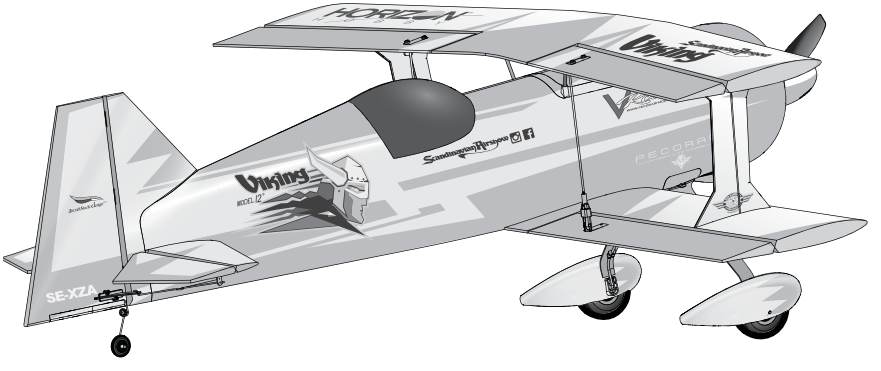
BNF BASIC

Viking Model 12® 280



Instruction Manual
Bedienungsanleitung
Manuel d'utilisation
Manuale di Istruzioni

AS3X®

E-flite®
ADVANCING ELECTRIC FLIGHT

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.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.

CAUTION: 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 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.

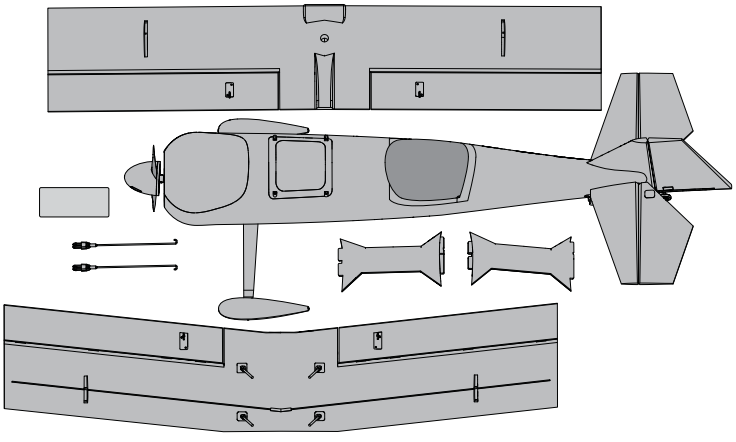
WARNING AGAINST COUNTERFEIT PRODUCTS: If you ever need to replace your Spektrum receiver found in a Horizon Hobby product, always purchase from Horizon Hobby, LLC or a Horizon Hobby authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty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

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

Safety Precautions and Warnings

- 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 the 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.

Box Contents



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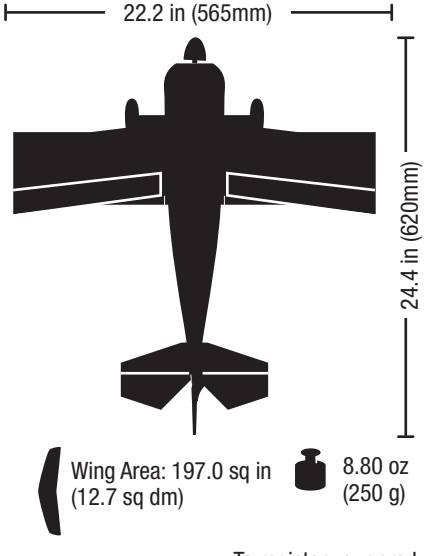
Specifications



Installed

- BL 280 Outrunner Motor, 1800Kv (EFLM7010)
- BL Controller, 10A (EFLA7300)
- AR6335 6-Channel AS3X® Nanolite Receiver, Air (SPMAR6335)
- (4) 3.5 g Digital Servo (EFLR7100 and EFLR7100L)

Need to Complete

- 450mAh 3S 11.1V 30C LiPo, 18AWG JST (EFLB4503SJ30)
- **Recommended Battery Charger:** Prophet™ Sport Plus 50W AC DC Charger (DYNC2010CA)
- **Recommended Transmitter:** Full Range DSM2®/DSMX® technology with adjustable dual rate and exponential (DX4e and up)

To register your product online, go to www.e-fliterc.com

Transmitter Setup

IMPORTANT: Set up your transmitter before binding your transmitter to the aircraft.

Before binding a non-computerized transmitter, ensure all servo reversing is set to normal and trim is at center.

Dual Rates and Expo

After first flights, you may adjust Dual Rates and Expo in your transmitter or refer to the AR6335 receiver manual for Dual Rates and Expo adjustment.

Flight Modes

The installed AR6335 receiver has been programmed for operation specifically in this aircraft, providing the following selectable flight modes.

The flight modes can be changed using the Gear/ Channel 5 Switch.

Selecting Flight Modes may vary depending on your transmitter's Gear / Channel 5 switch type (2 position or 3 position). Refer to the provided charts to fully understand how your transmitter switches will operate this aircraft.

IMPORTANT: It is recommended to take first flights in Precision Mode (Low Rate).

Precision Mode

This mode uses low rates and low gains to deliver precise response at high airspeeds. Use this mode to trim the aircraft and fly fast precision maneuvers.

3D Mode

This mode uses high rates and high gains to deliver extreme maneuverability with maximum stability at low airspeeds. Use this mode for slow flying and 3D maneuvers such as Hovers and Harriers. Flying at high speed in this mode will cause oscillation.

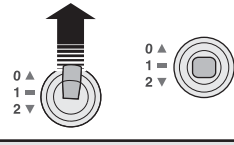
NOTICE: If oscillation occurs at high speed, refer to the Troubleshooting Guide for more information.

Computerized Transmitter Setup (DX6i, DX6, DX7S, DX8, DX9, DX10t and DX18)
Start all transmitter programming with a blank ACRO model (do a model reset), then name the model. Leave all settings at default.
DX6i only: Reverse channel 5.
IMPORTANT: After you set up your model, always rebind the transmitter and receiver to set the desired failsafe positions.

Quickstart

1. Set a Blank model. (DX6i only: reverse channel 5)
2. Bind
3. Choose a Flight Mode = Gear / Ch 5 (Start with Precision Mode)
4. Go fly

2 Position Gear/Ch 5 Switch Transmitters	
Precision Mode (Low Rate)	
	Position 0 is Precision Mode
3D Mode (High Rate)	
	Position 1 is 3D Mode

3 Position Gear/Ch 5 Switch Transmitters	
Precision Mode (Low Rate)	
	Positions 0 and 1 are Precision Mode
3D Mode (High Rate)	
	Position 2 is 3D Mode
Tip: If desired, assign Gear / Channel 5 to a 2-position switch of your choice. Refer to your computerized transmitter manual for switch assignment instructions.	

Preflight Checklist

✓	
	1. Charge flight battery.
	2. Install flight battery in aircraft (once it has been fully charged).
	3. Bind aircraft to transmitter.
	4. Make sure linkages move freely.
	5. Perform Control Direction Test with transmitter.

✓	
	6. Adjust center of gravity.
	7. Perform a radio system Range Check.
	8. Find a safe and open area.
	9. Plan flight for flying field conditions.

Assembly

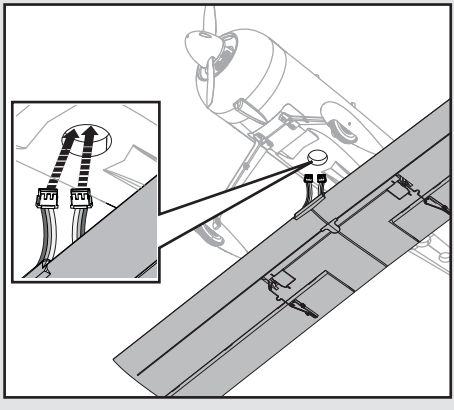
Required Adhesives:

foam-compatible Medium CA

Wing Installation

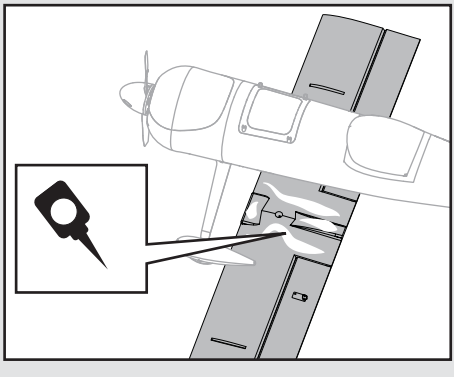
1. Put the wing servo connectors into the hole in the bottom of the fuselage.

   Tip: If needed, use hemostats or pliers to pull the servo connectors into the fuselage.

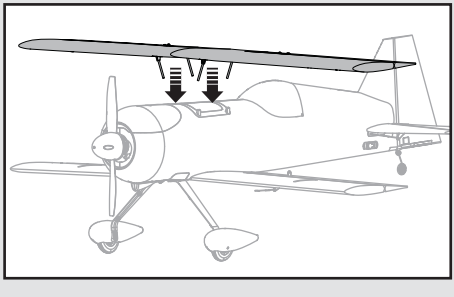


⚠ **CAUTION:** DO NOT crush or otherwise damage the wiring when attaching the wing to the fuselage.

2. Apply foam-compatible medium CA to the center section of the lower wing, and attach it to the under side of the fuselage.

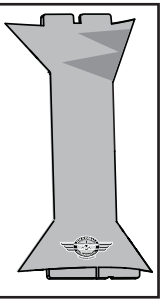


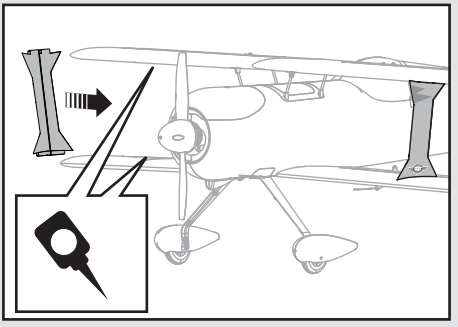
3. Place the upper wing cabane rods fully in the fuselage mounts. Do not glue at this moment.

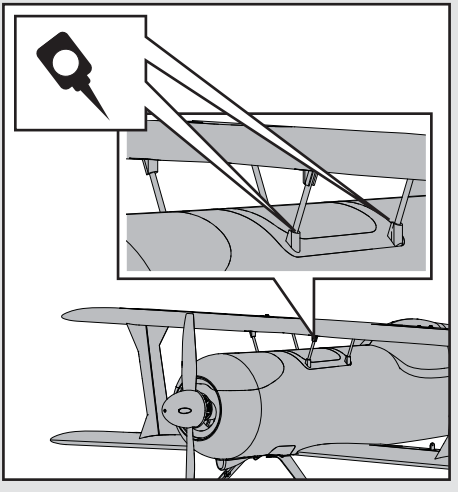


4. Apply foam-compatible medium CA to the strut mounting slots on both wings. Slide the left and right struts in the slots between the wings as shown. Make sure the wings are straight, level and parallel with each other.

The blue graphic should be at the top of the strut with the decal at the bottom facing out.





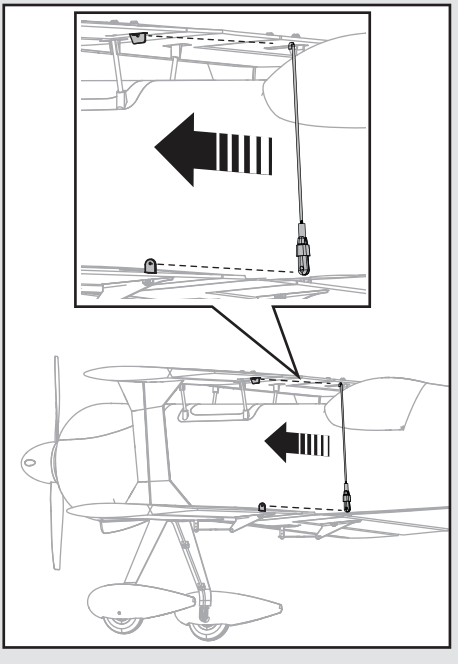


5. Secure the top wing to the fuselage by applying foam-compatible medium CA where the upper wing cabane rods meet the fuselage mounts.

6. When the foam-compatible CA is dry, connect the left and right linkages between the ailerons as shown.

7. Remove the battery hatch.

8. Connect the aileron servos from the wings to the Y-harness connectors in the fuselage. The left and right aileron servos can be connected to either side of the Y-harness.



IMPORTANT: Correct operation of the AS3X system requires connection of both ailerons to the included Y-harness and the AILE channel of the receiver.

NOTICE: When disconnecting the servo connectors, do not pull on the servo wires. Use a screwdriver or pliers to break the friction fit of the servo connectors. Failure to do so could result in damage to the servo wiring.

Transmitter and Receiver Binding

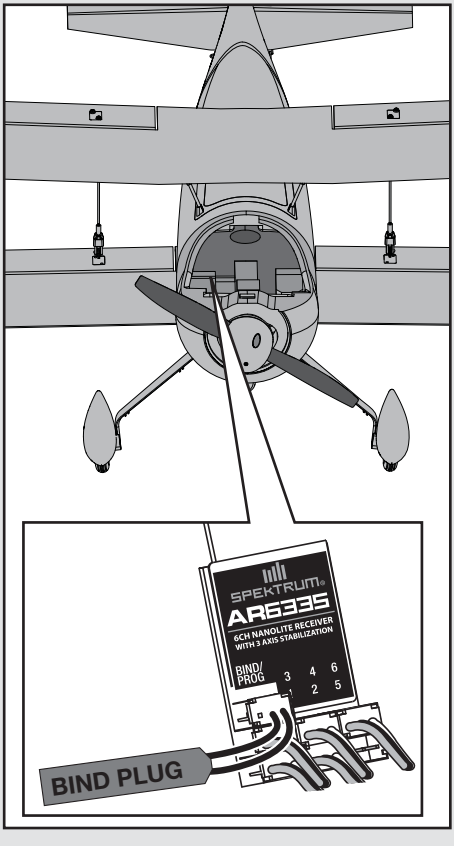
Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You need to 'bind' your chosen Spektrum™ DSM2/DSMX technology equipped aircraft transmitter to the receiver for proper operation.

Any full range Spektrum DSM2/DSMX transmitter can bind to the DSM2/DSMX receiver. Please visit www.bindnfly.com for a complete list of compatible transmitters.

Failure to do so could affect flight performance.

⚠ 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.

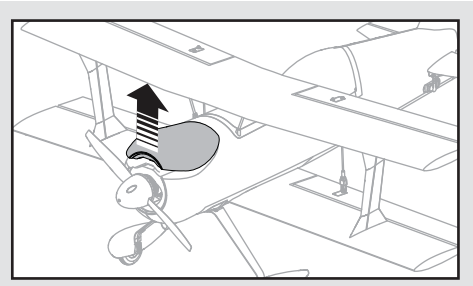
✓ Binding Procedure
1. Refer to your transmitter's unique instructions for binding to a receiver (location of transmitter's Bind control).
2. Make sure the flight battery is disconnected from the aircraft.
3. Power off the transmitter.
4. Bind the AR6335 receiver to a DSM2/DSMX transmitter by inserting a bind plug in the bind port of the receiver.
5. Connect the flight battery to the aircraft. The receiver LED will begin to flash rapidly (typically after 5 seconds).
6. Ensure that control surface trims are centered and the throttle and throttle trims are in the low position to correctly set the failsafe.
7. Put your transmitter into bind mode. Refer to your transmitter's manual for binding button or switch instructions.
8. Keep the aircraft immobile out of the wind and, after 5 to 10 seconds, the receiver status LED will become solid, indicating that the receiver is bound to the transmitter. If the LED does not turn solid, refer to the Troubleshooting Guide at the back of the manual.
9. Remove the bind plug from the receiver and store it in a safe place. If the plug is difficult to remove, carefully use pliers or a screwdriver to overcome the friction fit.

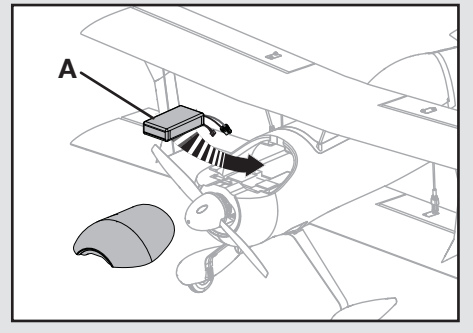


For subsequent flights, power on the transmitter before connecting the flight battery.

Battery Installation

1. Remove the battery hatch.
2. Apply hook and loop tape to the bottom of the battery.
3. Install the battery (**A**) in the battery cavity towards the front of the fuselage. **Refer to the Center of Gravity instructions for the battery's position.**
4. Connect the fully charged flight battery to the ESC. **Refer to the ESC Arming instructions for correct connection of the battery to the ESC.**
5. Replace the battery hatch on the fuselage.





⚠ **CAUTION:** Always disconnect the Li-Po battery from the ESC 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.

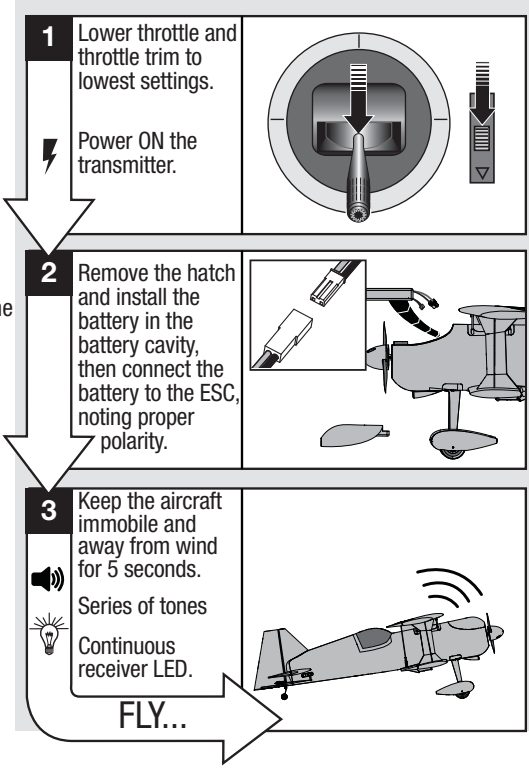
ESC Arming

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

Tip: If the ESC sounds a continuous double beep after the flight battery is connected, recharge or replace the battery.

If you accidentally connect the battery while the throttle is opened or the throttle trim is high, a musical tone will sound after 5 seconds and the ESC will not arm until the throttle is returned to the off position or the throttle trim is lowered.

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



Control Direction Test

Bind your aircraft and transmitter before doing these tests. Move the controls on the transmitter to make sure the aircraft control surfaces move correctly and in the proper direction.

Always keep throttle at the low position during testing.

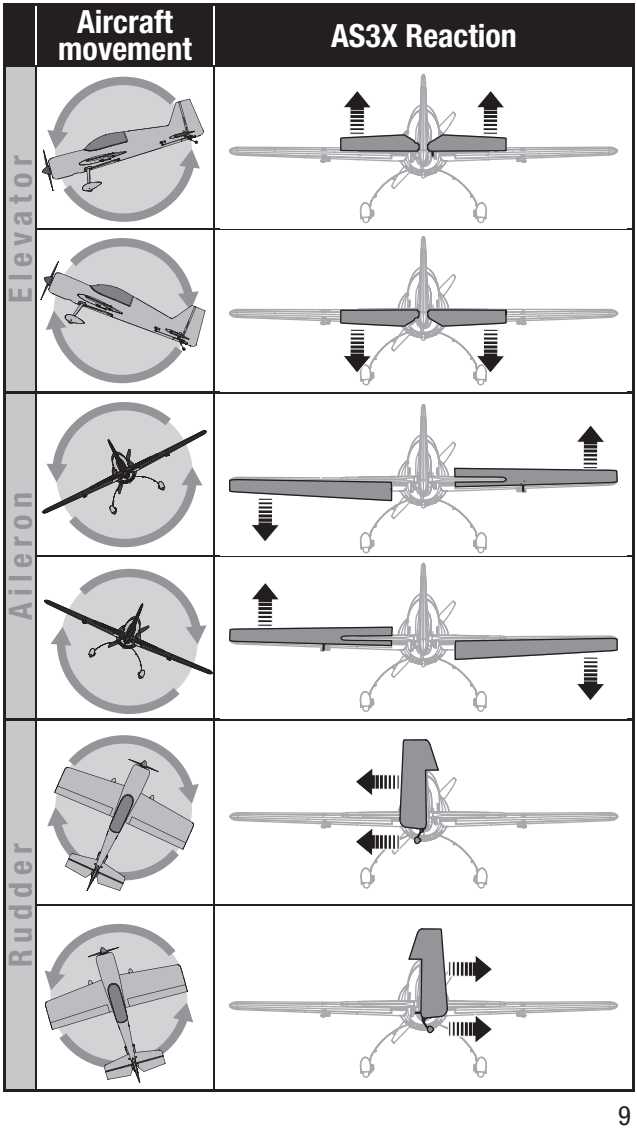
Make sure the tail linkages move freely and that paint or decals are not adhered to them.

AS3X Control Direction Test

Assemble the aircraft and bind your transmitter to the receiver before performing this Test. Activate the AS3X® system by advancing the throttle to 25%, then fully lowering the throttle.

Move the aircraft as shown to ensure the AS3X system moves the control surfaces in their proper direction. If the control surfaces do not respond as shown, do not fly the aircraft. Refer to the receiver manual for more information.

Once the AS3X system is active, the control surfaces may move rapidly on the aircraft. This is normal. AS3X will remain active until the battery is disconnected.



Control Centering

Before the first flights, or in the event of an accident, make sure the flight control surfaces are centered. Adjust the linkages mechanically if the control surfaces are not centered.

Lower Ailerons, Rudder and Elevator

1. Reset sub-trims to zero. Ensure the servo arms are as perpendicular to the servo case as possible. Use sub-trim to fine-tune as needed.
2 When needed, use a pair of pliers to carefully bend the metal linkage (see illustration).
3. Make the U-shape narrower to make the linkage shorter. Make the U-shape wider to make the linkage longer.

Upper Ailerons

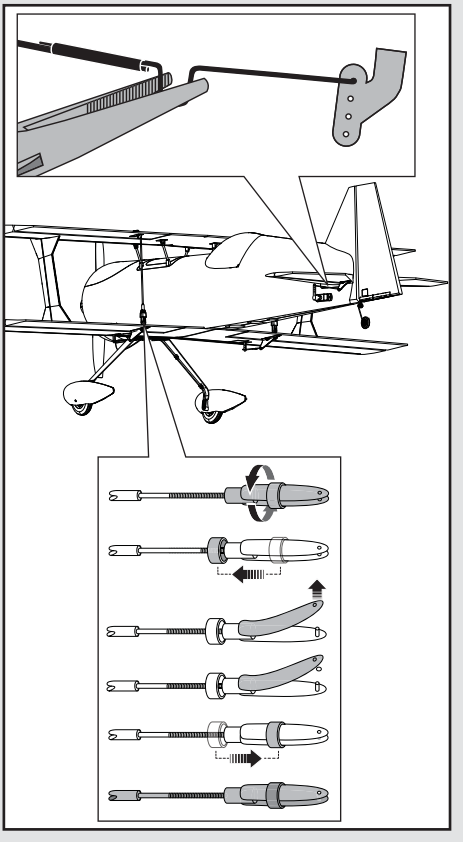
1. When an adjustment of linkages is needed, pull the tube from the clevis to the linkage.
2. Carefully spread the clevis and adjust the length of the linkage by screwing the clevis in or out. Reattach the clevis in the proper hole in the control horn.
3. Move the tube to tighten the clevis onto the control horn.

Centering Controls After First Flights

For best performance with AS3X, it is important that excessive trim is not used.

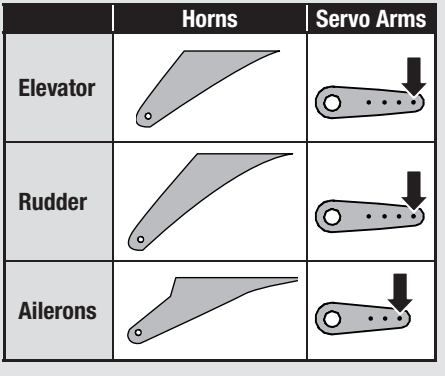
IMPORTANT: Only trim this aircraft in Precision Flight Mode.

If the model requires excessive transmitter trim (4 or more clicks of trim per channel), return the transmitter trim to zero and adjust the linkages mechanically so that the control surfaces are in the flight trimmed position.



Control Horn and Servo Arm Settings

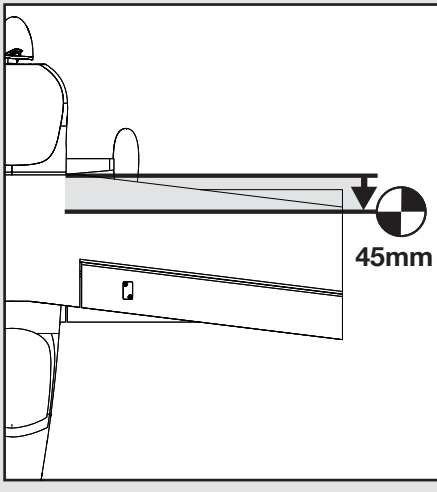
This illustration shows the factory settings for linkages on the control horns and servo arms. After flying, you may choose to adjust the linkage positions for the desired control response.



Center of Gravity (CG)

The CG location is **45mm** back from the leading edge of the wing at the wing root.

The battery compartment is oversized to allow for Center of Gravity adjustment. Start by installing the battery fully forward with the connectors facing the front of the aircraft. Adjust as needed by sliding the battery back.



Low Voltage Cutoff (LVC)

When a Li-Po battery is discharged below 3V per cell, it will not hold a charge. The aircraft's ESC protects the flight battery from over-discharge using Low Voltage Cutoff (LVC). Once the battery discharges to 3V per cell, the LVC will reduce the power to the motor in order to leave adequate power to the receiver and servos to land the airplane.

When the motor power decreases, land the aircraft immediately and replace or recharge the flight battery.

Always disconnect and remove the Li-Po battery from the aircraft after each flight. Charge your Li-Po battery to about half capacity before storage. Make sure the battery charge does not fall below 3V per cell. Failure to unplug a connected battery will result in trickle discharge.

For your first flights, set your transmitter timer or a stopwatch to 3.5 minutes. Adjust your timer for longer or shorter flights once you have flown the model. Flights of 6 minutes are achievable if using proper throttle management.

NOTICE: Repeated flying to LVC will damage the battery.

Flying Tips and Repairs

Consult local laws and ordinances before choosing a location to fly your aircraft.

We recommend flying your aircraft outside in no greater than moderate winds.

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.

Range Check Your Radio System

After final assembly, range check the radio system with the aircraft. Refer to your specific transmitter and receiver instruction manuals for range test information.

Oscillation

Once the AS3X system is active (after advancing the throttle for the first time), you will normally see the control surfaces react to aircraft movement. In some flight conditions you may see oscillation (the aircraft rocks back and forth on one axis due to overcontrol). If oscillation occurs, decrease airspeed. If oscillation persists, refer to the Troubleshooting Guide for more information.

NOTICE: Fast flight in 3D Mode will cause oscillation and may damage the aircraft.

Takeoff

Place the aircraft in position for takeoff (facing into the wind if flying outdoors). Set the flight mode to Precision and gradually increase the throttle to ¾ to full and steer with the rudder. Pull back gently on the elevator and climb to check trim. Once the trim is adjusted, begin exploring the flight envelope of the aircraft.

Landing

Land into the wind. This is very important for this model. Fly the aircraft to approximately 6 inches (15cm) or less above the runway, using a small amount of throttle for the entire descent. Keep the throttle on until the aircraft is ready to flare. During flare, keep the wings level and the aircraft pointed into the wind. Gently lower the throttle while pulling back on the elevator to bring the aircraft down on all three wheels.

NOTICE: If a crash is imminent, reduce the throttle 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.

Repairs

Repair this aircraft using foam-compatible CA (cyanoacrylate adhesive) glue or clear tape. Only use foam-compatible CA glue as other types of glue can damage the foam.

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 back of this manual.

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

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 foam.

Post Flight Checklist

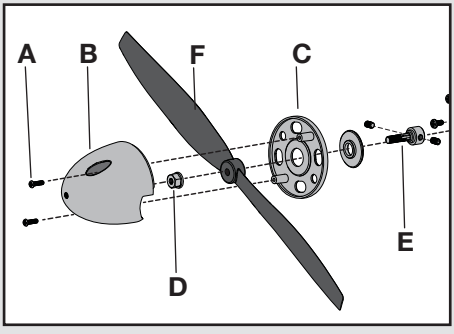
✓	
	1. Disconnect flight battery from ESC (Required for safety and battery life).
	2. Power off transmitter.
	3. Remove flight battery from aircraft.
	4. Recharge flight battery.

✓	
	5. Store flight battery apart from aircraft and monitor the battery charge.
	6. Make note of flight conditions and flight plan results, planning for future flights.

Service of Power Components

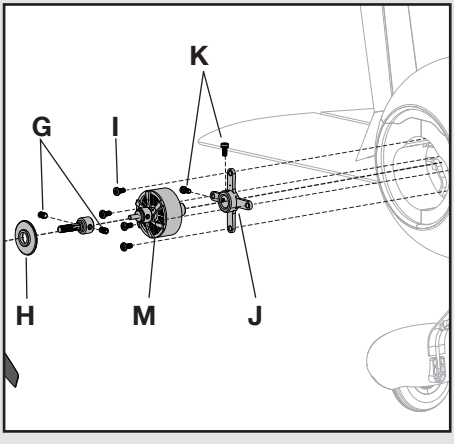
Disassembly

CAUTION: Always disconnect the battery before handling or adjusting the propeller or motor. Failure to do so could result in personal injury.



Propeller

1. Remove the 2 screws (**A**) from the spinner (**B**). Carefully separate the spinner from the back plate (**C**).
2. Remove the lock nut (**D**) from the propeller shaft (**E**), then remove the propeller (**F**) and back plate.
3. Loosen the 2 setscrews (**G**) and remove the washer (**H**) before removing the propeller shaft from the motor.



Motor and Firewall

1. Remove the 4 screws (**I**) and motor mount (**J**) from the fuselage.
2. Disconnect the motor wires from the ESC.
3. Loosen the 2 setscrews (**K**) and remove the motor (**M**) from the motor mount.

Assemble in reverse order.

Assembly Tips

- Correctly align and connect the motor wire colors with the ESC wires.
- Tools are required to loosen or tighten the screws and the lock nut.
- Ensure the spinner is fully connected to the spinner back plate for safe operation.

Troubleshooting Guide

AS3X

Problem	Possible Cause	Solution
Control surfaces not at neutral position when transmitter controls are at neutral	Control surfaces may not have been mechanically centered from factory	Center control surfaces mechanically by adjusting the U-bend or clevis on control linkages
	Aircraft was moved after the flight battery was connected and before sensors initialized	Disconnect and reconnect the flight battery while keeping the aircraft still for 5 seconds
Model flies inconsistently from flight to flight	Aircraft was not kept immobile for 5 seconds after battery was plugged in	Keep the aircraft immobile for 5 seconds after plugging in the battery
	Trims are moved too far from neutral position	Neutralize trims and mechanically adjust linkages to center control surfaces
Controls oscillate in flight, (model rapidly jumps or moves)	Propeller is unbalanced, causing excessive vibration	Remove propeller and rebalance or replace it if damaged
	Nut on prop shaft is too loose, causing excessive vibration	Tighten the prop shaft nut

Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft will not respond to throttle but responds to other controls	ESC did not arm because throttle stick and/or throttle trim too high	Lower throttle stick and throttle trim to lowest setting
	Throttle channel is reversed	Reverse throttle channel on transmitter
	Motor disconnected from ESC	Make sure motor is connected to the ESC
	Servo travel setup is less than 100%	Adjust servo travel to 100% or slightly greater
Extra propeller noise or extra vibration	Damaged propeller, spinner or motor	Replace damaged parts
	Prop nut is too loose	Tighten the prop nut
	Prop is out of balance	Remove and balance propeller, or replace with a balanced propeller
	Spinner is not tight or fully seated in place	Tighten the spinner or remove the spinner and turn it 180 degrees
Reduced flight time or aircraft underpowered	Flight battery charge is low	Completely recharge flight battery
	Propeller installed incorrectly	Install propeller properly
	Flight battery damaged	Replace flight battery and follow flight battery instructions
	Flight battery is too cold	Make sure battery is warm before use
	Battery capacity too low for power drawn	Replace battery or use a larger capacity battery
Aircraft will not Bind (during binding) to transmitter	Transmitter too near aircraft during binding process	Power off transmitter, move transmitter a larger distance from aircraft, disconnect and reconnect flight battery to aircraft and follow binding instructions
	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
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries
	The bind plug is not installed correctly in the bind port	Install bind plug in bind port and bind the aircraft to the transmitter
	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
Aircraft will not connect (after binding) to transmitter	Transmitter too close to aircraft during connecting process	Power off transmitter, move transmitter a larger distance from aircraft, disconnect and reconnect flight battery to aircraft
	Flight battery/Transmitter battery charge is too low	Replace/recharge batteries
	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter
	Transmitter may have been bound to a different aircraft using different DSM protocol	Bind aircraft to transmitter
	Bind plug left installed in bind port	Rebind transmitter to the aircraft and remove the bind plug before cycling power
	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
Control surface does not move	Control surface, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls
	Servo wire damaged or connections loose	Do a check of wires and connections, connect or replace as needed
	Flight battery charge is low	Fully recharge flight battery
	Control linkage does not move freely	Make sure control linkage moves freely
Controls reversed	Transmitter settings reversed	Adjust controls on transmitter appropriately
Motor power quickly decreases and increases then motor loses power	Battery voltage is down to the point of receiver/ESC Low Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing

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, 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.

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.

Warranty and Service Contact Information

Country of Purchase	Horizon Hobby	Phone Number/Email Adress	Address
United States of America	**Horizon Service Center** (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	4105 Fieldstone Rd Champaign, Illinois 61822 USA
	Horizon Product Support (Product Technical Assistance)	www.quickbase.com/db/bghj7ey8c?a=GenNewRecord 888-959-2305	
	Sales	sales@horizonhobby.com 888-959-2305	
United Kingdom	**Service/Parts/Sales:** Horizon Hobby Limited	sales@horizonhobby.co.uk +44 (0) 1279 641 097	Units 1–4 , Ployters Rd, Staple Tye Harlow, Essex, CM18 7NS, United Kingdom
Germany	**Horizon Technischer Service**	service@horizonhobby.de +49 (0) 4121 2655 100	Christian-Junge-Straße 1 25337 Elmshorn, Germany
	Sales: Horizon Hobby GmbH		
France	**Service/Parts/Sales:** Horizon Hobby SAS	infofrance@horizonhobby.com +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France
China	**Service/Parts/Sales:** Horizon Hobby – China	info@horizonhobby.com.cn +86 (021) 5180 9868	Room 506, No. 97 Changshou Rd. Shanghai, China 200060

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.

IC Information

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Compliance Information for the European Union

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)
No. HH2014062104

CE

Product(s): Viking Model 12 280 BNF Basic
Item Number(s): EFL6650
Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC and EMC Directive 2004/108/EC:

EN 301 489-1 V1.9.2: 2012
EN 301 489-17 V2.1.1: 2009
EN55022:2010 + AC:2011
EN55024:2010

Signed for and on behalf of:
Horizon Hobby, LLC
Champaign, IL USA
Jun 21, 2014

Mike Dunne
Executive Vice President
Product Divisions
Horizon Hobby, LLC

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 – Pezzi di ricambio –

Part # • Nummer Numéro • Codice	Description	Beschreibung	Description	Descrizione
EFL6651	Fuselage w/ Rudd/Tailwheel/ Hatch: Viking Model 12	E-flite Viking Model 12: Rumpf m. SR. Spornr.,Haube	Fuselage/Dérive/ Roulette/Trappe: Viking Model 12	Fusoliera c/timone, ruotino coda, portello: Viking Model 12
EFL6652	Wing Set: Viking Model 12	E-flite Viking Model 12: Tragflächenset	Ailes: Viking Model 12	Set ala: Viking Model 12
EFL6653	Stabilizer Set: Viking Model 12	E-flite Viking Model 12: Höhenleitwerk	Stabilisateur: Viking Model 12	Set stabilizzatore: Viking Model 12
EFL6654	Cowl/Hatch: Viking Model 12	E-flite Viking Model 12: Motorhaube / Haube	Capot: Viking Model 12	Capottina/Portello: Viking Model 12
EFL6655	Main Landing Gear w/ Wheel Pants: Viking Model 12	E-flite Viking Model 12: H-FW m. Radschuhe	Train d'atterrissage avec roues et habillage: Viking Model 12	Carrello principale c/ carenatura ruote: Viking Model 12
EFL6656	Spinner 35mm: Viking Model 12	E-flite Viking Model 12: Spinner	Cône 35mm: Viking Model 12	Ogiva: Viking Model 12
EFL6657	Outer Wing Struts:Viking Model 12	E-flite Viking Model 12: Tragfl.-streben aussen	Haubans d'ailes: Viking Model 12	Montanti ala esterna: Viking Model 12
EFL6658	Pushrods & Control Horns: Viking Model 12	E-flite Viking Model 12: Gestänge und Ruderhörner	Tringleries et guignols: Viking Model 12	Rinvii e squadrette: Viking Model 12
EFL6659	Decals Set: Viking Model 12	E-flite Viking Model 12: Dekorbogen	Planche de décoration: Viking Model 12	Set adesivi: Viking Model 12
EFLR7100L	3.5g Digital Servo Long Lead (Rudd/Elev)	E-flite 3.5g Digital Servo m. l. Kabel	Servos digitaux 3.5g câbles longs	Servo digitale 3,5g a cavo lungo (Tim/Elev)
EFLR7100	3.5 g Digital Sub-Micro Servo (AIL)	E-flite 3.5g Digital Servo	Sub-Servos digitaux 3.5g (AIL)	Servo digitale sub-micro 3,5g (AIL)
EFLA7300	10-Amp Brushless ESC	E-flite 10-Amp Brushless ESC	Contrôleur brushless 10A	Regolatore (ESC) brushless 10A
EFLM7010	BL 280 Outrunner Motor, 1800Kv	E-flite BL 280 Außenläufer Motor 1800Kv	Moteur BL 280 à cage tournante, 1800Kv	BL 280 motore a cassa rotante, 1800Kv
SPMAR6335	AR6335 6-Channel AS3X Nanolite Receiver	Spektrum 6 Kanal Nanolite Empfänger AS3X	Récepteur AR6335 AS3X Nanolite 6 voies	AR6335 AS3X Ricevitore Nanolite a 6 canali
EFL635012	Motor Shaft: Inverza 280 BNF	E-flite Inverza 280 BNF : Motorwelle	Axe moteur : Inverza 280 BNF	Albero motore: Inverza 280 BNF
EFLR710001	Gear Set: EFLR7100	E-flite Getriebe Set: EFLR7100	Jeu de pignons : EFLR7100	Set ingranaggi: EFLR7100
EFLR710002	Servo Arm Set: EFLR7100	E-flite Servo Arm Set: EFLR7100	Set de bras de servo : EFLR7100	Set squadrette servi: EFLR7100

– Optional Parts and Accessories –
– Optionale Bauteile und Zubehörteile –
– Pièces optionnelles et accessoires –
– Parti opzionali e accessori –

Part # • Nummer Numéro • Codice	Description	Beschreibung	Description	Descrizione
EFLA230	Charger Lead with JST Female	E-flite Ladekabel m/ JST Buchse	Câble de charge avec prise JST femelle	Cavo di carica con femmina JST
EFLA250	Park Flyer Tool Assortment, 5 pc	Park Flyer Werkzeugsortiment, 5 teilig	Assortiment d'outils park flyer, 5pc	Park Flyer assortimento attrezzi, 5 pc
DYN2803	Nut Driver: 5.5mm	Steckschlüssel 5.5mm	Clé à écrou 5.5mm	Chiave per dadi: 5.5mm
DYN2815	Hex Driver: 2mm	Dynamite Inbusschlüssel 2mm metrisch	Clé BTR 2mm	Chiave esagonale: 2mm
DYN2820	Hex Driver: .050"	Dynamite Inbusschlüssel ,050	Clé BTR .050"	Chiave esagonale: .050"
EFLB4503SJ50	450mAh 3S 11.1V 50C Li-Po, 18AWG JST	450mAh 3S 11.1V 50C Li-Po, 18AWG JST Akku	Batterie Li-Po 11.1V 3S 450mA 50C, 18AWG JST	Batteria Li-Po450mAh 3S 11.1V 50C, 18AWG JST
EFLB4503SJ30	450mAh 3S 11.1V 30C Li-Po, 18AWG JST	450mAh 3S 11.1V 30C Li-Po, 18AWG JST Akku	Batterie Li-Po 11.1V 3S 450mA 30C, 18AWG JST	Batteria Li-Po450mAh 3S 11.1V 30C, 18AWG JST
DYNC2010CA	Prophet Sport Plus 50W AC DC Charger	Dynamite Ladegerät Prophet Sport Plus 50W AC/DC EU	Chargeur Prophet Sport Plus 50W AC DC	Caricabatterie Prophet Sport Plus 50W AC DC
EFLA1010	10-Amp Pro Brushless ESC	E-flite 10-Amp Pro Brushless Regler	Contrôleur brushless 10A pro	ESC 10-Amp Pro Brushless
	DX4e DSMX 4-Channel Transmitter	DX4e DSMX 4-Kanal Sender	Emetteur DX4e DSMX 4 voies	DX4e DSMX Trasmettitore 4 canali
	DX5e DSMX 5-Channel Transmitter	DX5e DSMX 5-Kanal Sender	Emetteur DX5e DSMX 5 voies	DX5e DSMX Trasmettitore 5 canali
	DX6i DSMX 6-Channel Transmitter	DX6i DSMX 6-Kanal Sender	Emetteur DX6i DSMX 6 voies	DX6i DSMX Trasmettitore 6 canali
	DX6 DSMX 6-Channel Transmitter	DX6 DSMX 6-Kanal Sender	Emetteur DX6 DSMX 6 voies	DX6 DSMX Trasmettitore 6 canali
	DX7s DSMX 7-Channel Transmitter	Spektrum DX7s 7 Kanal Sender	Emetteur DX7s DSMX 7 voies	DX7s DSMX Trasmettitore 7 canali
	DX8 DSMX 8-Channel Transmitter	Spektrum DX8 nur Sender	Emetteur DX8 DSMX 8 voies	DX8 DSMX trasmettitore 8 canali
	DX9 DSMX 9-Channel Transmitter	Spektrum DX9 nur Sender	Emetteur DX9 DSMX 9 voies	DX9 DSMX trasmettitore 9 canali
	DX10t DSMX 10-Channel Transmitter	Spektrum DX10t nur Sender	Emetteur DX10t DSMX 10voies	DX10t DSMX trasmettitore 10 canali
	DX18 DSMX18 Channel Transmitter	Spektrum DX18 nur Sender	Emetteur DX18 DSMX 18 voies	DX18 DSMX trasmettitore 18 canali

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