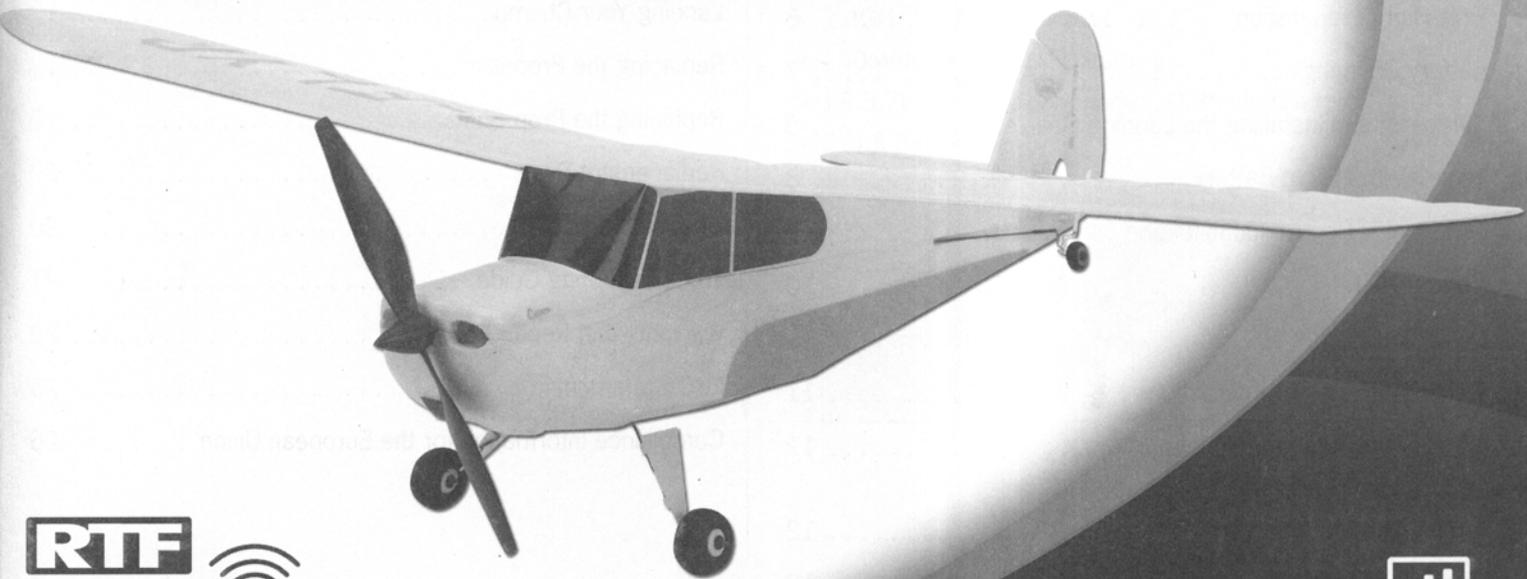


CHAMP

Instruction Manual



RTF
hobbyzone®



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Introduction

Congratulations on your purchase of the HobbyZone® Champ. The Champ is a fully proportional 3-channel aircraft utilizing throttle, rudder, and elevator controls. You will need to thoroughly read the instruction manual, then charge the flight battery prior to your first flight.

For assistance in setting up, charging, flying or troubleshooting your Champ, please see page 24 to contact the appropriate Horizon Product Support office.

Specifications

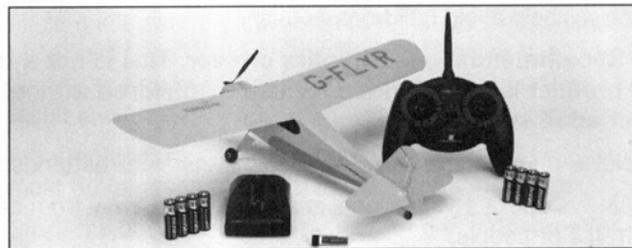
Wingspan: 22.4 in (568.9mm)

Length: 14.3 in (365mm)

Weight: 1.3 oz (38 g)

Champ RTF Contents

- Champ RTF airplane
- 2.4GHz DSM2 transmitter
- 150mAh 1S 3.7V Li-Po battery
- 1S 3.7V Li-Po battery charger, 0.3A charge rate
- 8x AA batteries



Safety Precautions and Warnings

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.

This model is controlled by a radio signal subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help avoid collisions or injury.

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

- Never operate your model with low transmitter batteries.
- Always operate your model in an open area away from cars, traffic or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model in the street or in populated areas for any reason.

- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) you use.
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics. Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- Never lick or place any portion of your model in your mouth as it could cause serious injury or even death.

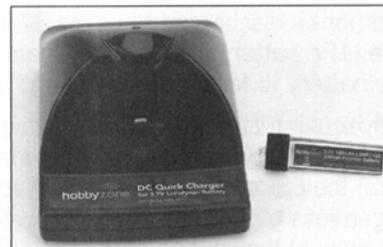
Battery Warnings and Guidelines

While the 1S 3.7V DC Lithium Polymer Battery Charger (EFLB1501S) included with your Champ has been specifically designed to safely charge the included 1S 3.7V 150mAh Li-Po Battery (PKZ3240), you **MUST** read the following safety instructions and warnings before handling, charging or using the Li-Po battery.

⚠ CAUTION: Li-Po batteries are significantly more volatile than the alkaline, Ni-Cd or Ni-MH batteries used in RC applications. All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

- By handling, charging or using the included Li-Po battery you assume all risks associated with lithium batteries. If you do not agree with these conditions, return your complete Champ model in new, unused condition to the place of purchase immediately.
- You must charge the included Li-Po battery in a safe area away from flammable materials.
- Never charge the battery unattended. When charging the battery you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.
- After flight, the battery must be cooled to ambient temperature before charging.

- **DO NOT USE A Ni-Cd OR Ni-MH CHARGER.** Failure to charge the battery with a compatible charger may cause fire resulting in personal injury and/or property damage.



- If at any time during the charge process the battery begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery, then place it in a safe area away from flammable materials to observe it for at least 15 minutes. Continuing to charge or discharge a battery that has begun to balloon or swell can result in a fire.
- A battery that has ballooned or swollen even a small amount must be removed from use immediately.
- Store the battery at room temperature in a dry area for best results.
- When transporting or temporarily storing the battery the temperature range should be from 40–120° F. Do not store battery or model in a car or direct sunlight whenever possible. If stored in a hot car, the battery can be damaged or even catch fire.

- Do not over-discharge the Li-Po flight battery. Discharging the battery too low can cause damage to the battery resulting in reduced power, duration or failure of the battery. (See below for details.)

Li-Po cells should not be discharged to below 3V each underload. In the case of the Li-Po battery used for the Champ, you will not want to allow the battery to fall below 3V during flight.

The Champ receiver unit features a soft low voltage cutoff (LVC) that occurs when the battery reaches 3V under load. When the soft cutoff occurs, the ESCs of the receiver unit reduce power to the motor (regardless of the power level set with the throttle stick) in order to prevent the voltage of the battery from dropping below 3V. This power reduction usually requires you to land the model immediately, at which point you should power down the model and unplug the flight battery. While it is possible to power the model up and to fly again after the soft LVC occurs, this is NOT recommended as this will over-discharge the battery.

Continued discharging to the soft LVC will cause permanent damage to the Li-Po battery resulting in lost power and duration during subsequent flights, or failure of the battery entirely.

Continued attempts to further discharge the battery may also result in loss of control while the motor is running, as the voltage may drop below the minimum operating voltage of the receiver and the other electronics.

Also, you should not fly to the soft LVC every time you fly. Instead, you should be aware of the power level of the battery/ airplane throughout the flight, and if at any time the airplane begins to require more throttle than typical to maintain flight, you should land the airplane immediately. Routinely discharging the

battery to the soft LVC can still cause permanent damage to the battery.

Note: Battery performance can suffer greatly in cooler temperatures. It is recommended the batteries be warm before flight.

First Flight Preparation

Please note this checklist is not intended to be a replacement for the content included in this manual. Although it can be used as a quick start guide, we strongly suggest reading through this manual completely before proceeding.

- Remove and inspect contents
- Install 4 AA batteries into the battery charger
- Begin charging the flight battery
- Install batteries in the transmitter (as required)
- Test the controls
- Familiarize yourself with the controls
- Find a suitable area for flying

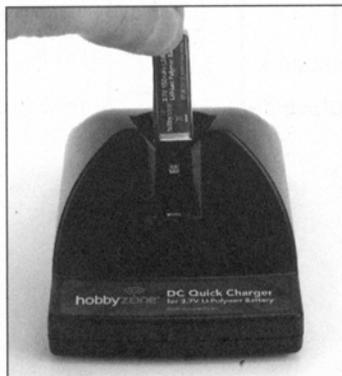
Battery Charging

See the Battery Warning and Guidelines section and familiarize yourself thoroughly with it before continuing. Follow these steps to charge the Li-Po battery with the included charger.

Remove the cover on the bottom of the charger and install four of the included AA batteries, noting proper polarity. Replace the cover after the AA batteries are installed.

Slide the battery into the slot on the charger. The end cap of the battery is specifically designed to allow the battery to be slid into the slot easily one way (usually with the label on the battery facing outward) to prevent reverse polarity connection. However, check for proper alignment and polarity before proceeding to the next step.

Gently press the battery and its connector into the charge jack/connector located at the bottom of the slot in the charger.



Note: The hook and loop on the battery will cause it to be tight in the battery slot of the charger.

When you make the connection successfully, the LED light on the charger turns solid red, indicating charging has begun.

Charging a fully discharged (not over-discharged) 150mAh battery takes approximately 30–40 minutes. As the battery nears full charge, the LED light begins to blink. When the battery is fully charged, the LED light blinks approximately every 20 seconds or goes out entirely.

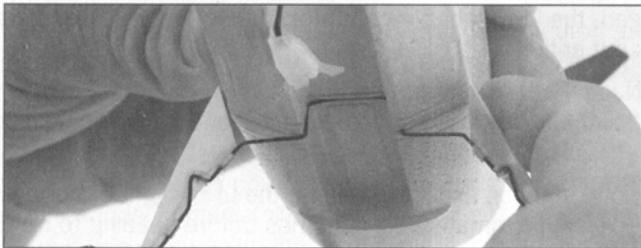
Note: The Li-Po battery included with your Champ arrives partially charged, so the initial charge may only take 15–20 minutes.

Note: You can expect to charge the Li-Po flight battery approximately 10–15 times before needing to replace the AA batteries in the charger. Replacing the included batteries with alkaline batteries results in more charge cycles than with the included batteries.

Note: If the LED remains on for longer than 40 minutes while charging and/or 5 seconds after removing the Li-Po flight battery, replace the AA batteries in the charger.

Removing and Installing the Landing Gear

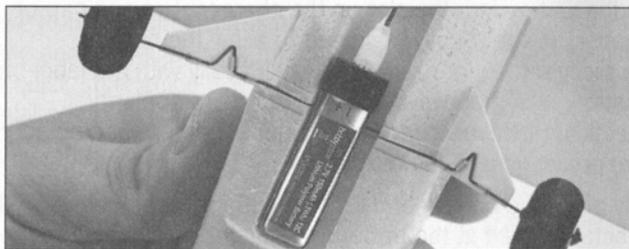
To remove the landing gear, squeeze the wheels together and gently pull the landing gear out of the fuselage. To install the landing gear, squeeze the wheels together and slide the landing gear wire into the slot located on the bottom of the fuselage.



Installing the Flight Battery

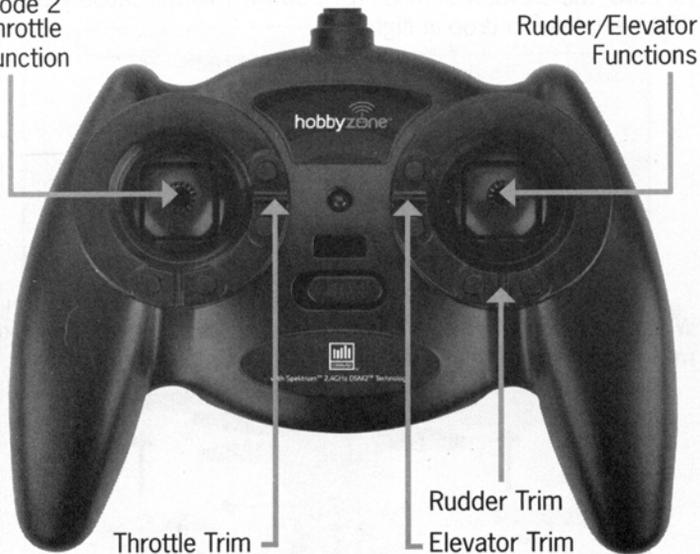
After fully charging the battery, install it in the airplane by placing it into the slot on the bottom of the fuselage with the plug facing toward the front of the airplane.

Note: If you are using additional batteries without hook and loop tape, we have included extra hook and loop tape pieces to allow you to use these batteries.

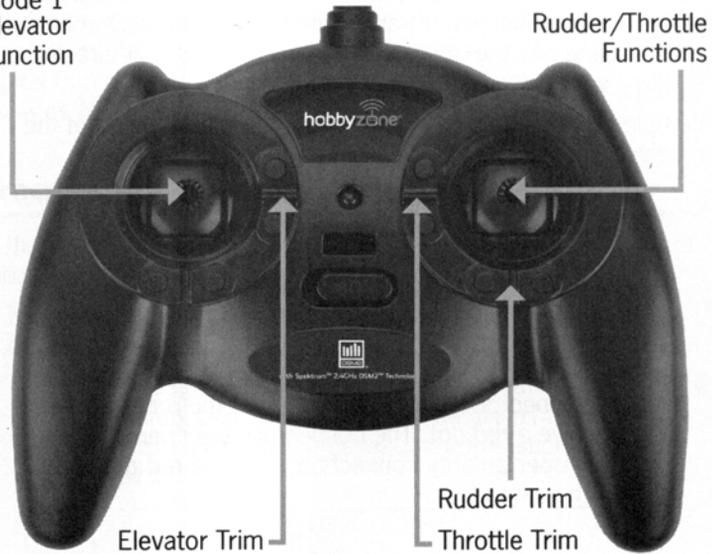


Transmitter Control Identification

Mode 2
Throttle
Function



Mode 1
Elevator
Function



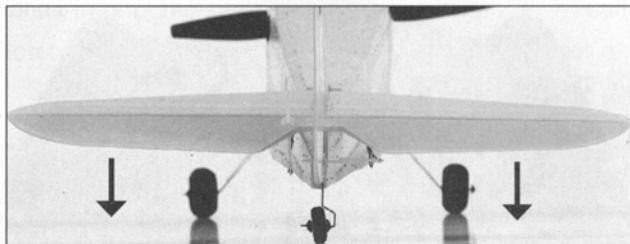
Control Test

You must test the controls prior to the first flight to ensure none of the servos, linkages or parts were damaged during shipping and handling and the controls function in the correct directions.

Turn the transmitter on first and lower the throttle stick completely. Then, plug the battery into the battery lead of the receiver unit.

Note: The connectors on the battery and battery lead are keyed to prevent reverse polarity connection. However, if you force them together in the wrong orientation and with the wrong polarity, it is still possible to damage the battery and/or receiver unit. To help further prevent a reverse polarity connection, one side of the end cap on the battery and the connector on the battery lead of the receiver unit have a red dot. The connectors are oriented for a proper polarity connection when the red dots are on the same side.

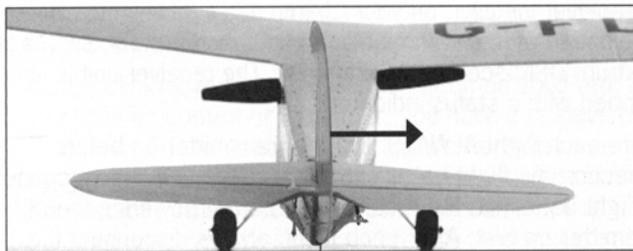
Move the elevator stick on the transmitter forward and backward to check elevator pitch control. When the stick is pushed forward, the elevator should move down. This will cause the nose of the airplane to drop in flight.



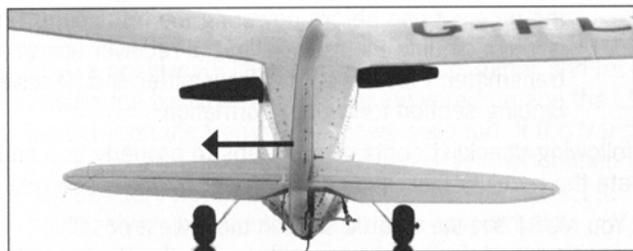
When the elevator stick is moved backward, the elevator should move up. This will cause the nose of the airplane to lift in flight.



Move the rudder stick left and right to check turn control. When the stick is pushed to the right, the rudder should also move to the right.



With the rudder stick pushed to the left, the rudder should move to the left.



If at any time during the test the controls respond in the opposite direction, reverse/change the direction of operation of the flight controls. To do this, consult the Reversing Flight Controls section.

After reconfirming the flight control directions, all controls should function properly.

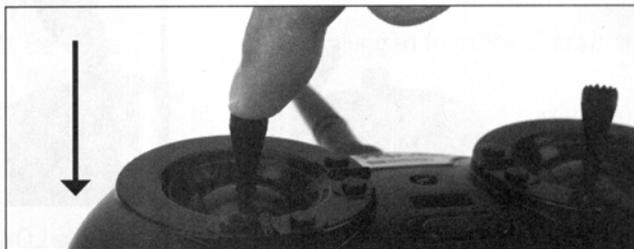
Digital Trims

The HobbyZone 2.4GHz DSM2 transmitter features digital trim buttons next to the control sticks to make fine adjustments. Use these to center the control surfaces. If there is not enough digital trim available, mechanically adjust the loops in the control linkages to center the surfaces.

Transmitter Binding Instructions

In the event you need to re-bind your transmitter to your airplane, follow the steps below.

1. Plug battery into airplane with the transmitter turned off.
2. When you see the LED on the receiver begin to flash while looking through the opening at the back of the battery cavity of the Champ, push the left stick of the transmitter inward into the case (NOT pulling down on throttle stick) until you hear it click.

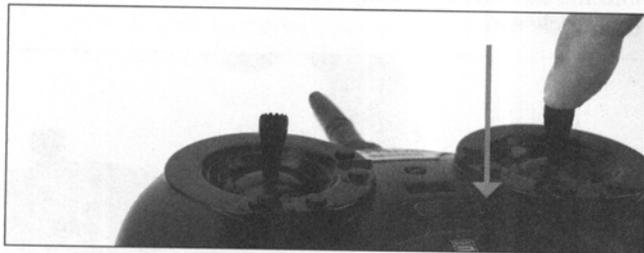


3. While pushing the stick in, power on the transmitter, release stick once the transmitter is powered on. The transmitter will beep and the LED on the face of the transmitter will pulse.
4. Once the transmitter stops beeping it will take a second or two to connect with the airplane.

Note: It can be difficult at times to see the LED blink (indicating you are in bind mode), therefore slowly count to five once you have connected the battery and the airplane should enter bind mode at that time.

Transmitter Dual Rate Function

The included 2.4GHz DSM2 transmitter features dual rate capability. The default setting is high rate. To access the low-rate function, press IN on the right stick. The LED light on the transmitter face will blink, alerting you the transmitter is on low rate. To return to high rate, push in again on the right stick.



Note: HobbyZone **STRONGLY** recommends using the **LOW-RATE** setting for conducting first flights.

Receiver Control Unit Description, Arming and Motor Control Test

The receiver installed on your Champ is a lightweight combination of main motor electronic speed control, servos and Spektrum DSM2-compatible receiver. The receiver unit is also equipped with a status indicator LED.

Before each flight **ALWAYS** turn the transmitter on before connecting the flight battery to the receiver unit. Never connect the flight battery to the receiver unit before powering the transmitter on first. After each flight, always disconnect the flight battery from the receiver unit before powering the transmitter off.

Note: The only time you should connect the flight battery to the receiver unit before powering the transmitter on is when binding the receiver of the receiver unit to the transmitter. Please see the Transmitter and Receiver Binding section for more information.

The following checklist contains the steps to properly arm and operate the receiver unit, and check proper motor response.

- You **MUST** set the throttle stick in the lowest possible position, and, for most transmitters, the throttle trim must also be set to the lowest possible position in order for the receiver unit to arm. If this is the first test flight, or a test flight following repairs, you should also center the rudder, aileron and elevator trims.
- When the status LED on the receiver becomes solid red, the receiver unit is initialized and ready for flight. Also, as long as you had the throttle stick in the idle position and the

throttle trim in the lowest position during the initialization process, the ESC/motor will now be armed. Use caution as the propeller will now spin with throttle stick input.

Note: If the status LED of the receiver does not become solid red, please review the following.

- If after blinking red the status LED becomes solid red, but you have no control of the motor, you have a positive Radio Frequency (RF) link between the transmitter and receiver, but the throttle stick and throttle trim may not be set to the correct positions. Check that the throttle stick is in the lowest possible position, and the throttle trim is set to the middle or a lower-than-the-middle position. If you now have control of the motor, proceed to the next step of the checklist.

If the blinking red status LED keeps flashing, you do not have a positive RF link between the transmitter and receiver. Ensure the transmitter has been powered on and the LED indicator on the transmitter glows solid red. If the transmitter is powered on and functioning properly, disconnect the flight battery from the receiver unit, then reconnect it. Now the receiver unit should initialize and arm properly.

Note: In the event you inadvertently enter Bind Mode, the LED on the receiver flashes red continuously. If this occurs, cycle the flight battery while the transmitter is on (if previously bound).

Once you have placed the airplane in a safe area, free of obstructions, and are clear of the propeller, you can safely power up the model to check for proper operation of the motor.

- Advance the throttle stick upward slowly, just until the propeller begins to spin. DO NOT attempt to fly the airplane at this time. Note the direction the propeller spins. If viewed from the front of the airplane, the propeller spins counterclockwise. If it is spinning backwards, disconnect the battery and reverse the polarity of the motor's input power leads.

Reversing Flight Controls

The transmitter included with the RTF Champ functions identically to the transmitter included with the PKZ Vapor, Ultra-Micro P-51 RTF, Ultra-Micro Cub, E-flite Blade® mCX, Tandem Rescue, and mSR (MLP4DSM).

Should the Champ's electronic components be used in another aircraft, you might need to reverse the operation of flight control surfaces.

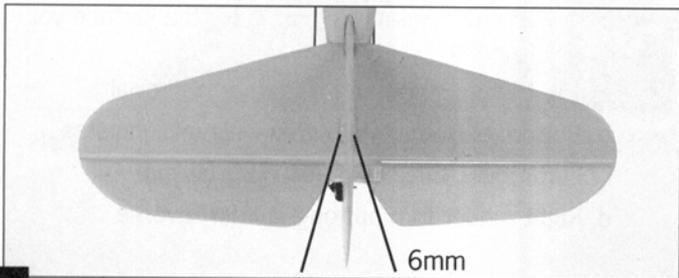
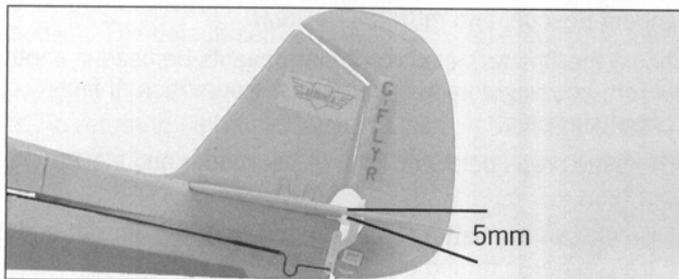
Follow the steps below to reverse the rudder and elevator operation.

1. Be certain the battery is unplugged from the aircraft and the transmitter is turned off.
2. Push down on the digital trim button for the surface you would like to reverse.
 - a. Top elevator trim button—elevator normal
 - b. Bottom elevator trim button—elevator reverse
 - c. Left rudder trim button—rudder normal
 - d. Right rudder trim button—rudder reverse

3. Continue holding the desired digital trim button down and turn the transmitter on.
4. Hold the digital trim buttons down for about five seconds until hearing tones, which confirm the selection.
5. Connect the flight battery. Complete the flight control test, confirming that all surfaces operate in the correct direction.

Stock Control Throw

Out of the box, your Champ should have the approximate control throws. In production, this can vary by approximately 2mm without any effect on flight performance.



	High Rate	Low Rate
Elevator	5mm up/down	3mm up/down
Rudder	6mm left/right	4mm left/right

With the battery installed, the center of gravity is approximately 28mm as measured back from the leading edge of the wing. This can vary by approximately 1 to 2mm.

Flying Checklist

- Always turn on the transmitter first
- Plug the flight battery into the lead from the receiver
- Allow the receiver to initialize and arm properly
- Make sure all control surfaces are responding correctly to transmitter input
- Ensure propeller is secure and not damaged
- Fly the model
- Land the model
- Unplug the flight battery from the receiver
- Always turn off the transmitter last

Choosing a Flying Area

When ready for your first flight, select a relatively open area, the size of a basketball court or larger, that is free of people and obstructions with calm wind (if flown outdoors). Once you have properly trimmed your airplane and become familiar with its handling and capabilities, you will be able to fly in other smaller, less open areas. Larger open areas are preferred for first flights.

Flying the Champ

Use the low-rate settings for your first flight to become familiar with the flying characteristics before increasing the throw of the control surfaces (see page 10 Transmitter Dual Rate Function).

Place the Champ in position for takeoff (facing into the wind if flying outdoors). Gradually increase the throttle to $\frac{1}{2}$ to $\frac{3}{4}$ and steer with the rudder. Once the Champ reaches flying speed it lifts off on its own. The Champ climbs with $\frac{3}{4}$ to full throttle, and roughly $\frac{1}{2}$ throttle allows the Champ to fly without climbing or descending.

Note: If at any time you become disoriented or get in trouble, pull the power all the way off and release the controls. The Champ will stabilize into a steady gliding decent.

1. After launching, your Champ will climb at full throttle. Keep the throttle $\frac{3}{4}$ to full on until reaching a safe altitude. At this same time, make sure you are keeping the airplane steady, directed on its intended path.

2. Make necessary right and left adjustments to keep the plane on course. After reaching 4–6 feet of altitude, you can make the directional changes you desire.
3. Remember—the Champ is a small, lightweight aircraft. Do not allow the plane to get too far away from you. When the plane is farther away from you it is harder to see and could cause you to lose orientation.
4. Avoid holding the stick full right or left for more than two seconds. This will cause the plane to enter a spiral and could threaten your Champ.
5. Do not try to climb too fast by pulling all the way back on the stick (up elevator), or your plane may enter into a stall. Instead, climb by giving small amounts of elevator or by increasing throttle.
6. Damage/bends to the wings or tail can greatly affect flight control. Repair or replace damaged parts immediately.

Sharp Turns

In order to make a sharper turn, move the stick in the desired direction and add some up elevator (pull back on the stick). The plane will make a sharper banking turn.

Note: With the throttle set at low or off (gliding), the plane will not turn as fast as when you are flying at or near full throttle.

Rudder Trim

If the model wants to constantly turn one direction, use the digital trim buttons to correct. Your Champ should fly straight with the control stick at neutral. Always make trim changes in one-click intervals.

Throttle Adjustment

1. Climb to an altitude of 6–12 feet with full throttle.
2. To achieve and maintain a level “cruising” altitude, reduce the power by moving the throttle stick down to approximately 50%. The throttle stick is proportional, so you can add or reduce throttle in small increments as needed to maintain altitude.
3. To reduce altitude, reduce throttle.
4. To increase altitude, increase throttle.

Using Elevator

Your Champ is equipped with a third channel for elevator (pitch control). Pulling back on the stick provides up elevator. This allows for shorter takeoffs, better flares for landing, better climb rates and more effective turns. Pulling back too far on the elevator, however, causes the airplane to enter a stall, causing the nose of the airplane to drop. To avoid crashing from a stall, always maintain enough altitude to recover.

Just after a stall, the nose of the airplane falls and the plane looks like it is diving. To pull out of a stall, pull back slowly on the elevator stick once your Champ has built up airspeed. Remember, pulling back too quickly or for too long will cause the airplane to re-enter a stall. Effectively avoiding and recovering from stalls requires experience. Always seek the help of an experienced radio control pilot if you are not familiar with pitch control. Failure to do so could result in a crash and significant damage to your airplane.

Elevator Trim

If the Champ tends to go up or down, use the elevator digital trim buttons next to the control stick to correct. The model should fly straight with the control stick at neutral and should have a steady climb at full throttle.

Landing Your Champ

When you notice your Champ no longer climbs well under full power (normally after approximately 6–9 minutes), the battery is getting low and it is time to land. Bring in your aircraft toward the desired landing spot. If flying outside, bring the airplane directly into the light wind. Gradually reduce throttle to reach an altitude of approximately 4 feet. At this point, reduce even more throttle and your Champ should glide in softly 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 then advancing it again. This only allows the motor to run briefly, and may allow you to better adjust your landing. Do not re-arm the motor more than once.

Note: Your Champ should be landed on a smooth surface (such as concrete or wood) so the landing gear can work effectively.

Expert Tip: As you get better and more experienced at flying, try adding a bit of “up” elevator just prior to landing to “flare” the plane. With some practice, your landings should become smooth and on target.

⚠ Warning: Do not attempt to catch the airplane or injury may occur. Remember, there is a spinning propeller on the front of the plane that can cause injury! Also, remember to cut power to the motor right before you land to prevent damage to the propeller.

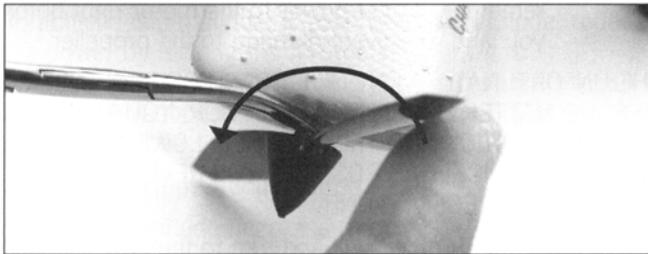
IN THE UNFORTUNATE EVENT OF A CRASH OR PROPELLER STRIKE, NO MATTER HOW MINOR OR MAJOR, YOU MUST LOWER THE THROTTLE STICK AND TRIM TO THEIR LOWEST POSSIBLE POSITIONS AS QUICKLY AS POSSIBLE TO PREVENT DAMAGE TO THE ESC OF THE RECEIVER UNIT.

Failure to lower the throttle stick and trim to the lowest possible positions in the event of a crash could result in damage to the ESC in the receiver unit, which may require replacement of the receiver unit.

Note: Crash damage is not covered under the warranty.

Replacing the Propeller

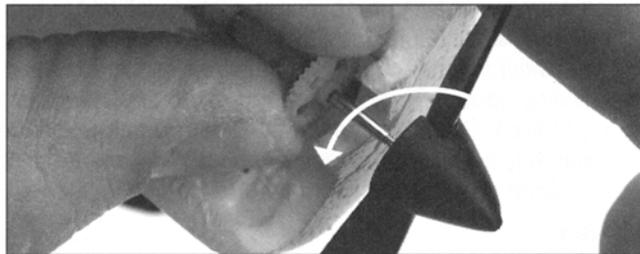
You may need to replace the propeller in the event of a crash.



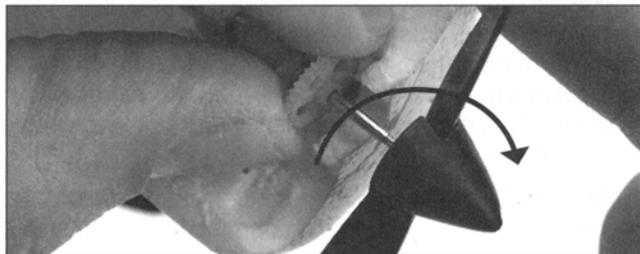
If you have access to hemostats, grip the prop shaft between the spinner and fuselage front and turn propeller counterclockwise to remove propeller. If you don't have hemostats, continue below.

1. Have an adult carefully use a hobby knife and cut through the clear tape on the side of the fuselage as well as across the top seam of fuselage. See Step 1 of Replacing the Prop Shaft.
2. Carefully remove fuselage top and side to gain access to the inside.

3. Grab the spur gear (as shown) and turn propeller counterclockwise until it releases from the prop shaft.



4. Thread the new 130mm x 70mm prop and spinner clockwise onto the gearbox shaft.

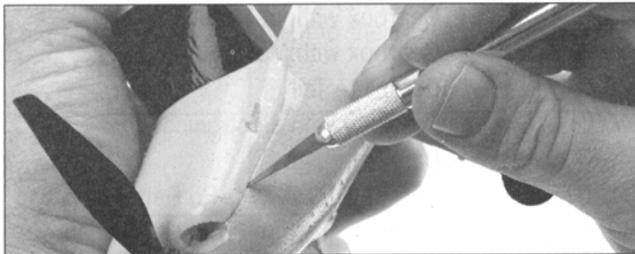


5. Carefully place fuselage parts back and re-tape with clear tape.

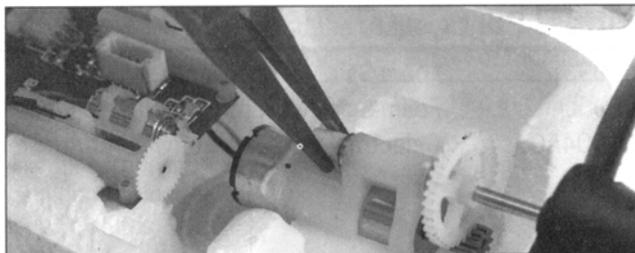
Replacing the Prop Shaft

You may need to replace the prop shaft in the gearbox should it become damaged. To replace the prop shaft:

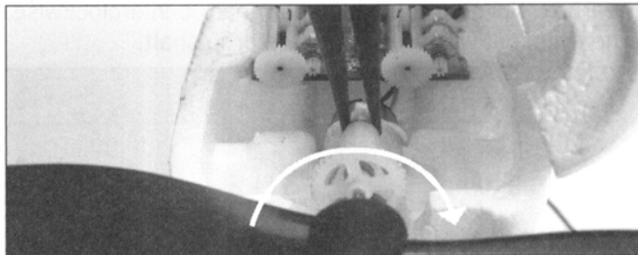
1. To remove prop shaft, open the fuselage by cutting through the clear tape on one side of the fuselage. Also cut the tape across the fuselage in front of the rudder.



2. Gently grasp the white nylon nut located at the back of the prop shaft to prevent it from turning.

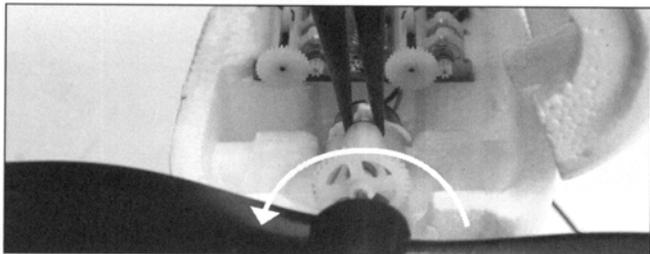


3. While holding the nylon nut, rotate the spur gear in a clockwise direction. The prop shaft will thread out of the nut.



4. Gently pull on the spur gear and the prop shaft will slide out of the gearbox. You may need to cut away a small portion of foam to allow the spur gear to slide forward out of the gearbox.
5. Remove the propeller from the old prop shaft, then thread the 130mm x 70mm prop and spinner on to the new prop shaft by holding the spur gear and turning the prop clockwise.
6. Slide the new prop shaft back into the gearbox.

7. Place the nylon nut on the back of the prop shaft. Make sure the small brass washer is between the nylon nut and the gearbox. Spin the prop and spur gear counterclockwise. The nylon nut will thread onto the prop shaft.



8. While holding the nylon nut in place, gently turn the spur gear counterclockwise to ensure the nut is snug. Make sure not to over-tighten as this will cause binding in the gearbox and reduce performance.
9. Tape the fuselage back together with clear tape.

Replacement Parts

HBZ4904	.....	Prop Shaft
HBZ4913	.....	Decal Sheet
HBZ4918	.....	Main Landing Gear Set
HBZ4920	.....	Main Wing
HBZ4921	.....	Pushrods with Accessories
HBZ4929	.....	Gearbox without Motor
HBZ4930	.....	Gearbox with Motor
HBZ4931	.....	Complete Tail
HBZ4952	.....	Fuselage with Electronics
HBZ4967	.....	Bare Fuselage
EFLB1501S	.....	150mAh 1S 3.7V Li-Po Battery
EFL9051	.....	130mm x 70mm Prop with Spinner (2)
PKZ3341	.....	2.4GHz DSM2 Transmitter
PKZ3351	.....	Receiver/ESC Board

Optional Parts

EFLA209	.....	Foam-Safe CA (medium)
EFLA208	.....	Foam-Safe Activator
EFLC1004AC	.....	Celectra 4-Port Charger with AC Adapter

Troubleshooting Guide

If you have any problems with setup or programming that cannot be fixed by the Troubleshooting Guide, please see page 24 and call the appropriate Horizon Product Support office.

Problem	Possible Solutions
Aircraft will not “throttle up” but all other controls seem to function.	Lower throttle trim and/or throttle stick to their lowest settings.
Propeller or motor shaft is broken.	Replace with Prop with Spinner (EFL9051) or Prop Shaft (HBZ4904).
Aircraft appears to show significant decrease in flight time.	Recharge flight battery completely. Replace AA batteries in charger and recharge flight battery completely. Replace EFLB1501S battery and read the “Battery Warnings and Guidelines” section of manual.
Charger light stays on after Li-Po battery is disconnected, or remains on for longer than 40 minutes when charging.	Replace AA batteries in charger.

Aircraft appears to have less power.	Lubricate the bushings of the gearbox. Lubricate the bushings of the motor. In cold weather, make sure the batteries are warm before flight.
LED on aircraft remains flashing and cannot be controlled by transmitter.	Unplug and reconnect flight battery. Rebind the aircraft to the desired compatible transmitter. Move transmitter (powered on) a few feet from the aircraft prior to reconnecting the flight battery.
Aircraft appears to roll or pitch towards a certain direction.	Trim control surfaces using the transmitter until the aircraft no longer moves that direction.
Controls appear to be reversed after binding to a different transmitter.	Read the “Control Test” section of manual.
Aircraft does not function after connecting flight battery and the aircraft smells burnt.	Replace the receiver/ESC board (PKZ3351) and check for correct polarity when connecting the flight battery.

Warranty and Repair Policy

Warranty Period: Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warrants 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 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.

(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).

Warranty Services

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 Product Support representative.

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.

Country of Purchase	Horizon Hobby	Address	Phone Number/ Email
United States	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport @horizonhobby.com
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 productsupport @horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS United Kingdom	+44 (0) 1279 641 097 sales @horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 4121 46199 66 service @horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70

FCC Statement

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

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

Compliance Information for the European Union

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

No. HH20100227

Product(s): HobbyZone Champ RTF

Item Number(s): HBZ4900

Equipment class: 1

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

EN 300-328

Technical requirements for Radio equipment.

EN 301 489-1, 301 489-17

General EMC requirements

EN 60950

Safety

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



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



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 collection 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.

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PRC patent ZL 200720069025.2

US patent D578,146

Other patents pending

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