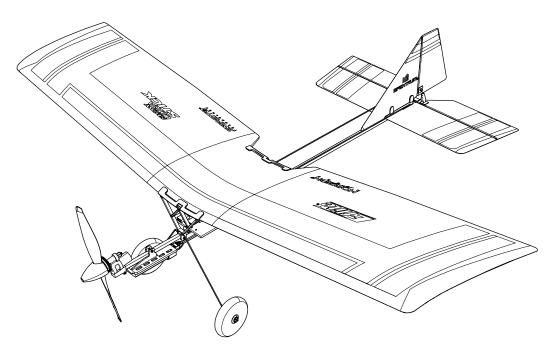


# **UMX Slow Ultra Stick**



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

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

Scannen Sie den QR-Code und wählen Sie auf der Produktseite die Quicklinks Handbücher und Unterstützung, um die aktuellsten Informationen zu Handbücher.

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

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







EFLU03000 EFLU03050



#### **NOTICE**

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

#### MEANING OF SPECIAL LANGUAGE

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

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

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

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

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

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

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

# **Safety Precautions and Warnings**

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

- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose.
   Moisture causes damage to electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.

- Never operate your model with low transmitter battories
- Always keep aircraft in sight and under control.
- Always use fully charged batteries.
- Always keep transmitter powered on while aircraft is powered.
- · Always remove batteries before disassembly.
- · Always keep moving parts clean.
- Always keep parts dry.
- Always let parts cool after use before touching.
- · Always remove batteries after use.
- · Always ensure failsafe is properly set before flying.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

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

## Registration

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



Table of Contents
Charging Warning3
Aircraft Assembly4
General Binding Tips and Failsafe, BNF5
Low Voltage Cutoff (LVC)
Install the Transmitter Batteries5
Transmitter Switches and LEDs6
Power ON / OFF the Transmitter6
Transmitter Setup, <i>BNF</i> 7–8
Bind the Transmitter and Receiver8
Charge the Aircraft Battery9
Install the Aircraft Battery9
Control Direction Test
Control Centering10
Control Horn Settings
Center of Gravity (CG)
Flying Tips and Repairs11
Hand Launching12
Post Flight Checklist
Power System Servicing
Aircraft Assembly
Troubleshooting Cuids 14 15
Troubleshooting Guide
Optional Parts
Recommended Parts
Important Federal Aviation Administration (FAA)
Information16
AMA National Model Aircraft Safety Code16
Limited Warranty16–17
Contact Information
FCC Information
IC Information
Compliance Information for the European Union18

Specifications		
Wingspan	19.74" (501.5mm)	
Length	17.39" (441.5mm)	
Weight*	Without Battery: 1.48oz (42g) With Recommended 1S 150mAh Flight Battery: 1.62oz (46g)	

Included Equipment	
Receiver / ESC   Spektrum™ Receiver / ESC (SPM-1002	
Motor	Spektrum <sup>™</sup> Brushed Motor: 8.5mm (SPMX-1019)
Propeller	130 x 70mm (EFL-1098)
Battery Charger	USB-C Power Supply and Charge Cable

RTF Included Equipment		
Flight Battery	150mAh 1S 3.7V 50C LiPo; JST-PH 1.25 Connector (SPMX1501S50)	
Battery Charger	Mini USB-C 1S Battery Charger (SPMXC0010)	
Transmitter	Spektrum™ SLT6LP 2.4GHz (SPMR1275)	
Transmitter Batteries	4 AA Alkaline	

BNF Required Equipment		
Flight Battery	150mAh 1S 3.7V 50C LiPo; JST-PH 1.25 Connector (SPMX1501S50)	
Battery Charger	S63 Micro 6-Port DC/USB 1S LiPo Smart Charger (SPMXC1060)	
Transmitter	Spektrum <sup>™</sup> DSMX Transmitter or Spektrum <sup>™</sup> SLT6LP 2.4GHz (SPMR1275)	

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



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

# **Charging Warning**

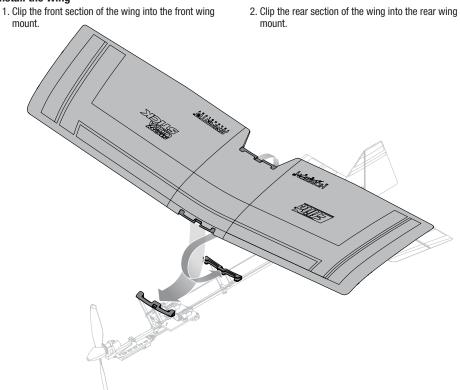
**CAUTION:** All instructions and warnings must be followed exactly. Mishandling of Li-Po batteries can result in a fire, personal injury and/or property damage.

- By handling, charging or using the included Li-Po battery, you assume all risks associated with lithium batteries.
- If at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 40–120° F. Do not store the battery or model in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Always charge batteries away from flammable materials.

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

# **Aircraft Assembly**

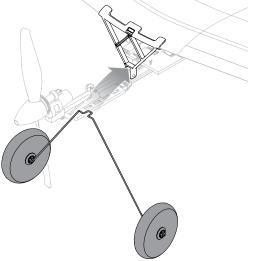
## **Install the Wing**



## **Install the Landing Gear**

The UMX Slow Ultra Stick includes landing gear that does not require hardware to hold it into place.

- 1. Squeeze the landing gear legs together.
- 2. Install the main landing gear assembly into the landing gear mount.



# **General Binding Tips and Failsafe BNF**

- The included receiver has been specifically programmed for operation of this aircraft. Refer to the receiver manual for correct setup if the receiver is replaced.
- · Keep away from large metal objects while binding.
- Do not point the transmitter's antenna directly at the receiver while binding.
- The orange LED on the receiver will flash rapidly when the receiver enters bind mode.
- Once bound, the receiver will retain its bind settings for that transmitter until you re-bind.
- If the receiver loses transmitter communication, the failsafe will activate. Failsafe moves the throttle channel to low throttle. Pitch and roll channels move to actively stabilize the aircraft in a descending turn.
- If problems occur, refer to the troubleshooting guide or if needed, contact the appropriate Horizon Product Support office.

## **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 4 minutes. Adjust your timer for longer or shorter flights once you have flown the model.

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

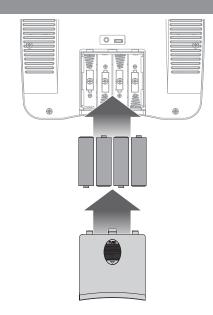
## **Install the Transmitter Batteries**

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

### **Low Battery Alarm**

When the transmitter battery voltage drops below 4.7 volts, an alarm sounds and the voltage LEDs flash. Replace the batteries immediately. If the alarm sounds while flying, land your aircraft as soon as possible.

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



## **Transmitter Switches and LEDs**

**Bind/Panic Button:** This button is used to control the Bind and Panic Recovery Mode functions.

See the Binding section for information on re-binding your transmitter and aircraft if necessary. The included transmitter comes bound to the receiver/aircraft from the factory, therefore binding is not typically necessary. See the Sensor Assisted Flight Envelope (SAFE) Technology section for information about Panic Recovery mode.

**Hi/Lo Rate Switch:** This switch supports high and low rate functions on the elevator and aileron channels. We recommend using low rates when first learning to fly or for smooth and more precise maneuvering, and high rates for more aggressive maneuvers and aerobatics.

In the upper, or "HI" position, servo travel is 100% on these channels.

In the lower, or "LO," position, servo travel decreases to 70%. Flight Mode Switch: This switch is used to select the SAFE flight mode. See the Sensor Assisted Flight Envelope (SAFE) Technology section for information about the various SAFE flight modes.

**Throttle Cut Switch:** This switch activates throttle cut. With the throttle cut on (switch position 1), throttle input

from the throttle stick is deactivated. This safety feature ensures any accidental bump of the throttle stick will not activate the motor while the flight battery is connected. With the throttle cut off (switch position 0), any position of the throttle stick above the lowest setting will activate the aircraft motor.

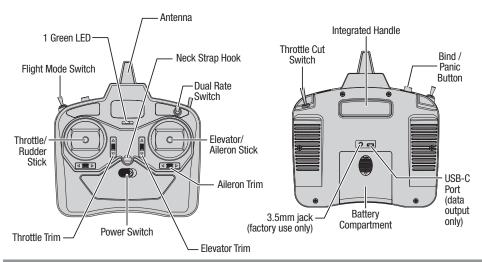
**NOTICE:** Always ensure the throttle stick is at the lowest setting before switching the throttle cut function off. Failure to do so will result in the motor activating.

#### **LED and Audible Indications**

Flashing with beeps: The transmitter is in bind mode, because the bind button was held down while the transmitter was powered on. See the Binding section for more information.

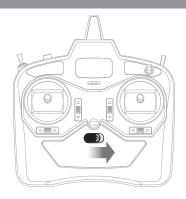
#### Pulsates with one low tone beep every 2 seconds:

The transmitter battery voltage has dropped below 4.7 volts. Replace the transmitter batteries immediately. If this happens while flying, land the aircraft as soon as possible. **Inactivity Alarm:** If the transmitter is left inactive for 10 minutes, it will begin to beep until the sticks are moved or the power is turned off.



## **Power ON / OFF the Transmitter**

Slide the power button to power the transmitter ON. The LED indicator will illuminate green when the transmitter is ON and transmitting. To power the transmitter OFF, slide the power button to the OFF position.



# **Transmitter Setup, BNF**

**IMPORTANT:** This aircraft is compatible with Spektrum transmitters. Binding to an SLT transmitter other than the Spektrum SLT6LP will not provide full functionality.

To use a Spektrum DSMX transmitter, follow the setup instructions on this page which corresponds to your DX, NX or iX series transmitter.

When using the recommended setup, the transmitter switch layout is as follows:

- · Switch A controls SAFE Select.
- Switch C controls the elevator dual rates.
- Switch F controls the aileron dual rates.
- . Switch H controls the throttle cut.

Telemetry Alarms		
Smart ESC : Low Voltage Alarm	3.2V	

#### **NX Series Transmitter Setup**

- Power ON your transmitter, click on scroll wheel, roll to System Setup and click the scroll wheel. Choose yes.
- Go to Model Select and choose <Add New Model>
  near the bottom of the list. Select Airplane Model
  Type by choosing the airplane, select Create
- 3. Set Model Name: Input a name for your model file
- 4. Go to Channel Assign 5 Gear: Switch A Click List to exit
- 5. Select <Main Screen>, Click the scroll wheel to enter the Function List
- 6. Go to D/R (Dual Rate) and Expo;

Channel: Elevator Set Switch: Switch C

Set Switch Positions **0** and **1**: Rate **100%**, Expo **10%** Set Switch Position **2**: Rate **70%**, Expo **5%** 

- 7. Go to **D/R (Dual Rate) and Expo;** Channel: **Aileron**Set Switch: **Switch F**Set Switch Positions **0** and **1**: Rate **100%**, Expo **10%**
- Set Switch Position 2: *Rate* **70%**, *Expo* **5%** 8. Select **List** to go back to the **Function List**
- 9. Select Throttle Cut; Switch: Switch H Position: -100%

#### **Dual Rates**

Make the initial flights in low rate, changing to high rate elevator for landing.

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

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

#### **Exponential**

After first flights, adjust the exponential settings in the transmitter to fine tune the responsiveness of the aircraft around neutral to your preference.

### **DX Series Transmitter Setup**

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

# Transmitter Setup, BNF

### iX Series Transmitter Setup

- Power ON your transmitter and begin once the Spektrtum Airware app is open. Select the orange pen icon in the upper left corner of the screen, the system asks for permission to **Turn Off RF**, select PROCEED.
- 2. Select the three dots in the upper right corner of the screen, select *Add a New Model*
- Select Model Option, choose *DEFAULT*, select *Airplane*. The system asks if you want to create a new acro model, select *Create*
- Select the last model on the list, named Acro. Tap on the word Acro and rename the file to a name of your choice
- 5. Tap and hold the back arrow icon in the upper left corner of the screen to return to the main screen
- 6. Go to Model Setup; Select Channel Assign, select PROCEED

5 Gear: Switch A

Press and hold the back arrow icon in the upper left corner of the screen to return to the main screen

### **iX Series Transmitter Setup**

- 7. Go to the Model Adjust menu
- 8. Channel: Elevator

Switch: Switch C

Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%** Set Switch Position **2**: *Rate* **70%**, *Expo* **5%** 

9. Channel: Aileron Switch: Switch F

> Set Switch Positions **0** and **1**: *Rate* **100%**, *Expo* **10%** Set Switch Position **2**: *Rate* **70%**, *Expo* **5%**

- Tap the back arrow to return to the Model Adjust menu
- 11. Select Throttle Cut; Switch: Switch H Position: -100%

## **Bind the Transmitter and Receiver**

Binding is the process of programming the aircraft receiver with the identification code of the transmitter so the receiver will only connect to that specific transmitter.

The included transmitter was bound to the aircraft at the factory. If the aircraft does not respond to transmitter control inputs when the batteries in the aircraft and transmitter are fully charged, the aircraft receiver and transmitter may need to be re-bound.

To re-bind the transmitter and receiver:

- 1. Power OFF the transmitter.
- 2. Set the throttle stick to the low position and all other controls to neutral.\* Ensure the aircraft is immobile.

**IMPORTANT:** The throttle will only arm if the transmitter throttle control is at the lowest position.

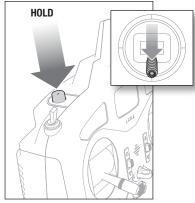
 Connect the flight battery to the ESC. The receiver will cycle between DSMX and SLT approximately every 20 seconds. The receiver LED is visible with the wing removed.

Transmitter	LED Pattern
DSMX	rapid constant flashes
SLT	3 rapid flashes, 1 pause (repeat)

4. Press and hold the bind button (button A) on the transmitter while powering ON the transmitter. The receiver LED will glow solid when the receiver and transmitter are bound. The aircraft will initialize and the controls will function normally.

Once properly bound, the receiver and transmitter will retain their bind for future flights.

If you encounter problems, refer to the troubleshooting guide. If necessary, contact the appropriate Horizon Hobby product support office.



#### \*Failsafe

The receiver stores the position of the transmitter throttle control at the time of binding as the failsafe position. If the receiver should ever lose communication with the transmitter, the failsafe function will activate. Failsafe moves the throttle channel to its preset failsafe position (low throttle) that was stored during binding. All other control channels move to put the aircraft in a slowly descending circle until radio link is re-established.

# **Charge the Aircraft Battery**

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

Always charge the aircraft battery before flying.

- 1. Insert the charger into a USB port.
- 2. Connect the battery to the charger.

**CHARGING** (Solid Orange LED) MAX CHARGE (Solid Green LED)

Disconnect the flight battery from the charger immediately upon completion of charging.

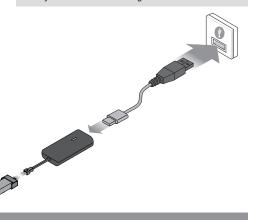
**CAUTION:** Only use chargers specifically , designed to charge the included Li-Po battery. Failure to do so could result in fire, causing injury or property damage.



**CAUTION:** Never exceed the recommended charge rate.



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

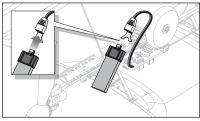


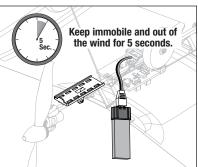
# **Install the Aircraft Battery**

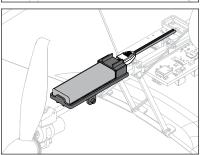
Keep the aircraft and transmitter away from large metal objects, wireless sources or other transmitters while installing the battery.

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

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







## **Control Direction Test**

WARNING: Do not perform this or any other equipment test without turning on throttle cut. Serious injury or property damage could result from the motor starting inadvertently.

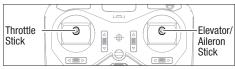
If the control surfaces do not respond as shown, **DO NOT FLY.** Refer to the *Troubleshooting Guide* for more information. If you need more assistance, contact the appropriate Horizon Hobby Product Support department.

- 1. Power on the transmitter.
- 2. Turn on throttle cut.
- 3. Set the flight mode switch to Experienced Mode.

**IMPORTANT:** Do NOT check the controls in the Beginner or Intermediate Modes.

- 4. Place the model on level ground away from obstacles.
- 5. Power on the aircraft, and wait for it to fully initialize.
- Move the sticks on the transmitter as shown in the table and observe the control surfaces on the aircraft. Ensure the aircraft control surfaces respond as shown and return to neutral when the control input is released.
- 7. Check for any binding in the control surfaces.

**TIP:** The transmitter emits a faint beep with each click of the trim buttons in either direction. Holding the button in either direction quickly adjusts the trim several steps until the button is released or until the trim reaches the end of its travel. If the trim button does not beep when clicked, the trim is at the far end of its travel. Center trim is indicated by a slightly louder beep.



	Transmitter Command	Control Surface Response (viewed from the rear)
Pitch		
Pit		
Roll		
Rc		

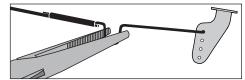
# **Control Centering**

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, avoid excessive use of transmitter sub-trims. Control surface centering must be done with SAFE off, and AS3X not active. Keep the throttle at zero after powering on to prevent AS3X from activating.

**IMPORTANT:** Enable throttle cut to help prevent accidental throttle activation.

- Verify the trims and subtrims on your transmitter are neutral.
- 2. Connect a battery to the model with SAFE off and keep throttle at zero.
- When needed, use a pair of pliers to carefully bend the metal linkage (see illustration).
- Make the U-shape narrower to make the linkage shorter. Make the U-shape wider to make the linkage longer.

#### **Centering Controls After First Flights**



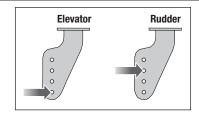
For best performance with AS3X, it is important that excessive trim is not used. If the aircraft requires excessive transmitter trim (4 or more clicks of trim per channel), return the transmitter trim to zero and adjust the linkages mechanically so that the control surfaces are in the flight trimmed position.

# **Control Horn Settings**

The illustration shows the factory settings for the control horns. Fly the aircraft at factory settings before making changes.

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

CAUTION: When these are incorrectly connected for the pilot's skill level, unexpected aircraft response to controls can result. This can cause damage to the aircraft and personal injury.

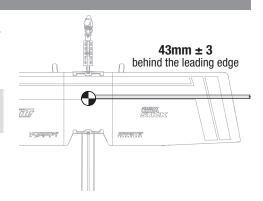


# Center of Gravity (CG)

The CG location is measured 43mm  $\pm$  3 behind the leading edge of the wing. This CG location has been determined with the recommended 150mAh 1S 3.7V 50C Li-Po battery (SPMX1501S50) installed to the front edge of the battery tray. Adjust the battery forward or aft as needed to achieve the proper CG location.



**CAUTION:** Install the battery but do not arm the ESC while checking the CG. Personal injury sult.



# Flying Tips and Repairs

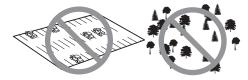


**WARNING:** Always engage throttle cut before approaching the aircraft.

#### Range Check the Radio System

Range check the radio system with the aircraft. Refer to your specific transmitter instruction manual for range test information.

#### Flving



We recommend flying your aircraft outside in no greater than a light breeze or inside in a large gymnasium. 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. Consult local laws and ordinances before choosing a location to fly your aircraft.

#### Takeoff

Place the aircraft in position for takeoff (facing into the wind if flying outdoors). Set dual rates to low position and gradually increase the throttle to ¾ to full and steer with the aileron stick. 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

Always land into the wind. During the flare, keep the wings level and the aircraft pointed into the wind. Slowly lower the throttle while easing back on the elevator to bring the aircraft gently down on all three wheels.

**NOTICE:** Always fully lower the throttle at touch down when landing the aircraft to prevent damage to the propeller 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.

#### **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 propeller 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.

## Repairs

Crash damage is not covered under warranty.

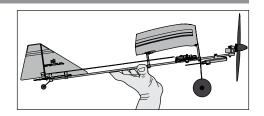
Repair this aircraft using foam-compatible CA glue or clear tape. Only use foam-compatible CA glue as other types of glue can damage the foam. When parts are not repairable, see the Replacement Parts List for ordering by item number.

# **Hand Launching**

We recommend holding the aircraft on the bottom of the fuselage, just behind the wings, as shown.

## **Follow Through**

Use a gentle toss with the wings level and the nose of the model slightly upwards. Avoid an arcing toss which can pull the nose down at release.



# **Post Flight Checklist**

Disconnect the flight battery from the ESC (Required for safety and battery life).

Power OFF the transmitter.

Remove the flight battery from the aircraft.

Store the flight battery apart from the aircraft and monitor the battery charge.

# Power System Servicing

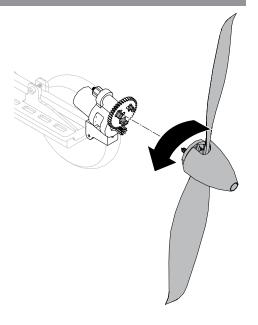
### Disassembly

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

Rotate the propeller assembly and propeller adaptor assembly to remove it from the main gear. The motor and gear remain mounted to the main gear.

#### **Assembly**

Replace the propeller assembly and propeller adaptor assembly back onto the main gear, and rotate it 1/4 turn until it snaps into place.



# **Aircraft Assembly**

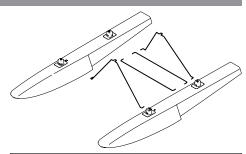
### **Optional Float Set Installation**

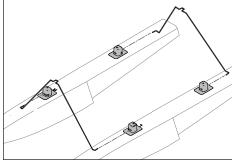
Float strut wires are included with the airplane.

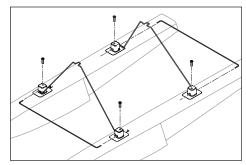
- 1. Remove the wing and the landing gear.
- Locate the front and rear strut wires, and install the front strut wire in place of the main landing gear. Gently squeeze the wire and press the tab into the slot at the bottom of the front wing support.

**NOTE:** The rear strut wire has a more agressive bend to the rear.

- Install the rear strut by passing it between the elevator/rudder push rods and the fuselage. Gently squeeze the wire and press the tab into the slot at the bottom of the rear wing support.
- Locate the float spreader bars and the right float.
   NOTE: The floats contain an L or R molded into the top, indicating left and right.
- 5. Press the spreader bar into the open slot in the right float mount front.
- Press the right front float strut wire into the float mount.
- 7. Using a #1 Phillips screwdriver, tighten the retention screw to secure both wires.
- 8. Repeat steps 6 and 7 for the remaining 3 mounts.
- 9. Reinstall the wing.

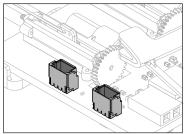


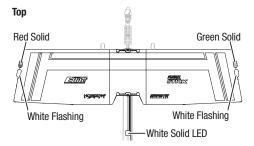


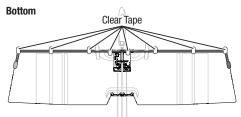


### **Optional LED Set Installation**

- 1. Use the included clear tape to affix the LED wiring and LEDs to the airplane.
- Plug the LED into the ESC/receiver board in either empty port.







# AS3X® System Trouble Shooting Guide

Problem	Possible Cause	Solution
Control surfaces not at neutral position when	Control surfaces may not have been mechanically centered from factory	Center control surfaces mechanically by adjusting the U-bends on control linkages
transmitter controls are at neutral	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	Propeller is unbalanced, causing excessive vibration	Remove propeller and rebalance or replace it if damaged
jumps or moves)	Propeller screw is loose, causing vibration	Tighten the propeller screw

# Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft will not respond	Throttle stick and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting
to throttle but responds	Throttle channel is reversed	Reverse throttle channel on transmitter
to other controls	Motor disconnected from receiver	Open fuselage and make sure motor is connected to the receiver
	Damaged propeller, spinner or motor	Replace damaged parts
Extra propeller noise or	Propeller screw is loose	Tighten the propeller screw
extra vibration	Propeller is out of balance	Remove and balance propeller, or replace with a balanced propeller
	Flight battery charge is low	Completely recharge flight battery
	Propeller installed backwards	Install propeller with numbers facing forward
Reduced flight time or aircraft underpowered	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**

Problem	Possible Cause	Solution
LED on receiver flashes	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
rapidly and aircraft will not respond to transmit- ter (after binding)	Flight battery/transmitter battery charge is too low	Replace/recharge batteries
tor (artor biriding)	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, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls
Control surface does not move	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
Motor/ESC is not armed after landing	Over Current Protection (OCP) stops the motor when the transmitter throttle is set high and the propeller cannot turn	Fully lower throttle and throttle trim to arm ESC
Servo locks or freezes at full travel	Travel adjust value is set above 100%, over-driving the servo	Set travel adjust to 100% or less and/or set sub- trims to Zero and adjust linkages mechanically

# Replacement Parts

Part #	Description
SPMR1275	SLT6LP 6-Channel Transmitter
EFL-1094	Motor Mount
SPM-1002	Receiver/ESC
SPMX-1019	Brushed Motor 8.5mm
EFL-1095	Main Gear
EFL-1096	Prop Adaptor
EFL-1097	Spinner
EFL-1098	Propeller
EFL-1099	Battery Tray
EFL-1100	Receiver Tray
EFL-1101	Wing Mount, Front
EFL-1102	Wing Mount, Rear
EFL-1103	Wing
EFL-1104	Vertical Stabilizer
EFL-1105	Horizontal Stabilizer
EFL-1106	Control Horn Set
EFL-1107	Landing Gear Set
EFL-1108	Float Wire Set
EFL-1109	Fuselage Boom

# Replacement Parts

Part #	Description	
EFL-1110	Vertical Stabilizer Mount	
EFL-1111	Decal Set	
EFL-1112	Pushrod Set	
SPMX1501S50	3.7V 150mAh 1S 50C LiPo Battery: JST PH1.25 Connector	

# **Optional Parts**

Part #	Description	
EFLUA1190	Float Set w/Accessories	
EFL-1113	LED Set	

# **Recommended Parts**

Part #	Description	
	3.7V 150mAh 1S 50C LiPo Battery: JST PH1.25 Connector	

# **Important Federal Aviation Administration (FAA) Information**

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

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





# **AMA National Model Aircraft Safety Code**

#### Effective January 1, 2018

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

As an AMA member I agree:

- I will not fly a model aircraft in a careless or reckless manner
- I will not interfere with and will yield the right of way to all human-carrying aircraft using AMA's See and Avoid Guidance and a spotter when appropriate.
- I will not operate any model aircraft while I am under the influence of alcohol or any drug that could adversely affect my ability to safely control the model.
- I will avoid flying directly over unprotected people, moving vehicles, and occupied structures.
- I will fly Free Flight (FF) and Control Line (CL) models in compliance with AMA's safety programming.
- I will maintain visual contact of an RC model aircraft without enhancement other than corrective lenses prescribed to

- me. When using an advanced flight system, such as an autopilot, or flying First-Person View (FPV), I will comply with AMA's Advanced Flight System programming.
- I will only fly models weighing more than 55 pounds, including fuel, if certified through AMA's Large Model Airplane Program.
- I will only fly a turbine-powered model aircraft in compliance with AMA's Gas Turbine Program.
- I will not fly a powered model outdoors closer than 25 feet to any individual, except for myself or my helper(s) located at the flightline, unless I am taking off and landing, or as otherwise provided in AMA's Competition Regulation.
- I will use an established safety line to separate all model aircraft operations from spectators and bystanders.

# **Limited Warranty**

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

What is Not Covered—This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT. MERCHANTABILITY AND FITNESS

FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

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

Limitation of Liability—HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT.

NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

**Law**—These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

#### WARRANTY SERVICES

Questions, Assistance, and Services—Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services—If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at http://www.horizonobby.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.

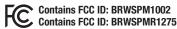
**ATTENTION:** Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and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

10/15

## **Contact Information**

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

## **FCC Information**



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

#### **Supplier's Declaration of Conformity**

EFL UMX Slow Ultra Stick BNF Basic (EFLU03050): 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
- · Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- · Consult the dealer or an experienced radio/TV technician for help.

Horizon Hobby, LLC 2904 Research Rd. Champaign, IL 61822

Email: compliance@horizonhobby.com

Web: HorizonHobby.com

## IC Information

CAN ICES-3 (B)/NMB-3(B) Contains IC: 6157A-SPM1002 Contains IC: 6157A-SPMR1275

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

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

# Compliance Information for the European Union



**EU Compliance Statement: EFL UMX Slow Ultra Stick RTF** 

(EFLU03000): Hereby, Horizon Hobby, LLC declares that the device is in compliance with

the following: Low Voltage Directive (LVD) 2014/35/EU; EU EMC Directive 2014/30/EU; Radio Equipment Directive (RED) 2014/53/EU: RoHS 2 Directive 2011/65/EU: RoHS 3 Directive - Amending 2011/65/EU Annex II 2015/863.

#### EFL UMX Slow Ultra Stick BNF Basic (EFLU03050):

Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following: Radio Equipment Directive (RED) 2014/53/EU; RoHS 2 Directive 2011/65/EU; RoHS 3 Directive Amending 2011/65/EU Annex II 2015/863.

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

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

#### Wireless Frequency Range and Wireless Output Power:

Transmitter: 2403-2480MHz

Receiver: 2402-2478MHz 16.46dBm 4.82dBm

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

### **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.





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US 8,672,726 US 9,056,667 US 9,753,457. US 10,078,329. US 9,930,567. US 10,419,970. Other patents pending. http://www.horizonhobby.com/