

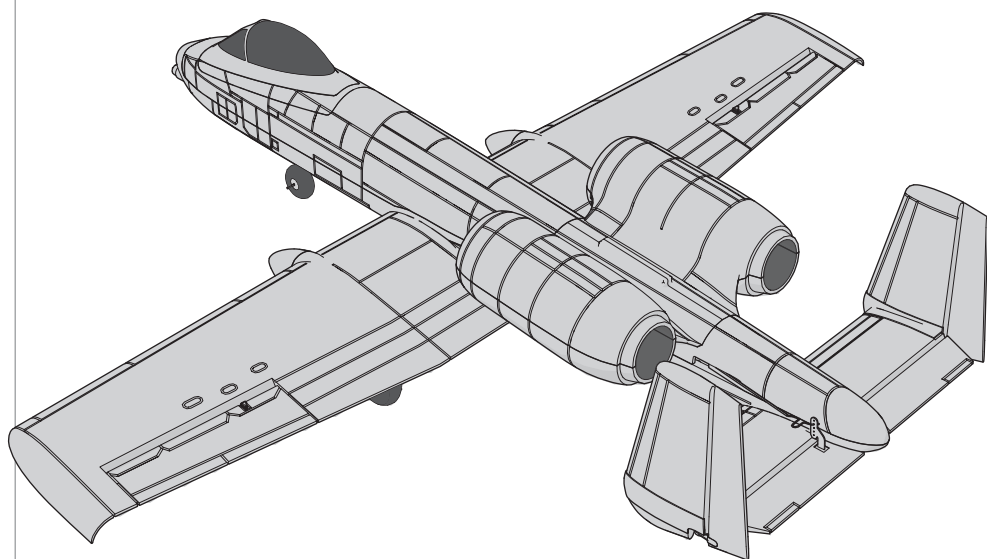
HORIZON[®]
H O B B Y

Eflite[®]
ADVANCING ELECTRIC FLIGHT

EFLU6550

Updated 6/23 30156

UMX[™] A-10 Thunderbolt II



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

SAFE[®] 

AS3X[®] 

Bind-N-Fly[®]
BASIC

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 or www.towerhobbies.com and click on the support or resources tab for this product.


Meaning of Special Language:

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

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

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

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

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

This is a sophisticated hobby product. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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

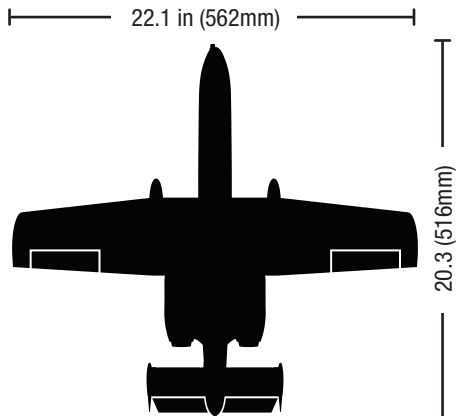
Safety Precautions and Warnings

- 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.

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Specifications




Wing Area: 83.7 sq. in.
(5.40 sq dm)

4.2oz / 120g (without battery)
6.8oz / 192g (with 850mAh 3S 30C battery)


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. Perform AS3X Control Direction Test with aircraft.


Installed



(2) Motors: 8,800Kv Brushless Outrunner (EFLUM0810)




Receiver: Integrated 6-Ch DSMX® receiver w/AS3X® and Twin Brushless ESCs (SPMA3182)




(4) Servos: 2.3-Gram Linear Long Throw Servo (SPMSA2030L)


Required to Complete



Recommended Battery: 850mAh 3S 11.1V 30C Li-Po with IC2 connector (SPMX8503S30)



Battery Charger: Smart S150 AC/DC Charger, 1x50W (SPMXC1070); Adapter: IC3 Batt / IC2 Device (SPMXCA320)



Recommended Transmitter: Full range Spektrum™ DSM2®/DSMX® with dual rates

✓	
	7. Set dual rates.
	8. Adjust center of gravity.
	9. Perform a radio system Range Check.
	10. Find a safe and open area.
	11. Plan flight for flying field conditions.
	12. Set flight timer for 5 minutes for first flight.

Transmitter Setup

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

If your transmitter allows it, enable the throttle cut feature. Always engage throttle cut before approaching the aircraft.

Dual Rates

Low rate is recommended for the initial flights.

NOTICE: To ensure AS3X® technology functions properly, do not lower rate values below 50%.

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

Computerized Transmitter Setup DX series, NX series, iX series	
Start all transmitter programming with a blank ACRO model (do a model reset), then name the model.	
Reversing	All Normal
Dual Rates	HIGH 100%
	LOW 70%
Expo	10% on aileron, elevator and rudder
Servo Travel	100%
Timer	5 minutes
Set Throttle cut to	-100%

Exponential

After your initial flights, you may adjust the expo value to better suit your flying style.

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.

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 your transmitter.
4. Place the aircraft on a level surface away from wind.
5. Connect the flight battery in the aircraft. The receiver LED will begin to flash rapidly (typically after 5 seconds).
6. Make sure the transmitter controls are neutral and the throttle and throttle trim are in low position.
7. Put your transmitter into bind mode. Refer to your transmitter's manual for binding button or switch instructions.
8. After 5 to 10 seconds, the receiver status LED will turn 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.

For subsequent flights, power ON the transmitter for 5 seconds before connecting the flight battery.

Integrated Telemetry

This aircraft includes telemetry between the ESC and receiver, which can provide information including; RPM, voltage, motor current, throttle setting (%), FET (speed controller) temperature, and BEC (servo power supply) temperature.

To View Telemetry:

1. Begin with the transmitter bound to the receiver.
2. Power on the transmitter.
3. Power on the aircraft.
4. A signal bar appears in the top left corner of the screen when the telemetry information is being received.
5. Scroll past the servo monitor to view the technology screens.

For more information about compatible transmitters, firmware updates, and how to use the telemetry technology on your transmitter, visit www.SpektrumRC.com.

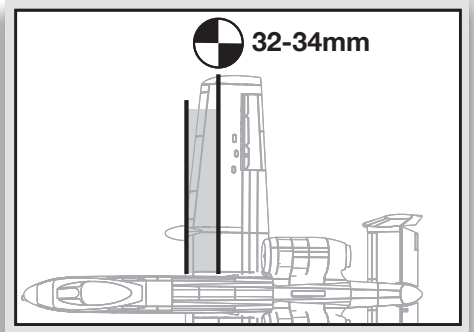
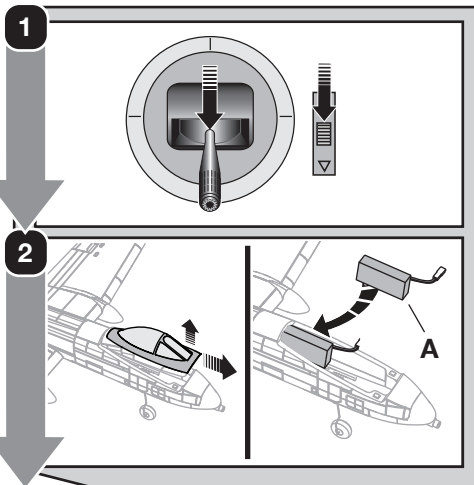
ESC/Receiver Arming, Battery Installation and Center of Gravity

NOTICE: Always keep material or debris away from the intake. When armed, the rotor will turn in response to throttle movement and could ingest loose objects.

The UMX A-10 requires a 3S 850mAh Li-Po battery with an IC2 connector (SPMX8503S30 recommended). Add a piece of hook and loop material (hook side) to the side of the fuselage along the battery compartment. Add a small piece of hook and loop material (soft side) to the side of the battery at the same end as the power lead. It is important to only use a small piece to prevent the battery from shifting. Using too large of a piece will make it difficult to remove the battery and may lead to fuselage damage.

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

1. Lower the throttle and throttle trim to the lowest settings on your transmitter.
2. Remove the battery/canopy hatch from the fuselage and install a flight battery (A) all the way to the back of the battery compartment.



Center of Gravity (CG)

The CG location is **32-34mm** back from the leading edge of the wing at the root. Balance the airplane inverted on this recommended CG mark with all landing gear installed. Adjust as needed by sliding the battery forward or back.

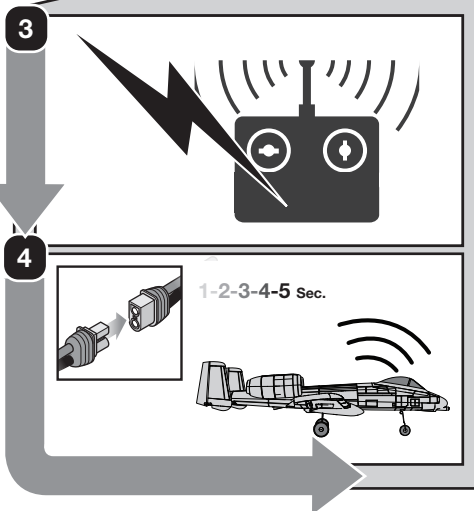
3. Power ON your Transmitter, then wait 5 seconds.
4. Connect the battery to the ESC, noting proper polarity. Keep the plane immobile and away from wind for **5 seconds to allow the AS3X system to initialize.**

A successful connection is indicated by:

- A series of tones
- A continuous LED

CAUTION: Always disconnect the Li-Po battery from the ESC when not flying to eliminate power supplied to the motor. The ESC does not have an arming switch and will respond to any transmitter input when a signal is present.

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.



SAFE® Select Technology

When SAFE Select is activated, bank and pitch limitations keep you from over-controlling the aircraft. Additionally, by releasing the controls in the event you lose orientation, SAFE Select will keep the aircraft level.

To activate SAFE® Select, flip the Gear channel switch to position 0. Return the Gear switch to position 1 to turn OFF SAFE Select and fly with just the assistance of AS3X® technology.

If you become disoriented or the aircraft is in a confusing attitude, flip the Gear switch to position 0 and release the sticks. With the aileron, elevator and rudder sticks in the neutral position, SAFE Select will automatically keep the airplane in a straight and level attitude.

Disabling and Enabling SAFE Select

By default, the SAFE Select function of your UMX aircraft is enabled and assigned to the Gear channel switch (channel 5). If you do not wish to have access to SAFE Select while flying, you can choose to disable SAFE Select functionality. AS3X will still be active when SAFE Select is disabled.

IMPORTANT: Before attempting to disable or enable SAFE Select, ensure the aileron, elevator, rudder, throttle and gear channels are all on high rate with the travel set to 100%. Turn throttle hold OFF if it is programmed in the transmitter.



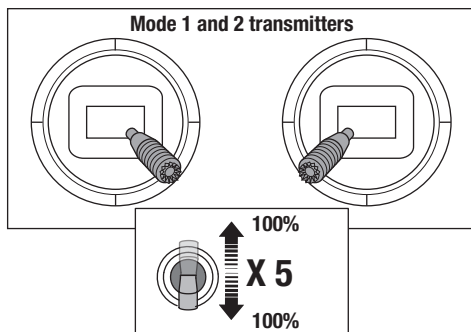
CAUTION: Keep all body parts clear of the rotor, intake and exhaust tube and keep the aircraft securely restrained in case of accidental throttle activation.

1. Power on the transmitter.
2. Power on the aircraft.
3. Hold both transmitter sticks to the inside bottom corners and toggle the Gear switch 5 times (1 toggle = full up and down). The control surfaces of the aircraft will move, indicating SAFE Select has been enabled or disabled.

Repeat the process again to re-enable or disable SAFE Select.

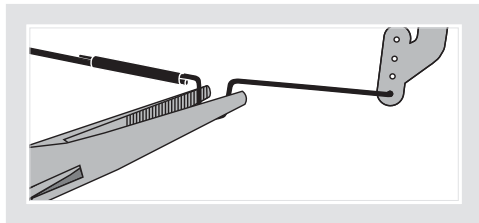
DX4e, DX5e, DXe, and DXS Transmitters

The Gear switch is the FMODE switch on these transmitters, and the switch needs to be toggled between position 0 and 2 when disabling/enabling SAFE Select.



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. Use of the transmitter sub-trims may not correctly center the aircraft control surfaces due to the mechanical limits of linear servos.



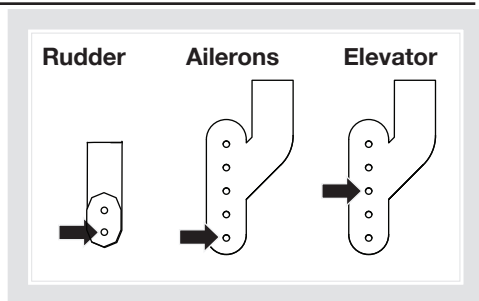
1. Ensure SAFE Select is OFF.
2. Make sure the control surfaces are neutral when the transmitter controls and trims are centered. The transmitter sub-trim must always be set to zero.
3. When needed, use a pair of pliers to carefully bend the metal linkage (see illustration).
4. Make the U-shape narrower to make the connector shorter. Make the U-shape wider to make the linkage longer.

Centering Controls After First Flights

For best performance with AS3X, it is important that excessive trim is not used. Do not trim the aircraft while SAFE Select is active. Always trim the aircraft in AS3X 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.

Factory Control Horn Settings

The illustration shows the factory settings for linkages on the control horns. Linkage connections on the control horns directly affect aircraft response.

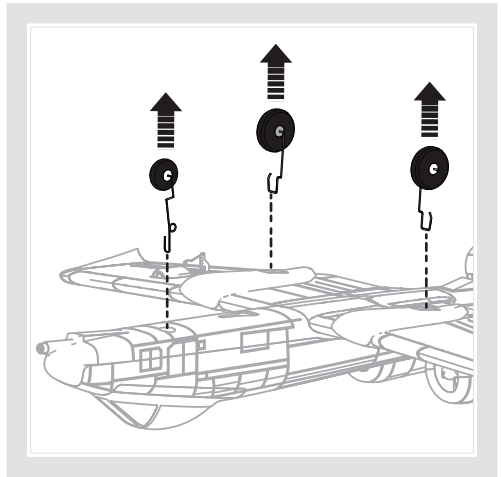


Landing Gear Removal

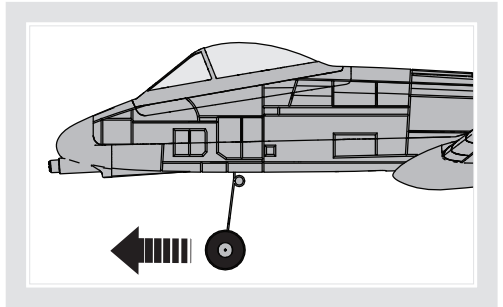
The landing gear may be left installed or removed to suit your flying area. We recommend using the landing gear when you can take off and land from a smooth surface. If you have long grass you may choose to remove the landing gear, in which case you will need to hand launch the aircraft and belly land.

1. Carefully pull the gear straight out of the retainer clip that secures it into the fuselage.

When needed, assemble in reverse order.



When the landing gear is reinstalled, make sure the nose gear is angled forward as shown.

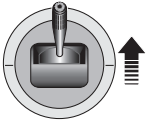
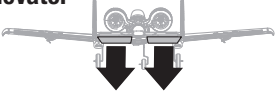
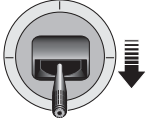
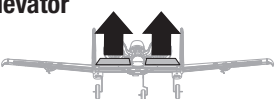
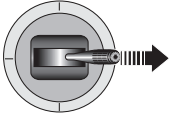
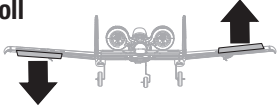
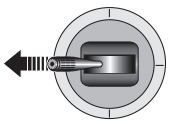
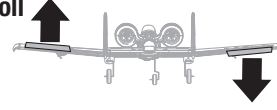
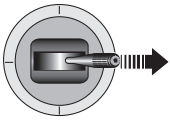
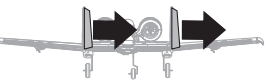
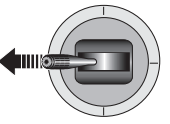
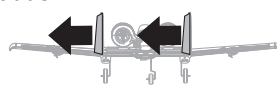


Control Direction Test

You should 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.

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

	Transmitter Command	Aircraft Reaction
Elevator		Down Elevator 
		Up Elevator 
Aileron		Right Roll 
		Left Roll 
Rudder		Right Rudder 
		Left Rudder 

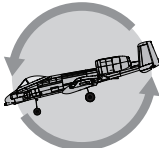
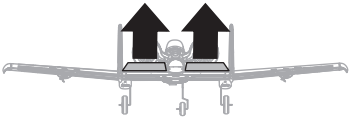
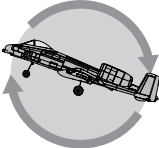
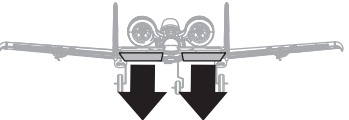
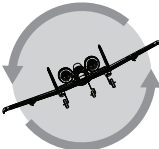
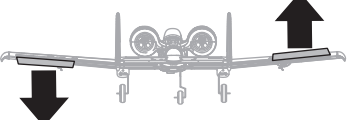

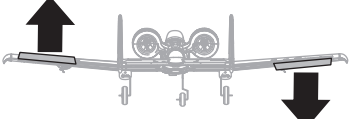

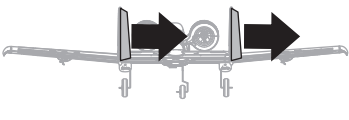
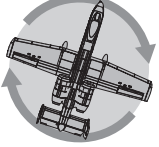
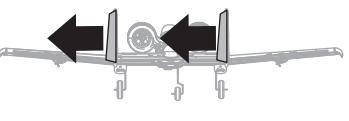
Arrows indicate the direction of the trailing edge of the control surface.

AS3X Direction Test

You should 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.

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

Aircraft movement	AS3X Reaction
	
	
	
	
	
	

Arrows indicate the direction of the trailing edge of the control surface.

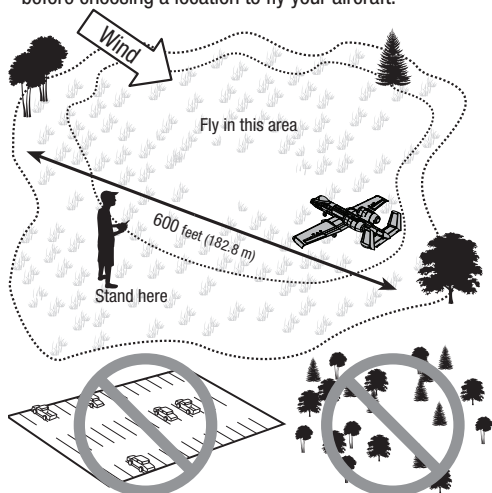
Flying Tips and Repairs

Range Check your Radio System

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

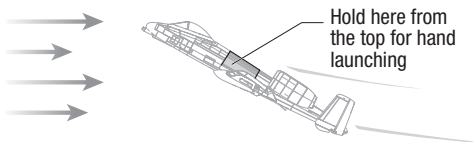
Flying

We recommend flying your aircraft outside in no greater than moderate winds or inside in a very large indoor facility. Always avoid flying near houses, trees, wires and buildings. Be careful to avoid flying in areas where there are many people, such as busy parks, schoolyards or soccer fields. Consult local laws and ordinances before choosing a location to fly your aircraft.



Hand Launching

Hold the aircraft above the wings between the canopy and motor nacelles. Apply full throttle and launch directly into the wind with an underhand toss with the nose pointed up at approximately 45 degrees above the horizon.



Tip: Electric ducted fan (EDF) aircraft require airspeed for control and have less control authority at slow speeds without a propeller slipstream moving air over the control surfaces.

Takeoff

Taxi the aircraft in position for takeoff (facing into the wind if flying outdoors). Gradually increase the throttle to full power, holding a small amount of up elevator and steering with the rudder. Climb gently to check trim. Once the trim is adjusted, begin exploring the flight envelope of the aircraft.

Landing

Always land into the wind. Fly the landing pattern with a slightly nose high attitude. Use throttle management to control the decent rate of the aircraft.

During flare, keep the wings level and the airplane pointed into the wind. Gently lower the throttle while pulling back on the elevator to bring the aircraft down on the main wheels or to belly land without landing gear.

NOTICE: Always fully lower the throttle when landing the aircraft to prevent intake of foreign objects, which can damage the ducted fan and motor.

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

Over Current Protection (OCP)

The aircraft is equipped with Over Current Protection. OCP protects the ESC from overheating and stops the motor when the transmitter throttle is set too high and the rotor cannot turn. OCP will only activate when the throttle is positioned just above 1/2 throttle. After the ESC stops the motor, fully lower the throttle to re-arm the ESC.

Low Voltage Cutoff (LVC)

LVC is a function built into your ESC to protect the battery from over-discharge. When the battery charge is low, LVC limits power supplied to the motor. The aircraft will begin to slow and you will hear the motor pulse. When the motor power decreases, land the aircraft immediately and recharge the flight battery.

NOTICE: Repeated flying to LVC will damage the battery.

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

For your first flights, set your transmitter timer or a stopwatch to 5 minutes. Adjust your timer for longer or shorter flights once you have flown the model.

SAFE Select Flying Tips

When flying in SAFE Select mode the aircraft will return to level flight any time the aileron and elevator controls are at neutral. Applying aileron or elevator control will cause the airplane to bank, climb or dive. The amount the stick is moved will determine the attitude the airplane flies. Holding full control will push the aircraft to the pre-determined bank and roll limits, but it will not go past those angles.

When flying with SAFE Select, it is normal to hold the control stick deflected with moderate aileron input when flying through a turn. To fly smoothly with SAFE Select, avoid making frequent control changes and don't attempt to correct for minor deviations. Holding deliberate control inputs will command the aircraft to fly at a specific angle, and the model will make all corrections to maintain that flight attitude.

When flying with SAFE Select, throttle will make the aircraft climb or descend. Full throttle will cause the aircraft to pitch up and climb slightly. Mid throttle will keep the airplane flying level. Low throttle will cause the airplane to descend slightly nose-down.

Return the elevator and aileron controls to neutral before switching from SAFE Select mode to AS3X mode. If you do not neutralize controls when switching into AS3X mode, the control inputs used for SAFE Select mode will be excessive for AS3X mode and the aircraft will react immediately.

Differences between SAFE Select and AS3X modes

This section is generally accurate but does not take into account flight speed, battery charge status, and other limiting factors.

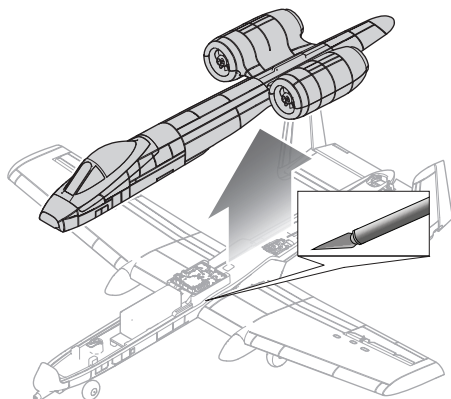
		SAFE Select	AS3X
Control Input	Control stick is neutralized	Aircraft will self level	Aircraft will continue to fly at its present attitude
	Holding a small amount of control	Aircraft will bank or pitch to a moderate angle and maintain the attitude	Aircraft will continue to pitch or roll slowly
	Holding full control	Aircraft will bank or pitch to the predetermined limits and maintain the attitude	Aircraft will continue to roll or pitch rapidly
	Throttle	Full throttle: Climb Neutral: Level flight Low throttle: Descend nose-down	Throttle will not affect flight response.

Motor Service

Disassembly

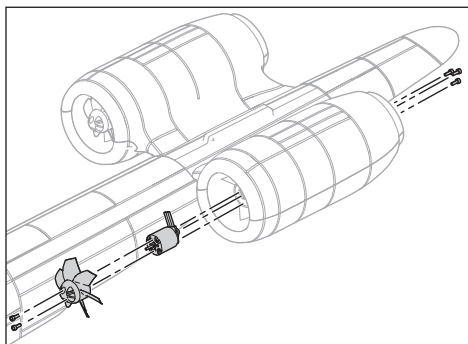
CAUTION: DO NOT handle the rotor or motor while the flight battery is connected. Personal injury could result.

1. In order to access the motor connector(s) it is necessary to separate the top and bottom of the fuselage to access the receiver/ESC. The top and bottom fuselage parts are secured with glue and clear tape. Carefully cut the clear tape and follow the seam with a knife to cut the glue and remove the bottom of the fuselage.



NOTICE: Removing tape or decals can damage paint on your aircraft. Avoid pinching or otherwise damaging any wires when opening or closing the fuselage.

2. Disconnect the motor(s) from the receiver.
3. The fan may be accessed at any time for service by removing the two screws securing it to the front of the motor.
4. The motor may be removed by accessing the rear of the fan assembly through the back of the fan unit. You do not need to separate the nacelle in order to service the motor.



Assembly

- Assemble in reverse order, connecting the top and bottom half of the fuselage with clear tape and/or foam safe CA.

Post Flight Checklist

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

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

Replacement Parts

Part #	Description
EFLDF30R	6-Blade Rotor, 30mm
EFLU6551	Pushrod Set
EFLU6552	Landing Gear
EFLU6553	Hatch/Canopy
EFLU6554	Fuselage w/nose cone and Nacelle
EFLU6555	Nacelle Set
EFLU6556	Wing
EFLU6557	Tail Set
EFLU6558	Ducted Fan Unit
EFLU6559	Decal Sheet
EFLUM0810	8,800Kv Brushless Outrunner
SPMA3182	Integrated Rx
SPMSA2030L	2.3 g Linear Long Throw Servo

Recommended Items

Part #	Description
DYN1400	LiPo Charge Protection Bag, Small
SPMR6655	DX6e 6 Ch Transmitter Only
SPMX8503S30	850mAh 3S Smart G2 30C; IC2
SPMXC1070	Smart S150 AC/DC Charger, 1x50W
SPMXC1080	Smart S1100 AC Charger, 1x100W
SPMXCA320	Adapter: IC3 Batt / IC2 Device

Optional Items

Part #	Description
SPMR6775	NX6 6 Ch DSMX Transmitter Only
SPMR8100	DX8e 8 Ch Transmitter Only
SPMR8200	NX8 8 Ch DSMX Transmitter Only
SPMNBC100	Smart Battery & Servo Tester
SPMXCA322	Adapter: IC2 Battery - JST-RCY Device

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-bends 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)	Rotor is unbalanced, causing excessive vibration	Remove rotor and motor. Check motor shaft for straightness and replace rotor if damaged

Problem	Possible Cause	Solution
Aircraft will not respond to throttle but responds to other controls	Throttle stick and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting
	Throttle channel is reversed	Reverse throttle channel on transmitter
	Motor disconnected from receiver	Open fuselage and make sure motor is connected to the receiver
	Flight battery charge is low	Fully recharge flight battery
Extra motor noise or extra vibration	Damaged rotor or motor	Replace damaged parts
	Rotor out of balance	Balance or replace the rotor
Reduced flight time or aircraft underpowered	Flight battery charge is low	Completely recharge flight battery
	Flight battery damaged	Replace flight battery and follow flight battery instructions
	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
LED on receiver flashes and aircraft will not bind to transmitter (during binding)	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
	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

Troubleshooting Guide (Continued)

Problem	Possible Cause	Solution
LED on receiver flashes rapidly and aircraft will not respond to transmitter (after binding)	Less than a 5-second wait between first powering on transmitter and connecting flight battery to aircraft	Leaving transmitter on, disconnect and reconnect flight battery to aircraft
	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter and disconnect and reconnect flight battery to aircraft
	Flight battery/transmitter battery charge is too low	Replace/recharge batteries
	Transmitter may have been bound to a different model (or with a different DSM Protocol)	Select the right transmitter or bind to the new one
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt linking again
Control surface does not move	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
	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 loses power	Damage to motor or power components	Do a check of motor and power components for damage (replace as needed)
Motor power quickly decreases and increases then motor loses power	Battery power is down to the point of receiver/ESC Low Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing
Servo locks or freezes at full travel	Travel adjust value is set above 100%, overdriving the servo	Set Travel adjust to 100% or less and/or set sub-trims to Zero and adjust linkages mechanically

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, 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.

Warranty and Service Contact Information


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

FCC Information

Contains FCC ID: **BRWWAC01T**

Supplier's Declaration of Conformity

UMX A-10 Thunderbolt II EDF (EFLU6550)

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



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

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with

the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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

IC Information

Contains IC: **6157A-WAC01T**

CAN ICES-3 (B)/NMB-3(B)

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

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

EU Information

CE **EU Compliance Statement: UMX A-10 Thunderbolt II EDF (EFLU6550)** Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following:

EU Radio Equipment Directive 2014/53/EU;

RoHS 2 Directive 2011/65/EU;

RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

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

UMX A-10 Thunderbolt II EDF (EFLU6550)

Wireless Frequency Range and Wireless Output

Power: 2404-2476 MHz / 1.43 dBm



EU Manufacturer of Record:

Horizon Hobby, LLC
2904 Research Road
Champaign, IL 61822 USA

EU Importer of Record:

Horizon Hobby, GmbH
Hanskampring 9
22885 Barsbüttel Germany

WEEE NOTICE:



This appliance is labeled in accordance with European Directive 2012/19/EU concerning waste of electrical and electronic equipment (WEEE). This label indicates that this product should not be disposed of with household waste. It should be deposited at an appropriate facility to enable recovery and recycling.



UMX™ A-10

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W US 8,672,726. US 9,056,667. US 9,753,457. US 10,078,329.

Other patents pending.

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