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CHAMP

Anniversary Special Edition 515mm

Scan the QR code and select the Manuals and Support quick links from the product page for the most up-to-date manual information.

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Scannez le code QR et sélectionnez les liens rapides Manuals and Support sur la page du produit pour obtenir les informations les plus récentes sur le manuel.

Scannerizzare il codice QR e selezionare i Link veloci Manuali e Supporto dalla pagina del prodotto per le informazioni manuali più aggiornate.

RTF READY-TO-FLY

HBZ04900

BNF BASIC

HBZ04950

Instruction Manual | Bedienungsanleitung
Manuel d'utilisation | Manuale di Istruzioni

1062664 Created 02/25

HORIZON HOBBY

NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit horizonhobby.com or towerhobbies.com and click on the support or resources tab for this product.

MEANING OF SPECIAL LANGUAGE

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND little or no possibility of injury.

WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product. 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. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This 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 serious injury.

Age Recommendation: Not for children under 14 years. This is not a toy.

Safety Precautions and Warnings

This model is controlled by a radio signal subject to interference from many sources outside of your control. Interference can cause momentary loss of flight control.

As the user of this product, you are solely responsible for operating in a manner that does not endanger yourself and others or result in damage to the product or the property of others.

- **NEVER** operate the aircraft under the influence of drugs or alcohol.
- **NEVER** place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate the aircraft with damaged wiring or components.
- **NEVER** touch moving parts.
- **NEVER** operate the aircraft in the rain.
- **NEVER** fly over people, roadways, structures, power lines or near airports.
- **NEVER** attempt to fly from a vehicle or from within a structure.
- **NEVER** perform maintenance on the aircraft with the battery installed.
- **NEVER** use a damaged or deformed battery.
- **ALWAYS** treat the motor and propeller as if they are armed and could start at any time.
- **ALWAYS** ensure the transmitter is secure before and while the aircraft is powered on.
- **ALWAYS** keep body parts and loose clothing well clear of the propeller/rotor blades.
- **ALWAYS** keep the aircraft securely restrained in case of accidental throttle activation.
- **ALWAYS** perform a maintenance check on the aircraft and transmitter prior to and after every flight to ensure airworthiness.
- **ALWAYS** operate the aircraft in open spaces, away from full-size vehicles, traffic and people.
- **ALWAYS** keep the aircraft in sight and under control.
- **ALWAYS** keep a safe distance in all directions around your model to avoid collisions or injury.
- **ALWAYS** fully reduce the throttle or activate throttle cut before a crash.
- **ALWAYS** keep the transmitter powered on when the aircraft is powered on.
- **ALWAYS** carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- **ALWAYS** keep all chemicals, small parts and anything electrical out of the reach of children.
- **ALWAYS** use fully charged batteries.
- **ALWAYS** let parts cool after use before touching.
- **ALWAYS** keep moving parts clean.
- **ALWAYS** keep parts dry.
- **ALWAYS** remove batteries after use.

Registration

Register your product today to join our mailing list and keep up to date with product updates, offers and HobbyZone® news.

Table of Contents

Specifications	
Wingspan	20.3 in (515mm)
Length	14.3 in (365mm)
Weight	Without Battery: 1.7oz (48g) With Recommended 1S 150mAh 3.7V 50C LiPo Battery: 1.9oz (53g)

*The weight provided is for the aircraft and flight control components. No additional payload is allowed. MTOM is weight with recommended battery.

This product is a class C4 UAS as defined by the European Union Aviation Safety Agency (EASA).

Included Equipment	
Transmitter*	MLP4
Transmitter Batteries*	4 AA Alkaline
Flight Controller	Spektrum Receiver/ESC (SPMA3183)
Motor	Gearbox with Motor (HBZ-3069)
Propeller	Propeller with Spinner (2): 130mm x 70mm (EFL9051)
Flight Battery*	1S 150mAh 3.7V 50C LiPo Battery: JST PH1.25 Connector (SPMX1501S50)
Battery Charger*	1S USB LiPo Charger, 300mAh (EFLC1008)

*These components are not included with the BNF Basic version of this product.

BNF Basic Required Equipment	
Flight Battery	1S 150mAh 3.7V 50C LiPo Battery: JST PH1.25 Connector (SPMX1501S50)
Battery Charger	1S USB LiPo Charger, 300mAh (EFLC1008)

USB Charging Warnings

The battery charger (EFLC1008) included with the RTF aircraft has been designed to safely charge the LiPo battery.

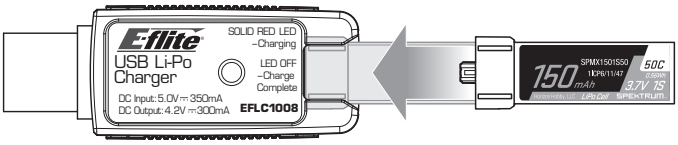
WARNING: Failure to exercise caution while using this product and comply with the following warnings could result in product malfunction, electrical issues, excessive heat, FIRE, and ultimately injury and property damage.

- **NEVER LEAVE CHARGING BATTERIES UNATTENDED.**
- **NEVER CHARGE BATTERIES OVERNIGHT.**
- **NEVER** attempt to charge dead, damaged or wet battery packs.
- **NEVER** attempt to charge a battery pack containing different types of batteries.
- **NEVER** allow children under 14 years of age to charge battery packs.
- **NEVER** charge batteries in extremely hot or cold places or place in direct sunlight.
- **NEVER** charge a battery if the cable has been pinched or shorted.
- **NEVER** connect the charger if the power cable has been pinched or shorted.
- **NEVER** attempt to dismantle the charger or use a damaged charger.
- **ALWAYS** use only rechargeable batteries designed for use with this type of charger.
- **ALWAYS** inspect the battery before charging.
- **ALWAYS** keep the battery away from any material that could be affected by heat.
- **ALWAYS** monitor the charging area and have a fire extinguisher available at all times.
- **ALWAYS** end the charging process if the battery becomes hot to the touch or starts to change form (swell) during the charge process.
- **ALWAYS** connect the positive leads (+) and negative leads (–) correctly.
- **ALWAYS** disconnect the battery after charging, and let the charger cool between charges.
- **ALWAYS** charge in a well-ventilated area.
- **ALWAYS** terminate all processes and contact Horizon Hobby if the product malfunctions.
- Charge only rechargeable batteries. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.
- The USB outlet shall be installed near the equipment and shall be easily accessible.

CAUTION: Always ensure the battery you are charging meets the specifications of this charger. Not doing so can result in excessive heat and other related product malfunctions, which can lead to user injury or property damage. Please contact Horizon Hobby or an authorized retailer with compatibility questions.

CAUTION: If at any time during the charge process the battery pack becomes hot or begins to puff, disconnect the battery immediately and discontinue the charge process as batteries can cause fire, collateral damage and injuries.

Battery Charging



NOTICE: Charge only batteries that are cool to the touch and are not damaged. Look at the battery to make sure it is not damaged e.g., swollen, bent, broken or punctured.

1. Insert the charger into a USB port.
2. Properly connect the battery to the charger lead.
3. Always disconnect the flight battery from the charger immediately upon completion of charging.

CAUTION: Only use chargers specifically designed to charge the included LiPo battery. Failure to do so could result in fire, causing injury or property damage.

CAUTION: Never exceed the recommended charge rate.

LED Indications

When you make the connection successfully, the LED on the charger turns solid red, indicating charging has begun. Charging a fully discharged (not over-discharged) 150mAh battery takes approximately 30 minutes. The light goes off when the charge is complete.

CHARGING (Solid Red)

FULL CHARGE (OFF)

CAUTION: Once charging is complete, immediately remove the battery. Never leave a battery connected to the charger.

SAFE® Select Technology (BNF Basic)

The BNF Basic version of this airplane includes SAFE Select (Beginner) technology which can offer an extra level of protection in flight. Use the following instructions to make the SAFE Select system active and assign it to a switch. When enabled, SAFE Select prevents the airplane from banking or pitching past predetermined limits, and automatic self-leveling keeps the airplane flying in a straight and level attitude when the aileron, elevator and rudder sticks are at neutral.

SAFE Select is enabled or disabled during the bind process. When the airplane is bound with SAFE Select enabled, a switch can be assigned to toggle between SAFE Select mode (Beginner) and AS3X® mode (Expert). AS3X technology remains active with no bank angle limits or self-leveling any time SAFE Select is disabled or OFF.

SAFE Select can be configured three ways:

- SAFE Select Off: Always in AS3X mode
- SAFE Select On with no switch assigned: Always in SAFE Select mode
- SAFE Select On with a switch assigned: Switch toggles between SAFE Select mode and AS3X mode

Manual Transmitter Setup

IMPORTANT: After you set up your model, always rebind the transmitter and receiver to set the desired failsafe positions.

SAFE® Select technology can be assigned to any open switch (2 or 3 position) controlling a channel (5–9) on your transmitter. Refer to the safe select designation section of this manual to assign safe select to your desired transmitter switch.

For the first flight, set the flight timer to 5 minutes when using a 1S 150mAh 50C 3.7V LiPo battery (SPMX1501S50). Adjust the time after the initial flight.

Dual Rates

Attempt your first flights in low rate. For landings, use high rate elevator.

NOTICE: To ensure AS3X technology functions properly, do not lower rate values below 50%. If less control deflection is desired, manually adjust the position of the pushrods on the servo arm.

NOTICE: If oscillation occurs at high speed, refer to the Troubleshooting Guide for more information.

Exponential

After first flights, you may adjust exponential in your transmitter.

DX Series Transmitter Setup
1. Power ON your transmitter, click on scroll wheel, roll to **System Setup** and click the scroll wheel. Choose yes.
2. Go to **Model Select** and choose ***<Add New Model>*** at the bottom of the list. The system asks if you want to create a new model, select ***Create***.
3. Set **Model Type**: Select ***Airplane Model Type*** by choosing the airplane. The system asks you to confirm model type, data will be reset. Select ***YES***.
4. Set **Model Name**: Input a name for your model file.
5. Select **<Main Screen>,** Click the scroll wheel to enter the **Function List**.
6. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Aileron** Set *Switch*: **Switch F** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
7. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Elevator** Set *Switch*: **Switch C** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
8. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Rudder** Set *Switch*: **Switch G** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
9. Select **List** to go back to the **Function List**.
10. Select **Throttle Cut**; *Switch*: **Switch H**; *Position*: **-100%**

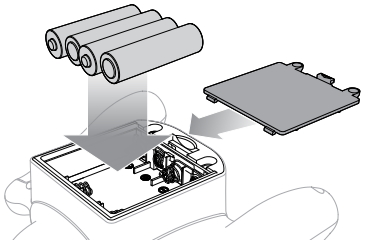
NX Series Transmitter Setup
1. Power ON your transmitter, click on scroll wheel, roll to **System Setup** and click the scroll wheel. Choose yes.
2. Go to **Model Select** and choose ***<Add New Model>*** near the bottom of the list. Select ***Airplane Model Type*** by choosing the airplane, select ***Create***.
3. Set **Model Name**: Input a name for your model file.
4. Go to **Channel Assign** 5 *Gear*: Change **A** to **Switch B** 6 *Aux1*: Change **D** to **Button I** Click **List** to exit.
5. Select **<Main Screen>**, Click the scroll wheel to enter the **Function List**.
6. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Aileron** Set *Switch*: **Switch F** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
7. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Elevator** Set *Switch*: **Switch C** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
8. Go to **D/R (Dual Rate) and Expo**; *Channel*: **Rudder** Set *Switch*: **Switch G** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
9. Select **List** to go back to the **Function List**.
10. Select **Throttle Cut**; *Switch*: **Switch H** *Position*: **-100%**

iX Series Transmitter Setup
1. Power ON your transmitter and begin once the Spektrtum Airware app is open. Select the orange pen icon in the upper left corner of the screen, the system asks for permission to **Turn Off RF**, select **PROCEED**.
2. Select the three dots in the upper right corner of the screen, select ***Add a New Model***.
3. Select Model Option, choose ***DEFAULT***, select ***Airplane.*** The system asks if you want to create a new acro model, select ***Create***.
4. Select the last model on the list, named **Acro**. Tap on the word Acro and rename the file to a name of your choice.
5. Tap and hold the back arrow icon in the upper left corner of the screen to return to the main screen.
6. Go to **Model Setup;** Select **Channel Assign**, select **PROCEED**. *5 Gear*: **Switch B** *6 Aux1*: **Switch I** Press and hold the back arrow icon in the upper left corner of the screen to return to the main screen.
7. Go to the **Model Adjust** menu
8. Select **Dual Rates and Expo**; *Channel*: **Aileron** *Switch*: **Switch F** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
9. Channel: **Elevator** *Switch*: **Switch C** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
10. Channel: **Aileron** *Switch*: **Switch G** Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%**; Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**
11. Tap the back arrow to return to the **Model Adjust** menu.
12. Select **Throttle Cut**; *Switch*: **Switch H**; *Position*: **-100%**

Install the Transmitter Batteries (RTF)

1. Remove the battery cover.
2. Install the included four AA batteries, noting proper polarity.
3. Reinstall the battery cover.

CAUTION: Do not attempt to recharge the included AA batteries. These batteries are not rechargeable. Charging non-rechargeable batteries may cause the batteries to burst, resulting in injury to persons and/or damage to property.



Transmitter Controls (RTF)

When pressed, the trim buttons emit a sound. The pitch increases or decreases after each press. The middle or neutral trim position is a mid tone. The control range end emits a series of beeps.

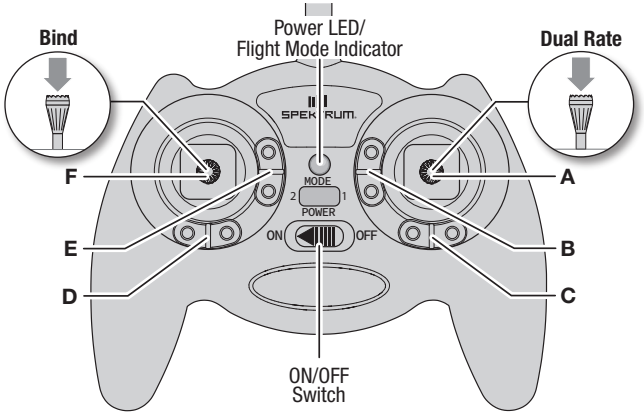
Low Battery Alarm

When the battery voltage drops too low, an alarm sounds and the LED flashes. If this happens while flying, land your aircraft as soon and as safely as possible.
Replace the batteries immediately.

Dual Rate Selection

The control sensitivity can be changed by pressing and releasing the right control stick. The LED on the transmitter will show solid for high sensitivity (default) and flashing for low sensitivity.

Transmitter LED	Telemetry Indication
Green	Full Charge
Yellow	Partial Charge
Red	Depleted



	A	B	C	D	E	F	G
Mode 2	**Rudder** *(Left/Right)* **Elevator** *(Up/Down)*	**Elevator Trim**	**Rudder Trim**	**N/A**	**Throttle Trim**	**Throttle** *(Up/Down)*	Mode

Transmitter and Receiver Binding

Binding is the process of programming the receiver of the control unit to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You need to 'bind' your chosen Spektrum™ DSM2®/DSMX® technology equipped aircraft transmitter to the receiver for proper operation.

If you purchased an RTF model, the transmitter is bound to the model at the factory.

If for any reason you need to re-bind your airplane to the included transmitter, follow the directions below:

Binding Procedure (RTF)
1. Disconnect the flight battery from the airplane.
2. Power OFF the transmitter.
3. Connect the flight battery in the airplane. The flight controller LED flashes after 5 seconds.
4. Press in and hold down the left stick while powering ON the transmitter.
5. Release the left stick. The transmitter beeps, and the power LED blinks.
6. The airplane is bound when the LED on the control board is solid (not blinking).
7. Disconnect the flight battery and power OFF the transmitter.

To bind or re-bind your airplane to your chosen transmitter, follow the directions below.

General Binding Procedure (BNF)
1. Disconnect the flight battery from the airplane.
2. Power OFF the transmitter, and move all switches to the 0 position.
3. Connect the flight battery to the airplane. The flight controller LED flashes after 5 seconds.
4. Push the bind switch/button while powering on the transmitter.
5. After 2–3 seconds, release the bind switch/button.
6. Disconnect the flight battery and power OFF the transmitter.

If you encounter problems, refer to the **Troubleshooting Guide** for other instructions. If needed, contact the appropriate Horizon Hobby Product Support office.

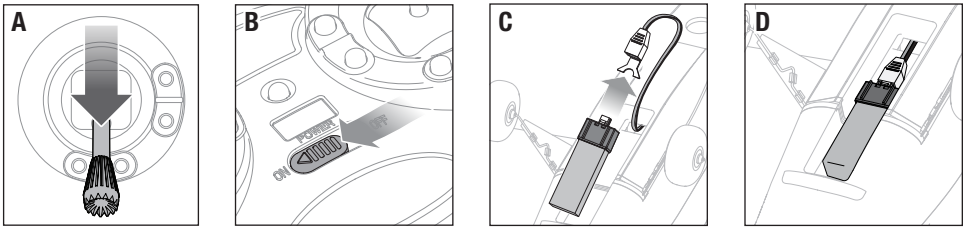
LED Indicator

The transmitter LED gives a visual representation for various data. The following table gives an explanation of the possible LED indications.

Status	Transmitter LED/Buzzer Indication
Transmitter voltage	Transmitter LED color indicates transmitter battery voltage for 4 seconds after powering on. **Green:** over 5.6V **Yellow:** between 4.8V and 5.6V **Red:** < 4.8V, transmitter beeps (change the batteries)
Aircraft voltage* (the aircraft must be bound and include a telemetry capable receiver)	Transmitter LED color indicates aircraft on-board battery voltage. When using MLP6 with aircraft that does not transmit telemetry, LED will be solid blue. **Green:** over 3.7V per cell **Yellow:** between 3.3V and 3.7V per cell **Red:** below 3.3V per cell
Control rate	**High rate:** LED solid **Low rate:** LED flashes slowly
Binding	LED flashes blue rapidly
No signal	LED glows solid blue

*To take advantage of the telemetry features, the transmitter must be bound to a receiver that is telemetry capable. See your aircraft manual for more information.

Install the Flight Battery



Keep the aircraft and transmitter away from large metal objects, wireless sources or other transmitters while installing the battery.

Each time the aircraft initializes from a power cycle, it will default to SAFE mode.

1. Lower the throttle stick to the lowest position **(A)** and center all trims.
2. Power ON the transmitter **(B)**.
3. Connect the power lead to the battery **(C)**, noting the correct polarity.

TIP: Keep immobile and out of the wind for 5 seconds.

4. Install the fully-charged flight battery into the aircraft **(D)**.

CAUTION: Always disconnect the LiPo flight battery from the aircraft receiver when not flying to avoid over-discharging the battery. Batteries discharged to a voltage lower than the lowest approved voltage may become damaged, resulting in loss of performance and potential fire when batteries are charged.

CAUTION: Always keep hands away from the propellers. After one full second of zero throttle, and zero movement of the aircraft, the stabilization will turn off.

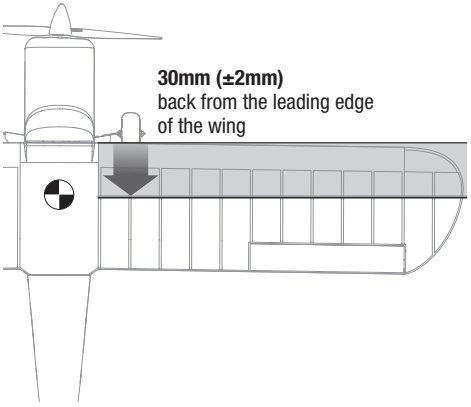
Center of Gravity (CG)

CAUTION: Install the flight battery but do not connect it to the ESC while checking the CG. Personal injury may result.

The recommended CG location is 30mm (±2mm) back from the leading edge of the wing, measured at the fuselage. Check the CG with the aircraft upright.

Adjust the CG by moving the flight battery forward or backward in the battery compartment.

TIP: Place the recommended battery approximately ½ in. (13mm) from the furthest forward position in the bottom of fuselage, battery compartment.



Control Surface Direction Test

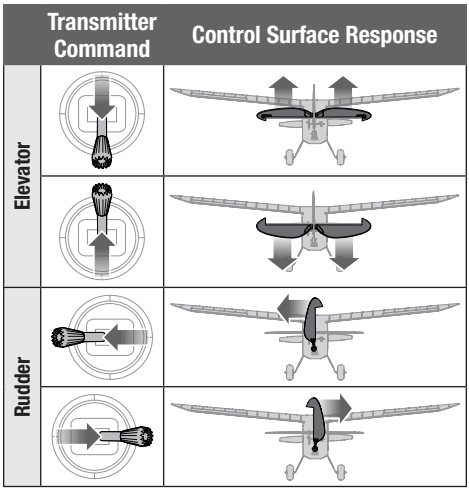
Switch on the transmitter and connect the battery. Use the transmitter to operate the aileron, elevator, rudder and flap controls. View the aircraft from the rear when checking the control directions.

Elevator

1. Pull the elevator stick back. The elevators should move up, which will cause the aircraft to pitch up.
2. Push the elevator stick forward. The elevators should move down, which will cause the aircraft to pitch down.

Rudder

1. Move the rudder stick to the left. The rudder should move to the left, which will cause the aircraft to yaw left.
2. Move the rudder stick to the right. The rudder should move to the right, which will cause the aircraft to yaw right.



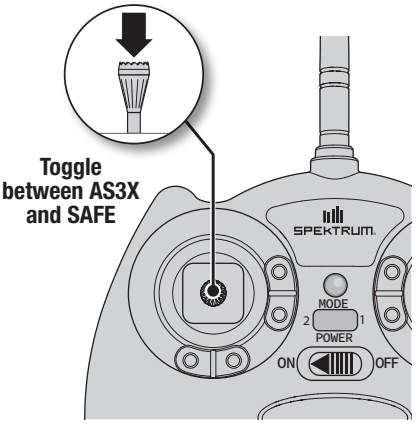
Digital Trims

The 2.4GHz DSM2/DSMX 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.

SAFE® Technology Flight Modes

When toggling between SAFE® (Beginner) and AS3X® (Expert) Modes, the transmitter emits the following tones and LEDS on the flight controller to indicate the aircraft flight mode:

Mode	LED	Tone
SAFE (Beginner)	**Blue Flash**	One
AS3X (Expert)	**Red Flash**	One



AS3X Control Response Test (BNF Basic)

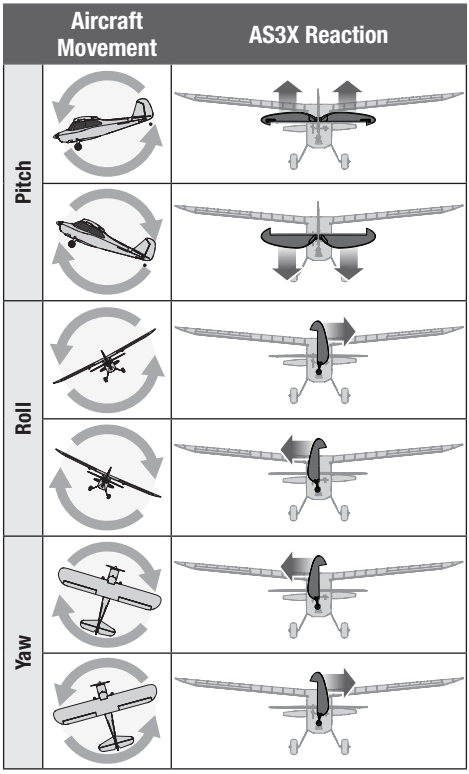
This test ensures that the AS3X control system is functioning properly. Assemble the aircraft and bind your transmitter to the receiver before performing this test.

1. Raise the throttle to any setting above 25%, then lower the throttle to activate AS3X technology.

CAUTION: Keep all body parts, hair and loose clothing away from the propeller as these items could become entangled.

2. Move the entire aircraft as shown, and ensure the control surfaces move in the direction indicated in the illustration.
3. If the control surfaces do not respond as shown, do not fly the aircraft. Refer to you receiver manual for more information.

Once the AS3X system is active, control surfaces may move rapidly. This is normal. AS3X remains active until the battery is disconnected.



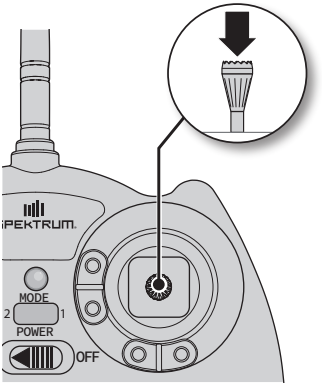
Dual Rates and Control Throws

Program your transmitter to set the rates and control throws based on your experience level. These values have been tested and are a good starting point to achieve a successful first flight.

After flying, you may choose to adjust the values for the desired control response.

The transmitter LED is solid green in high rate, and it flashes in low rate.

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



In Flight Trimming (BNF Basic)

During your first flight, trim the aircraft for level flight at 1/2 throttle. Make small trim adjustments with your transmitter's trim switches to straighten the aircraft's flight path.

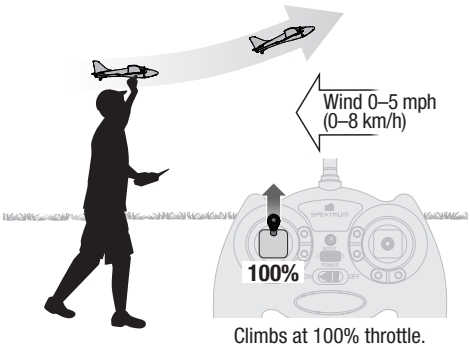
After adjusting the trim, do not touch the control sticks for 3 seconds. This allows the receiver to learn the correct settings to optimize AS3X performance.

Failure to do so could affect flight performance.

Hand Launch

Always start with a fully charged battery.

Get help to hand launch your aircraft so you can concentrate on flying. If you hand launch the aircraft alone, hold the model in your dominant hand and the transmitter in your other hand.



Climbs at 100% throttle.

Flying Tips and Repairs

Consult local laws and ordinances before choosing a flying location.

Range Check the Radio System

Before you fly, range check the radio system. Refer to your specific transmitter instruction manual for range test information.

Oscillation

Once the AS3X system is active (after advancing the throttle past 25% for the first time), the control surfaces react to aircraft movement. In some flight conditions you may see oscillation about an axis. If oscillation occurs, refer to the **Troubleshooting Guide** for more information.

Takeoff

Place the aircraft facing into the wind. Set the transmitter in low rate. Gradually increase the throttle to ½ then ¾, and steer with the rudder. Once the Champ reaches flying speed it lifts off on its own.

Flying

For your first flight with the recommended 1S 150mAh 50C 3.7V LiPo battery (SPMX1501S50), set the transmitter timer or monitor the flight battery voltage telemetry as described in the **Manual Transmitter Setup** section. If at any time the motor pulses, land the aircraft immediately to recharge the flight battery. See the **Low Voltage Cutoff (LVC)** section for details on maximizing battery health and run time.

Landing

Land the aircraft into a light wind. Gradually reduce throttle to reach an altitude of approximately 4 feet. At this point, reduce even more throttle and the Champ will glide in softly for a landing.

Keep the throttle on until the aircraft is ready to flare. During flare, keep the wings level and the aircraft pointed into the wind. Gently lower the throttle while pulling back on the elevator to bring the aircraft down on its wheels.

Once on the ground, avoid sharp turns until the plane has slowed enough to prevent scraping the wing tips.

NOTICE: If a crash is imminent, reduce the throttle. Failure to do so could result in extra damage to the airframe, as well as damage to the ESC and motor.

NOTICE: After any impact, always ensure the receiver is secure in the fuselage. If you replace the receiver, install the new receiver in the same orientation as the original receiver or damage may result.

NOTICE: Crash damage is not covered under warranty.

NOTICE: When you are finished flying, never leave the aircraft in direct sunlight or in a hot, enclosed area such as a car. Doing so can damage the aircraft.

Low Voltage Cutoff (LVC)

When a LiPo battery is discharged below 3V per cell, it will not hold a charge. The ESC protects the flight battery from over-discharge using Low Voltage Cutoff (LVC). Before the battery charge decreases too much, LVC removes power supplied to the motor. Power to the motor pulses, showing that some battery power is reserved for flight control and safe landing.

Disconnect and remove the LiPo battery from the aircraft after use to prevent trickle discharge. Charge the LiPo battery to about half capacity before storage. During storage, make sure the battery charge does not fall below 3V per cell. LVC does not prevent the battery from over-discharge during storage.

NOTICE: Repeated flying to LVC will damage the battery.

TIP: Monitor your aircraft battery's voltage before and after flying.

Post Flight

	Disconnect the flight battery from the ESC (Required for safety and battery life).
	Power OFF the transmitter.
	Remove the flight battery from the aircraft.
	Recharge the flight battery.

	Repair or replace all damaged parts.
	Store the flight battery apart from the aircraft and monitor the battery charge.
	Make note of the flight conditions and flight plan results, planning for future flights.

Maintenance

NOTICE: After any impact or replacement, always ensure the receiver is secure in the fuselage. If you replace the receiver, install the new receiver in the same orientation and manner as the original receiver or damage may result.

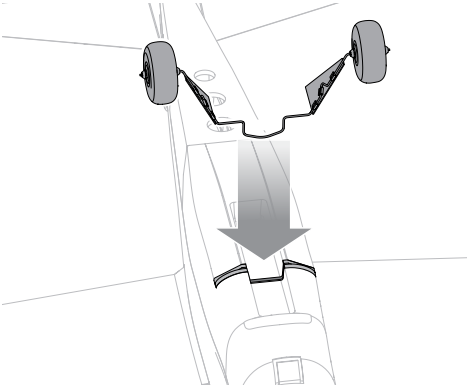
Repairs to the aircraft can be made using virtually any adhesive (hot glue, epoxy, etc).

When parts are irreparable, see the **Replacement Parts** list to order replacements. Refer to the **Replacement** and **Optional Parts** lists for a list of all parts.

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.

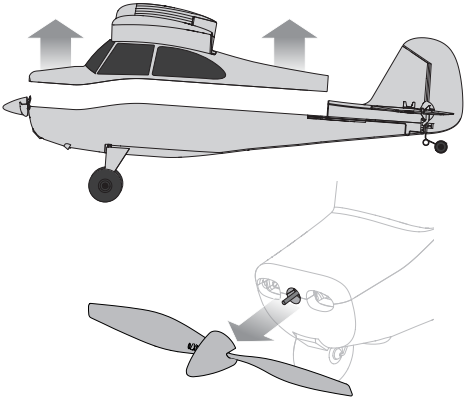


Replacing the Propeller

To replace the propeller in the event of a crash:

Use hemostats to grip the propeller shaft between the spinner and fuselage front. Turn the propeller counter-clockwise to remove it. If you don't have hemostats, continue below.

1. Use a hobby knife to cut through the clear tape on the side of the fuselage (side and top seam). See **Replacing the Propeller Shaft**, Step 2.
2. Carefully remove the fuselage top and side to gain access to the inside.
3. Grip the spur gear, and turn propeller counterclockwise until it releases from the propeller shaft.
4. Thread the new propeller (130mm x 70mm) and spinner clockwise onto the gearbox shaft.
5. Replace the fuselage parts and re-tape it with clear tape.



Replacing the Propeller Shaft

To replace the propeller shaft in the event of a crash:

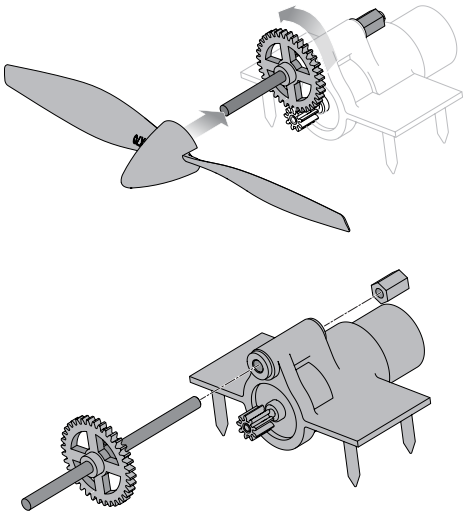
1. Use a hobby knife to cut through the clear tape on the side of the fuselage (side and top seam).
2. Holding the nylon nut in place, rotate the spur gear clockwise. The propeller shaft will thread out of the nut.
3. Gently pull on the spur gear. The propeller shaft will slide out of the gearbox.

TIP: You may need to cut away a small portion of foam to slide the spur gear out of the gearbox.

4. Remove the propeller.
5. Thread the propeller (130mm x 70mm) and spinner onto the new propeller shaft by holding the spur gear and rotating the propeller clockwise.
6. Slide the new propeller shaft into the gearbox.
7. Replace the nylon nut on the back of the propeller shaft, taking care to ensure the small brass washer is between the nylon nut and the gearbox.
8. Thread the nylon nut onto the propeller shaft by spinning the propeller and spur gear counterclockwise. Ensure the nut is snug.

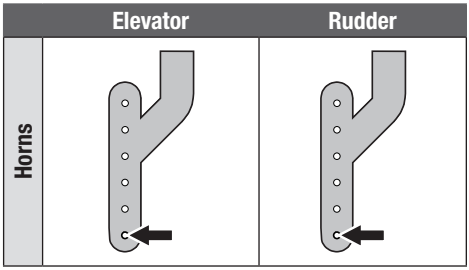
TIP: Over-tightening the spur gear will cause binding in the gearbox and reduce performance.

9. Re-tape the fuselage with clear tape.



Factory Settings for the Control Horns

The illustration shows recommended hole settings in the control horns.



Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft does not respond to the transmitter	No connection	Follow Binding Instructions. Follow “Installing the Flight Battery” instructions. Replace or recharge batteries.
	Transmitter too near the aircraft or both are too near large metal objects, wireless sources or another transmitter during battery connection or binding	Move to another location, with the transmitter more than 24 inches (60 cm) from the aircraft and attempt battery connection or Binding again
	Low or no power	Replace or recharge batteries and correctly connect the aircraft battery
Poor aircraft response to the transmitter	Poor radio connection	Replace or recharge batteries
	Poor control adjustment or damage to the aircraft	Adjust steering by using left or right trim buttons or land immediately and adjust, repair or replace parts
	Aircraft was moved during battery connection	Keep aircraft immobile during battery connection

Problem	Possible Cause	Solution
Aircraft turns in one direction	Poor control adjustment or damage to the aircraft	Adjust steering by using the left or right trim buttons or land immediately and adjust, repair or replace parts
	Wind is too gusty or strong	Fly on a calmer day
Aircraft rises steeply at half throttle	Poor control adjustment or damage to the aircraft	Adjust by pressing the down trim button or land. Manually adjust trim
	Aircraft battery is incorrectly installed	Install aircraft battery fully back
	Wind is too gusty or strong	Fly on a calmer day
Aircraft will not climb	Poor control adjustment or damage to the aircraft	Adjust by pressing the up trim button or land; manually adjust trim
	Propeller is loose or damaged	Land immediately; adjust, repair or replace parts
	Low or no power	Replace or recharge batteries
Aircraft is difficult to launch in the wind	Gusty or cross winds	Launch directly into the wind
Flight time is too short	Battery is not fully charged or is damaged	Recharge or replace the battery
	Propeller is loose or damaged	Land immediately; adjust, repair or replace parts
	Flying at full throttle during entire flight	Fly just above half throttle to increase flying time
	Wind speed is too fast for safe flight	Fly on a calmer day
Aircraft vibrates	Propeller is loose or damaged	Land immediately; adjust, repair or replace parts

Replacement Parts

Part #	Description
EFL9051	Propeller with Spinner (2): 130mm x 70mm
EFLC1008	1S USB LiPo Charger, 300mA
HBZ-3068	Landing Gear with Wheels
HBZ-3069	Gearbox with Motor
HBZ-3070	Motor
HBZ4967	Fuselage
HBZ4920	Wing
HBZ4904	Propeller Shaft
HBZ4931	Tail Assembly
HBZ4913	Decal Sheet
HBZ4921	Pushrods with Accessories
HBZ4929	Gearbox (No Motor): Champ, UM T-28
SPMA3183	Flight Controller; Receiver, ESC
SPMRMLP6C	MLPDSM 6-Channel TX with USB Type-C Port, Mode 2
SPMX1501S50	3.7V 150mAh 1S 50C LiPo Battery: JST PH1.25 Connector

Optional Parts

Part #	Description
RFL2000	RealFlight Evolution RC Flight Sim with InterLink
RFL-1211	RealFlight Trainer Edition RC Flight Simulator with SLT6 Transmitter/Controller
RFL-1212	RealFlight Trainer Edition RC Flight Simulator with WS2000 Wireless Simulator USB Dongle
SPMR1010	DXS Transmitter Only
SPMR6655	DX6e 6 Channel Transmitter Only
SPMX2101S50	3.7V 210mAh 1S 50C LiPo Battery: JST PH 1.25
SPMXC1040	S44 Micro 4 Port AC/DC 1S LiPo Charger
SPMXC1060	Spektrum S63 Micro 1S USB LiPo Charger

Important Federal Aviation Administration (FAA) Information

Use the QR code below to learn more about the Recreational UAS Safety Test (TRUST), as was introduced by the 2018 FAA Reauthorization Bill. This free test is required by the FAA for all recreational flyers in the United States. The completed certificate must be presented upon request by any FAA or law enforcement official.

Recreational UAS Safety Test

If your model aircraft weighs more than .55lbs or 250 grams, you are required by the FAA to register as a recreational flyer and apply your registration number to the outside of your aircraft. To learn more about registering with the FAA, use the QR code below.

FAA DroneZone

AMA National Model Aircraft Safety Code

Effective January 1, 2018

A model aircraft is a non-human-carrying device capable of sustained flight within visual line of sight of the pilot or spotter(s). It may not exceed limitations of this code and is intended exclusively for sport, recreation, education and/or competition. All model flights must be conducted in accordance with this safety code and related AMA guidelines, any additional rules specific to the flying site, as well as all applicable laws and regulations.

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner.
- I will not interfere with and will yield the right of way to all human-carrying aircraftusing AMA's See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight System programming.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA's Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

Limited Warranty

What this Warranty Covers — Horizon Hobby, LLC, (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase.

What is Not Covered — This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations. OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy — Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability — HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF

THE POSSIBILITY OF SUCH DAMAGES. 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 the Product, purchaser is advised to return the 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). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

WARRANTY SERVICES

Questions, Assistance, and Services — Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or 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 visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services — If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. 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. An Online Service Request is available at http://www.horizonhobby.com/content/service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, e-mail address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.

Warranty Requirements — For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Service — Should your service not be covered by warranty, service 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 service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website http://www.horizonhobby.com/content/service-center_render-service-center.

ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.

10/15

Contact Information

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	2904 Research Rd Champaign, Illinois 61822 USA
	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com	
		877-504-0233	
	Sales	websales@horizonhobby.com	
		800-338-4639	
European Union	Horizon Technischer Service	service@horizonhobby.de	Hanskampring 9 D 22885 Barsbüttel, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	

FCC Information

Transmitter Contains FCC ID: BRWWAC01T
Airplane Contains FCC ID: BRWWAC01T

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and/or antenna and your body (excluding fingers, hands, wrists, ankles and feet). This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Supplier's Declaration of Conformity

HBZ Champ Anniversary Special Edition 515mm RTF with SAFE (HBZ04900)

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.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Horizon Hobby, LLC
2904 Research Rd.,
Champaign, IL 61822
Email: compliance@horizonhobby.com
Web: HorizonHobby.com

IC Information

CAN ICES-3 (B)/NMB-3(B)
Transmitter IC: 6157A-WAC01T
Airplane Contains IC: 6157A-WAC01T

This device contains license-exempt transmitter(s)/ receivers(s) that comply with Innovation, Science, and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following 2 conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Compliance Information for the European Union

EU Compliance Statement:
HBZ Champ Anniversary Special Edition 515mm RTF with SAFE (HBZ04900): Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following: EU Low Voltage Directive 2014/35/EU; EU EMC Directive 2014/30/EU; EU Radio Equipment Directive 2014/53/EU; RoHS 2 Directive 2011/65/EU; RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

HBZ Champ Anniversary Special Edition 515mm BNF Basic with SAFE (HBZ04950): Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following: EU Radio Equipment Directive 2014/53/EU; RoHS 2 Directive 2011/65/EU; RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

The full text of the EU declaration of conformity is available at the following internet address: https://www.horizonhobby.com/content/support-render-compliance.

NOTE: This product contains batteries that are covered under the 2006/66/EC European Directive, which cannot be disposed of with normal household waste. Please follow local regulations.

Wireless Frequency Range and Wireless Output Power:

Transmitter:	**Receiver:**
2402-2478MHz	2402-2478MHz
1,43dBm	1,43dBm

EU Manufacturer of Record:
Horizon Hobby, LLC
2904 Research Road
Champaign, IL 61822 USA

EU Importer of Record:
Horizon Hobby, GmbH
Hanskampring 9
22885 Barsbüttel Germany

WEEE NOTICE:

This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste.

E328 UKCA

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