

# **Aire-Batix**<sup>™</sup>



Instruction Manual Bedienungsanleitung Manuel d'utilisation



#### **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 www.forcerc.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:

<u>WARNING</u>: 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.

WARNING AGAINST COUNTERFEIT PRODUCTS: If you ever need to replace your Spektrum receiver found in a Horizon Hobby product, always purchase from Horizon Hobby, LLC or a Horizon Hobby authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty with regards, but not limited to, compatibility and performance of counterfeit products or products claiming compatibility with DSM or Spektrum technology.

## **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 Charging Warnings**



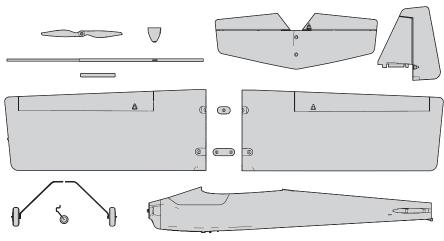
CAUTION: All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury, and/or property damage.

- NEVER LEAVE CHARGING BATTERIES UNATTENDED.
- NEVER CHARGE BATTERIES OVERNIGHT.
- 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 BATTERIES. 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.

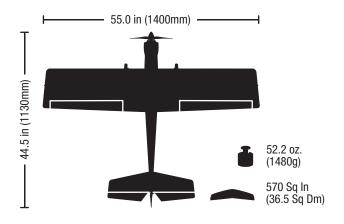
# **Box Contents**

Quick Start Information				
Transmitter Setup	Start all transmitter programming with a blank ACRO model (do a model reset), then name the model.			
	Ti	ravel Adjust ( All Su	ırfaces): 100%	
		High Rate	Low Rate	
Dual Rates	Ail	25mm	20mm	
Duai Hates	Ele	25mm	18mm	
	Rud	45mm	35mm	
Center of Gravity (CG)	75-90mm back from leading edge of wing 5-7 minutes			
Flight Timer Setting				



# **Specifications**

		PNP PLUG-N-PLAY
	<b>Motor:</b> B15 BL Outrunner Motor, 880Kv (FCEM4015B)	Installed
	ESC: 40 AMP Brushless ESC (FCE725018)	Installed
	<b>Servos:</b> 17 gram analog servo (400mm lead) (FCESA420) 9 gram servo reversed (FCESA330R)	Installed
	<b>Receiver:</b> Spektrum <sup>™</sup> 6-Channel Sport Receiver (SMPAR636) or (SPMAR610)	Required to Complete
- +(3	Recommended Battery: E-flite® 2200mAh 11.1V 3S 30C Li-Po battery (EFLB22003S30)	Required to Complete
+	<b>Recommended Battery Charger:</b> 3-cell Li-Po battery balancing charger	Required to Complete
(((\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Recommended Transmitter: Full-Range 4 channel (or more) 2.4GHz with Spektrum DSM2®/DSMX® technology with adjustable Dual Rates.	Required to Complete



# **Table of Contents**

Box Contents	3
Specifications	3
Table of Contents	3
Preflight Checklist	4
PNP Receiver Selection and Installation	4
Model Assembly	4-6
Control Horn and Servo Arm Settings	6
Control Surface Centering	6
Transmitter and Receiver Binding	7
Battery Installation and ESC Arming	8
Center of Gravity (CG)	9
Control Direction Test	9
Flying Tips and Repairs	. 10
Post Flight Checklist	.11
Motor Service	
Troubleshooting Guide	. 12
AMA National Model Aircraft Safety Code	
Limited Warranty	. 14
Contact Information	
European Compliance Information	. 15
Replacement Parts	
Ontional Parts	43

### **Preflight Checklist**

1	Remove and inspect contents.		Make sure linkages move freely.
2	2 Read this instruction manual thoroughly.		Perform the Control Direction Test with the transmitter.
3	Charge the flight battery.	1	Perform the AS3X Control Direction Test with the aircraft.
4	Fully assemble the airplane.	1	1 Adjust flight controls and transmitter.
5	Install the flight battery in the aircraft (once it has been fully charged).	1	Perform a radio system Range Test.
6	Check the Center of Gravity (CG).	1	Find a safe open area to fly.
7	Bind the aircraft to your transmitter.	1	4 Plan flight for flying field conditions.

### **PNP Receiver Selection and Installation**

Either the Spektrum AR636 or AR610 receiver is recommended for this airplane. If you choose to install another receiver, ensure that it is at least a 4-channel full range (sport) receiver. Refer to your receiver manual for correct installation and operation instructions.

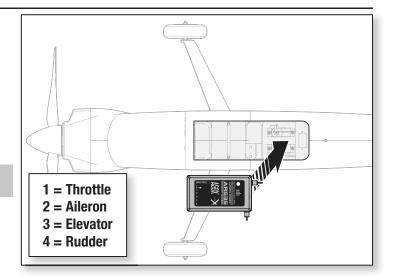
#### Installation (AR636 shown)

- Install the receiver in the underside of the fuselage. Refer to the Wing Installation section of the manual to remove the wings temporarily (if necessary).
- Mount the receiver parallel to the length of the fuselage as shown. Use double-sided servo tape.



**CAUTION:** Incorrect installation of the receiver could cause a crash.

3. Attach the appropriate control surfaces to the their respective ports on the receiver using the chart in the illustration.

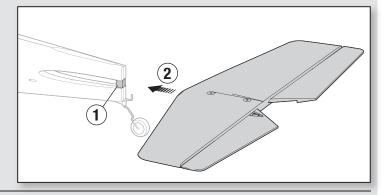


### **Model Assembly**

#### **Horizontal Tail Installation**

- 1. With a sharp knife, cut and remove the molded tab from the end of the fuselage.
- 2. Fully slide the horizontal tail into the fuselage slot. Ensure that the holes in the tail line up with the corresponding fuselage holes.

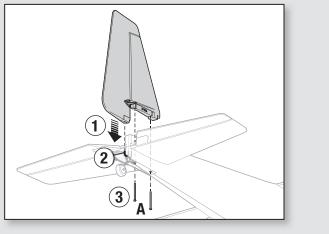
Tip: A small amount of foam-safe glue can be used for improved security.



#### Vertical Fin and Rudder Installation

- Install the vertical fin and rudder assembly into the slot in the top of the fuselage.
- Make sure the tail-wheel control wire is inserted into the rudder slot as shown.
- 3 Secure the vertical fin, rudder assembly and the horizontal tail with the 2 included  $2.6 \times 35$ mm screws (A) from the bottom of the fuselage.

Tip: A small amount of foam-safe glue can be used for improved security.



## **Model Assembly Continued**

### **Wing Assembly**

- 1. Insert the aluminum wing joining spar (A) into one wing until it stops.
- Insert the small plywood wing locking plate (B) into the rectangular slot behind the main wing spar.
- 3 Slide the remaining wing panel onto the exposed portion of the aluminum spar and plywood locking plate, ensuring perfect alignment of the two wing halves.

Tip: A small amount of foam-safe glue can be used for improved security.

- Carefully route the aileron wires through the slots, ensuring they are not caught in the wing joint. Connect the included Y-harness (C) to the aileron servo connectors from the wing halves.
- 5. Connect the ailerons to the receiver's AILE (#2 channel) with a Y-harness.
- 6. Connect the two remaining red female JST plugs from the wing halves to the two male JST plugs from the circuit board.

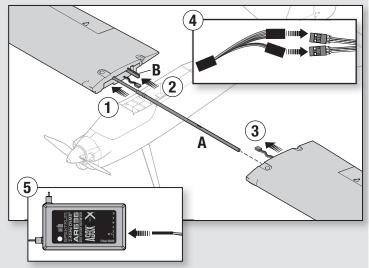
### Wing Installation

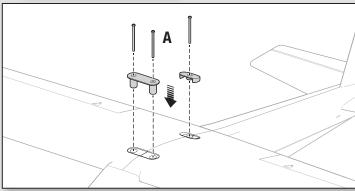
- Insert the front and rear plastic connectors into the wing as shown. Ensure they are angled to fit flush with the wing surface.
- 2. Secure the wing halves to the fuselage through the plastic connectors using three  $3\times M4\times 50mm$  screws (A) provided.



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

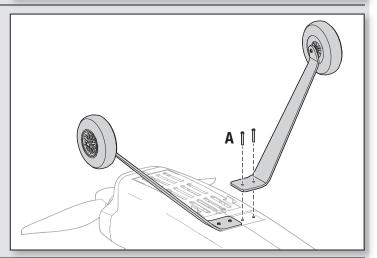
Disassemble in reverse order.





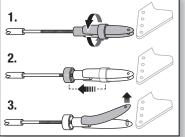
### **Landing Gear Installation**

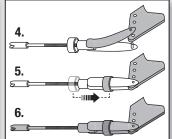
1. Install one landing gear assembly using two 2.6  $\times$  12mm screws (A) provided. Repeat for the remaining landing gear assembly.



#### **Clevis Installation**

- 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.





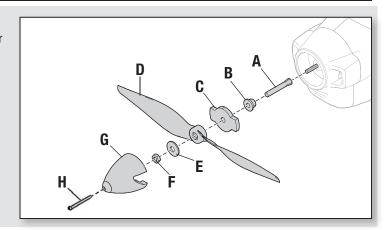
### **Model Assembly** Continued

### **Propeller Installation**

**IMPORTANT:** The propeller size numbers (12 x 8) must face out from the motor for correct propeller operation.

**IMPORTANT:** A tool is required to tighten the spinner nut on the collet.

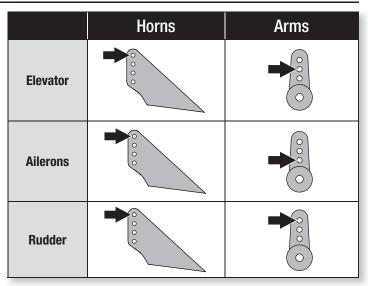
- Slide the aluminum collet (A) onto the motor shaft follwed by the tapered aluminum driver (B).
- 2. Slide the plastic spinner back plate (C) onto the collet.
- Slide the propeller (D) onto the collet and secure it with the washer (E) and nut (F).
- Place the spinner (G) over the propeller and secure it with the screw (H) provided.



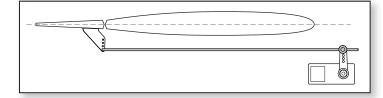
## **Control Horn and Servo Arm Settings**

The table to the right shows the factory settings for the control horns and servo arms. Fly the aircraft at factory settings before making changes.

After flying, you may choose to adjust the linkage positions for the desired control response. See the table to the right.



More control throw	Less control throw	
	0000	



### **Control Surface Centering**

After assembly and transmitter setup, confirm that the control surfaces are centered. If the control surfaces are not centered, mechanically center the control surfaces by adjusting the linkages.

If adjustment is required, turn the clevis on the linkage to change the length of the linkage between the servo arm and the control horn.

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

### **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®/DSMX® technology equipped aircraft transmitter to the receiver for proper operation.

**IMPORTANT:** Before binding a transmitter, read the Transmitter Setup section of this manual to ensure that your transmitter is properly programmed for this aircraft.

#### **Binding Procedure**

**IMPORTANT:** If using an AR636, refer to the receiver manual for correct setup for use in the Aire-Batix.

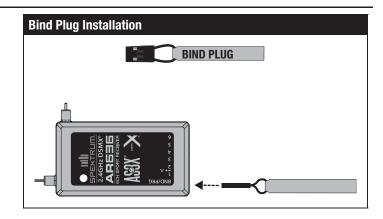
Read the transmitter instructions for binding to a receiver (location of transmitter's Bind control). **Please visit www.bindnfly.com for a complete list of compatible transmitters.** 

**CAUTION:** When using a Futaba® transmitter with a Spektrum DSM 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.

- 1. Make sure the transmitter is powered off.
- Move the transmitter controls to neutral (flight controls: rudder, elevators and ailerons) or to low positions (throttle, throttle trim).\*\*
- 3. Install a bind plug in the receiver bind port.
- Connect the flight battery to the ESC. The ESC will produce a series
  of sounds. 3 short tones confirm that the LVC is set correctly for the
  ESC. The orange bind LED on the receiver will begin to flash rapidly.
- Power on the transmitter while holding the transmitter bind button or switch. Refer to your transmitter's manual for binding.
- 6. When the receiver binds to the transmitter, the orange bind light on the receiver will turn solid and the ESC will produce ascending tones. The tones indicate the ESC is armed, provided the throttle stick and throttle trim are low enough to trigger arming.
- 7. Remove the bind plug from the bind port.
- Safely store the bind plug (some owners attach the bind plug to their transmitter using two-part loops and clips).
- 9. The receiver should retain the binding instructions received from the transmitter until another 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.

#### \*\*Failsafe

If the receiver loses transmitter communication, the failsafe will activate. When activated, the airplane controls return to the neutral position established during step 2 of the binding procedure.

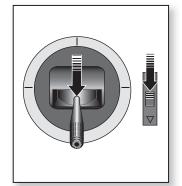


## **Battery Installation and ESC Arming**

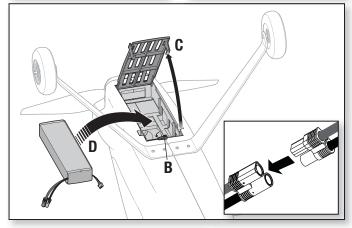
### **Battery Selection**

We recommend the E-flite® 2200mAh 11.1V 3S 30C Li-Po battery (EFLB22003S30). Refer to the Optional Parts List for other recommended batteries. If using a battery other than those listed, the battery should be within the range of capacity, dimensions and weight of the E-flite Li-Po battery packs to fit in the fuselage. Be sure the model balances at the recommended CG.

- 1. Lower the throttle and throttle trim to the lowest settings. Power on the Transmitter, then wait 5 seconds.
- 2. Apply hook and loop tape (A) to the bottom of your battery.
- 3. Rotate the battery hatch latch (B) to the left and open the hatch door (C).
- 4. Install the fully charged battery (**D**) in the battery compartment as shown. See the Adjusting the Center of Gravity instructions for more information.
- 5. Make sure the flight battery is secured using hook and loop tape.
- 6. Close the battery hatch door and rotate the latch to the right to secure the
- 7. Connect the battery to the ESC (the ESC is now armed).
  - The ESC will sound a series of tones (refer to step 6 of the binding instructions for more information).
  - An LED will light on the receiver.





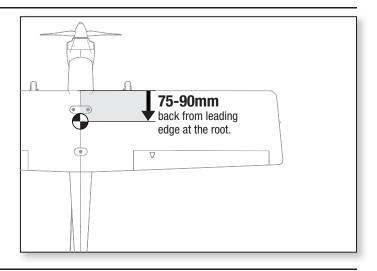




CAUTION: Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement.

# **Center of Gravity (CG)**

The CG location is measured from the leading edge of the wing at the root. This CG location has been determined with the recommended Li-Po battery (EFLB22003S30) installed all the way forward in the battery compartment.



## **Control Direction Test**

Move the controls on the transmitter to make sure the aircraft control surfaces move in the proper direction.

	Transmitter Command	Aircraft Reaction	
vator	Up Elevator Command		
Elev	Down Elevator Command		
Aileron	Stick Right		
Aile	Stick Left		
der	Stick Right		
Rudder	Stick Left		

### **Flying Tips and Repairs**

Consult local laws and ordinances before choosing a flying location.

### Range Check your Radio System

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

#### Takeoff

Place the aircraft in position for takeoff (facing into the wind). Select low rates for first takeoff and gradually increase the throttle to 3/4 to full and steer with the rudder. Pull back gently on the elevator and climb to a comfortable altitude.

Fly the airplane and trim it for level flight at 3/4 throttle. After landing, adjust the linkages mechanically to account for trim changes and then reset the trims to neutral. Ensure the aircraft will fly straight and level with no trim or sub-trim.

### Landing

For your first flights with the recommended battery pack (EFLB22003S30), set your transmitter timer or a stopwatch to 5 minutes.

After five minutes, land the aircraft. Adjust your timer for longer or shorter flights once you have flown the model. If at any time the motor pulses, land the aircraft immediately to recharge the flight battery. See the Low Voltage Cutoff (LVC) section for more details on maximizing battery health and run time.

To land the aircraft, fly the aircraft down to the ground using 1/4-1/3 throttle to allow for enough energy for a proper flare. The aircraft is easiest to land doing a wheel landing (two point), where the aircraft touches down on the main landing gear first while the tailwheel is still off the ground. The aircraft can also be landed in a three-point attitude, where all three wheels touch down at the same time. When the aircraft touches down, reduce back pressure on the elevator stick to prevent the plane from becoming airborne again.

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: 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.

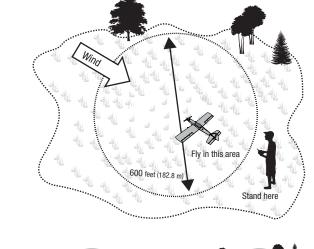
**NOTICE:** When you are finished flying, never leave the aircraft in direct sunlight or in a hot, enclosed area such as a car. Doing so can damage the aircraft.

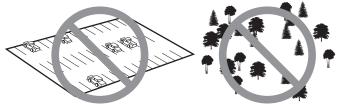
#### **WARNING:** Always decrease throttle at propeller strike.











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

Tip: Monitor your aircraft battery's voltage before and after flying by using a Li-Po Cell Voltage Checker (EFLA111, sold separately).

### Repairs

Thanks to the Z-Foam<sup>™</sup> material in 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

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

### **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.

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.

## **Post Flight Checklist**

1 Disconnect the and battery life		Disconnect the flight battery from the ESC (Required for Safety	5	Repair or replace all damaged parts.	
		and pattery life).	7	Store the flight battery apart from the aircraft and monitor the	
	2 Power OFF the transmitter.			battery charge.	
	<ul><li>3 Remove the flight battery from the aircraft.</li><li>4 Recharge the flight battery.</li></ul>			Make note of the flight conditions and flight plan results, planning for	
				future flights.	

### **Motor Service**



**CAUTION:** Always disconnect the flight battery before performing motor service.

#### **Disassembly**

1. Remove the collet (A), driver (B), spinner backplate (C), propeller (D), washer (E) nut (F), spinner (G) and spinner screw (H) from the motor shaft.

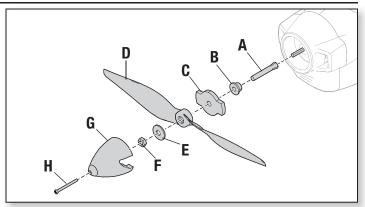
IMPORTANT: A tool is required to remove the propeller nut.

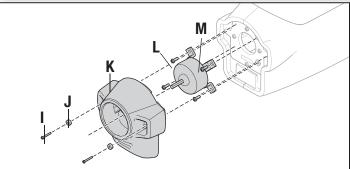
- 2. Remove the 2 screws (I) and nuts (J) from the cowl (K) and motor mount in the fuselage.
- 3. Disconnect the motor wires from the ESC wires.
- 4. Remove the 4 screws ( $\bf L$ ) and motor ( $\bf M$ ) from the motor mount.

#### **Assembly**

Assemble in reverse order.

- Correctly align and connect the motor wire colors with the ESC wires.
- The propeller size numbers (12 x 8) must face out from the motor for correct propeller operation.
- A tool is required to tighten the nut on the collet.





# **Troubleshooting Guide**

Problem	Possible Cause	Solution	
Aircraft will not	Throttle not at idle and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting	
	Throttle servo travel is lower than 100%	Make sure throttle servo travel is 100% or greater	
but responds to other controls	Throttle channel is reversed	Reverse throttle channel on transmitter	
other controls	Motor disconnected from ESC	Make sure motor is connected to the ESC	
	Damaged propeller and spinner, collet or motor	Replace damaged parts	
Extra propeller noise	Propeller is out of balance	Balance or replace propeller	
	Prop nut is too loose	Tighten the prop nut	
	Spinner is not tight or fully seated in place	Tighten the spinner or remove the spinner and turn it 180 degrees	
	Flight battery charge is low	Completely recharge flight battery	
Reduced flight time	Propeller installed backwards	Install propeller with numbers facing forward	
or aircraft under-	Flight battery damaged	Replace flight battery and follow flight battery instructions	
powered	Flight conditions may be too cold	Make sure battery is warm before use	
	Battery capacity too low for flight conditions	Replace battery or use a larger capacity battery	
	Transmitter too near aircraft during binding process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft	
Aircraft will not Bind	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt binding again	
(during binding) to transmitter	The bind plug is not installed correctly in the bind port	Install bind plug in bind port and bind the aircraft to the transmitter	
	Flight battery/transmitter battery charge is too low	Replace/recharge batteries	
	Bind switch or button not held long enough during bind process	Power off transmitter and repeat bind process. Hold transmitter bind button or switch until receiver is bound	
	Transmitter too near aircraft during connecting process	Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft	
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt connecting again	
Aircraft will not connect (after binding) to	Bind plug left installed in bind port	Rebind transmitter to the aircraft and remove the bind plug before cycling power	
transmitter	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter	
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries	
	Transmitter may have been bound to a different aircraft using different DSM protocol	Bind aircraft to transmitter	
	Control surface, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls	
	Wire damaged or connections loose	Do a check of wires and connections, connect or replace as needed	
	Transmitter is not bound correctly or the incorrect airplanes was selected	Re-bind or select correct airplanes in transmitter	
	Flight battery charge is low	Fully recharge flight battery	
	BEC (Battery Elimination 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	
	ESC uses default soft Low Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing	
Motor power pulses	Weather conditions might be too cold	Postpone flight until weather is warmer	
then motor loses power	Battery is old, worn out, or damaged	Replace battery	
_	Battery C rating might be too small	Use recommended battery	

### **AMA National Model Aircraft Safety Code**

Effective January 1, 2014

#### 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, education 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.)
  - (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).
- 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.
- 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.)
  - (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 and #923.)
- 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.
- 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. Hand-held illumination systems are inadequate for night flying operations.
- 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.
  - (C) Fly using the assistance of autopilot or stabilization system only in accordance with the procedures outlined in AMA Document #560.

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

### **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, 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 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	Phone Number/Email Address	Address	
	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/ RequestForm/		
United States of America	Horizon Product Support	productsupport@horizonhobby.com	4105 Fieldstone Rd	
	(Product Technical Assistance)	877-504-0233	Champaign, Illinois, 61822 USA	
	0.1	websales@horizonhobby.com		
	Sales	800-338-4639		
European Union	Horizon Technischer Service	service@horizonhobby.eu	Hanskampring 9	
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	D 22885 Barsbüttel, Germany	

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



EU Compliance Statement:
Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive. A copy of the EU Declaration of Conformity is available online at: http://www.horizonhobby.com/content/support-render-compliance.

### 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.

# Replacement Parts • Ersatzteile • Pièces de rechange

Part #   Nummer Numéro   Codice	Description	Beschreibung	Description
EFL725018	40 Amp Brushless ESC	Bürstenloser 40-A-Geschwindigkeitsregler	Variateur ESC sans balais 40 AMP
EFLM4015B	B15 Brushless Outrunner Motor, 880 kV	Bürstenloser B15 Außenläufer-Motor, 880 kV	Moteur à cage tournante sans balais B15, 880 kV
FCEF30001	Fuselage, Aire-Batix	Rumpf, Aire-Batix	Fuselage, Aire-Batix
FCEF30002	Wing Set, Aire-Batix	Tragflächensatz, Aire-Batix	Ensemble d'ailes, Aire-Batix
FCEF30003	Horizontal Stabilizer, Aire-Batix	Horizontaler Stabilisator, Aire-Batix	Stabilisateur horizontal, Aire-Batix
FCEF30004	Vertical Stabilizer, Aire-Batix	Vertikaler Stabilisator, Aire-Batix	Stabilisateur vertical, Aire-Batix
FCEF30005	Main Landing Gear, Aire-Batix	Hauptfahrwerk, Aire-Batix	Train d'atterrissage principal, Aire-Batix
FCEF30006	Cowling, Aire-Batix	Motorhaube, Aire-Batix	Capot, Aire-Batix
FCEF30007	Wing Tube, Aire-Batix	Steckungsrohr, Aire-Batix	Tube d'aile, Aire-Batix
FCEF30008	Hardware Set, Aire-Batix	Hardwaresatz, Aire-Batix	Ensemble de matériel, Aire-Batix
FCEF30009	Prop Adapter, Aire-Batix	Propeller-Adapter, Aire-Batix	Adaptateur d'hélice, Aire-Batix
FCEF30010	Wing Mount, Aire-Batix	Montageset Tragflächen, Aire-Batix	Support d'aile, Aire-Batix
FCEF30011	Spinner, Aire-Batix	Spinner, Aire-Batix	Cône, Aire-Batix
FCEF30012	Decal Sheet, Aire-Batix	Aufklebersatz, Aire-Batix	Feuillet d'autocollants, Aire-Batix
SPMSA330R	9 Gram Servo, Reversed	9 Gramm Servo, rückwärts	Servo Reversed 9 grammes
SPMSA420	17 gram analog servo (400mm lead)	17 Gramm analoges Servo (400mm Leitung)	Servo 17 grammes analog (câble 400mm)

# Optional Parts • Optionale Bauteile • Pièces optionnelles

Part #   Nummer Numéro   Codice	Description	Beschreibung	Description
DYN1400	Li-Po Charge Protection Bag, Small	Li-Po Ladeschutzbeutel, klein	Sac de protection du chargeur de batterie Li-Po, petit
DYN1405	Li-Po Charge Protection Bag, Large	Li-Po Ladeschutzbeutel, groß	Sac de protection du chargeur de batterie Li-Po, grand
DYNC2010CA	Prophet Sport Plus 50W AC DC Charger	Prophet Sport Plus 50 W Wechsel-/Gleich- strom-Ladegerät	Chargeur CA/CC 50W Prophet Sport Plus
EFLA111	Li-Po Cell Voltage Checker	Li-Po-Zelle Spannungsprüfer	Contrôleur de tension pour batterie Li-Po
EFLA250	Park Flyer Tool Assortment, 5 pc	Park Flyer Werkzeugset, 5-teilig	Assortiment d'outils Park Flyer 5 pièces
EFLAEC301	EC3 Battery Connector, Male (2)	EC3 Akku-Steckverbinder, Stecker (2)	Connecteur de la batterie EC3, mâle (2)
EFLAEC302	EC3 Battery Connector, Female (2)	EC3 Akku-Steckverbinder, Buchse (2)	Connecteur de la batterie EC3, femelle (2)
EFLB2200S30	11.1V 3S 30C 2200MAH Li-Po	11,1 V 3 S 30 C 2200 mAh Li-Po	Li-Po 11,1 V 3S 30C 2 200 mAh
EFLB3200S30	11.1V 3S 30C 3200MAH Li-Po	11,1 V 3 S 30 C 3200 mAh Li-Po	Li-Po 11,1 V 3S 30C 3 200 mAh
SPMAR610	6-Channel Coated Air Receiver	Ummantelter 6-Kanal-Flugzeugempfänger	Récepteur aérien avec revêtement 6 canaux
SPMAR636	6-Channel AS3X Sport Receiver	6-Kanal-Sportempfänger AS3X	Récepteur sport 6 canaux AS3X



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