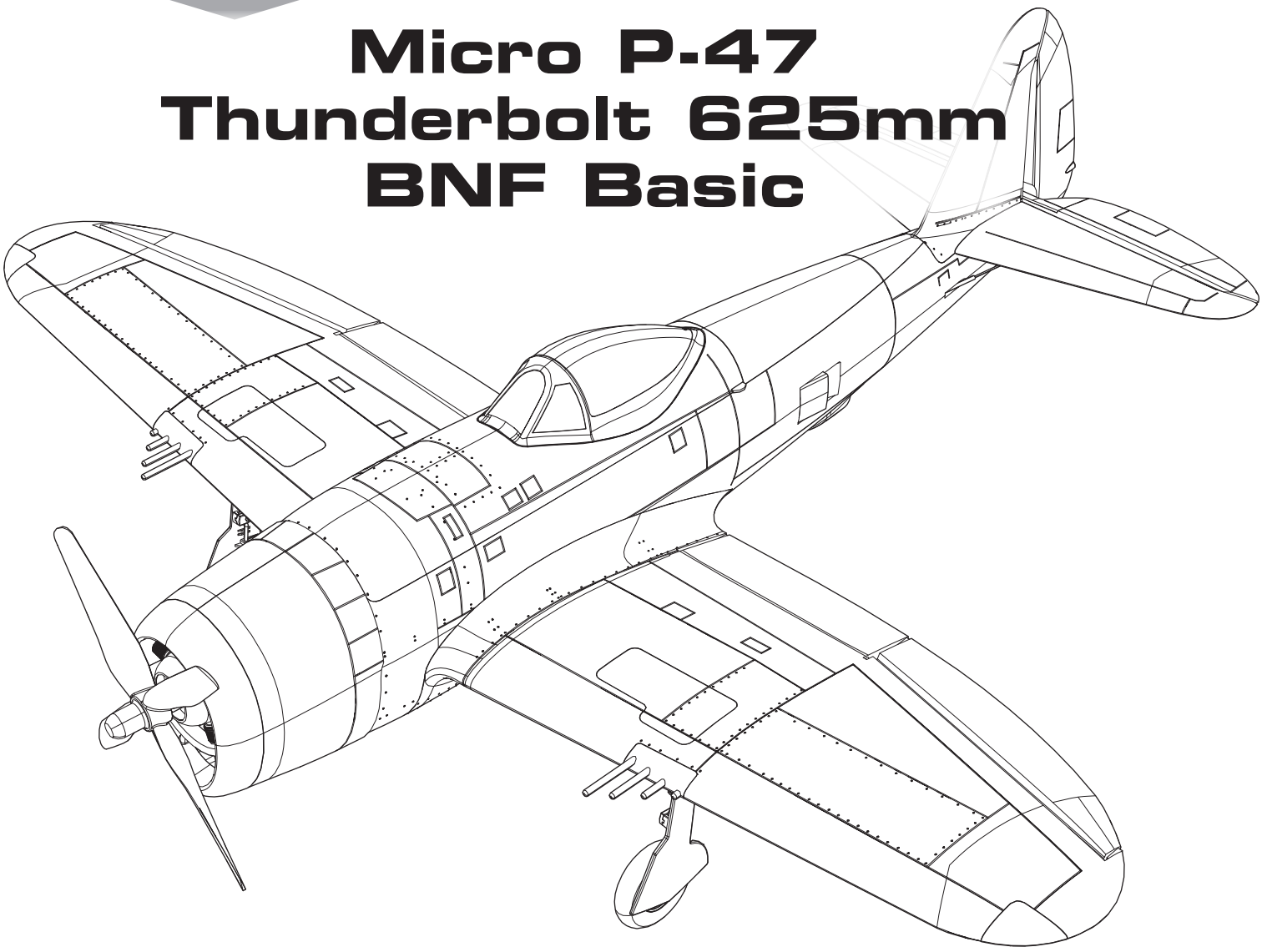
E-flite
ADVANCING ELECTRIC FLIGHT

# Micro P-47 Thunderbolt 625mm BNF Basic



**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.

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BNF BASIC

**EFL07050**

1387365.1
Created 10/26

HORIZON HOBBY

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

**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.

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| Specifications | |
|---|---|
| **Wingspan** | 24.6" (625mm) |
| **Length** | 22.44" (570mm) |
| **Weight** | Without Battery: 10.2 oz (288g)<br>With Recommended 3S 850mAh Battery: 12.8 oz (363g) |

| Included Equipment | |
|---|---|
| **Receiver** | DSMX/SLT 6-Channel RX AS3X+®/SAFE Receiver: Micro P-47 (SPMAS6420AB) |
| **ESC** | Avian® 15-Amp Smart Lite Brushless ESC; 2S-4S IC2 (SPMXAE1015D) |
| **Motor** | 2405-1300Kv Brushless Outrunner, 14 pole (SPMX-1148) |
| **Servos** | (6) A204 2.2g High-Torque Linear Servo (SPMSA204) |

| Recommended Equipment | |
|---|---|
| **Transmitter** | NX8+ 20-Channel DSMX Transmitter Only (SPMR8210) |
| **Battery** | 850mAh 3S 11.1V Smart G2 30C; IC2 (SPMX8503S30) |
| **Battery Charger** | S22 G2 USB-C 2S & 3S LiPo 20W Smart Charger IC2 Connector (SPMXC0060) |

| Optional Accessories | |
|---|---|
| RFL2000 | RealFlight Evolution RC Flight Sim w/ InterLink |
| SPMXC2020 | Smart S1200 G2 AC Charger; 1x200W |
| SPMXC2010 | Smart S2200 G2 AC Charger, 2x200W |
| SPMXC3040 | S450 G2 AC/DC Smart Charger 4x50W |
| SPMR7120 | NX7e+ Black Edition 14-Channel Transmitter Only |
| SPMXC2090P | S100 1x100W USB-C Smart Charger, 65W USB-C GaN Power Supply Combo |
| SPMXCA500 | Smart Lipo Bag, 18 x 7 x 7 cm |
| SPMXCA532 | Spektrum Accessories One-Piece Battery Adapter: IC2 Device / IC3 Battery (2) |
| SPMXBC200 | Spektrum Accessories XBC200 Smart LiPo Battery Checker & Servo Tester |

## SAFE® Select Technology

This airplane includes SAFE Select technology which can offer an extra level of protection in flight. Use the following instructions to make the SAFE Select system active and assign it to a switch. When enabled, SAFE Select prevents the airplane from banking or pitching past predetermined limits, and automatic self-leveling keeps the airplane flying in a straight and level attitude when the aileron, elevator and rudder sticks are at neutral.
SAFE Select is enabled or disabled during the bind process. When the airplane is bound with SAFE Select enabled, a switch can be assigned to toggle between SAFE Select mode and AS3X+ mode. AS3X+ technology remains active with no bank angle limits or self leveling any time SAFE Select is disabled or OFF.

SAFE Select can be configured three ways;
- SAFE Select Off: Always in AS3X+ mode
- SAFE Select On with no switch assigned: Always in SAFE Select mode
- SAFE Select On with a switch assigned: Switch toggles between SAFE Select mode and AS3X+ mode

## Smart Transmitter File (STF) Loading Option

The receiver installed in the aircraft contains an AS3X+/SAFE setup file developed specifically for this aircraft. This Smart Transmitter File (STF) allows you to quickly import the transmitter settings directly from the receiver during the binding process.

### To load the Smart Transmitter File:

1. Turn on the transmitter.
2. Create a new blank model file on the transmitter.
3. Power on the receiver.
4. Press the bind button on the receiver.
5. Put the transmitter into bind mode: the model will bind normally.
6. Once the bind is complete, the download screen appears:
7. Select **LOAD** to continue.

The following screen is a warning that downloading overwrites all current model settings. If this is a new blank model, the file populates the transmitter parameters of the aircraft into the active model and renames it Micro P-47 Thunderbolt 625mm BNF Basic EFL07050.

**NOTICE:** Confirming will override any previously saved transmitter setups for the currently selected model.

8. Press **CONFIRM** to continue.

The file is installed on the transmitter and the telemetry information loads automatically when the download is complete. The radio returns to the home screen, and the new model name is displayed

**The transmitter setup is now complete, and the aircraft is ready to fly.**

| **Smart Transmitter File** | |
|---|---|
| The receiver contains a pre-loaded Smart Transmitter file.<br><br>Rx Version: EFL07050 (Firmware version)<br><br>Do you want to the load the file from the receiver | |
| **SKIP** | **LOAD** |

| **NOTICE** | |
|---|---|
| This WILL overwrite ALL current model settings.<br><br>If stock BNF model hardware has changed, the receiver's file may not work properly- Do not use without checking everything.<br><br>Do you want to the load the file from the receiver | |
| **BACK** | **CONFIRM** |

### Important Notes

**Flight Modes Active with Flap System**
The imported file activates flight modes, setting them to the flap switch (**D**). It also changes the trim setting from common, to flight mode. This allows aileron, elevator, and rudder trims to be separately adjusted for each flap setting. In-flight trim for all three axes is now independent, which provides the ability to precisely trim the model for each flap position.

**Trim for each Flight Mode Switch (D) position:**
POS 0: Trim all three axes for flaps up (normal)
POS 1: Trim all three axes for partial flaps (take-off)
POS 2: Trim all three axes for full flaps (landing)

**Flight Timer**
The STF does not populate a flight timer in the transmitter. The voltage monitor provides transmitter alerts when battery voltage drops to just above the LVC, indicating it is time to land. The transmitter alert is set so there is time to land before the ESC begins to surge (pulse) when LVC is reached. This method takes flying style and throttle use into account and is more precise than a timer alone. If you are not using the STF, set a timer for 4 minutes when using the recommended battery. Monitor the battery usage and adjust the timer after the initial flights to best suit your flying style.

**Supported Transmitters, and firmware requirements, include the following:**
- All NX Radios (with firmware version 4.0.11+)
- iX14 (with app version 2.0.9+)
- iX20 (with app version 2.0.9+)
- iX12 and DX radios do not currently support Smart Transmitter File transfers.

# Manual Transmitter Setup

**IMPORTANT:** Always rebind the transmitter and receiver after completing transmitter setup to set the desired failsafe positions.

For the first flight, set the flight timer to 4 minutes when using a 3S 850mAh battery. Adjust the time after the initial flight.

## Dual Rates

**Attempt your first flights in low rate. For landings, use high rate elevator.**

**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, you may adjust exponential in your transmitter.

## Thrust Reversing

Thrust reversing is not enabled on the aircraft and is not recommended.

**CAUTION:** DO NOT enable thrust reversing on this aircraft. Use of thrust reversing may cause the propeller to depart from the aircraft, possibly causing injury and damaging the aircraft.

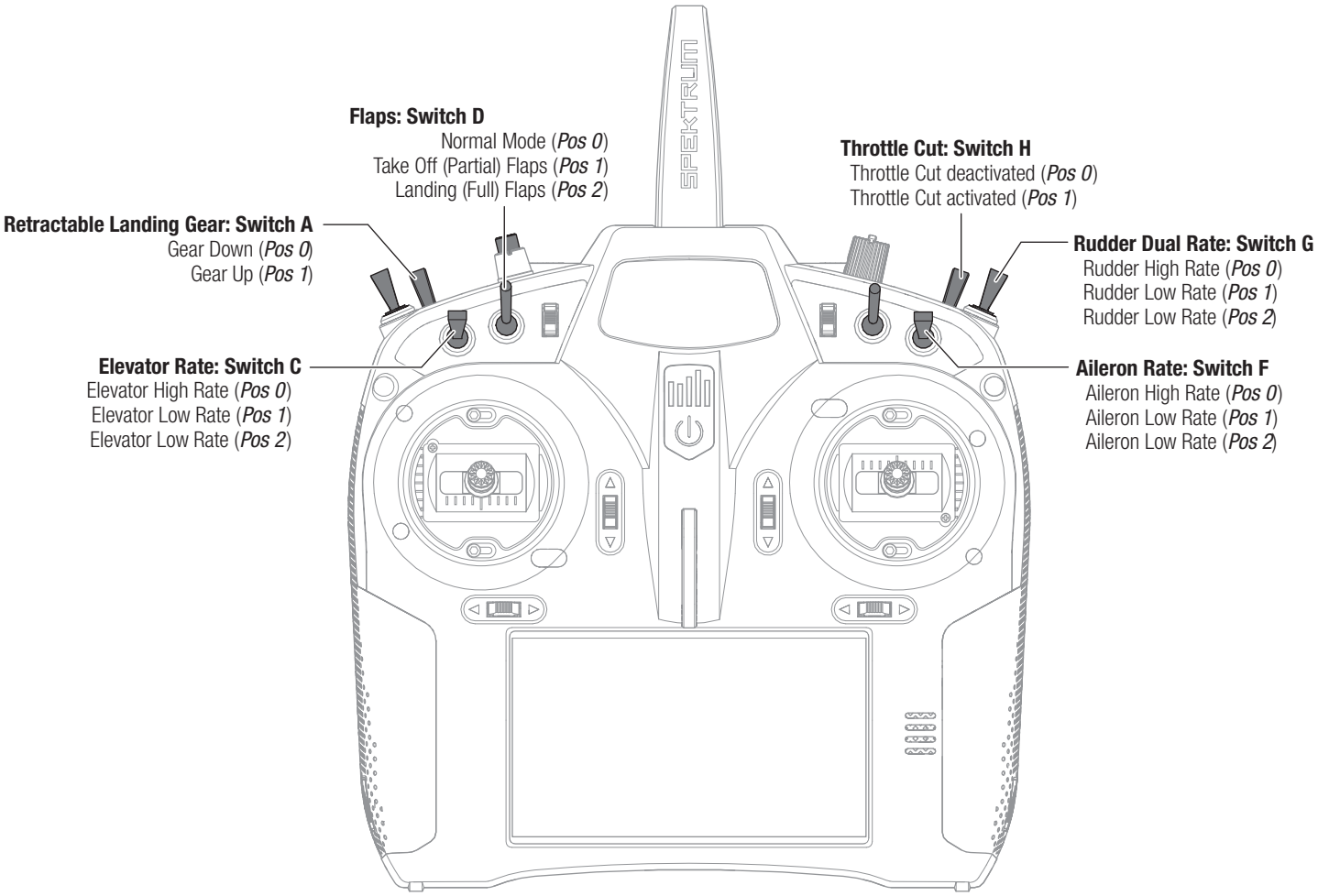
| NX Series Transmitter Setup |
|---|
| 1. Power ON your transmitter, click on scroll wheel, roll to **System Setup** and click the scroll wheel. The transmitter will display **RF will be disabled!** Scroll to ***Yes*** and click the scroll wheel. |
| 2. Go to **Model Select** and choose ***<Add New Model>*** near the bottom of the list. Select ***Model Type*** click the airplane image, Select ***Create*** and click the scroll wheel. |
| 3. Select **Model Name**: Input a name for your model file |
| 4. Select **Aircraft Type** and scroll to the wing selection, choose ***1 Ail 1 Flap*** |
| 5. Select **<Main Screen>,** Click the scroll wheel to enter the **Function List** |
| 6. Select **Rates and Expo**: ***Aileron***, Set **Switch**: ***Switch F***<br>Set **High Rates:** ***100%*****, Expo** ***10%*** **- Low Rates:** ***70%*****, Expo** ***5%*** |
| 7. Select **Rates and Expo**: ***Elevator***, Set **Switch**: ***Switch C***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 8. Select **Rates and Expo**: ***Rudder***, Set **Switch**: ***Switch G***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 9. Select **Throttle Cut**: **Switch**: ***Switch H,*** **Position:** ***-100%*** |
| 10. Select **Flap System**, Scroll to and select ***Inhibit***, and then scroll to select ***Switch D***<br>Set **Pos 0:** ***-100%*** **Flap** ***0%*** **Elevator**<br>Set **Pos 1:** ***0%*** **Flap** ***4%*** **Elevator**<br>Set **Pos 2:** ***100%*** **Flap** ***8%*** **Elevator**<br>Set **Speed:** ***2.0s*** |

| DX Series Transmitter Setup |
|---|
| 1. Power ON your transmitter, click on scroll wheel, roll to **System Setup** and click the scroll wheel. The transmitter will display **RF will be disabled!** Scroll to ***Yes*** and click the scroll wheel. |
| 2. 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*** |
| 3. 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 **Aircraft Type** and scroll to the wing selection, choose ***1 Ail 1 Flap*** |
| 6. Select **<Main Screen>,** Click the scroll wheel to enter the **Function List** |
| 7. Select **Rates and Expo**: ***Aileron***, Set **Switch**: ***Switch F***<br>Set **High Rates:** ***100%*****, Expo** ***10%*** **- Low Rates:** ***70%*****, Expo** ***5%*** |
| 8. Select **Rates and Expo**: ***Elevator***, Set **Switch**: ***Switch C***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 9. Select **Rates and Expo**: ***Rudder***, Set **Switch**: ***Switch G***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 10. Set **Throttle Cut**: **Switch**: ***Switch H,*** **Position:** ***-100%*** |
| 11. Select **Flap System**, Scroll to and select ***Inhibit***, and then scroll to select ***Switch D***<br>Set **Pos 0:** ***-100%*** **Flap** ***0%*** **Elevator**<br>Set **Pos 1:** ***0%*** **Flap** ***4%*** **Elevator**<br>Set **Pos 2:** ***100%*** **Flap** ***8%*** **Elevator**<br>Set **Speed:** ***2.0s*** |

| iX Series Transmitter Setup |
|---|
| 1. 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*** |
| 3. From the **Model Option screen**, select ***DEFAULT***, select ***Airplane.***<br>The system asks if you want to create a new acro model, select ***Create*** |
| 4. Select the last model on the list, named **Acro**.<br>Tap on the word Acro and rename the file to a name of your choice |
| 5. Press and hold the orange back arrow icon in the upper left corner of the screen to return to the main screen |
| 6. Select the **Model Setup** menu. Select **Aircraft Type** The system asks for permission to **Turn Off RF**, select ***PROCEED***.<br>Touch the screen to select wing. Select ***1 Ail 1 Flap***. |
| 7. Press and hold the orange back arrow icon in the upper left corner of the screen to return to the main screen |
| 8. Go to the **Model Adjust** menu. |
| 9. Select **Dual Rates and Expo**, Select ***Aileron***<br>Set **Switch**: ***Switch F***<br>Set **High Rates:** ***100%*****, Expo** ***10%*** **- Low Rates:** ***70%*****, Expo** ***5%*** |
| 10. Select **Dual Rates and Expo**, Select ***Elevator***<br>Set **Switch**: ***Switch C***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 11. Select **Dual Rates and Expo**, Select ***Rudder***<br>Set **Switch**: ***Switch G***<br>Set **High Rates**: ***100%,*** **Expo** ***10%*** **- Low Rates** ***70%,*** **Expo** ***5%*** |
| 12. Select **Throttle Cut**: **Switch**: ***Switch H,*** **Position:** ***-100%*** |
| 13. Select **Flap System**, Touch inhibit, select ***Switch D***<br>Set **Pos 0:** ***-100%*** **Flap** ***0%*** **Elevator**<br>Set **Pos 1:** ***0%*** **Flap** ***4%*** **Elevator**<br>Set **Pos 2:** ***100%*** **Flap** ***8%*** **Elevator**<br>Set **Speed:** ***2.0s*** |

## STF and Manual Transmitter Setup Switch Layout

The following illustration shows the switch layout and functions on a typical Spektrum transmitter when programmed per the manual transmitter setup tables or utilizing the Smart Transmitter File loaded from the aircraft receiver.



## Integrated ESC Telemetry

This aircraft includes telemetry between the ESC and receiver, which provides information including RPM, voltage, throttle setting (%), and FET (speed controller) temperature.

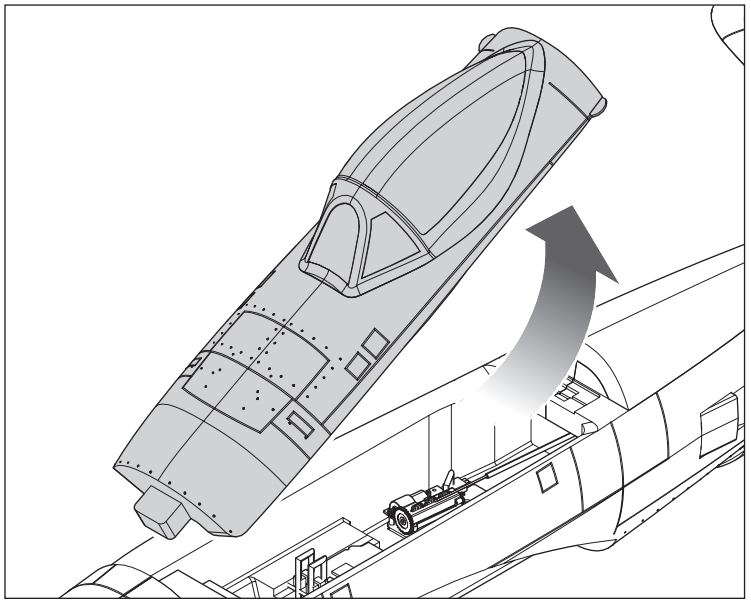
| Telemetry Settings | |
|---|---|
| **Rx V : Min Rx V** | 4.2V |
| **Smart ESC : Low Voltage Alarm** | 3.45V |
| **Smart Battery : Startup Volt Minimum** | 4.0V |
| **Motor Pole Count** | 14 |
| **Warning Reports** | 10 seconds |

| Telemetry Setup | |
|---|---|
| DX series, NX series, iX series | 1. Begin with the transmitter bound to the receiver. |
| | 2. Power ON the transmitter. |
| | 3. Set switch H (throttle cut) to prevent accidental motor operation. |
| | 4. Power ON the aircraft. A signal bar appears on your transmitter's main screen when the telemetry information is being received. |
| | 5. Go to the FUNCTION LIST (Model Setup) |
| | 6. Select TELEMETRY; Smart ESC |
| | 7. Set Total Cells: 3 |
| | 8. Set LVC Alarm: 3.4V  Set Alarm; Voice/Vibe |
| | 9. Set pole count; 14 pole |

## Model Assembly

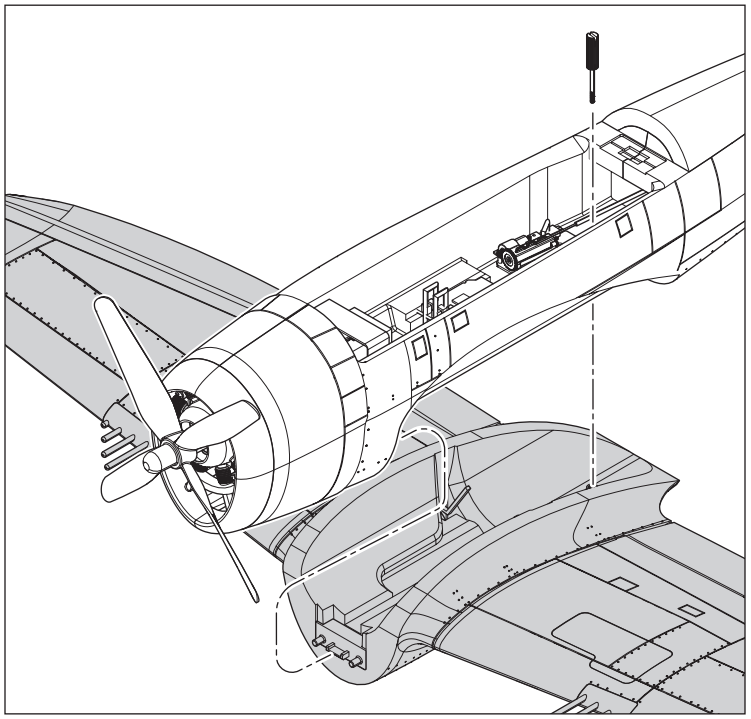
### Wing Installation

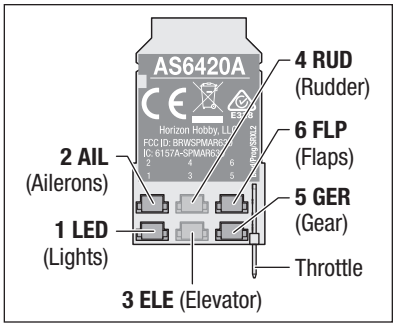
1. Lift the rear of the canopy to access the inside of the fuselage.



2. Insert the four servo and LED wire connectors through the access hole in the bottom of the fuselage.
3. Insert the pins in the front of the wing into the fuselage pin socket, and rotate the wing into place.

   **IMPORTANT:** Ensure the wiring harnesses are not pinched between the wing saddle and the fuselage.
4. Secure the wing using the thumb screw, through the fuselage, into the wing. Do not overtighten.
5. Connect the servo and LED connectors to the aircraft receiver ports, as shown in the diagram. The connectors are labeled with the correct port number and function.






**NOTICE:** Only connect the LED connector to port 1 of the receiver. Do not connect any of the control surface connectors to port 1. Powering on the aircraft with a control surface connected to port 1 will electronically reverse the linear servo on that surface, which may cause a crash.

If the aircraft was powered on with any of the control surface wire connectors in port 1, and that control surface's linear servos reversed, go to the "Control Surface Direction" section for the procedure to correct the problem.

**IMPORTANT:** Do not use the transmitter channel reverse function to attempt to correct the servo direction.

## Dual Rates and Control Throws

Program your transmitter to set the rates and control throws to the values given. These values have been tested and are a good starting point to achieve successful flight.
After flying, you may choose to adjust the values for the desired control response.

| Control Throws | Low Rate | High Rate |
|---|---|---|
| **Aileron** (measured at the inboard end) | ▲ = 3mm<br>▼ = 3mm | ▲ = 5mm<br>▼ = 5mm |
| **Elevator** (measured at the widest point) | ▲ = 4mm<br>▼ = 4mm | ▲ = 6mm<br>▼ = 6mm |
| **Rudder** (measured at the widest point) | ▶ = 9mm<br>◀ = 9mm | ◀ = 11mm<br>▶ = 11mm |
| **Flaps** (measured at the widest point) | Half 8mm | Full 17mm |

| Recommended Expo | | |
|---|---|---|
| **Aileron/Elevator/Rudder** | Low 5% | High 10% |

## Battery Installation and ESC Arming

The Spektrum™ 850mAh 3S 11.1V Smart G2 LiPo 30C; IC2 (SPMX8503S30) is recommended for best performance.

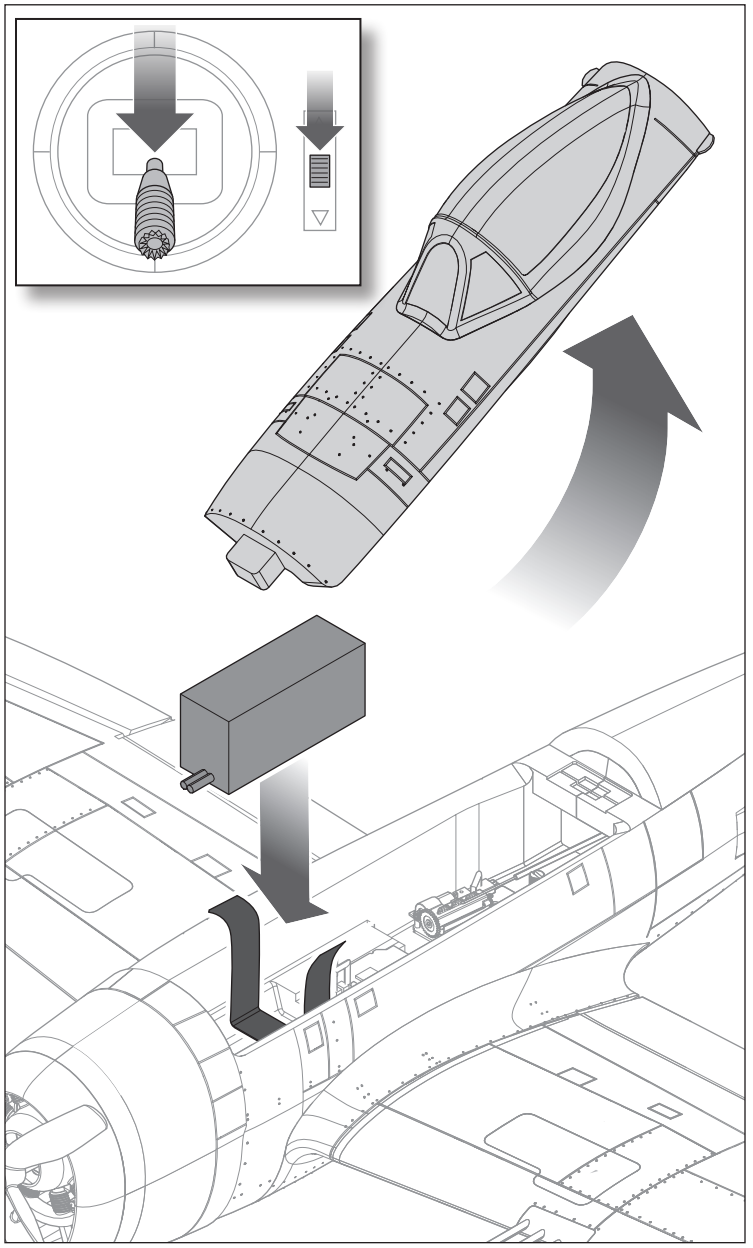
Refer to the Optional Parts List for other recommended batteries. If using a battery other than those listed, the battery should be within the range of capacity, dimensions and weight of the Spektrum LiPo battery pack to fit in the fuselage.

Verify the model balances at the recommended CG before flying.

⚠ **WARNING:** Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement. Always engage throttle cut before approaching the aircraft any time a battery is connected.

1. Lower the throttle and throttle trim to the lowest settings. Power on the transmitter, then wait 5 seconds.
2. Install the fully charged battery in the middle of the battery area, as shown. Secure using the included hook and loop strap.
3. Connect the battery to the ESC.
4. Keep the aircraft immobile and away from wind or the system will not initialize.
   - The ESC will sound a series of tones.
   - An LED will light on the receiver.
5. The ESC is now armed.

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



## Transmitter and Receiver Binding

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. To bind the transmitter and receiver:

1. Power ON your transmitter and create a blank model file.
2. Set the throttle stick to the low position and all other controls to neutral.* Ensure the aircraft is immobile.

**IMPORTANT:** The throttle will not arm if the transmitter's throttle control is not put at the lowest position.

3. Connect the flight battery to the ESC.
4. Put your transmitter into bind mode. The receiver LED will glow solid when the receiver and transmitter are bound. The aircraft will initialize and the controls will function normally.
5. Wait for Auto-Config to complete it's process.
6. Select whether to load the STF model file or skip to your existing model settings.

**IMPORTANT:** If the LED on the receiver displays three flashes and then a pause, unplug the battery and go back to step 3 in the bind process.

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.

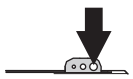
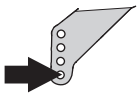
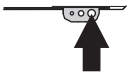
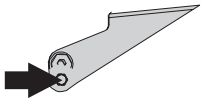
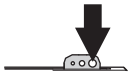
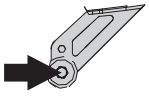
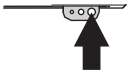
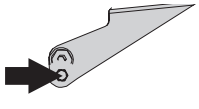
## Control Surface Centering

After assembly and transmitter setup, confirm that the control surfaces are centered. The model must be powered, bound to the transmitter in AS3X+ mode, with the throttle left at zero. When enabled, SAFE mode is active at power up. AS3X+ mode is activated when the throttle is raised above 25% for the first time after being powered on. It is normal for the control surfaces to respond to aircraft movement if the aircraft is in AS3X+ or SAFE modes.

1. Verify the trims and sub trims on your transmitter are zero.
2. Power on the model in AS3X+ mode and leave the throttle at zero.
3. Look at the tip of each control surface and verify it is mechanically centered.
4. If adjustment is required, turn the clevis on the linkage to change the length of the linkage between the servo arm and the control horn.

### Control Horn and Servo Arm Factory Settings

The table to the right shows the factory settings for the control horns and servo arms. Fly the aircraft at factory settings before making changes.
After flying, you may choose to adjust the linkage positions for the desired control response. See the table to the right.

| | Arms | Horns |
|---|---|---|
| **Elevator** |  |  |
| **Ailerons** |  |  |
| **Rudder** |  |  |
| **Flaps** |  |  |

## SAFE® Select Switch Designation

Forward programmed is required to enable SAFE Select, where you can assign any channel between 5 and 20 on your transmitter. When the aircraft is initially bound the aircraft will be in AS3X+ mode exclusively, until SAFE Select is configured in Forward Programming.

⚠ **CAUTION:** Keep all body parts well clear of the propeller and keep the aircraft securely restrained in case of accidental throttle activation.

### Forward Programming

Assign the SAFE Select channel through forward programming on your compatible Spektrum transmitter.

| **Forward Programming SAFE Select Setup** (DX, NX, and iX series) |
|---|
| 1. Begin with the transmitter bound to the receiver. |
| 2. Power ON the transmitter. |
| 3. Assign a switch for SAFE Select that is not already in use for another function. Use any open channel between 5 and 20. |
| 4. Set switch H (throttle cut) to prevent accidental motor operation. |
| 5. Power ON the aircraft. A signal bar appears on your transmitter's main screen when the telemetry information is being received. |
| 6. Go to the FUNCTION LIST (Model Setup) |
| 7. Select Forward Programming; Select Gyro Settings, Choose SAFE Select to enter the menu. |
| 8. Set SAFE Select Ch: to the channel chosen for SAFE Select in step 3. |
| 9. Set AS3X+ and SAFE On or Off as desired for each switch position. |

For more information about setting SAFE Select and using Forward Programming, please refer to the following link for a detailed video:
https://www.youtube.com/watch?v=o-46P066cik

**IMPORTANT:** This aircraft does not utilize a bind plug, and can only be configured in Forward Programming.

# Control Surface Direction

**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.

Switch on the transmitter and connect the battery. Use the transmitter to operate the aileron, elevator, and rudder controls. View the aircraft from the rear when checking the control directions.

## Ailerons

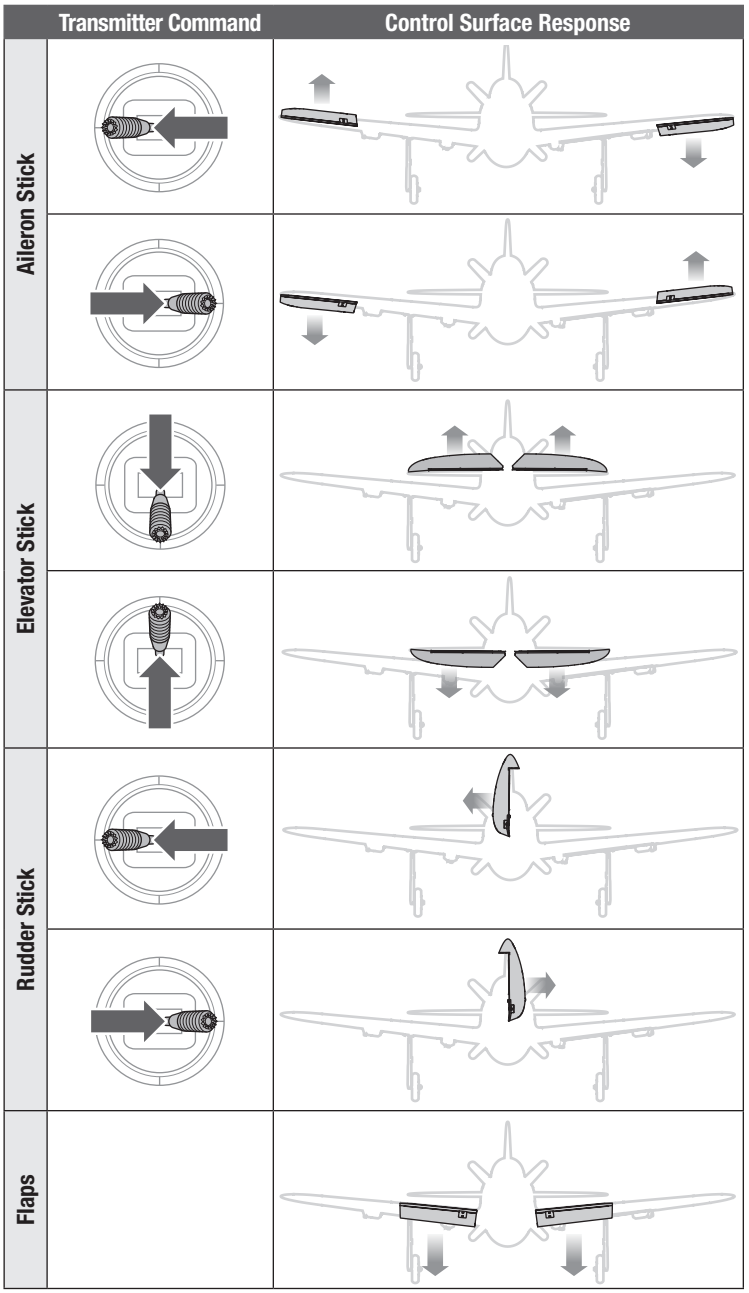
1. Move the aileron stick to the left. The left aileron should move up and the right aileron down, which will cause the aircraft to bank left.
2. Move the aileron stick to the right. The right aileron should move up and the left aileron down, which will cause the aircraft to bank right.

## Elevators

3. Pull the elevator stick back. The elevator should move up, which will cause the aircraft to pitch up.
4. Push the elevator stick forward. The elevator should move down, which will cause the aircraft to pitch down.

## Rudder

5. Move the rudder stick to the left. The rudder should move to the left, which will cause the aircraft to yaw left.
6. Move the rudder stick to the right. The rudder should move to the right, which will cause the aircraft to yaw right.




## Correcting a Reversed Linear Servo

If the aircraft was powered on at any time while any control surface was mistakenly connected to port 1 of the receiver, as described in the "Model Assembly" section, the servos on that control surface will be reversed.

**IMPORTANT:** Always conduct a thorough control surface check after assembly and before attempting to fly the aircraft.

If any of the following conditions occur during the control test, DO NOT FLY:

- Control surfaces move proportionally with application of throttle
- Any of the surfaces deflect fully in either direction when throttle hold is on
- Any of the control surfaces are reversed

Complete the following procedure to correct the servo travel direction.

1. Power OFF the transmitter
2. Connect the affected control surface Y-harness to receiver port 1.
3. Power ON the aircraft. A tone sounds after approximately 5 seconds. The orange LED on the receiver flashes rapidly. The receiver is now in bind mode.
4. Activate throttle hold on the transmitter.
5. Power ON the transmitter.
6. Bind the transmitter to the aircraft. Load and confirm the Smart Transmitter File (STF). Wait for initialization to complete.
7. Power OFF the aircraft
8. Disconnect the affected control surface Y-harness from port 1, and connect it to the correct receiver port.
9. Connect the LED harness to receiver port 1.
10. Power ON the aircraft, and wait for initialization to complete.
11. Confirm the servos travel in the correct direction.

## AS3X+ Control Response 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.

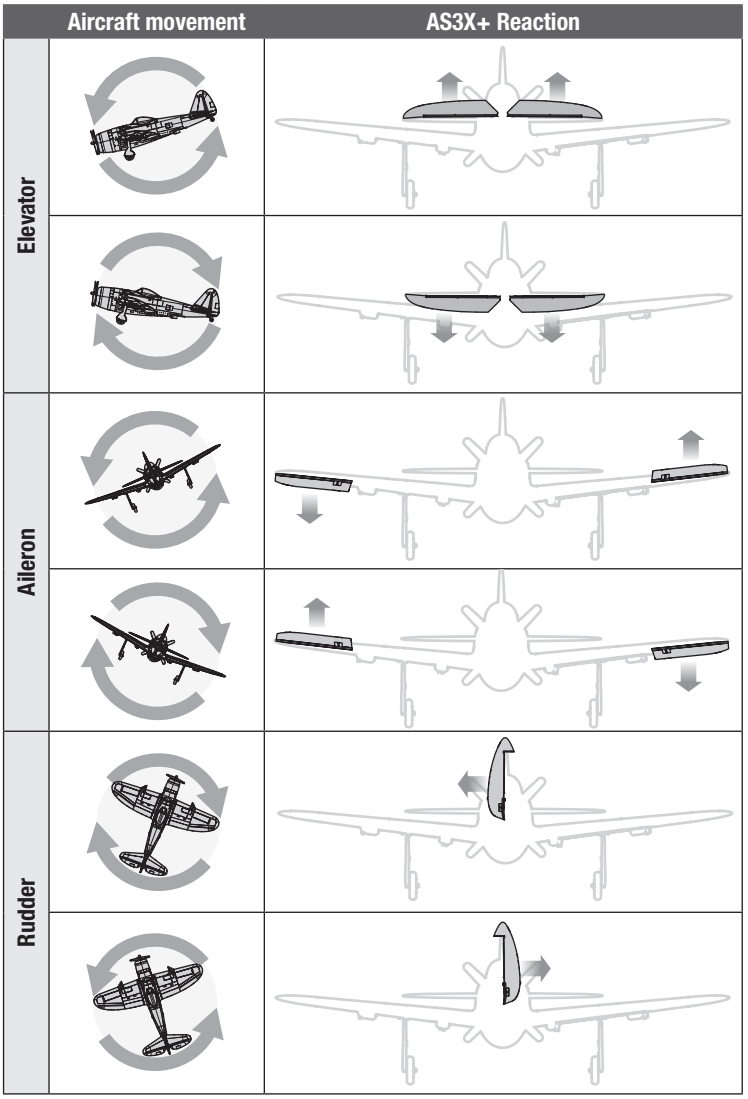
This test ensures that the AS3X+ control system is functioning properly. Assemble the aircraft and bind your transmitter to the receiver before performing this test.

1. Raise the throttle just above 25%, then lower the throttle to activate AS3X+ technology.

**WARNING:** Keep all body parts, hair and loose clothing away from spinning propeller, as these items could become entangled.

2. Move the entire aircraft as shown and ensure the control surfaces move in the direction indicated in the graphic. If the control surfaces do not respond as shown, do not fly the aircraft.

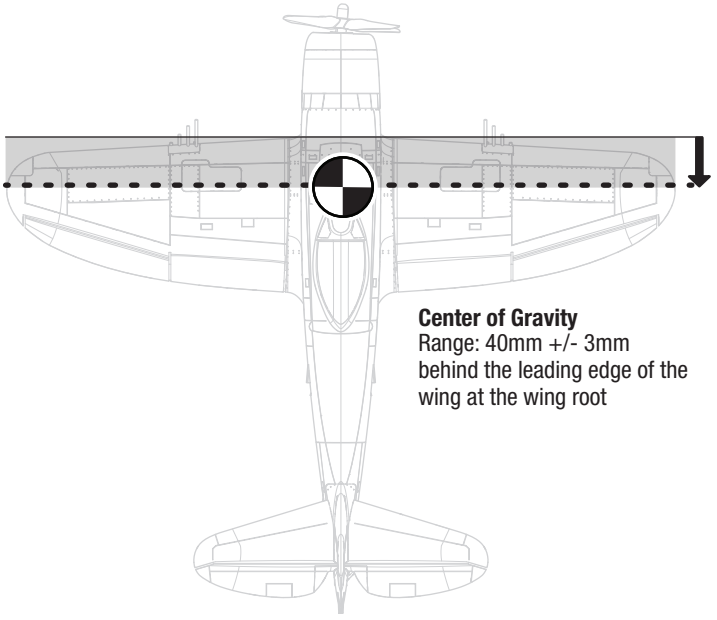
Once the AS3X+ system is active, control surfaces may move rapidly. This is normal. AS3X+ remains active until the battery is disconnected.




## Center of Gravity (CG)

The CG location is measured from the leading edge of the wing at the root. The recommended CG range is 40mm +/- 3mm back from the leading edge. Check the CG with the aircraft inverted.

**NOTICE:** Install the battery but do not arm the ESC while checking the CG. Personal injury may result.



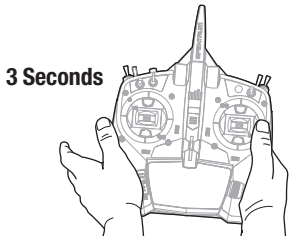
**Center of Gravity**
Range: 40mm +/- 3mm behind the leading edge of the wing at the wing root

## In Flight Trimming

During your first flight, trim the aircraft for level flight at 3/4 throttle. Make small trim adjustments with your transmitter's trim switches to straighten the aircraft's flight path.

After adjusting the trim, do not touch the control sticks for 3 seconds. This allows the receiver to learn the correct settings to optimize AS3X+ performance.

Failure to do so could affect flight performance.




## Post Flight

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

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

## Motor Service

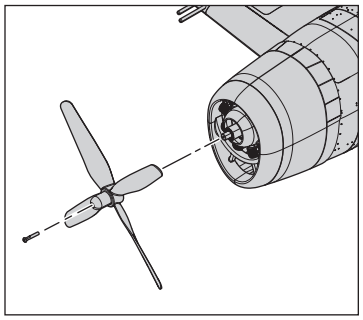
**CAUTION:** Always disconnect the flight battery before performing motor service.

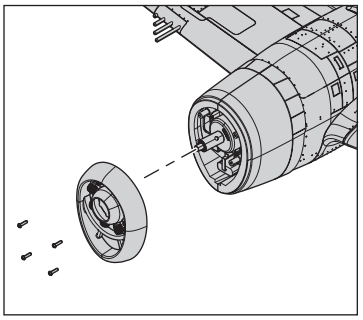
### Disassembly

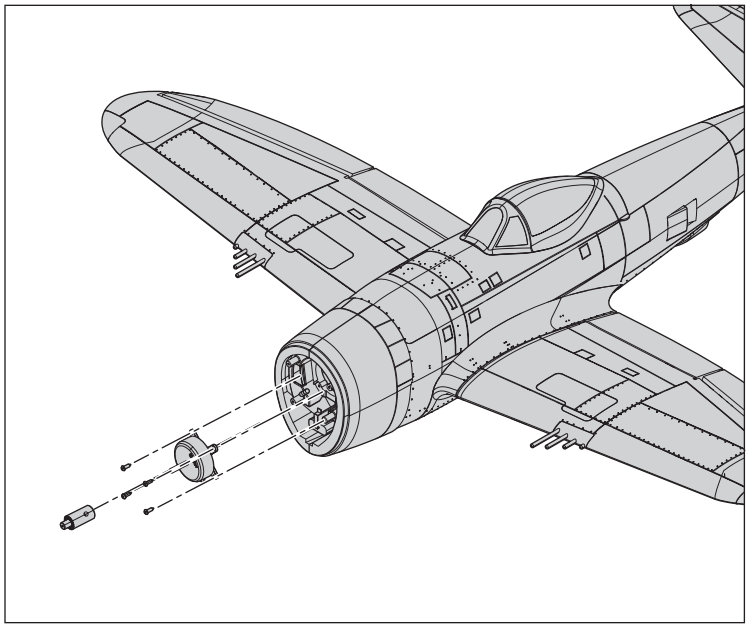
1. Use a #1 Phillips screwdriver to remove the M2 x 12 screw with and pull the propeller off the hub.
2. Use a #1 Phillips screwdriver to remove the four 2x8mm self-tapping screws and pull the cowl off.
3. Use a #1 Phillips screwdriver to remove the four M2 x 8 self-tapping screws to remove the motor.
4. Use a 1.5mm Allen driver to remove the m3 x 3 set screw to remove the prop adaptor from the motor shaft.
5. Disconnect the motor wires from the ESC wires.

### Assembly

- Assemble in reverse order.
- Correctly align and connect the motor wire colors with the ESC wires.
- Install the propeller with the (150 x 150) lettering facing forward.







## Troubleshooting Guide AS3X+

| Problem | Possible Cause | Solution |
|---|---|---|
| Oscillation | Damaged propeller | Replace propeller |
| | Imbalanced propeller | Balance the propeller |
| | Motor vibration | Replace parts or correctly align all parts and tighten fasteners as needed |
| | Loose receiver | Align and secure receiver in fuselage |
| | Loose aircraft controls | Tighten or otherwise secure parts (servo, arm, linkage, horn and control surface) |
| | Worn parts | Replace worn parts (especially propeller or servo) |
| | Irregular servo movement | Replace servo |
| Inconsistent flight performance | Trim is not at neutral | If you adjust trim more than 8 clicks, adjust the clevis to remove trim |
| | Sub-Trim is not at neutral | No Sub-Trim is allowed. Adjust the servo linkage |
| | Aircraft was not kept immobile for 5 seconds after battery connection | With the throttle stick in lowest position. Disconnect battery, then reconnect battery and keep the aircraft still for 5 seconds |
| Incorrect response to the AS3X+ Control Response Test | Incorrect direction settings in the receiver, which can cause a crash | DO NOT fly. Correct the direction settings (refer to the receiver manual), then fly |

## Troubleshooting Guide

| Problem | Possible Cause | Solution |
|---|---|---|
| Aircraft will not respond to throttle but responds to other controls | Throttle not at idle and/or throttle trim too high | Reset controls with throttle stick and throttle trim at lowest setting |
| | Throttle servo travel is lower than 100% | Make sure throttle servo travel is 100% or greater |
| | Throttle channel is reversed | Reverse throttle channel on transmitter |
| | Motor disconnected from ESC | Make sure motor is connected to the ESC |
| Extra propeller noise or extra vibration | Damaged propeller or motor | Replace damaged parts |
| | Propeller is out of balance | Balance or replace propeller |
| Reduced flight time or aircraft underpowered | Flight battery charge is low | Completely recharge flight battery |
| | Propeller installed backwards | Install propeller with numbers facing forward |
| | 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 |
| Aircraft will not Bind (during binding) to transmitter | Transmitter too near aircraft during binding process | Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft |
| | Aircraft or transmitter is too close to large metal object, wireless source or another transmitter | Move aircraft and transmitter to another location and attempt binding again |
| | The bind plug is not installed correctly in the bind port | Install bind plug in bind port and bind the aircraft to the transmitter |
| | Flight battery/transmitter battery charge is too low | Replace/recharge batteries |
| | Bind switch or button not held long enough during the bind process | Power off transmitter and repeat bind process. Hold transmitter bind button or switch until receiver is bound |
| Aircraft will not connect (after binding) to transmitter | Transmitter too near aircraft during connecting process | Move powered transmitter a few feet from aircraft, disconnect and reconnect flight battery to aircraft |
| | Aircraft or transmitter is too close to large metal object, wireless source or another transmitter | Move aircraft and transmitter to another location and attempt connecting again |
| | Bind plug left installed in bind port | Rebind transmitter to the aircraft and remove the bind plug before cycling power |
| | Aircraft bound to different model memory (ModelMatch™ radios only) | Select correct model memory on transmitter |
| | Flight battery/Transmitter battery charge is too low | Replace/recharge batteries |
| | Transmitter may have been bound to a different aircraft using different DSM protocol | Bind aircraft to transmitter |
| Control surface 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 |
| | Transmitter is not bound correctly or the incorrect airplanes was selected | Re-bind or select correct airplanes in transmitter |
| | Flight battery charge is low | Fully recharge flight battery |
| | BEC (Battery Elimination Circuit) of the ESC is damaged | Replace ESC |
| Controls reversed | Transmitter settings are reversed | Perform the Control Direction Test and adjust the controls on transmitter appropriately |
| Motor power pulses then motor loses power | ESC uses default soft Low Voltage Cutoff (LVC) | Recharge flight battery or replace battery that is no longer performing |
| | Weather conditions might be too cold | Postpone flight until weather is warmer |
| | Battery is old, worn out, or damaged | Replace battery |
| | Battery C rating might be too low | Use recommended battery |

## Replacement Parts

| Part # | Description |
|---|---|
| EFL-4330 | Wing: Micro P-47 |
| EFL-4331 | Propeller Adapter: Micro P-47 |
| EFL-4332 | Decal Set: Micro P-47 |
| EFL-4333 | Hardware Set: Micro P-47 |
| EFL-4334 | Control Horn Set: Micro P-47 |
| EFL-4335 | Pushrod Set: Micro P-47 |
| EFL-4336 | Landing Gear Set: Micro P-47 |
| EFL-4337 | Battery Hatch: Micro P-47 |
| EFL-4338 | Vertical Stabilizer: Micro P-47 |
| EFL-4339 | Fuselage: Micro P-47 |
| EFL-4340 | Propeller, 150 x 150mm |
| EFL-4341 | Y-harness Set: Micro P-47 |
| EFL-4342 | Retract Unit, Micro 83 Degree |
| EFL-4343 | Cowling: Micro P-47 |
| EFL-4344 | Servo Wire Set: Micro P-47 |
| EFL-4345 | Horizontal Stabilizer: Micro P-47 |
| SPMAS6420AB | DSMX/SLT 6-Channel Rx AS3X+/SAFE: Micro P-47 |
| SPMSA204 | A204 High-Torque Linear Servo with Mount |
| SPMXAE1015D | Avian 15-Amp Smart Lite Brushless ESC; 2S-4S IC2 |
| SPMX-1148 | Brushless Outrunner Motor: 2405-1300Kv |

## Recommended Items

| Part # | Description |
|---|---|
| SPMXPSA100 | Smart G2 Air Powerstage Bundle 1 |
| SPMX8503S30 | 850mAh 3S 11.1V Smart G2 30C; IC2 |
| SPMR8210 | NX8+ 20-Channel DSMX Transmitter Only |

## Optional Items

| Part # | Description |
|---|---|
| RFL2000 | RealFlight Evolution RC Flight Sim w/ InterLink |
| SPMXC2020 | Smart S1200 G2 AC Charger; 1x200W |
| SPMXC2010 | Smart S2200 G2 AC Charger, 2x200W |
| SPMXC3040 | S450 G2 AC/DC Smart Charger 4x50W |
| SPMR7120 | NX7e+ Black Edition 14 Channel Transmitter Only |
| SPMXC2090P | S100 1x100W USB-C Smart Charger, 65W USB-C GaN Power Supply Combo |
| SPMXC0060 | S22 G2 USB-C 2S & 3S LiPo 20W Smart Charger IC2 Connector |
| SPMXCA500 | Smart Lipo Bag, 18 x 7 x 7 cm |
| SPMXCA532 | Spektrum Accessories One-Piece Battery Adapter: IC2 Device / IC3 Battery (2) |

## 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.

According to FAA regulation, all unmanned aircraft over .55lbs (250 grams) flying in United States airspace are required to either fly within an FAA-Recognized Identification Area (FRIA) or continually transmit an FAA-registered remote identification from a Remote ID broadcast module, such as the Spektrum™ Sky™ Remote ID module (SPMA9500). Use the QR code to learn more about the FAA Remote ID regulations.

## 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, 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.

10/15

# 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<br>Champaign, Illinois, 61822 USA |
| | Horizon Product Support (Product Technical Assistance) | productsupport@horizonhobby.com<br>877-504-0233 | |
| | Sales | websales@horizonhobby.com<br>800-338-4639 | |
| European Union | Horizon Technischer Service | service@horizonhobby.de | Hanskampring 9<br>D 22885 Barsbüttel, Germany |
| | Sales: Horizon Hobby GmbH | +49 (0) 4121 2655 100 | |

## FCC Information

**FCC ID: BRWSPMAR630**

### Supplier's Declaration of Conformity

**Micro P-47 BNF (EFL07050):**

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

**IC: 6157A-SPMAR630**
**CAN ICES-3 (B)/NMB-3(B)**

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:

1. 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:

**E-flite Micro P-47 BNF (EFL07050):** 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.

**Wireless Frequency Range and Wireless Output Power:**

**Receiver:**
2402 - 2478MHz / 4.65dBm

**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.

E328

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Other patents pending
http://www.horizonhobby.com/

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