)

Your Super Cub LP is equipped with a third channel for pitch control (elevator). Pulling back on the transmitter stick will cause the nose of the airplane to raise and allows for tighter turns, shorter runway takeoffs, flares for landing, a better climb rate and the ability to perform aerobatic maneuvers, such as loops and stalls. However, giving too much UP elevator (pulling back too much on the stick) can also place your aircraft in jeopardy, as your airplane can enter an unplanned stall, especially when the plane is traveling 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 stick back slowly (UP elevator) to pull the nose up and out of the dive. This should return the airplane to straight and level flight. Be careful as pulling back too quickly or too far will once again cause the plane to enter a stall.

# Hand Launch

On first flights, it is a good idea to have a second person, ideally an adult, help you launch the plane.  This will allow you to focus entirely on the transmitter input.

1. Make sure the battery is fully charged.

2. Power on the transmitter.

3. Install and plug in the flight battery.

4. If you are hand launching the aircraft yourself, place the plane in your right hand and the transmitter in your left hand.

5. Use caution and advance the throttle to FULL.

6. Take a few steps forward, and launch the airplane DIRECTLY and firmly into the wind, while keeping the airplane and its wings level with the ground.

7. Allow the plane to climb steadily at full throttle, into the wind, until you have achieved an altitude of 100 to 150 ft (30 to 46m).  You will not need to use elevator in order for your airplane to climb.  A few clicks down on the elevator trim should allow a steady climb.

# Runway Takeoff (ROG)

Your Super Cub LP can be launched by way of a runway takeoff (ROG).  However, this is not recommended for inexperienced pilots.
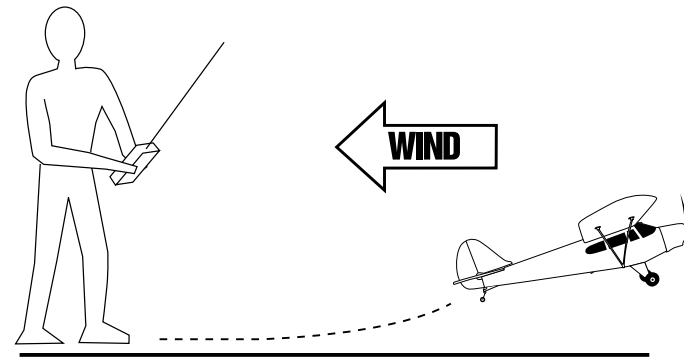


WIND

1. Make sure your landing gear is properly installed.

2. Stand behind your Super Cub LP and point it directly into the wind on smooth asphalt or concrete.

3. Apply FULL power via the throttle slider and adjust the control stick as necessary to keep the aircraft headed directly into the wind.

4. If the battery is fully charged, your Super Cub LP should lift off the ground in approximately 30 feet (12 meters).  Apply some UP elevator by pulling back on the stick, and the plane will lift off the ground in a shorter distance.  Remember, only a small amount of UP is needed.  Too much will cause a stall after your aircraft has left the ground.

# Flying

1. After you have launched your Super Cub LP, it will begin climbing at full throttle. With the throttle advanced all the way forward, your Super Cub LP should not need any elevator input to climb steadily.

2. Make adjustments on the throttle slider and control stick that are necessary to keep your aircraft heading directly into the wind. **Do not attempt a turn until you have reached a minimum of 50–100 feet (15.25–30.5 meters) of altitude, about as tall as a four-story building.**

3. Control range is 2500 feet (762 meters), so if you fly beyond that, you will lose control of your airplane. At that distance, however, you would likely lose sight of your airplane before you'd lose control.

4. Don't let your airplane get too far downwind from you. Always fly with the airplane UPWIND from you. Failure to do this could result in a fly-away! Remember, the wind is stronger as your plane flies 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.

5. When you have reached higher altitudes and want to practice using the elevator, begin with small and smooth inputs to the transmitter. Very little input is needed to get the plane to turn, climb or descend.

6. Avoid long vertical dives, with the motor on or off, as it can cause a lot of stress on the aircraft.

# Flying (continued)

7. It may be helpful to fly in smooth large ovals at higher altitudes so you can get used to steering the plane with the nose coming at you. Flying with the plane coming toward you takes some practice and is one of the hardest things to get used to when you first begin to fly.
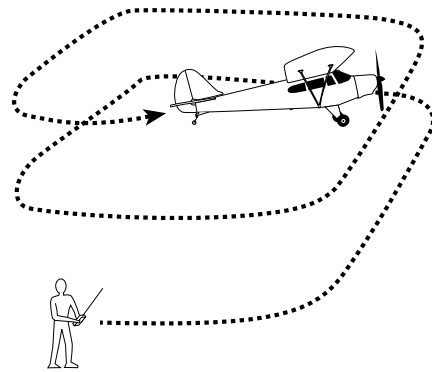


Sharp turns: Move the stick in the direction you want to turn and add a bit of UP elevator at the same time (pull back on the stick). The plane will make a sharper banking turn.

Rudder trim: If the Super Cub LP seems to drift in one direction when the control stick is in the neutral (centered) position, gradually move the rudder trim lever (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 "hunts" up or down, use the trim lever to the left of the stick to correct this problem. If it hunts up, slide the left trim lever up one notch at a time until it flies level. The model should fly straight with the stick at neutral. Your Super Cub LP should have a steady climb at full throttle when it is trimmed properly.

# Throttle Adjustment

1. When launching, the throttle should be all the way on.

2. Once you have achieved the altitude where you want to fly, you can reduce throttle to about 50% for cruising. This also allows 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%.
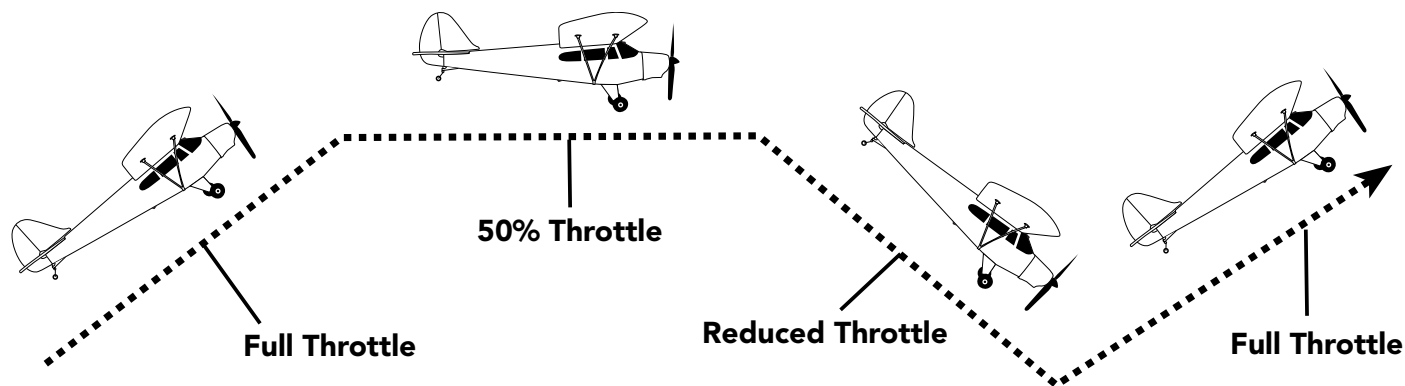
**Note:** If you're flying with the motor off, or at a slow speed, allow the Super Cub LP a bit more area for turns.

**50% Throttle**

**Full Throttle**

**Reduced Throttle**

**Full Throttle**

# Landing

When you notice that your Super Cub LP no longer climbs well under full power, normally after about 10–12 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 (3–4.5 meters) of altitude, reduce the throttle gradually until it is completely shut off. Your airplane will glide in for a landing.

Auto Cutoff: When the battery gets low enough, this feature automatically shuts off the motor and saves 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. If you are gliding down and have some time to rest the battery, you may re-arm the motor by moving the throttle slider back to off and then advancing it again. This will only allow the motor to run briefly, and may allow you to better adjust your landing. Do not re-arm the motor more than once.

**Warning:** Do not attempt to catch the airplane or injury may occur. Turn the motor off prior to touch-down in order to prevent damage to the wing and/or propeller.

**Expert Tip:** As you get more experienced at flying, try adding a small amount of UP elevator just before touchdown to "flare" the airplane. With more and more practice, your landings will be smooth and on target.

10 FT

**Reduce power at 10 feet**
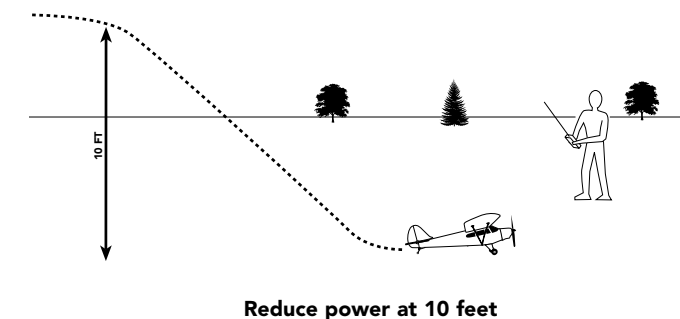
# Aerobatic Flight

It is recommended in the instructions that the Super Cub LP controls be set for softer responses and at the outer holes of the control surfaces.  However, once you get used to the flight characteristics and want to perform more aerobatic maneuvers (with ACT off), you can change the amount of throw that is permitted by moving the clevises to the inner holes of the control horns.  After making any adjustments, always turn on the transmitter, center the transmitter trim levers and make sure the control surfaces are even.  Make the proper adjustments to make the surfaces even, if they are not (see Step 7).

Note:  By making these changes, the controls will be much more responsive.  However, this makes the airplane much less forgiving and it will be easier to stall.  Remember, crash damage is not covered under the warranty.
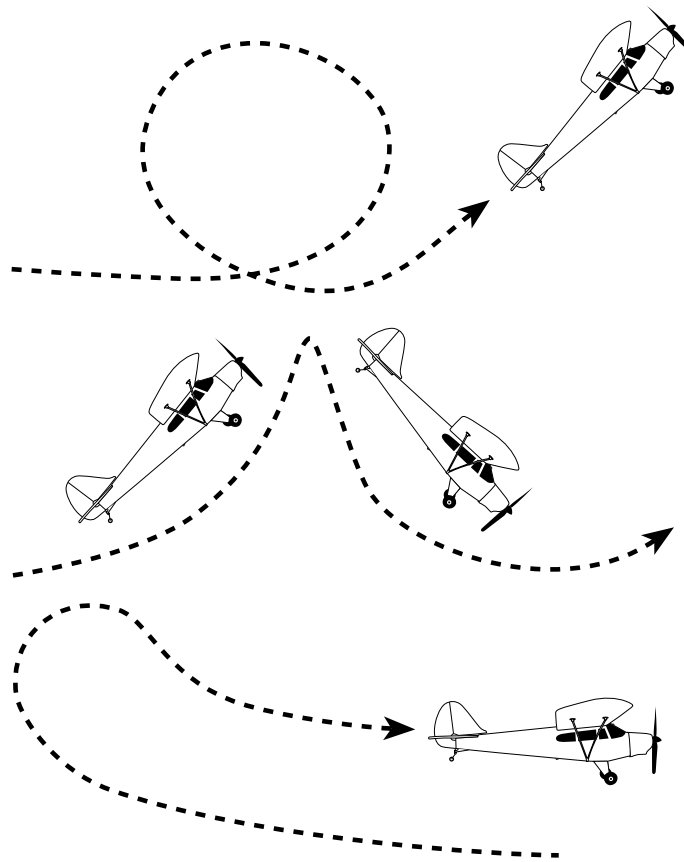
# X-Port

Your Super Cub  comes equipped with HobbyZone's exclusive X-Port™ feature.  This allows you to add the Sonic  Combat Module™ (HBZ4020) to your Super Cub for incredible aerial combat. With the SCM, you can engage in aerial combat with other X-port equipped aircraft. When you successfully "hit" another SCM equipped aircraft, a high-pitched sound is emitted. This signals the other aircraft's motor is disabled for approximately 10 seconds, while the ability to steer is maintained. This allows the opportunity for a safe landing or a counterattack. Simply attach the SCM on the designated space on the bottom of the fuselage. The firing button is at the top of the transmitter. When the button is pushed, a high-pitched sound signals the SCM has been activated.

The Aerial Drop Module™ (HBZ6023) attaches to the exclusive X-port tray included with your Super Cub. Simply plug-in the ADM, then attach it to the clip on the bottom of the X-port snap-on tray. The ADM allows you to drop either streamer bombs or a parachute jumper, all of which are included in the ADM.

Note: Never plug the white balance lead of the battery into the X-port socket. If the balance plug of the battery is plugged into the X-port, it will damage the receiver/ESC unit.

Note: Refer to page 30 for transmitter switch used to operate X-Port.

# ACT and X-Port Transmitter Functions

**DX5e**

ACT: Ch5 Switch - position 1 ACT active, position 0 ACT off

X-Port: Trainer Switch - pull switch (when not using a trainer chord) to activate X-Port

**DX6i**

ACT: Gear Switch -  position 0 ACT active, position 1 ACT off

X-Port: Flap Switch - position 0 off, position 1 activate X-Port

Note: The default settings on a DX6i has the FLAPS values set at zero. In the 'FLAPS' menu, set the travel to 100% up in NORM and 100% down in LAND to allow the X-port to function.

**DX7 (included DX7se)**

ACT: Gear Switch - position 1 ACT active, Position 0 ACT off

X-Port: Flap Switch - position 2 off, position 0 activate X-Port

**X9303**

ACT: Gear Switch -  switch forward ACT active, switch back ACT off

X-Port: Flap Switch - position 2 off, position 0 activate X-Port

Note: Make sure all ATV's are set at 100% travel. Refer to your specific transmitter manual for ATV adjustment. With a blank model selected ATV's should have a default setting of 100%.

# Optional Floats

Once you are an accomplished pilot and ready for the next exciting challenge, you may want to try the thrill of float flying. The Super Cub LP has the mounts installed for the optional HobbyZone Super Cub LP floats (HBZ7390). Refer to the float manual for installation and tips on float flying.

# Repairing Minor Damage

If you happen to crash, and part of the tail or wing breaks, it can be repaired by using packing tape to cover the missing pieces.  Also, any type of CA will help repair the foam fuselage and wing.  However, if damage is severe, or if the wing and/or tail are bent, replace the damaged parts prior to flying again.  There is a complete list of replacement parts in the back of this manual.
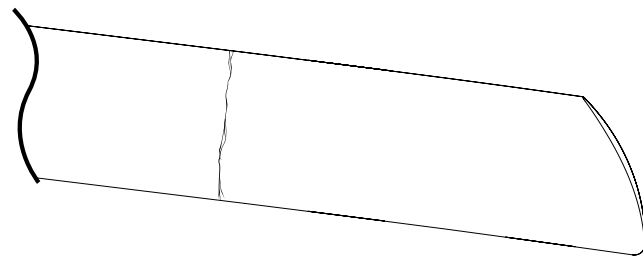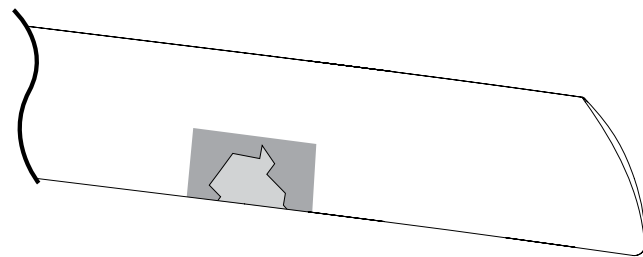




**Replace wing immediately**

# Warnings and Safety Checklist

1. Read and follow this manual and the included DVD completely, observing all instructions and safety directions.  If you do not do this, serious injury and damage can occur.  Think about safety first.

2. Keep the propeller away from all body parts at all times! Beware of loose clothing or hair becoming entangled in the propeller.

3. 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 or trees, and never attempt to catch the airplane.

4. **Age Recommendation: 14 years or over. This is not a toy. This product is not intended for use by children without direct adult supervision.**

5. Only use a LiPo battery charger that is compatible for use with the Super Cub LP battery.  We recommend using the charger that comes with your airplane.  **Never leave the chargers unattended while charging!** During charging, place the battery and charger on a heat-resistant surface.  Do not place them on carpet or upholstery.

6. Never cut into the battery charger or airplane wires, or 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.  Carry the plane as though the propeller could start spinning at any time when you have the battery pack plugged into the lead from the plane.

8. 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 the flight battery in.

# Replacement Parts

Replacement parts are available at your local hobby shop or www.horizonhobby.com.

| | | | |
|---|---|---|---|
| HBZ1002 | 9 x 6 Propeller | HBZ7134 | Motor with Pinion |
| HBZ1003 | DC LiPo Balancing Charger | HBZ7135 | Metal Pinion (2) |
| HBZ1004 | 1.5A AC Power Supply | HBZ7185 | Bare Fuselage (no receiver) |
| HBZ7104 | Prop Shaft | HBZ7310 | Decal Sheet: Super Cub LP |
| HBZ7106 | Landing Gear with Tires | HBZ7357 | DSM2 Receiver/ESC unit |
| HBZ7107 | Spinner | PKZ1033 | 1300mAh 11.1V Li-Po Battery with |
| HBZ7112 | Battery Door with Latch | | EC3 Connector |
| HBZ7114 | Firewall with Screws | PKZ1060 | Mini Servo (3 wire) |
| HBZ7117 | Tail Wheel | PKZ1131 | Servo Gear Set |
| HBZ7120 | Standard Wing with Struts | PKZ1132 | Servo Arm Assortment |
| HBZ7121 | Control Horns (4) | PKZ1536 | Motor Screws (2): M 2.5 x 6 |
| HBZ7122 | Wing Struts with Screws | SPM6802 | Male Universal Bind Plug |
| HBZ7124 | 2 Wing Hold-Down Rods | | |
| HBZ7125 | Tail with Accessories | | |
| HBZ7126 | Cowl | | |
| HBZ7127 | White Rubber Bands | | |
| HBZ7128 | Pushrods and Clevis Set | | |
| HBZ7129 | Gearbox with Firewall | | |

# Optional Parts

| | | | |
|---|---|---|---|
| HBZ4020 | Sonic Combat Module | SPMR55001 | DX5e 5-Channel Full Range Transmitter Only (Mode 1) |
| HBZ6023 | Aerial Drop Module | | |
| HBZ7390 | Super Cub LP Floats | SPMR66001 | DX6i 6-Channel Full Range Transmitter Only (Mode 1) |
| PKZ1005 | 10 x 8 High Power Propeller (for use with optional floats) | SPMR7700 | DX7 7-Channel Air Transmitter Only (Mode 2) |
| EFLAEC312 | EC3 Charge Lead with 12" Wire & Jacks,16AWG | SPMR77001 | DX7 7-Channel Air Transmitter Only (Mode 1) |
| | | RTM25R5500 | Phoenix R/C Pro Flight Simulator 2.5 with DX5e |
| SPMR5500 | DX5e 5-Channel Full Range Transmitter Only (Mode 2) | RTM2500 | Phoenix R/C Pro Flight Simulator 2.5 |
| SPMR6600 | DX6i 6-Channel Full Range Transmitter Only (Mode 2) | | |

# Troubleshooting

| PROBLEM | POSSIBLE CAUSE | SOLUTION |
|---|---|---|
| Unit does not operate | 1. Transmitter, rechargable or, AA batteries are depleted or installed incorrectly as indicated by a dim or unlit LED on the transmitter or the low battery alarm<br>2. No electrical connection<br>3. Flight battery is not charged<br>4. Crash has damaged the radio inside the fuselage | 1. Check polarity installation, replace with fresh AA batteries or recharge transmitter batteries.<br><br>2. Push connectors together until they click<br>3. Fully charge the battery<br>4. Replace the fuselage or receiver |
| Aircraft keeps turning in one direction | 1. Rudder or rudder trim is not adjusted correctly<br>2. Wing is not centered over the fuselage | 1. Adjust stick trim lever or adjust rudder position (see page 15)<br>2. Center the wing |
| Aircraft is difficult to control | 1. Wing or tail is damaged | 1. Replace damaged part |
| Aircraft keeps pitching up steeply | 1. Wind is too gusty or strong<br>2. Elevator is trimmed 'up' too much | 1. Postpone flying until the wind calms down<br>2. Adjust elevator trim 'down' |
| Aircraft won't climb | 1. Battery is not fully charged<br>2. Elevator may be trimmed 'down' | 1. Charge battery fully shortly before flying<br>2. Adjust elevator trim 'up' (see page 15) |
| Motor cuts in and out | 1. ACT is on (make sure it is intended to be on)<br>2. ACT is on but due to reflective surfaces and dark sky, ACT is not working correctly<br>3. ACT is on, and sun is low on the horizon | 1. Turn ACT off<br><br>2. Turn ACT off and if ACT is needed, postpone flying until conditions improve<br>3. Turn ACT off, and postpone using ACT until sun is higher in the sky |

# Warranty

## 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

**Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.**

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR RE-PLACEMENT 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-of-purchase 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.

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

Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822
USA

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

Horizon Product Support
4105 Fieldstone Road
Champaign, Illinois 61822
USA

Please call 877-504-0233 or e-mail us at productsupport@horizonhobby.com with any questions or concerns regarding this product or warranty.

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

Horizon Hobby UK
Units 1-4 Ployters Rd
Staple Tye
Harlow, Essex
CM18 7NS
United Kingdom

Please call +44 (0) 1279 641 097 or e-mail us at sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

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

Horizon Technischer Service
Hamburger Strasse 10
25335 Elmshorn
Germany

Please call +49 4121 46199 66 or e-mail us at service@horizonhobby.de with any questions or concerns regarding this product or warranty.

# Compliance Information for the European Union

**Instructions for Disposal of WEEE by Users in the European Union**
This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

# Declaration of Conformity
(in accordance with ISO/IEC 17050-1)

No. HH2009122402

Product(s):           Super Cub LP BNF
Item Number(s):       HBZ7380
Equipment class:      1

The objects of declaration described above are in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

EN 301 489-1, 301 489-17    General EMC requirements for Radio equipment

Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
December 24, 2009

Steven A. Hall
Vice President
International Operations and
Risk Management
Horizon Hobby, Inc.