

# Archer



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





#### NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit www.horizonhobby.com and click on the support 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:

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

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

**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.

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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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**

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.

- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- 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 avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.
- Always keep aircraft in sight and under control.
- Always use fully charged batteries.
- Always keep transmitter powered on while aircraft is powered.
- Always remove batteries before disassembly.
- Always keep moving parts clean.
- · Always keep parts dry.
- Always let parts cool after use before touching.
- Always remove batteries after use.
- Always ensure failsafe is properly set before flying.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

## **Battery Warning**

The Battery Charger included with your aircraft is designed to safely balance and charge the Li-Po battery.

CAUTION: 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 at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 40–120° F (5–49° C). Do not store the battery or aircraft in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Always charge batteries away from flammable materials.
- Always inspect the battery before charging and never charge damaged batteries.
- Always disconnect the battery after charging, and let the charger cool between charges.

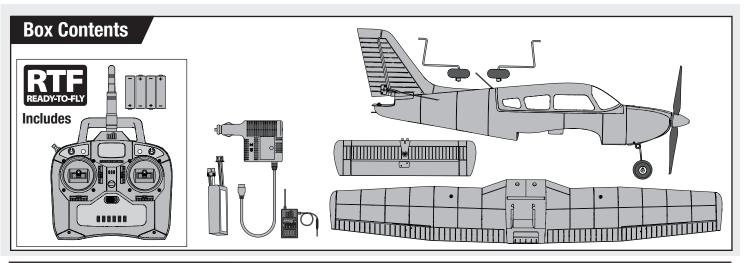
- Always constantly monitor the temperature of the battery pack while charging.
- ONLY USE A CHARGER SPECIFICALLY DESIGNED TO CHARGE LI-PO BATTER-IES. Failure to charge the battery with a compatible charger may cause fire resulting in personal injury and/or property damage
- Never discharge Li-Po cells to below 3V under load.
- · Never cover warning labels with hook and loop strips.
- Never leave charging batteries unattended.
- Never charge batteries outside recommended levels.
- Never attempt to dismantle or alter the charger.
- Never allow minors to charge battery packs.
- Never charge batteries in extremely hot or cold places (recommended between 40–120° F or 5–49° C) or place in direct sunlight.

## - Introduction -

As you're about to find out, the compact size, scale good looks and no-nonsense flight characteristics of the ParkZone<sup>®</sup> Archer<sup>™</sup> aircraft make it excellent company to have around almost anywhere. At home, on the road or on your lunch break, you'll have no trouble finding the time or opportunity to fly. Assembly couldn't be easier. In fact, you'll probably have it together and ready for its maiden flight well before the battery has finished charging.

If the Archer is the first sport plane you've flown since soloing a trainer, you'll find the transition is an easy one. Like most trainers, it has tricycle landing gear and plenty of dihedral, so you should feel right at home during takeoffs and landings. About the only difference is in the shape of the wing. Unlike the flat-bottom airfoils on a lot of high-wing trainers, the semi-symmetrical airfoil makes the aircraft less likely to float and may require a touch more speed on landings. You'll want to factor that into your approach profile as you prepare for that first landing.

Whatever your experience level, though, you must take some time to read this manual. In addition to instructions for final assembly, you'll find handy setup tips, important battery charging precautions and a helpful troubleshooting guide. It's all here to make sure your first flight, and every one after it, is as successful as can be.

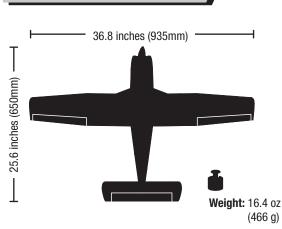


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## **Specifications**



BNF BIND-N-FLY	RTF READY-TO-FLY		
Installed	Installed		370 Brushless Outrunner Motor, 1300Kv (PKZ6116)
Installed	Installed		10-Amp Pro Brushless ESC (EFLA1010)
Installed	Installed	l l l l l l l l l l l l l l l l l l l	(2) Aileron Servos (PKZ1081) (1) Rudder Servo (1) Elevator Servo (PKZ1080)
Installed	Installed	<b>I</b>	Spektrum <sup>™</sup> AR400 4-Channel DSM2 <sup>®</sup> /DSMX <sup>®</sup> Aircraft Receiver
Included	Included	<b>- +</b> 0	Battery: 7.4V 2S 1300mAh 20C Li-Po (EFLB13002S20)
Included	Included	+	Battery Charger: 2S DC Li-Po balancing charger (EFLC3125)
Needed to Complete			Recommended Transmitter: Full-Range 4-Channel 2.4GHz with Spektrum <sup>™</sup> DSM2 <sup>®</sup> /DSMX <sup>®</sup> technology.

To register your product online, visit www.parkzone.com

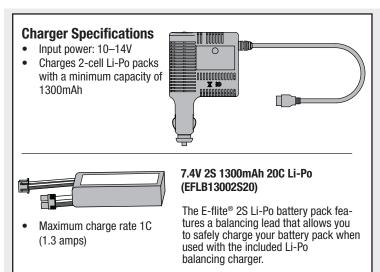
## **Charging the Flight Battery**

Your aircraft comes with a DC balancing charger and 2S Li-Po battery. You should only charge your battery with the included charger. Never leave the battery and charger unattended during the charge process. Failure to follow the instructions properly could result in a fire. When charging, ensure the battery is on a heat-resistant surface. Charge the flight battery while assembling the aircraft. Install the fully charged battery to perform control tests and binding.

### **DC Li-Po Balancing Charger Features**

- Balances and charges 2-cell lithium polymer battery packs
- LED charge status indicator
- 12V accessory outlet power cord

Purchase optional 12V adapters (HBZ6513 or HBZ4747) to power your charger more conveniently.



#### The Battery Charging Process 1 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. 2. Insert the charger into the appropriate power supply (12V accessory outlet). 3. Connect the balancing lead of the battery to the charger port. 4. The LED will flash during charging. 5. The LED will glow solid when the battery is fully charged. (Approximately 1 hour) 6. Always disconnect the battery from the charger immediately upon completion of charging. The LED will turn off. **CAUTION:** Overcharging a battery can cause a fire. CAUTION: Only use a charger specifically designed to charge a Li-Po battery. Failure to do so could result in fire causing injury or property damage. **CAUTION**: Never exceed the recommended charge rate. NOTICE: If using a battery other than the included Li-Po battery, refer to your battery manufacturer's instructions for charging.

## Low Voltage Cutoff (LVC)

When a Li-Po 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.

When the motor pulses, land the aircraft immediately and recharge the flight battery.

Disconnect and remove the Li-Po battery from the aircraft after use to prevent trickle discharge. Charge your Li-Po 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.



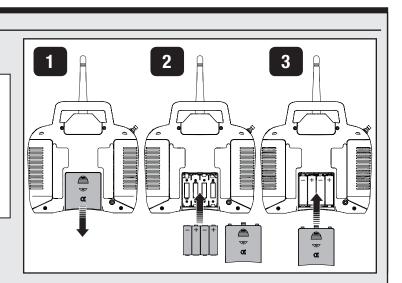
## **Installing the Transmitter Batteries**

Your Spektrum DX4e comes prebound to the aircraft.

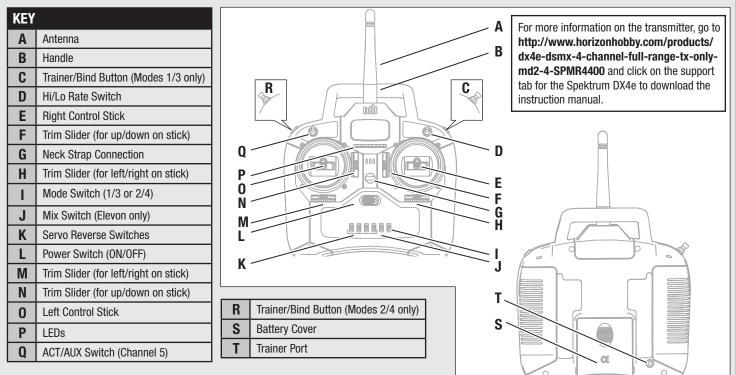
Remove the battery cover, install the four included batteries (noting proper polarity) and reinstall the battery cover.

#### Low Battery Alarm

When the battery voltage drops below 4.7 volts, an alarm sounds and the voltage LEDs flash. The batteries must be replaced immediately. If this happens while flying, land your aircraft as soon and as safely as possible.



## Understanding the Controls of the DX4e Transmitter



\* The diagram shows the transmitter controls for Mode 2 and Mode 1 transmitters.

#### Trainer/Bind Button ((C) Mode 1 or (R) Mode 2)

The Trainer/Bind Button is used during binding or when connecting a trainer cord (SPM6805) to the trainer port ( $\mathbf{T}$ ). For complete binding instructions, refer to the binding section in this manual.

When using the trainer function, connect the trainer cord into the trainer port in both the master (instructor) and the slave (student) transmitters. The master transmitter must be powered ON and bound to the receiver. The slave transmitter must be powered OFF. Any time you press and hold the trainer button on the master, it will give control authority to the slave. Releasing the trainer button returns control to the master.

**IMPORTANT:** The slave transmitter must always have the same reverse settings as the master.

#### Hi/Lo Rate Switch (D)

This switch supports high and low rate functions on aileron, elevator and rudder channels. In the upper, or "HI" position, servo travel is 100% on these

channels. In the lower, or "LO", position, servo travel decreases to 70% on these channels. This switch lets you quickly change control rates from high for aggressive maneuvers to low for smooth, precise maneuvers. When learning to fly, use low rate.

#### Mode Switch (I)

This switch changes channel assignments to the control sticks. Always ensure the controls respond as desired before flying. A Mode 1 transmitter may be switched to Mode 3, while a Mode 2 transmitter may be switched to Mode 4.

#### Mix Switch (J)

This switch enables a mix for elevons on Delta wing aircraft. If needed, refer to the transmitter manual for more information.

## RTF READY-TO-FLY

#### Servo Reversing Switches (K)

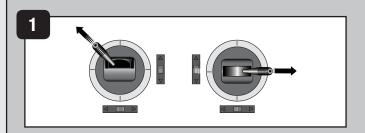
These switches select the servo direction of each channel. Use your fingernail or a small screwdriver to change the switch position to normal (NOR) or reverse (REV) as needed to make transmitter controls operate the model as desired. Perform the Control Direction Test before flying.

#### ACT/AUX Switch (Q)

This switch activates a receiver channel (such as servos) connected through an AUX channel of the receiver.

#### France RF Setting

The DX4e has a France RF setting that complies with French regulations. The France RF setting should only be turned on when operating your transmitter in France outdoors.

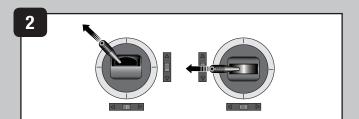


#### To set France mode (Illustration 1 below):

Push and hold the trainer button on the top of the transmitter while pushing and holding the two sticks as shown below, then power ON the transmitter. After hearing a series of descending beep tones (high to low), release the trainer switch and the sticks. The France setting is now turned on. Bind the transmitter to the receiver for the change to take effect.

#### To set Standard mode (Illustration 2 below):

Push and hold the trainer button on the top of the transmitter while pushing and holding the two sticks as shown below, then power ON the transmitter. After hearing a series of ascending beep tones (low to high), release the trainer switch and the sticks. The France setting is turned off.



## **DX4e Range Check**

Placing the transmitter in RANGE CHECK mode reduces the output power, allowing a range check.

#### DX4e Transmitter Range Check Process

Before performing the range check, ensure the correct failsafe stick positions are established.

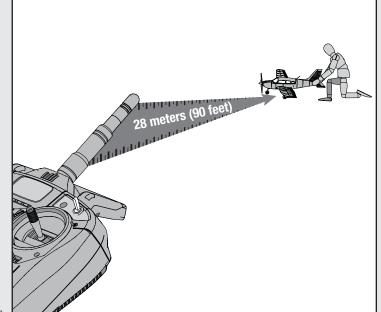
- 1. With the system powered on and the model restrained on the ground\*, stand 90ft/28m away from the model.
- 2. Face the model with the transmitter in your normal flying position.
- 3. Push and hold the trainer button while toggling the Hi/Lo Rate Switch four times.
- The LEDs will flash and the alarm will sound. The system is in range check mode.

**IMPORTANT:** You must hold the trainer button during the entire range check process. Releasing the button switch will exit the range check mode.

You should have total control of the model with the trainer button held at 90ft/28m meters.

\*In some aircraft, when the model is placed on the ground, the antenna(s) can be within inches of the ground. Close proximity of the antenna(s) to the ground can reduce the effectiveness of the range check. This is called pulling. If you experience issues during the range check, restrain the model on a non-conductive stand or table up to 2ft (60cm) above the ground. Then range check the system again.

If control issues exist, contact the appropriate Product Support Department for assistance, or visit the Spektrum website for more information.



## Transmitter and Receiver Binding

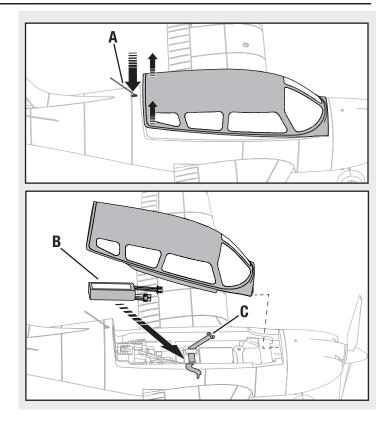
Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You need to 'bind' your chosen Spektrum<sup>™</sup> DSM2<sup>®</sup>/DSMX<sup>®</sup> technology equipped aircraft transmitter to the receiver for proper operation (Please visit www.bindnfly.com for a complete list of compatible transmitters).

**CAUTION:** When using a Futaba<sup>®</sup> transmitter with a Spektrum DSM<sup>®</sup> module, you must reverse the throttle channel and rebind. Refer to your Spektrum module manual for binding and failsafe instructions. Refer to your Futaba transmitter manual for instructions on reversing the throttle channel.

$\checkmark$	Binding Procedure Reference Table (RTF Version: Your Spektrum DX4e comes prebound to	he aircraft.)				
	1. Read the transmitter instructions for binding to a receiver (location of transmitter's Bind cont	ol).				
	2. Make sure the transmitter is powered OFF.					
	3. Move the transmitter controls to neutral (flight controls: rudder, elevators and ailerons) or to I positions (throttle, throttle trim).*	W BIND PLUG				
	4. Install a bind plug in the receiver bind port.					
	5. Connect the flight battery to the ESC. The ESC will produce a series of sounds. One long tone then two short tones confirm that the LVC is set for the ESC.					
	6. The receiver LED will begin to flash rapidly.					
	<ol> <li>Power ON the transmitter while holding the transmitter bind button or switch. Refer to your transmitter's manual for binding button or switch instructions.</li> <li>For the DX4e, release the trainer/bind button once the LEDs flash and a series of beeps soun Within a few seconds, the system should connect.</li> </ol>					
	8. When the receiver binds to the transmitter, the light on the receiver will turn solid and the ES will produce a series of three ascending tones. The tones indicate the ESC is armed, provided the throttle stick and throttle trim are low enough to trigger arming.					
	9. Remove the bind plug from the bind port.	<u>L'ANNAL</u>				
	10. Safely store the bind plug (some owners attach the bind plug to their transmitter using two-p loops and clips).					
	11. The receiver should retain the binding instructions received from the transmitter until anothe binding is done.					
	* The throttle will not arm if the transmitter's throttle control is not put at the lowest position. If you encounter problems, follow the binding instructions and refer to the transmitter troubleshooting guide for other instructions. If needed, contact the appropriate Horizon Product Support office.					

## **Installing the Battery**

- 1. Push the antenna (A) into the fuselage, releasing the canopy latch.
- 2. Lift the back of the canopy and pull backwards to remove the canopy.
- 3. Install the fully charged battery (**B**) in the battery compartment. See the Adjusting the Center of Gravity instructions for more information.
- 4. Make sure the flight battery is secured using the hook and loop strap (C).
- 5. Reinstall the canopy. Push the rear of the canopy securely to ensure the latch is fully engaged.



## Arming the ESC and Receiver

Arming the ESC also occurs after binding as previously described, but subsequent connection of a flight battery requires the steps below.

**CAUTION:** Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement.

**CAUTION:** Always disconnect the Li-Po 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.

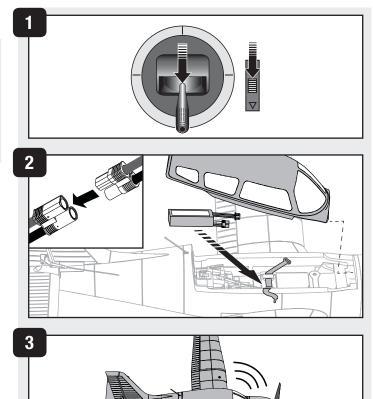
1. Power ON the transmitter and lower the throttle and throttle trim to their lowest settings.

**DO NOT** connect the battery while the throttle stick is at full or the ESC will go into programming mode. If a musical tone sounds after 5 seconds, immediately disconnect the battery, then lower the throttle.

- Remove the canopy and install the fully charged battery in the battery compartment using the hook and loop strip, then connect the battery to the ESC.
- 3. When power is applied to the ESC:

1) The ESC will sound two tones to indicate that LVC is properly set.

2) An LED will light on the receiver.



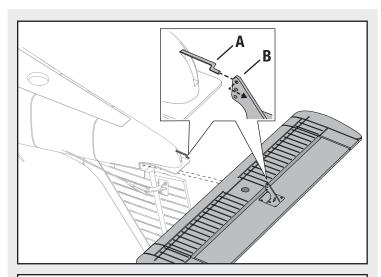
## Installing the Horizontal Stabilizer

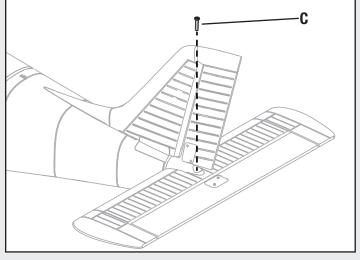
 Connect the linkage (A) to the outermost hole on the elevator control horn (B). You will need to rotate the horizontal stabilizer to attach the z-bend of the pushrod to the control horn on the elevator.

**Tip:** Move the elevator servo arm to full travel. This moves the pushrod rearward to give the most room to install the horizontal stabilizer. Make sure to center the servo again before flight.

- 2. Slide the horizontal stabilizer into the slot and align the two pins at the front of the horizontal stabilizer to the plastic stabilizer mount on the fuselage.
- 3. Turn the rudder to the right or left and secure the horizontal tail to the fuselage using a screw (C).

When needed, disassemble in reverse order.

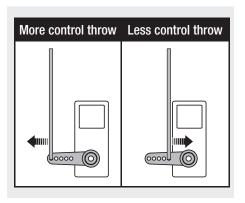


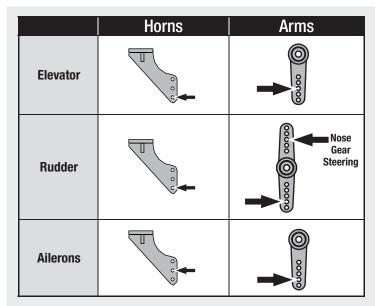


## **Control Horn and Servo Arm Settings**

Fly the model at factory settings before making changes. For pilots who wish to fly the model with more or less control throw, adjust the position of the linkages on the servo arms and control horns for increased travel.

Always ensure the steering linkage on the rudder servo arm is correctly adjusted so the model steers straight when the rudder control is at neutral.





## **Installing the Wing**

- 1. Remove the canopy from the fuselage.
- 2. Turn the wing and fuselage over so their bottom sides face up.
- 3. Place the wing's aileron servo connectors (A) into the hole in the fuselage.
- 4. Slide the two guide pins  $(\mathbf{B})$  at the rear of the wing into the two holes in the fuselage.
- 5. Align and attach the wing to the fuselage using two screws (C).
- 6. Inside the fuselage, connect both aileron servo connectors to the aileron Y-harness connectors. The left and right aileron servos can be connected to either side of the Y-harness.

When needed, disassemble in reverse order.

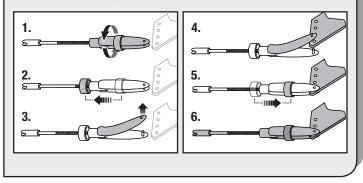
**CAUTION:** DO NOT crush or otherwise damage wiring when attaching the wing to the fuselage.

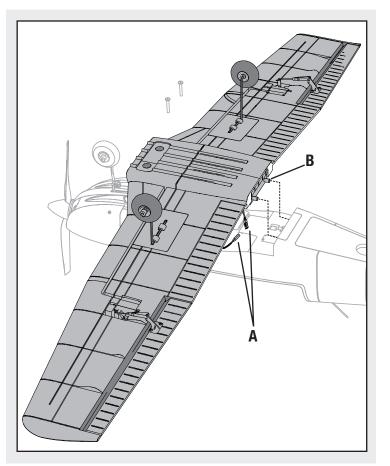
## Control Surface Centering and Installing Clevises on Control Horns

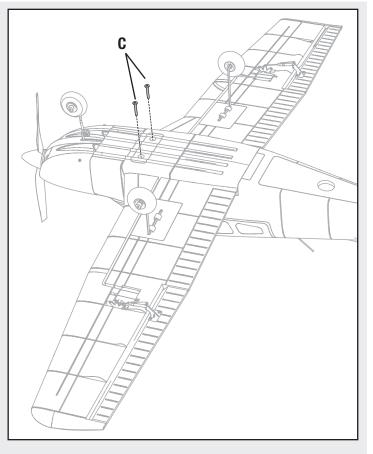
**Tip:** Turn the clevis on the linkage to change the length of the linkage between the servo arm and the control horn.

- Pull the tube from the clevis to the linkage.
- Carefully spread the clevis, then insert the clevis pin into the desired hole in the control horn.
- Move the tube to hold the clevis on the control horn.

After binding a transmitter to the model receiver, set the trims and sub-trims to 0, then adjust the clevises to center the control surfaces.



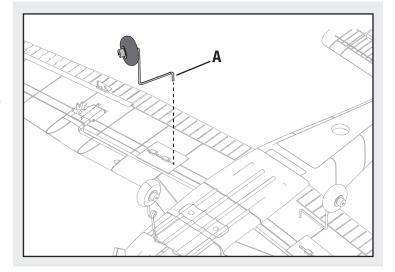


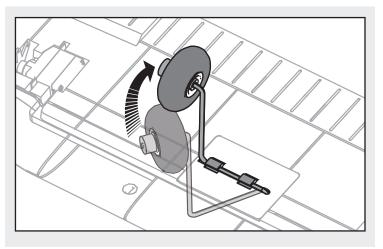


## **Installing the Landing Gear**

- 1. Turn the fuselage so that the bottom of the wing faces up.
- 2. Install the main landing gear by inserting the main gear struts (**A**) into the corresponding gear plate hole located on each wing.
- 3. Carefully turn each strut in the gear plate until the horizontal section of the strut snaps into place.

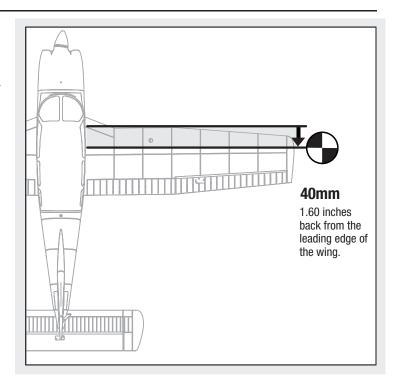
When needed, disassemble in reverse order.





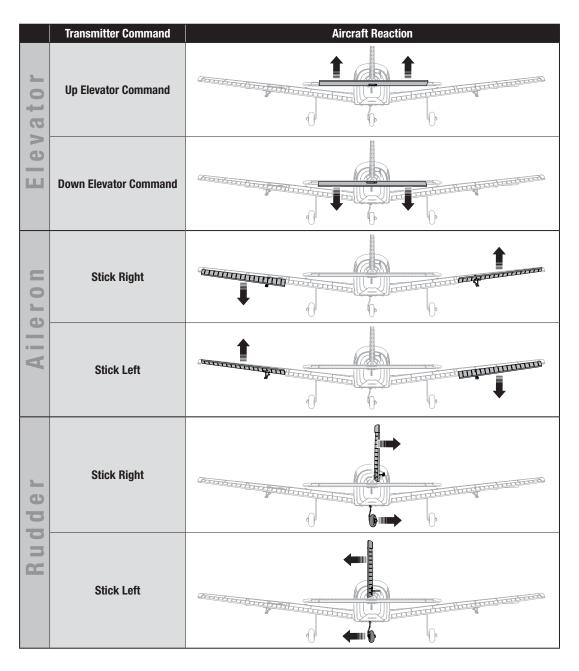
## **Center of Gravity (CG)**

The CG location is 40mm back from the leading edge of the wing. Install the flight battery all the way to the front of the battery compartment. Make sure the flight battery is secured using the hook and loop strap. It is easiest to balance the Archer with the aircraft inverted.



## **Control Direction Test**

Move the controls on the transmitter to make sure the aircraft control surfaces move correctly and in the proper direction. After performing the Control Test, correctly set the failsafe. Make sure the transmitter controls are at neutral and the throttle and throttle trim are in the low position, then rebind the model to your transmitter. If the receiver loses its link to the transmitter, the failsafe will drive the servos to these settings made at binding.



**Dual Rates** 

Your DSM2/DSMX full range transmitter features dual rates to help you select the amount of travel that you want from the control surfaces.

	High Rate	Low Rate
Aileron	12mm up/down	9mm up/down
Elevator	9mm up/down	7mm up/down
Rudder	12mm left/right	8mm left/right

## **Flying Tips and Repairs**

Consult local laws and ordinances before choosing a flying location.

#### **Range Check your Radio System**

After final assembly, range check the radio system with the aircraft. Refer to the DX4e "Range Check" section found earlier in the manual for RTF. Or refer to your specific transmitter instruction manual for BNF.

#### Flying

Always choose a wide-open space for flying your aircraft. It is ideal for you to fly at a sanctioned flying field. If you are not flying at an approved site, always avoid flying near houses, trees, wires and buildings. You should also be careful to avoid flying in areas where there are many people, such as busy parks, schoolyards, or soccer fields.

#### Takeoff

Start the takeoff using rudder to keep the aircraft straight. As the aircraft reaches flying speed, apply a slight amount of up elevator and the aircraft will fly off the ground. Avoid forcing the aircraft into the air. Climb to check trim. Once the trim is adjusted, you can begin to explore the flight envelope of the aircraft.

#### Landing

Flight times of 11 minutes or more are achievable if using proper throttle management. For your first flights, set your transmitter timer or a stopwatch to 9 minutes. Adjust your timer for longer or shorter flights once you have flown the model. When the motor pulses, land the aircraft immediately and recharge the flight battery. It is not recommended to fly the battery to LVC.

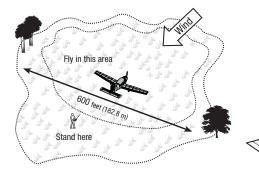
NOTICE: Repeated flying to the LVC will damage your battery.

To land the aircraft, fly to about a foot off the ground. Reduce power and start applying up elevator to flare the aircraft. Touch down on the main wheels first. Due to the angle the aircraft sits, it is possible to land nosewheel first, causing a bounce. If the aircraft bounces back into the air, apply power and go around for another landing. Once on the ground, gently steer with the rudder until the aircraft has slowed.

## **First Flight Preparation**

- 1. Read this instruction manual thoroughly.
- 2. Remove and inspect the contents.
- 3. Charge the flight battery.
- 4. Fully assemble the model.
- 5. Install the flight battery in the aircraft (once it has been fully charged).
- 6. Bind the aircraft to your transmitter. (BNF only)

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





**NOTICE:** Crash damage is not covered under warranty.

**NOTICE:** When you are finished flying, never keep the aircraft in the sun. Do not store the aircraft in a hot, enclosed area such as a car. Doing so can damage the foam.

#### **Repairs**

Thanks to the Z-Foam<sup>™</sup> construction of this aircraft, repairs to the foam can be made using virtually any adhesive (hot glue, regular CA, epoxy, etc). When parts are not repairable, see the Replacement Parts List for ordering by item number. For a listing of all replacement and optional parts, refer to the list at the end of this manual.

**NOTICE:** Use of CA accelerant on your aircraft can damage paint. DO NOT handle the aircraft until accelerant fully dries.

- 7. Make sure the linkages move freely.
- 8. Perform the Control Direction Test with the transmitter.
- 9. Adjust the flight controls and transmitter.
- 10. Perform a radio system Range Check.
- 11. Find a safe and open area.
- 12. Plan flight for flying field conditions.

## **Maintenance After Flying**

- 1. Disconnect the flight battery from the ESC (Required for Safety and battery life).
- 2. Power OFF the transmitter.
- 3. Remove the flight battery from the aircraft.
- 4. Recharge the flight battery.

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

## **Removing the Nose Gear**

## **Nose Gear Service**

Hard landings may damage the nose gear. Replace damaged parts as needed.

**CAUTION:** DO NOT handle the propeller while the flight battery is connected to the ESC. Personal injury could result.

- 1. Remove the canopy from the model.
- 2. Disconnect the flight battery from the model.
- 3. Disconnect the steering linkage from the rudder servo arm.
- 4. Remove the propeller and cowling from the model (as shown in the "Service of Power Components" section of this manual).
- 5. Loosen the nose gear screw (A) and remove the strut (B).
- 6. Remove the four screws (C) and steering arm retainer (D) from the firewall.
- 7. Pull the steering linkage (E) forward and remove the Z-bend end (F) of the linkage from the steering arm (G).

Reassemble in reverse order.

**NOTICE:** Always make sure the steering linkage is adjusted correctly to ensure the model steers straight when the rudder control is at neutral.

## **Service of Power Components**

#### Disassembly

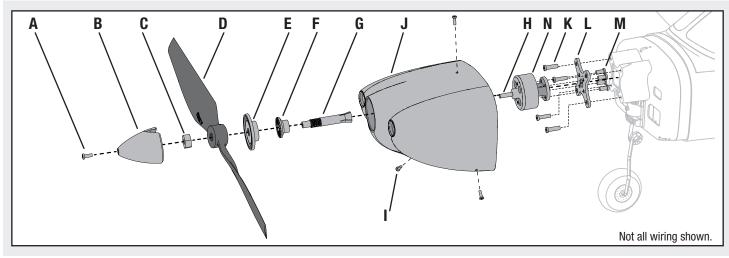
**CAUTION:** Always disconnect the flight battery from the model before removing the propeller.

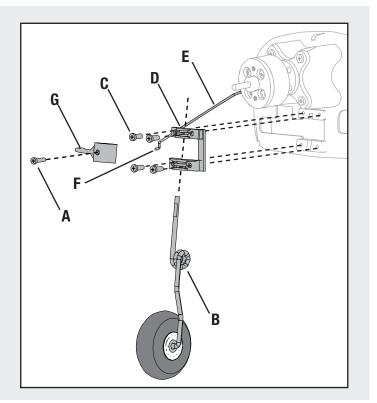
- 1. Remove the screw (A) and spinner (B) from the collet (G).
- Remove the spinner nut (C), propeller (D), spinner backplate (E), backplate (F) and collet (G) from the motor shaft (H). You will need a tool to turn the spinner nut.
- 3. Remove the three screws (I) from the cowling (J). Carefully remove the cowling from the fuselage. Paint may keep the cowling attached to the fuselage.
- 4. Remove the four screws (K) from the motor mount (L) and the fuselage.
- 5. Disconnect the motor wires from the ESC wires.
- 6. Remove the four screws (M) and motor (N) from the motor mount.

## Assembly

Assemble in reverse order.

- Correctly align and connect the motor wire colors with the ESC wires.
- The propeller size numbers (8.25 x 5.5) must face out from the motor for correct propeller operation.
- A tool is required to tighten the spinner nut on the collet.
- Ensure the spinner is fully connected to the spinner back plate for safe operation.





## AMA National Model Aircraft Safety Code

## Effective January 1, 2011 **A. GENERAL**

A model aircraft is a non-human-carrying aircraft capable of sustained flight in the atmosphere. It may not exceed limitations of this code and is intended exclusively for sport, recreation and/or competition. All model flights must be conducted in accordance with this safety code and any additional rules specific to the flying site.

- 1. Model aircraft will not be flown:
  - (a) In a careless or reckless manner.
  - (b) At a location where model aircraft activities are prohibited.
- 2. Model aircraft pilots will:
  - (a) Yield the right of way to all man carrying aircraft.
  - (b) See and avoid all aircraft and a spotter must be used when appropriate. (AMA Document #540-D-See and Avoid Guidance.)
  - (c) Not fly higher than approximately 400 feet above ground level within three (3) miles of an airport, without notifying the airport operator.
  - (d) Not interfere with operations and traffic patterns at any airport, heliport or seaplane base except where there is a mixed use agreement.
  - (e) Not exceed a takeoff weight, including fuel, of 55 pounds unless in compliance with the AMA Large Model Aircraft program. (AMA Document 520-A)
  - (f) Ensure the aircraft is identified with the name and address or AMA number of the owner on the inside or affixed to the outside of the model aircraft. (This does not apply to model aircraft flown indoors).
  - (g) Not operate aircraft with metal-blade propellers or with gaseous boosts except for helicopters operated under the provisions of AMA Document #555.
  - (h) Not operate model aircraft while under the influence of alcohol or while using any drug which could adversely affect the pilot's ability to safely control the model.
  - (i) Not operate model aircraft carrying pyrotechnic devices which explode or burn, or any device which propels a projectile or drops any object that creates a hazard to persons or property. Exceptions:
    - Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight.
    - Rocket motors (using solid propellant) up to a G-series size may be used provided they remain attached to the model during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code but may not be launched from model aircraft.
    - Officially designated AMA Air Show Teams (AST) are authorized to use devices and practices as defined within the Team AMA Program Document (AMA Document #718).
  - (j) Not operate a turbine-powered aircraft, unless in compliance with the AMA turbine regulations. (AMA Document #510-A).
- 3. Model aircraft will not be flown in AMA sanctioned events, air shows or model demonstrations unless:

(a) The aircraft, control system and pilot skills have successfully demonstrated all maneuvers intended or anticipated prior to the specific event.

(b) An inexperienced pilot is assisted by an experienced pilot.

4. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

#### **B. RADIO CONTROL**

- All pilots shall avoid flying directly over unprotected people, vessels, vehicles or structures and shall avoid endangerment of life and property of others.
- A successful radio equipment ground-range check in accordance with manufacturer's recommendations will be completed before the first flight of a new or repaired model aircraft.
- At all flying sites a safety line(s) must be established in front of which all flying takes place (AMA Document #706-Recommended Field Layout):
   (a) Only personnel associated with flying the model aircraft are allowed at or in front of the safety line.
  - (b) At air shows or demonstrations, a straight safety line must be established.
  - (c) An area away from the safety line must be maintained for spectators.
  - (d) Intentional flying behind the safety line is prohibited.
- RC model aircraft must use the radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
- RC model aircraft will not operate within three (3) miles of any pre-existing flying site without a frequency-management agreement (AMA Documents #922-Testing for RF Interference; #923- Frequency Management Agreement)
- 6. With the exception of events flown under official AMA Competition Regulations, excluding takeoff and landing, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and the pilot's helper(s) located at the flight line.
- Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual. This does not apply to model aircraft flown indoors.
- 8. RC night flying requires a lighting system providing the pilot with a clear view of the model's attitude and orientation at all times.
- 9. The pilot of a RC model aircraft shall:
  - (a) Maintain control during the entire flight, maintaining visual contact without enhancement other than by corrective lenses prescribed for the pilot.
  - (b) Fly using the assistance of a camera or First-Person View (FPV) only in accordance with the procedures outlined in AMA Document #550.

Please see your local or regional modeling association's guidelines for proper, safe operation of your model aircraft.

## Troubleshooting Guide

(during binding) to transmitter Aircraft or transmitter is wireless source or anoth	ower than 100% rsed m ESC spinner, collet or motor ce ully seated in place low wards e too cold ow craft during binding process e too close to large metal object,	Reset controls with throttle stick and throttle trim at lowest settingMake sure throttle servo travel is 100% or greaterReverse throttle channel on transmitterMake sure motor is connected to the ESCReplace damaged partsBalance or replace propellerTighten the prop nutTighten the spinner or remove the spinner and turn it 180 degrees.Completely recharge flight batteryInstall propeller with numbers facing forwardReplace flight battery and follow flight battery instructionsMake sure battery or use battery with correct C ratingMove powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraftMove aircraft and transmitter to another location and attempt binding again	
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Aircraft will not Bind (during binding) to transmitter Aircraft or transmitter is wireless source or anoth	craft during binding process too close to large metal object, her transmitter	Move powered transmitter a few feet from aircraft,         disconnect and reconnect flight battery to aircraft         Move aircraft and transmitter to another location and attempt binding	
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Aircraft or transmitter is wireless source or anoth	her transmitter		
The bind plug is not inst	talled correctly in the bind port		
		Install bind plug in bind port and bind the aircraft to the transmitter	
Flight battery/Transmitte	er battery charge is too low	Replace/recharge batteries	
Bind switch or button no process	ot held long enough during bind	Power off transmitter and repeat bind process. Hold transmitter bind button or switch until receiver is bound	
nect (after binding)	craft during connecting process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft	
to transmitter Aircraft or transmitter is wireless source or anoth	too close to large metal object, her transmitter	Move aircraft and transmitter to another location and attempt connecting again	
Bind plug left installed in	n bind port	Rebind transmitter to the aircraft and remove the bind plug before cycling power	
Aircraft bound to differe radios only)	nt model memory (ModelMatch™	Select correct model memory on transmitter	
Flight battery/Transmitte	er battery charge is too low	Replace/recharge batteries	
Transmitter may have be protocol	een bound using different DSM	Bind aircraft to transmitter	
	horn, linkage or servo damage	Replace or repair damaged parts and adjust controls	
not move Wire damaged or conne	ctions loose	Do a check of wires and connections, connect or replace as needed	
Transmitter is not bound was selected	d correctly or the incorrect model	Re-bind or select correct model in transmitter	
Flight battery charge is	low	Fully recharge flight battery	
BEC (Battery Elimination	n Circuit) of the ESC is damaged	Replace ESC	
Controls reversed Transmitter settings are	reversed	Perform the Control Direction Test and adjust the controls on transmitter appropriately	
Motor power pulses ESC uses default soft Lc	ow Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing	
then motor loses Weather conditions mig	ht be too cold	Postpone flight until weather is warmer	
Battery is old, worn out,	or damaged	Replace battery	
Battery C rating might b	e too small	Use recommended battery	

## **Limited Warranty**

#### What this Warranty Covers

Horizon Hobby, Inc. ("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, or (vi) Product not compliant with applicable technical 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.

#### I aw

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 877.504.0233 toll free to speak to 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, email 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 1/2 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.

NOTICE: Horizon service is limited to Product compliant in the country of use and ownership. If non-compliant product is received by Horizon for service, it will be returned unserviced at the sole expense of the purchaser.

## Contact Information

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233 Online Repair Request: visit www.horizonhobby.com/service
America	Horizon Product Support (All other products)	Horizon Product Support 4105 Fieldstone Rd Champaign Illingie 877-504-0233	
United Kingdom Horizon Hobby Limited Stapl Harlo		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	Christian-Junge-Straße 1 25337 Elmshorn, Germany	+49 (0) 4121 2655 100 service@horizonhobby.de
France	Horizon Hobby SAS	11 Rue Georges Charpak 77127 Lieusaint, France	+33 (0) 1 60 18 34 90 infofrance@horizonhobby.com
China	Horizon Hobby – China	Room 506, No. 97 Changshou Rd. Shanghai, China, 200060	+86 (021) 5180 9868 info@horizonhobby.com.cn

## FCC Information

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.

#### Antenna Separation Distance

When operating your transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet) and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

This illustration show the approximate 5 cm RF exposure area and typical hand placement when operating your transmitter.



## **Compliance Information for the European Union**

AT	BE	BG	CZ	CY	DE	DK
ES	FI	FR	GR	HU	IE	IT
LT	LU	LV	MT	NL	PL	PT
RO	SE	SI	SK	UK		

#### **Declaration of Conformity**

(in accordance with ISO/IEC 17050-1)

No. HH20120101401

Product(s): Item Number(s): Equipment class: PKZ Archer RTF PKZ6100, PKZ6100M1 2

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, EMC Directive 2004/108/EC and LVD Directive 2006/95/EC:

EN 300-328 V1.7.1: 2006 EN 301 489-1 V1.7.1: 2006 EN 301 489-17 V1.3.2: 2008

EN60950-1:2006+A11:2009+A1:2010+A12: 2011

EN55022:2010 + AC:2011 EN55024:2010

Signed for and on behalf of:

(())

Horizon Hobby, Inc.

Champaign, IL USA

Oct 14, 2012

DEGTAll

Steven A. Hall Executive Vice President and Chief Operating Officer International Operations and Risk Management Horizon Hobby, Inc.

## **Declaration of Conformity**

(in accordance with ISO/IEC 17050-1)

No. HH2012101402

Product(s): Item Number(s): Equipment class: PKZ Archer BNF PKZ6180

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, EMC Directive 2004/108/EC and LVD Directive 2006/95/EC:

EN 301 489-1 V1.7.1: 2006 EN 301 489-17 V1.3.2: 2008

EN60950-1:2006+A11:2009+A1:2010+A12: 2011

EN55022:2010 + AC:2011 EN55024:2010

Signed for and on behalf of: Horizon Hobby, Inc. Champaign, IL USA Oct 14, 2012

DEGTAll

Steven A. Hall Executive Vice President and Chief Operating Officer 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 collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

## Parts Contact Information • Kontaktinformationen für Ersatzteile • Coordonnées pour obtenir des pièces détachées • Recapiti per i ricambi

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of America	Sales	les 4105 Fieldstone Rd 800-338-4639 Champaign, Illinois 61822 USA Sales@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 Hobby GmbH	Christian-Junge-Straße 1 25337 Elmshorn, Germany	+49 (0) 4121 2655 100 service@horizonhobby.de
France	Horizon Hobby SAS	11 Rue Georges Charpak 77127 Lieusaint, France	+33 (0) 1 60 18 34 90 infofrance@horizonhobby.com
China	Horizon Hobby – China	Room 506, No. 97 Changshou Rd. Shanghai, China, 200060	+86 (021) 5180 9868 info@horizonhobby.com.cn

## Replacement Parts • Ersatzteile • Pièces de rechange • Pezzi di ricambio

Part # I Nummer Numéro I Codice	Description	Beschreibung	Description	Descrizione
PKZ6102	Decal Sheet: Archer	Parkzone Archer: Derkorbogen	Planche de décalcomanies: Archer	Foglio con decalcomanie: Archer
PKZ6103	Painted Pilot: Archer	Parkzone Archer: Pilot lackiert	Pilote peint: Archer	Pilota verniciato: Archer
PKZ6104	Canopy and Pilot: Archer	Parkzone Archer: Kabinenhaube u. Pilot	Verrière avec pilote: Archer	Capottina e pilota: Archer
PKZ6106	Landing Gear Set: Archer	Parkzone Archer: Fahrwerk-Set	Jeu de train d'atterrissage principal : Archer	Set del carrello di atterraggio: Archer
PKZ6111	Prop Adapter: Archer	Parkzone Archer: Propelleradapter	Adaptateur d'hélice: Archer	Adattatore elica: Archer
PKZ6114	Firewall: Archer	Parkzone Archer: Brandschott	Cloison pare feu: Archer	Ordinata motore: Archer
PKZ6116	370 BL motor, 1300Kv	Parkzone Archer: 370 BL Motor, 1300Kv	Moteur 370BL, 1300Kv	370 BL motore, 1300Kv
PKZ6118	Motor Shaft: metal 370 Outrunner	Parkzone 370 Aussenläufer: Motorwelle	Axe moteur 370BL	Albero motore per 370 cassa rotante
PKZ6120	Painted Wing: Archer	Parkzone Archer: Tragfläche lackiert	Aile peinte: Archer	Ala verniciata: Archer
PKZ6122	Pushrod Set: Archer	Parkzone Archer: Schubstangen-Set	Jeu de tiges: Archer	Set asta di spinta: Archer
PKZ6124	Vertical Stab: Archer	Parkzone Archer: Höhenruder	Dérive: Archer	Impennaggio verticale: Archer
PKZ6125	Horizontal Stab: Archer	Parkzone Archer: Höhenleitwerk	Stabilisateur horizontal: Archer	Stabilizzatore orizzontale: Archer
PKZ6126	Cowl: Archer	Parkzone Archer: Motorhaube	Capotage : Archer	Cappuccio: Archer
PKZ6128	Motor Mount: Archer	Parkzone Archer:Motorträger	Support moteur : Archer	Supporto del motore: Archer
PKZ6167	Painted Bare Fuse: Archer	Parkzone Archer: Rumpf ohne Einbauten	Fuselage nu peint: Archer	Fusoliera nuda verniciata: Archer
PKZ1080	SV80 Short Lead Servo	Parkzone SV80 Servo	Servo de dérive SV80	SV80 servo con cavo corto
PKZ1081	SV80 Long Lead 3-Wire Servo	Parkzone SV80 Servo mit langem Kabel	Servo 3 câbles grande longueur SV80	SV80 servo a 3 fi li a terminale lungo
EFLA1010	10-Amp Pro Brushless ESC	10A Pro Regler	Contrôleur brushless pro 10A	Controllo elettronico di velocità (ESC) per 10 Amp Pro Brushless
EFLAEC207	EC2 BATT to JST Female,15mm 20AWG	EC2 Akku auf JST Buchse, 15mm, 20 AWG	Adaptateur prise EC2 vers JST femelle, longueur 15mm	EC2 BATT a JST femmina,15mm 20AWG
SPMAR400	AR400 4-Channel DSM2/DSMX Aircraft Receiver	Spektrum AR400 4-Channel DSMX Flugzeug Empfänger	Récepteur AR400 4 voies DSM2/DSMX	AR400 4-canali DSM2/DSMX ricevitore
EFLB13002S20	1300mAh 2S 7.4V 20C Li-Po, 13 AWG EC2 Battery	1300mAh 2S 7.4V 20C Li-Po, 13 AWG EC2 Akku	Batterie LI-Po 7.4V 2S 1300mA 20C, prise EC2	Batteria 1300mAh 2S 7.4V 20C Li-Po, 13 AWG EC2
PKZ1022	Propeller 8.25 x 5.5	Propeller 8.25 x 5.5	Hélice 8.25 x 5.5	Elica 8.25 x 5.5
EFLC3125	2-Cell DC Balancing Li-Po Charger	2S DC Balancing Ladegerät	Chargeur équilibreur LI-Po DC 2S	Caricabatterie per 2 celle LiPo con bilanciatore

## Optional Parts • Optionale Bauteile • Pièces optionnelles • Pezzi opzionali

Part #   Nummer Numéro   Codice	Description	Beschreibung	Description	Descrizione
SPM6805	Trainer Cord: ALL SPM	Spektrum Trainerkabel	Cordon écolage : Toutes les SPM	Cavo trainer
EFLA250	Park Flyer Tool Assortment, 5 pc	E-flite Park Flyer Werkzeugsortiment; 5 teilig	Assortiment d'outils park flyer, 5pc	Park Flyer assortimento attrezzi, 5 pc
EFLAEC202	EC2 Battery Connector, Female (2)	E-flite EC2 Akkubuchse (2)	Prise EC2 femelle (2pc)	EC2 Connettore femmina x batteria (2)
EFLAEC203	EC2 Device/Battery Connector, Male/Female	E-flite EC2 Stecker / Buchse	Prise EC2 male/femelle	EC2 Connettore batteria maschio/ femmina
EFLC3025	Celectra 80W AC/DC Multi-Chemistry Battery Charger	E-flite 80W AC/DC Multi-Akku Lade- gerät - EU	Chargeur de batterie AC/DC Celectra 80 W multi-types	Caricabatterie per batteria multichi- mica 80 W c.a./c.c.
EFLC3020	200W DC multi-chemistry battery charger	E-flite 200W DC Multi-Akku Ladegerät	Chargeur multiple DC 200W	200W DC Caricabatterie universale
EFLC4010	Celectra 15VDC 250W Power Supply	E-flite 15VDC 250W Netzteil - EU	Alimentation Celectra CC 15 V 250 W	Alimentatore Celectra 15V c.c., 250 W
	DX4e DSMX 4-Channel Transmitter	Spektrum DX4e DSMX 4 Kanal Sender ohne Empfänger	Emetteur DX4e DSMX 4 voies	DX4e DSMX Trasmettitore 4 canali
	DX5e DSMX 5-Channel Transmitter	Spektrum DX5e DSMX 5 Kanal Sender ohne Empfänger	Emetteur DX5e DSMX 5 voies	DX5e DSMX Trasmettitore 5 canali
	DX6i DSMX 6-Channel Transmitter	Spektrum DX6i DSMX 6-Kanal Sender	Emetteur DX6i DSMX 6 voies	DX6i DSMX Trasmettitore 6 canali
	DX7s DSMX 7-Channel Transmitter	Spektrum DX7s DSMX 7 Kanal Sender	Emetteur DX7s DSMX 7 voies	DX7s DSMX Trasmettitore 7 canali
	DX8 DSMX 8-Channel Transmitter	Spektrum DX8 DSMX 8 Kanal Sender	Emetteur DX8 DSMX 8 voies	DX8 DSMX Trasmettitore 8 canali

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## www.parkzone.com PKZ6180, PKZ6100