SPEKTRUM®

FC6250HX Helicopter FLYBARLESS System

FC6250HX Hubschrauber mit FLYBARLESS-System

Système SANS BARRE STABILISATRICE pour hélicoptère FC6250HX

Sistema per elicottero FLYBARLESS FC6250HX

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 a 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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

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

⚠ **WARNING AGAINST COUNTERFEIT PRODUCTS:** Always purchase from a Horizon Hobby, LLC 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.

NOTICE: This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles and aircraft. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

SPMFC6250HX	
Type	FC6250HX Helicopter Flybarless System
Dimensions (L × W × H)	42.5 x 24 x 13.6mm (1.67 x 0.94 x 0.54in)
Weight	13g (0.46oz)
Voltage Range	4.8V – 8.4V

Introduction

The Spektrum™ FC6250HX flight controller is the heart of your radio control helicopter experience. As a 3-axis stability system for your flybarless helicopter, the FC6250HX can be set up and tuned using your Spektrum transmitter as a forward programming interface. All the flight controller settings can be programmed through your transmitter. Using AS3X and SAFE technology, the FC6250HX offers self-leveling beginner modes, as well as pro-level flight performance.

Add a Spektrum Smart ESC to your heli to further expand integrated features with no extra wires or sensors. When the flight controller detects a Smart ESC connection, it feeds a telemetry stream to the transmitter, putting live battery data power into your hands.

The FC6250HX can also be programmed, updated, and backed up using the Spektrum USB Programmer and PC programmer application. Visit the SPMFC6250HX product page at HorizonHobby.com for more information.

Features

- Supports two DSMX remote receivers
- User configurable SAFE Panic Recovery and Stability Flight Modes
- Easy to use Forward Programming for setup and gain adjustments from compatible Spektrum Transmitters
- Smart Technology ready for Smart ESC and Smart Battery telemetry
- Supports DX, iX, and NX series transmitters
- Supports Digital and Analog servos
- 70Hz to 560Hz Adjustable Servo Frequency (760µs and 1520µs center)

Contents

- (1) Helicopter Flybarless Control System (SPMFC6250HX)
- (1) DSMX SRXL2 Serial Receiver with Telemetry (SPM4651T)
- (1) 4-Pin ZH to 3-Pin Servo Connector
- (1) 3-Pin Male to 3-Pin Male adapter
- (1) Product Manuals (SPMFC6250HX and SPM4651T)
- (2) Gyro Mounting Pad (SPMA3032)

FC6250HX to 4651T Cable

4651T Update Cable

Installation

1. The FC6250HX flight controller must be attached to the airframe with the servo connector block facing either forward or aft. The side of the FC2650HX facing the main rotor disc must be parallel to the rotor disc.
2. Use one mounting pad (SPMA3032) to secure the FC6250HX to the airframe.

NOTICE: Do not connect the swash plate, throttle or tail rotor servos until the servo frequency has been configured. Failure to do so may result in damage to the servo and/or your model.

Remote Receivers

The FC6250HX flight controller uses a SRXL2™ Telemetry Remote to access **Forward Programming** as well as other Smart features. Connect the 4651T using the supplied cable to the BND/PRG/RX2 port as shown. The side port labeled RX2 cannot be used when the BND/PRG/RX2 port is in use.

Optional DSMX Remote Receiver
We recommend an additional non-telemetry DSMX remote receiver connected to the side port labeled RX1 when flying models with blades longer than 360mm.

For information on binding remote receivers without a bind button, refer to the section titled *Binding with Optional Second Remote Receiver*.

IMPORTANT: Always ensure the remotes are connected to the transmitter before flying the model. A solid orange LED on each remote receiver indicates a successful connection.

ESC Connection

⚠️ **WARNING:** Always remove the pinion gear or disconnect the main drive motor from the ESC to disengage the drive system during initial setup. The main rotor blades may turn in response to setup changes or transmitter inputs. Failure to do so could result in serious personal injury or property damage.

Connect your ESC to the flight controller.

Conventional ESCs (PWM signal) connect to Port 1.
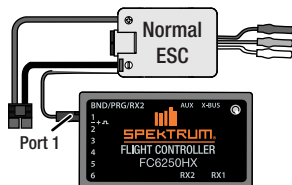
Spektrum Smart ESCs must be connected to Port 2 to enable Smart ESC Telemetry.
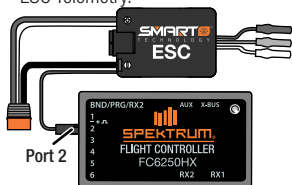
Before You Get Started

The FC6250HX flight controller is setup, programmed, and tuned via the **Forward Programming** menu on a compatible aircraft Spektrum radio system.

Visit **spektrumrc.com** for a list of Forward Programming capable transmitters and updated transmitter firmware.

* Before entering **Forward Programming**, engage Throttle Hold.
* Before exiting **Forward Programming**, lower the throttle to the full stop position.
* Always exit forward programming before disconnecting the power source to ensure parameters are saved.

LED Indications

Red, green, blue rapid blinking	Initialization complete
Slow green strobe	Normal operation
Slow red strobe	Failsafe
Rapid red flash when exiting forward programming	Throttle not low; not in Normal/Hold
Slow cyan strobe	Forward programming mode

Setup

1. In your transmitter, create a new heli setup as a **Normal** swash plate type. Set the Frame Rate to 11ms.

   The FC6250HX requires the default new model transmitter configuration.

   All channels, other than throttle, must have **Reversing** set to **Normal**.
   All channels, other than throttle, must have the **Subtrim** set to **0**.
   All channels, other than throttle, must have the **Travel** set to **100/100**.

   All throttle channel settings occur in the following setup procedures within the transmitter. If you are using a throttle servo do not connect the servo until you reach the throttle setup step below.

   Configure your desired flight modes, throttle curves and pitch curves per the respective manufacturer recommendations for the Helicopter, ESC, Engine, and Transmitter. Note, servo settings pertaining to the cyclic, collective and tail rotor are included in the FC6250HX setup.

   Within your transmitter, enable the Transmitter Gyro function and select the"Flight Mode Switch" option. Set each flight mode gain to 75% to start.

2. If you are using a remote receiver without a bind button see the section **Binding with Optional Second Remote Receiver** for more information. Power ON the FC6250HX flight controller and press the bind button on each remote. The remote will begin flashing, indicating it is ready to bind.

Lower the throttle stick to the stop position on the transmitter, and enter bind mode.

Once the binding process is complete, the remote receiver LED turns solid orange, indicating the remote receiver is bound and connected to the transmitter.

The FC6250HX LED will begin flashing green, indicating a successful bind. A red flashing LED indicates binding is not successful. Begin the binding procedure again.

3. In the transmitter menu, select **Forward Programming**. The transmitter connects to the flight controller, and a menu displays.

4. Navigate to the **Setup→Swashplate→Output Setup** menu.

5. Set the **Frame Rate** to the operating frequency specified by your servo manufacturer.

6. Select the **Type** menu. Set the swashplate type to match your helicopter's configuration. Connect the servos as shown on the transmitter and the following connection diagram.

Normal ESC
ESC in Port 1

SMART ESC
ESC in Port 2

Servo A
Servo B
Servo C

Servo A
Servo B
Servo C
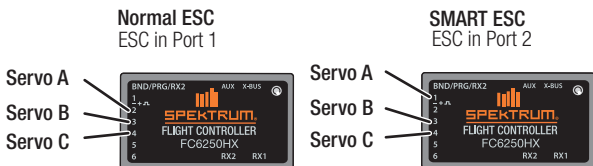
Select **Back**, and navigate to the **Direction** menu.

7. Set the servo reversing to ensure that the positive collective pitch stick moves the servos in the direction of positive collective. Select **Back** to return to the previous menu.

8. Select the **Sub Trim** menu. The swashplate servos move to the center position. Use the sub trim adjustments to ensure the servos are level.

Before exiting the menu, ensure the main rotor blades are at 0 degrees collective and the swashplate is level in the roll and pitch axis.

Select **Back** twice to exit the **Swashplate→Output Setup** menu.

9. Select the **AFR** menu. Verify that the roll and pitch cyclic are moving in the correct direction by moving the cyclic stick.

To reverse an axis, edit the axis value and invert the sign. Once the directions are correct, center the collective stick on the transmitter.

10. Place a pitch gauge on a main rotor blade and zero it out.
    • Align the blade with the roll axis, apply full right cyclic, and adjust the AFR until your pitch gauge reads 12.5.
    • Align the blade with the pitch axis and zero the pitch gauge. Apply full aft cyclic, and adjust the AFR until your pitch gauge reads 12.5.

11. Adjust the **Collective AFR** to set your desired collective pitch range. Remove the pitch gauge.
    Select **Back** twice to return to the **Setup** menu. The swashplate setup is complete.

12. Navigate to the **Tailrotor→Output Setup** menu.

13. Set the **Frame Rate** to the operating frequency specified by your tail rotor servo manufacturer.

14. Connect the tail rotor servo to Slot 5 and navigate to the **Direction** menu. Move the tail rotor stick on the transmitter to the right and ensure the tail rotor servo is moving the correct direction. If not, reverse the channel direction on the FC6250HX.

Tail Rotor Servo

    Select **Back** to return to the previous menu.

15. Select **Subtrim** to center the tail rotor servo.
    Select **Back** to return to the previous menu.

16. Select the **Travel** menu.
    • Select **Left** travel. Hold the transmitter tail rotor stick full left, and adjust travel to ensure full travel and that no binding occurs.
    • Select the **Right** travel. Hold the transmitter tail rotor stick full right, and adjust travel to ensure full travel and that no binding occurs.

    TIP: 90% to 100% is recommended to achieve optimal flight performance.

    Press **Back** twice to return to the **Setup** menu. Tailrotor setup is complete.

⚠ **WARNING:** Always remove the pinion gear or disconnect the main drive motor from the ESC to disengage the drive system during initial setup. The main rotor blades may turn in response to setup changes or transmitter inputs. Failure to do so could result in serious personal injury or property damage.

17. Exit **Forward Programming**. Configure the throttle settings according to the instructions provided by your ESC or Internal Combustion Engine and Transmitter manufacturer.

18. Once throttle setup is complete, enter **Forward Programming** mode, and select the **Setup→Throttle→Failsafe** menu.

19. Lower the throttle stick to the full stop position, and select **Capture** to record the throttle failsafe position.
Select **Back** to return to the **Setup→Throttle** menu.

20. Select **Throttle→Hover**
This setting is the throttle point where your model hovers in normal mode, mainly during takeoff and landing. The flight controller applies special anti roll over algorithms at or below the throttle setting, helping to make takeoffs and landings easier. The Stunt 1 and Stunt 2 throttle curves should be above the hover throttle setting to ensure the roll over mitigation is disabled in flight.

During the initial setup, you can set **Throttle→Hover** to a high value and test the model. Once the throttle setting is determined for hovering in normal mode, set the **Hover Throttle** value.

Select **Back** to return to the **Setup** menu.

21. Select the **Gyro Settings→Orientation Menu**, and set the mounting orientation to match the FC6250HX mounting orientation on your helicopter. Once complete, physically move the helicopter on each axis to ensure the gyros are compensating in the correct direction.
With firmware version 5.5 or newer the system will ask you to perform the sensor calibration after setting the sensor mounting orientation. Level the side of the FC6250HX that faces upwards and select Apply to complete the sensor calibration step.
With firmware version 5.4 or earlier the calibration step after changing the sensor orientation is not necessary.
Select **Back** twice to return to the **Setup** menu.

22. Select the **FM Channel** and select **Inhibit**. After initial test flights, if you would like to use individual gains per flight mode, set the FM Channel within the **Setup** menu.

23. The **Gain Channel** defaults to the gear channel. This is the transmitter aux gyro gain channel for the tail rotor.

24. Press **Back** to exit the forward programming menu, and save the parameters.

The FC6250HX flight controller setup is complete.
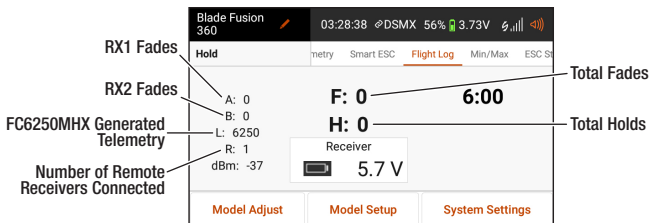
Operation

Preflight Checklist

- ❏ Inspect the model, wiring, and electrical components.
- ❏ Activate **Normal Flight Mode** on the transmitter.
- ❏ Activate **Throttle Hold** on the transmitter. Lower the throttle to stop or idle.
- ❏ Power ON the transmitter.
- ❏ Power ON the model, and wait for initialization to complete.
- ❏ Complete the tailrotor and cyclic tests.
- ❏ Connect the flight pack to the ESC (electric models).
- ❏ Verify that all connected remote receivers display a solid orange LED.
- ❏ Confirm that the transmitter roll, pitch, yaw and collective inputs correspond to the helicopter controls.
- ❏ Confirm that the FC6250HX is compensating in the correct direction.
- ❏ Review all operational instructions before flying your model.
- ❏ Place the model on a level surface for take off.

Postflight Checklist

- ❏ Disconnect the flight battery (electric models)
- ❏ Power down the FC6250HX
- ❏ Always turn the transmitter off last

Telemetry Flight Log

The transmitter telemetry flightlog will provide the following information.

RX1 Fades
RX2 Fades
FC6250MHX Generated Telemetry
Number of Remote Receivers Connected

Blade Fusion 360 | 03:28:38 ⊘DSMX 56% 🔋 3.73V ⚡.ıll ⠙))
Hold   ...metry Smart ESC **Flight Log** Min/Max ESC St...

A: 0
B: 0
L: 6250
R: 1
dBm: -37

F: 0   6:00

H: 0

Receiver
🔋 5.7 V

Total Fades
Total Holds

Model Adjust   Model Setup   System Settings

NOTICE: After a flight, if frame losses higher than 30 occur, evaluate the remote receiver positioning and ensure the antennas have a clear signal path to the transmission signal.

To help troubleshoot frame losses and holds, use the Range Test reduced power function within your transmitter. Review your transmitter manual for additional instructions.

SMART Technology Telemetry

Spektrum SMART Technology provides telemetry information including battery voltage and temperature.

A firmware update for your transmitter may be required.

To view SMART Telemetry:

1. The SMART Logo appears under the battery logo on the home page. A signal bar appears in the top left corner of the screen.

2. Scroll past the servo monitor to view SMART technology screens.

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

Gain Adjustment

The main **Forward Programming** displays flight control adjustments under **Swashplate** and **Tailrotor**.

Tip: Adjust gains per flight mode by setting the **Setup→FM Channel: Function** in the setup menu. Set the **Channel Input Config** in the transmitter for the selected channel to Flight Mode.

After the tail gains are fairly close, use the transmitter gyro gain function to adjust the gain for each flight mode.

1. **Cyclic P Gain Adjustment (Default 50%)**
   Higher gain will result in greater stability. Setting the gain too high may result in random twitches if your model has an excessive level of vibration. High frequency oscillations may also occur if the gain is set too high.
   Lower gain will result in less stability. Too low of a value may result in a less stable model, particularly outdoors in winds.
   If you are located at a higher altitude or in a warmer climate, higher gains may be beneficial—the opposite is true for lower altitude or colder climates.

2. **Cyclic I Gain Adjustment (Default 50%)**
   Higher gain will result in the model remaining still, but may cause low frequency oscillations if increased too far.
   Lower gain will result in the model drifting slowly.
   If you are located at a higher altitude or in a warmer climate, higher gains may be beneficial—the opposite is true for lower altitude or colder climates.

3. **Cyclic D Gain Adjustment (Default 7%)**
   Higher gain will improve the response rate of your inputs.
   If the gain is raised too much, high frequency oscillations may occur.
   Lower gain will slow down the response to inputs.

4. Cyclic Response (Default 100%)

Higher cyclic response will result in a more aggressive cyclic response
Lower cyclic response will result in a less aggressive cyclic response.

5. Tailrotor P Gain Adjustment (Default 85%)

Higher gain will result in greater stability. Setting the gain too high may result in random twitches if your model has an excessive level of vibration. High frequency oscillations may also occur if the gain is set too high.

Lower gain may result in a decrease in stability. Too low of a value may result in a less stable model particularly outdoors in winds.

If you are located at a higher altitude or in a warmer climate, higher gains may be beneficial—the opposite is true for lower altitude or colder climates.

6. Tailrotor I Gain Adjustment (Default 95%)

Higher gain results in the tail remaining still. If the gain is raised too far, low speed oscillations may occur.

Lower gain will result in the tail drifting in flight over time.

If you are located at a higher altitude or in a warmer climate, higher gains may be beneficial—the opposite is true for lower altitude or colder climates.

7. Tailrotor D Gain Adjustment (Default 10%)

Higher gain will improve the response rate to your inputs. If raised too far, high frequency oscillations may occur.

Lower gain will slow down the response to inputs, but will not have an effect on stability.

SAFE® Technology

Always complete test flights and gain adjustments before enabling SAFE Technology features.

Before enabling the stability feature, test the operation by activating SAFE Panic Recovery function in flight with the transmitter sticks centered. The model should return to within 4 degrees of level.

NOTICE: High levels of vibration can lead to attitude estimation errors. When SAFE Panic Recovery is activated, if the model is outside of 4 degrees of level, evaluate the model for vibration and, if necessary, perform the calibration step.

The SAFE Panic Recovery function is activated by setting up the following mix within the transmitter:

Mixing			
P-Mix 1	Normal		
	Channels	Ger > Gyr	
	Rate	125%/0%	
	Offset	−100%	
	Switch	Switch I	
	Position	0	1

To activate the SAFE Panic Recovery function, move the collective stick to the center position and press the bind button (switch I) on your transmitter.

The SAFE Stability function can be enabled within the forward programming SAFE menu. All gains, flight mode setup, envelope and gain settings are available within the SAFE menu. To enable or disable the stability function per flight mode set the FM Channel to the appropriate channel within the Setup menu.
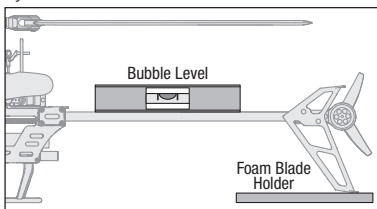

Calibration

The FC6250HX is calibrated at the factory. Recalibrate the unit if the panic or stability functions do not return to level or if there is a slow drift in the roll, pitch, or yaw axis:

Firmware Version 5.4 or earlier the FC6250HX must be label up and level during calibration. With v5.4 it is not necessary to calibrate the sensor when the sensor orientation is changed.

Firmware Version 5.5 or newer the calibration is performed in the selected mounting orientation with the FC6250HX side facing upward being level. When changing the mounting orientation setting in v5.5 the system will ask you to calibrate the gyro. Once the model is level select Apply to complete the calibration step.

The firmware version is shown at the bottom of the forward programming screen.

1. Level the model using a bubble level on the roll and pitch axis, power on and initialize the system.

Bubble Level

Foam Blade Holder

2. Go to the **System Setup** menu and select **Calibrate**.
3. Select **Apply**.
   A red flashing light during calibration indicates the model is either not level or not stationary. Level the model, taking care to keep it still.
   A yellow flashing light during calibration indicates the calibration is proceeding normally.
4. After the calibration is successful, the LED flashes green.

Binding with Optional Second Remote Receiver

1. Remove the telemetry remote cable from the BND/PRG/RX2 port.

2. Insert a bind plug into the BND/PRG/RX2 port.

3. Power ON the FC6250HX, the orange LED on the remote receiver will begin to flash to indicate it is in bind mode.

4. Leave power connected and remove the bind plug.

5. Reconnect the telemetry remote cable to the BND/PRG/RX2 port and press the bind button on the telemetry remote receiver. The orange LED on the telemetry remote will flash when it enters bind mode. Release the bind button.

6. Put your transmitter into bind mode. The Orange LED on the remotes will remain lit when the bind is successful.

Repeat the process if necessary.

Troubleshooting Guide

Problem	Possible Cause	Solution
Helicopter will not bind to the transmitter (during binding)	Low flight battery or transmitter battery voltage	Fully charge or replace the flight battery and/or transmitter batteries
	Transmitter is not in bind mode	Power on the transmitter while holding the Trainer/Bind switch. Hold the Trainer/Bind switch until binding is complete
	Transmitter too close to the helicopter during binding process	Power off the transmitter. Move the transmitter further away from the helicopter. Disconnect and reconnect the flight battery to the helicopter and follow binding instructions
Helicopter will not link to the transmitter (after binding)	Helicopter is bound to a different model memory (ModelMatch™ radios only)	Disconnect the flight battery. Select the correct model memory on the transmitter. Reconnect the flight battery
	Flight battery/Transmitter battery charge is too low	Replace or recharge batteries
Flight controller will not initialize	Helicopter was moved during initialization	If windy, lay helicopter on its side during initialization
	Transmitter is powered off	Power on the transmitter
	Controls are not centered	Center elevator, aileron and rudder controls. Make sure the throttle is at idle
Helicopter will not respond to the throttle but responds to other controls	Throttle not at idle and/or throttle trim is too high	Lower the throttle stick and lower the throttle trim
	Transmitter is not in normal mode or throttle hold is on	Verify the transmitter is in normal mode and throttle hold is off
	Motor is not connected to the ESC or the motor wires are damaged	Connect the motor wires to the ESC and check motor wires for damage
	Flight battery charge is too low	Replace or recharge flight battery
	Throttle channel is reversed	Reverse the throttle channel on the transmitter

Troubleshooting Guide

Problem	Possible Cause	Solution
Helicopter power is lacking	Flight battery has low voltage	Fully charge the flight battery
	Flight battery is old or damaged	Replace the flight battery
	Flight battery cells are unbalanced	Fully charge the flight battery, allowing the charger time to balance the cells
	Excessive current is being drawn through the BEC	Check all servos and the helicopter motor for damage
	Tail drive belt tension is not correct	See "Tail Belt Tension" section in this manual
Helicopter will not lift off	Main rotor head is not spinning in the correct direction	Make sure the main rotor head is spinning clockwise. Refer to the motor control test
	Transmitter settings are not correct	Check throttle and pitch curve settings and pitch control direction
	Flight battery has low voltage	Fully charge the flight battery
	Main rotor blades are installed backwards	Install the main rotor blades with the thicker side as the leading edge
Helicopter tail spins out of control	Rudder control and/or sensor direction reversed	Make sure the rudder control and the rudder sensor are operating in the correct direction
	Tail servo is damaged	Check the rudder servo for damage and replace if necessary
	Inadequate control arm throw	Check the rudder control arm for adequate travel and adjust if necessary
	Tail belt is too loose	Make sure the tail drive belt tension is adjusted correctly
Helicopter wobbles in flight	Cyclic gain is too high	Tuning options using forward programming are available under the "Advanced Settings" section in this manual
	Headspeed is too low	Increase the helicopter's head speed via your transmitter settings and/or using a freshly charged flight pack
	Dampers are worn	Replace the main rotor head dampers

1-YEAR 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 for a period of 1 year from the date of purchase.

What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, (vi) Product not compliant with applicable technical regulations, or (vii) use that violates any applicable laws, rules, or regulations. OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

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

Limitation of Liability — HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

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

WARRANTY SERVICES

Questions, Assistance, and Services — Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance,

please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services — If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at http://www.horizonhobby.com/content/service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.

Warranty Requirements — For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Service — Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website http://www.horizonhobby.com/content/service-center_render-service-center.

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

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Warranty and Service Contact Information

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

FCC Information

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.

This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

Supplier's Declaration of Conformity

Spektrum Heli Flight Controller (SPMFC6250HX)
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

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

CE **EU Compliance Statement:**
Spektrum Heli Flight Controller (SPMFC6250HX)
Hereby, Horizon Hobby, LLC declares that the device is in compliance with the following: 2014/30/EU EMC Directive ; 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.

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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