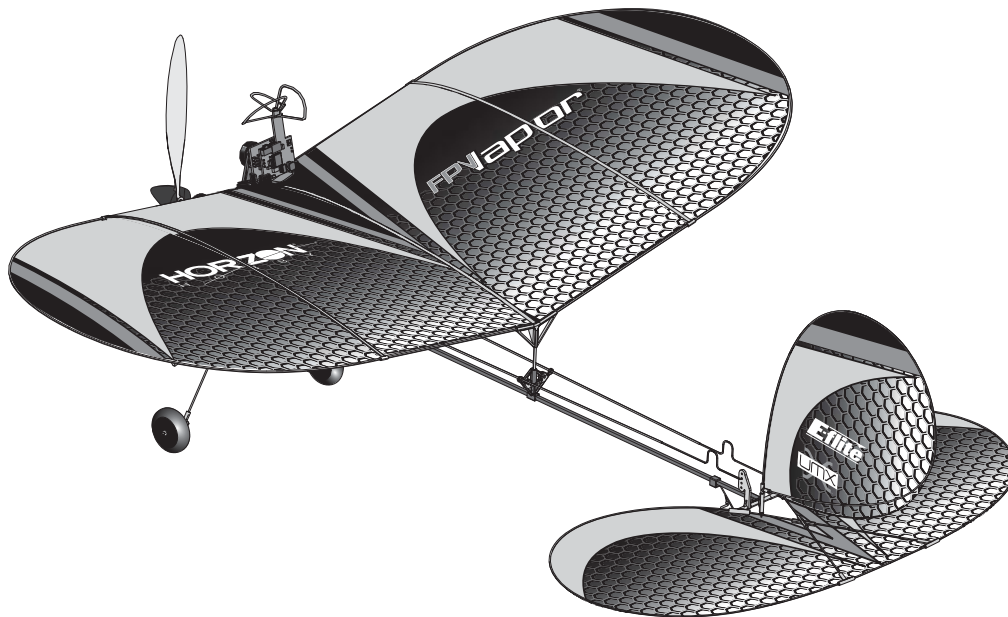


RTF
READY-TO-FLY



Ultra Micro FPV Vapor®



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

E-flite®
ADVANCING ELECTRIC FLIGHT

NOTICE

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

Meaning of Special Language:

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

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

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

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



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

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

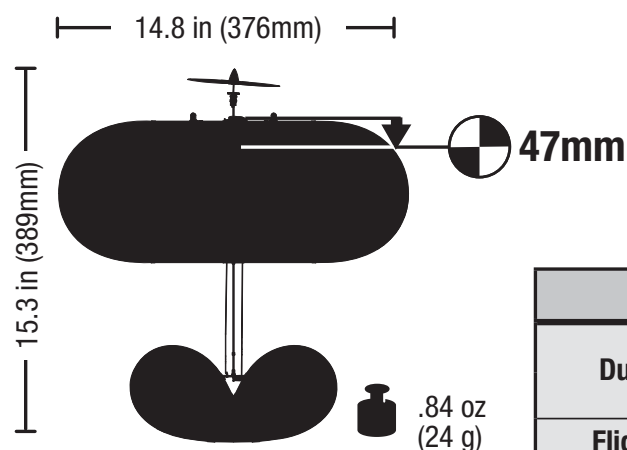
Age Recommendation: Not for children under 14 years. This is not a toy.

Safety Precautions and Warnings

- Always keep a safe distance in all directions around your model to avoid collisions or injury. This model is controlled by a radio signal subject to interference from many sources outside your control. Interference can cause momentary loss of control.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Always carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Always keep all chemicals, small parts and anything electrical out of the reach of children.
- Always avoid water exposure to all equipment not specifically designed and protected for this purpose. Moisture causes damage to electronics.
- Never place any portion of the model in your mouth as it could cause serious injury or even death.
- Never operate your model with low transmitter batteries.
- Always keep aircraft in sight and under control.
- Always use fully charged batteries.
- Always keep the transmitter powered on while aircraft is powered.
- Always remove batteries before disassembly.
- Always keep moving parts clean.
- Always keep parts dry.
- Always let parts cool after use before touching.
- Always remove batteries after use.
- Always ensure failsafe is properly set before flying.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

Box Contents		
RTF Includes	Installed	BNF Includes
	<p>Motor: 6mm Brushed</p>	<p>Recommended Transmitter: Spektrum™ DSM2®/DSMX® full range (DX4e and up)</p>
	<p>Receiver: 3-Ch Rx/ESC DSMX (PKZU1152)</p>	
	<p>Ultra Micro FPV camera: wide angle lens, Integrated CP antenna, Compatible with 5.8GHz Fat Shark systems</p>	

Specifications

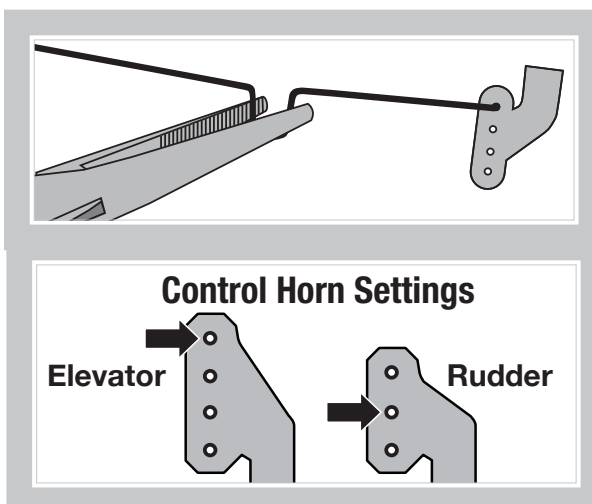


The CG location is **47mm** back from the leading edge at the wing root. This has been determined with the included 1S 150mAh 3.7V Li-Po battery correctly installed. Balance the model on the edge of a metal ruler to find the Center of Gravity. Place the ruler on the underside of the center wing rib.

Dual Rates and Timer Settings		
Dual Rates	High	Low
	100 %	70%
Flight Timer Setting	First Flight 5 Min.	6 Min.

Control Centering

Before first flights, or in the event of a crash, make sure the control surfaces are centered when the transmitter controls and trims are neutral. The transmitter sub-trim must be set to zero. Adjust the linkages mechanically if the control surfaces are not centered.



Preflight Checklist

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

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

Flight Battery Charging

LED Indications

CHARGING (Solid Red)



MAX CHARGE (off)

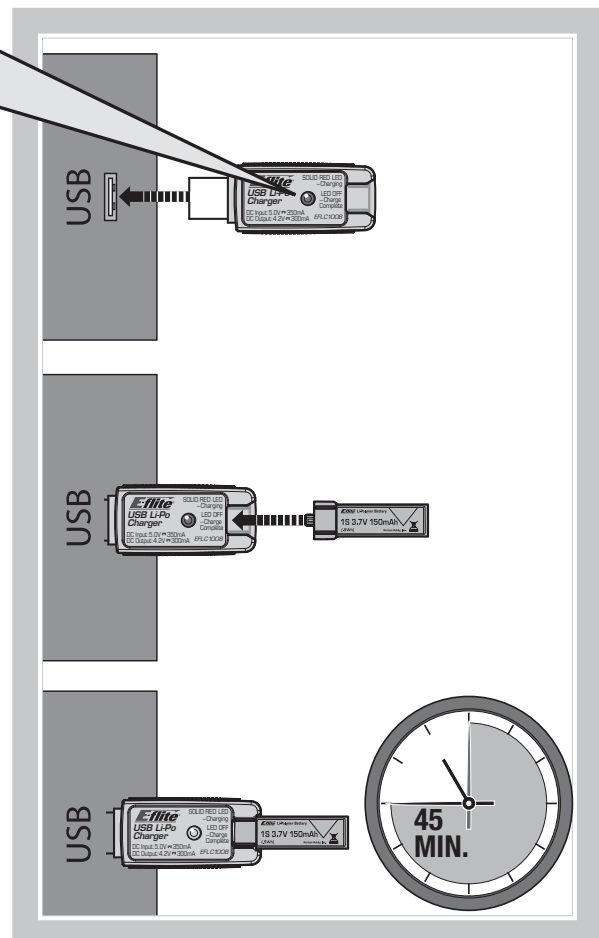


CAUTION: Only use a charger specifically designed to charge a Li-Po battery. Failure to do so could result in fire, causing injury or property damage.

CAUTION: Never exceed the recommended charge rate.

CAUTION: Always disconnect the flight battery from the charger immediately upon completion of charging.

Charging a fully discharged (not over-discharged) 150 mAh battery takes approximately 45 minutes at the charger's 300mA charge rate. The LED goes out when the charge is complete.



Flight Battery Charger Warnings

The battery charger (EFLC1008) included with your aircraft has been designed to safely charge the Li-Po battery.

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

- By handling, charging or using the included Li-Po battery, you assume all risks associated with lithium batteries.
- If at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 40–120° F (5–49° C). Do not store the battery or model in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Always charge batteries away from flammable materials.
- Always inspect the battery before charging.
- Always disconnect the battery after charging, and let the charger cool between charges.
- Always constantly monitor the temperature of the battery pack while charging.
- **ONLY USE A CHARGER SPECIFICALLY DESIGNED TO CHARGE LI-PO BATTERIES.** Failure to charge the battery with a compatible charger may cause a fire resulting in personal injury and/or property damage.
- Never discharge Li-Po cells to below 3V under load.
- Never cover warning labels with hook and loop strips.
- Never leave charging batteries unattended.
- Never charge batteries outside recommended levels.
- Never charge damaged batteries.
- Never attempt to dismantle or alter the charger.
- Never allow minors to charge battery packs.
- Never charge batteries in extremely hot or cold places (recommended between 40–120° F (5–49° C)) or place in direct sunlight.

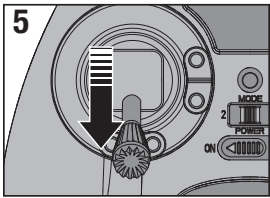
BNF Transmitter and Receiver Binding

BIND-N-FLY®

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

For a list of compatible DSM2/DSMX transmitters, please visit www.bindnfly.com.

✓ Binding Procedure Reference Table

<p>CAUTION: When using a Futaba transmitter with a Spektrum DSM® module, you must reverse the throttle channel and rebind. Refer to your Spektrum module manual for binding and failsafe instructions. Refer to your Futaba transmitter manual for instructions on reversing the throttle channel.</p>	
1. Refer to your transmitter's unique instructions for binding to a receiver.	
2. Make sure the flight battery is disconnected from the aircraft.	
3. Ensure the transmitter is powered OFF.	
4. Connect the flight battery to the aircraft. The receiver LED will begin to flash (typically after 5 seconds).	
5. Make sure the transmitter controls are at neutral and the throttle is in the low position.	
6. Put your transmitter into bind mode. (If you are using the transmitter that is supplied with the RTF version, push the left control stick vertically into the case (until it clicks) while powering ON the transmitter).	
7. After 5 to 10 seconds, the receiver status LED will become solid, indicating that the receiver is bound to the transmitter. If the LED does not turn solid, refer to the Troubleshooting Guide at the end of the manual.	

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

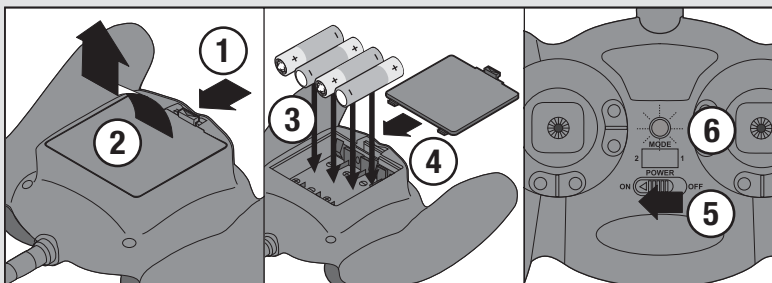
RTF

READY-TO-FLY

The Transmitter

Installing the Transmitter Batteries

Your ParkZone® 4-channel DSM2/DSMX RTF transmitter comes pre-bound to the aircraft.



Transmitter Control

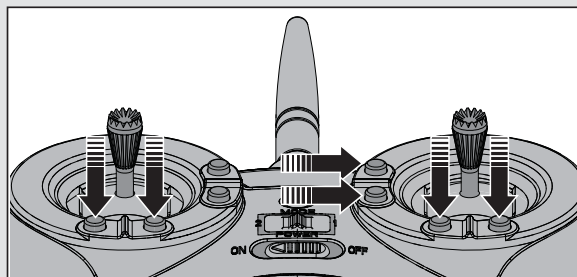
Mode 2	Mode 1	Transmitter Type	Mode 2	Mode 1
Throttle/ Rudder	Elevator/ Rudder		Elevator/ Aileron	Throttle/ Aileron
Rudder Trim	Rudder Trim		Aileron Trim	Aileron Trim
Throttle Trim	Elevator Trim		Elevator Trim	Throttle Trim

Digital Trims

Before the first flight, center the control surfaces mechanically (see Control Centering).

Use the digital trims to fine-tune the model's flight path while in flight.

When pressed down, trim buttons make a sound that increases or decreases in pitch at each pressing. The middle or neutral trim position is heard as a middle tone in the pitch range of the sounds. The end of the control range is sounded by a series of beeps.



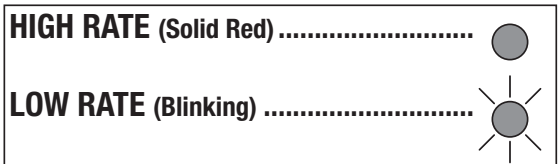
Dual Rate Function

When powered ON, this transmitter is automatically set to high-rate mode.

High Rate = 100% Control surface deflection

Low Rate = 70% Control surface deflection

Change rate modes by pushing the right control stick vertically into the case (until it clicks) while the transmitter is powered ON.



Flight Battery Installation and ESC Arming

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

It is normal for linear servos to make noise. Noise is not an indication of a faulty servo.

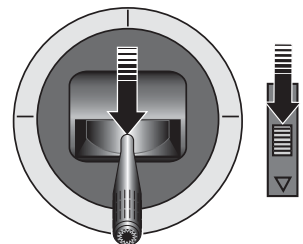
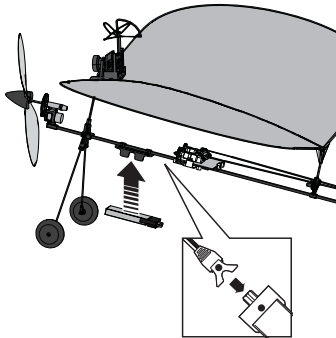
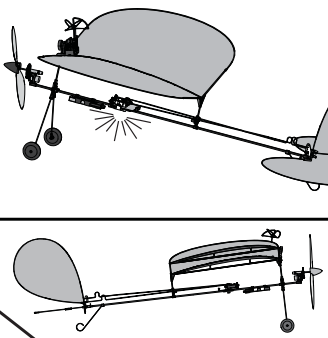


CAUTION: Always keep hands away from the propeller. When armed, the motor will turn the propeller in response to any throttle movement.



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

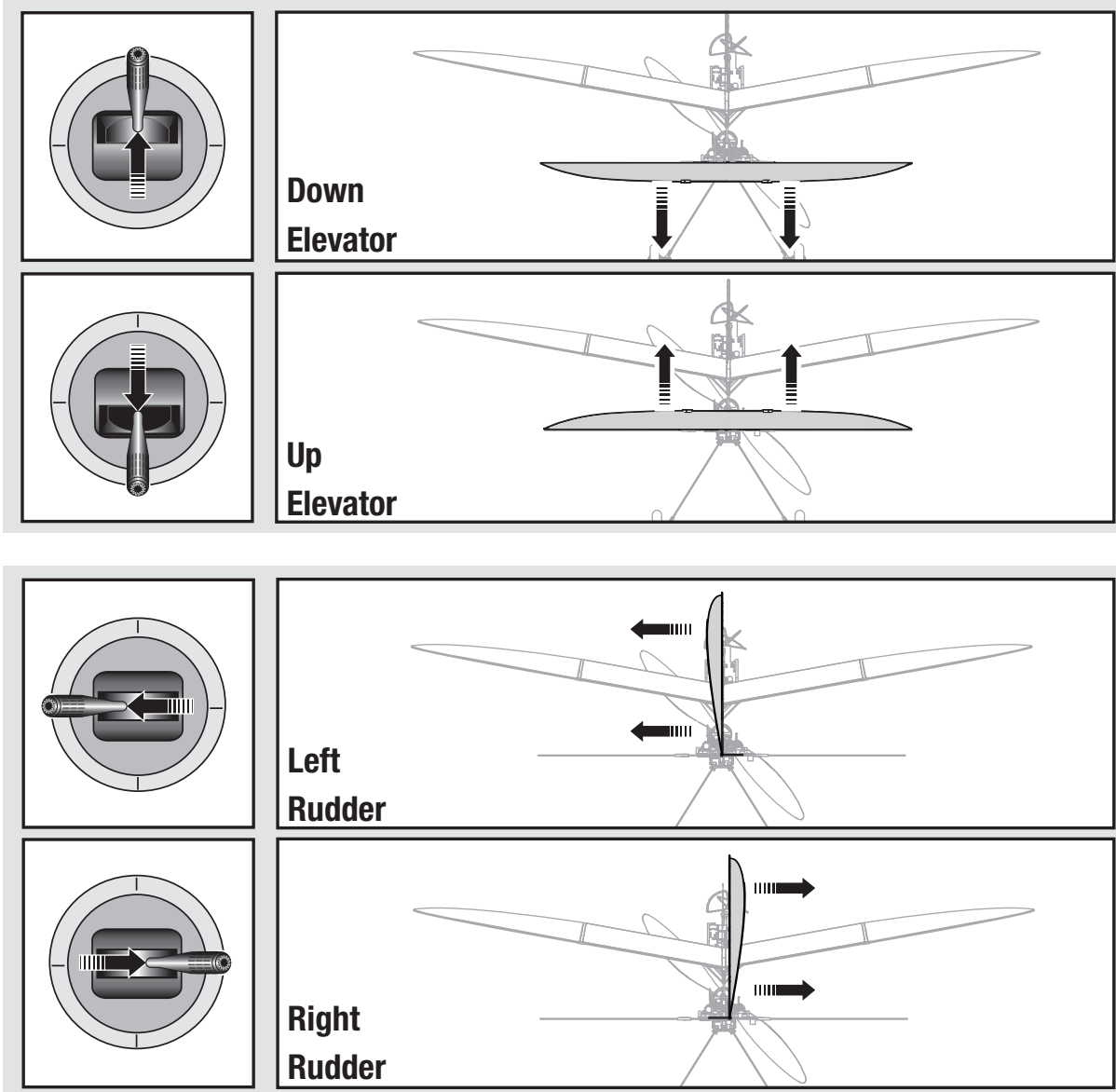
IMPORTANT: The camera will continue to discharge the battery until the battery is disconnected.

<p>1 Lower throttle and throttle trim to lowest settings.</p> <p>Power ON the transmitter, then wait 5 seconds.</p>	
<p>2 Connect the battery to the ESC, noting proper polarity.</p> <p>Continuous LED</p>	<p>1-2-3-4-5 Sec.</p> 
<p>3 Secure the battery to the hook and loop strip on the battery holder.</p> <p>Refer to the Center of Gravity Adjustment instructions for the battery's position.</p>	

FLY...

Control Direction Test

Bind your aircraft and transmitter before doing these tests. Move the controls on the transmitter to make sure aircraft control surfaces move correctly. **Always keep throttle at the low position during testing.**



First Person View (FPV) System instructions

Headset Charger Warnings

The battery charger included with your product has been designed to safely charge the Li-Po battery.



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

- By handling, charging or using the included Li-Po battery, you assume all risks associated with lithium batteries.
- If at any time the battery begins to balloon or swell, discontinue use immediately. If charging or discharging, discontinue and disconnect. Continuing to use, charge or discharge a battery that is ballooning or swelling can result in fire.
- Always store the battery at room temperature in a dry area for best results.
- Always transport or temporarily store the battery in a temperature range of 40–120° F (5–49° C). Do not store the battery or model in a car or direct sunlight. If stored in a hot car, the battery can be damaged or even catch fire.
- Always charge batteries away from flammable materials.
- Always inspect the battery before charging.
- Always disconnect the battery after charging, and let the charger cool between charges.
- Always constantly monitor the temperature of the battery pack while charging.
- **ONLY USE A CHARGER SPECIFICALLY DESIGNED TO CHARGE LI-PO BATTERIES.** Failure to charge the battery with a compatible charger may cause a fire resulting in personal injury and/or property damage.
- Never discharge Li-Po cells to below 3V under load.
- Never cover warning labels with hook and loop strips.
- Never leave charging batteries unattended.
- Never charge batteries outside recommended levels.
- Never charge damaged batteries.
- Never attempt to dismantle or alter the charger.
- Never allow minors to charge battery packs.
- Never charge batteries in extremely hot or cold places (recommended between 40–120° F (5–49° C)) or place in direct sunlight.

Headset Battery Charging

LED Indications

CHARGING (Red) 

MAX CHARGE (Solid Green) 



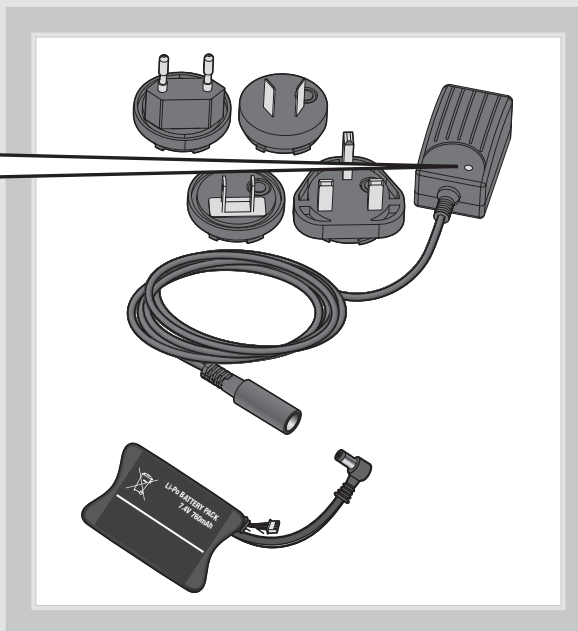
CAUTION: If at any time during the charge process the battery pack becomes hot to the touch, unplug the battery immediately and discontinue the charge process.

Low Battery Warning

The headset will beep when the battery voltage is low. As the headset battery voltage continues to drop, the beep rate will increase. Recharge the headset battery as soon as possible.

1. Connect the charger to the wall outlet the LED will turn green.
2. Connect the battery to the charger the LED will turn red.
3. When charging is complete the LED will turn green.
4. Disconnect the battery from the charger and unplug the charger from the wall outlet.

Charging a fully discharged (not over-discharged) 7.4V 760 mAh battery takes approximately 75 minutes at the charger's 500mA charge rate. The LED goes out when the charge is complete.



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



CAUTION: Always disconnect the battery from the charger immediately upon completion of charging.

First Person View (FPV) System instructions (continued)

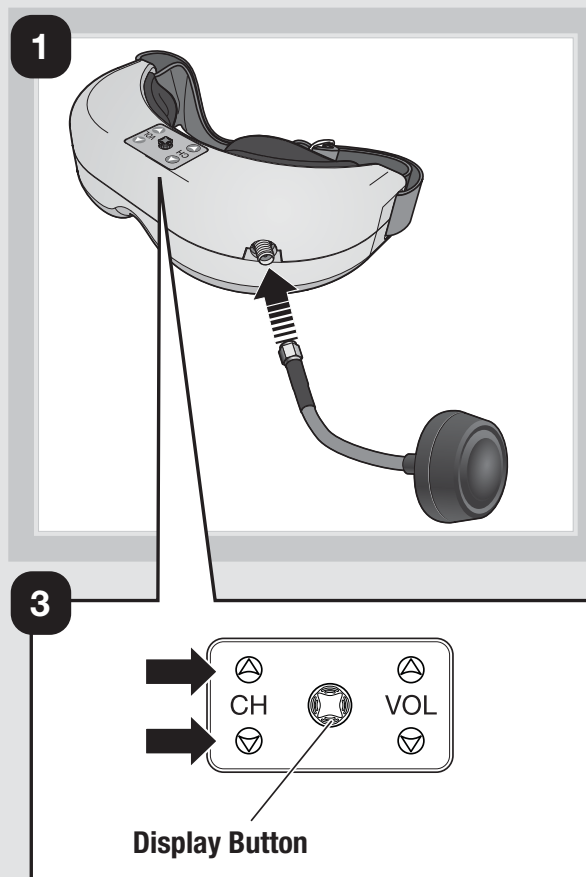
Setting up the headset

CAUTION: Do not power the headset or downlink kit without the antenna attached. Doing so will damage the transmitter and receiver amplifiers. Amplifier damage is not covered by warranty.

NOTICE: Do not leave the headset exposed to direct sunlight. Sunlight is magnified by the optics and will burn holes in the LCD color filter (appears as white open areas). This is not covered by warranty.

Keep the headset in its protective case when not in use.

1. Attach the antenna to the headset.
2. Connect the fully-charged Li-Po battery pack to the headset.
3. Look through the headset and press the Channel Up/Down buttons. Clean channels will have a consistent static background. Channels with interference will display horizontal static lines. Select one of the clean channels. A long beep sounds on channels 1 and 7.
4. Once you have chosen a clean channel in the headset, select the same channel on the video receiver.



Adjusting the Display

Contrast

Press Left or Right on the Display Button to adjust the video contrast in the headset.

Brightness

Press Forward or Back on the Display Button to adjust the video brightness in the headset.

Zoom

Press Down on the Display Button to change the video zoom in the headset. The normal display (16:9) shows the entire image with black bars on the top & bottom. The zoom display (4:3) maximizes the image in the headset and is used with digital head tracking.

Digital Head Tracking

- **Long Press:** Depressing the Display Button toggles head tracker mode (active/deactivate). With digital head tracking active, the image will zoom in and the image will digitally pan and tilt in response to head motion.
- **Short Press:** Resets center reference position (both analog/digital).

Spektrum Ultra Micro FPV Transmitter Channels

Channel 1	5470 MHz
Channel 2	5760 MHz
Channel 3	5780 MHz
Channel 4	5800 MHz
Channel 5	5820 MHz
Channel 6	5840 MHz
Channel 7	5860 MHz

Refer to the SPMVR1100 or SPMVS1100 headset manual for more info about head tracker functions.

First Person View (FPV) System instructions (continued)

Using the Ultra Micro FPV System

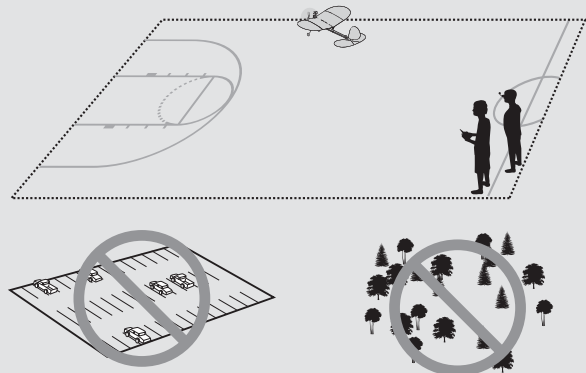
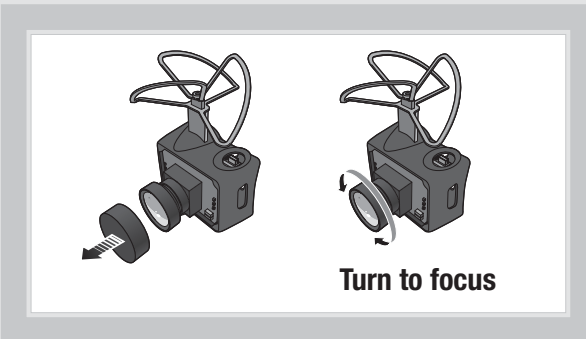
Consult local laws and ordinances before operating FPV equipment. In some areas, FPV operation may be limited or prohibited. You are responsible for operating this product in a legal and responsible manner.

1. Power on your radio transmitter, then power on the aircraft.
2. Remove the lens cap from the camera.
3. Power on the headset to make sure the channel is clear and then the video transmitter.
4. Perform a range test before flying.

Tip: If you are prone to motion sickness, sit in a chair. If you start to suffer from motion sickness, lower your chin against your chest.

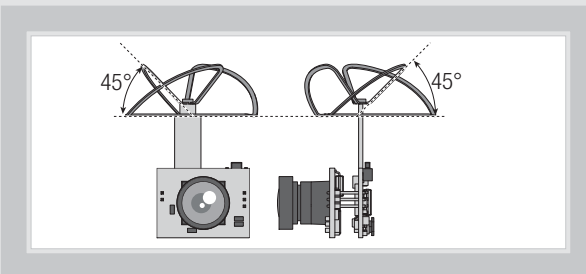
5. Fly in open areas, away from people, trees, cars, and buildings. The range of the system can be impacted by any obstructions blocking your signal. It is normal to see break up in the video going behind trees and other obstacles.

NOTICE: We do not recommend using the ultra micro FPV system in low light.



Caring for the Video Transmitter Antenna

If your video transmitter antenna gets bent or flattened as a consequence of a hard landing, bend the antenna so the lobes are at a 45° angle to the bottom plane of the antenna, as shown at the right.



Ultra Micro FPV Troubleshooting

Problem	Possible Cause	Solution
No image, display is completely dark	No power supplied to the video transmitter or headset	Check the power connections
		Make sure the battery is fully charged
No image, display is glowing dark gray	Video source switch is set to external receiver mode	Ensure the video source switch is switched to headset mode
Static on all channels	Video transmitter power is off	Make sure the video transmitter LED is on
Horizontal lines in the headset display	Interference on the selected channel	Choose a cleaner channel
Head tracking is not moving in correct direction	Digital head tracking is reversed	Refer to the SPMVR1100 or SPMVS1100 headset manual for more information on how to reset digital head tracking

Flying Tips and Repairs

We recommend flying your aircraft inside a large gymnasium or outdoors in calm or light winds. The aircraft is extremely light and can be easily blown away.

Hand Launching

Hold the aircraft at shoulder height with one hand. While holding your transmitter in your other hand, increase the throttle to half. Launch the aircraft using light force. Keep the wings level and do not throw it up or down. Point it level with the ground when releasing. Do not grasp the pushrods while launching as this may result in damage to the servos.

Takeoff

Place the aircraft in position for takeoff. Gradually increase the throttle to full and steer with the rudder. Pull back gently with the elevator and climb to check trim. Once the trim is adjusted, begin exploring the flight envelope of the aircraft.

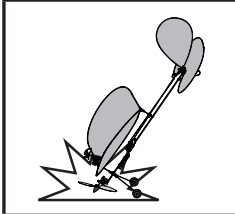
Flying

After takeoff, the aircraft will climb at 3/4 to full throttle. The aircraft is designed for a slow and relaxing flight experience. Fly at a slow, controlled speed appropriate for the size of the location.

Landing

Fly the aircraft to approximately 6 inches (15cm) or less above the landing surface. Reduce the throttle and the aircraft should glide in softly for a landing.

NOTICE: Always decrease throttle at propeller strike.



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

NOTICE: Crash damage is not covered under the warranty.

Low Voltage Cutoff (LVC)

Low Voltage Cutoff (LVC) pulses the power to the motor when the voltage gets low. When the motor power pulses, land the aircraft immediately and recharge the flight battery.

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

LVC does not prevent the battery from over-discharge during storage.

NOTICE: Repeated flying to LVC will damage the battery.

Repairs

Repair the aircraft using clear tape. When parts are not repairable, see the Replacement Parts List for ordering by item number.

For a listing of all replacement and optional parts, refer to the list at the end of this manual.

NOTICE: When you are finished flying, never leave the aircraft in direct sunlight or in a hot, enclosed area such as a car. Doing so can damage the aircraft.

Post Flight Checklist

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

✓	
	6. Recharge the flight battery.
	7. Recharge the headset battery.
	8. Store both flight and headset batteries apart from the aircraft and headset and monitor the battery voltage levels.
	9. Make note of the flight conditions and flight plan results, planning for future flights.

Power Components Service

⚠ CAUTION: DO NOT handle propeller parts while the flight battery is connected. Personal injury could result.

Disassembly

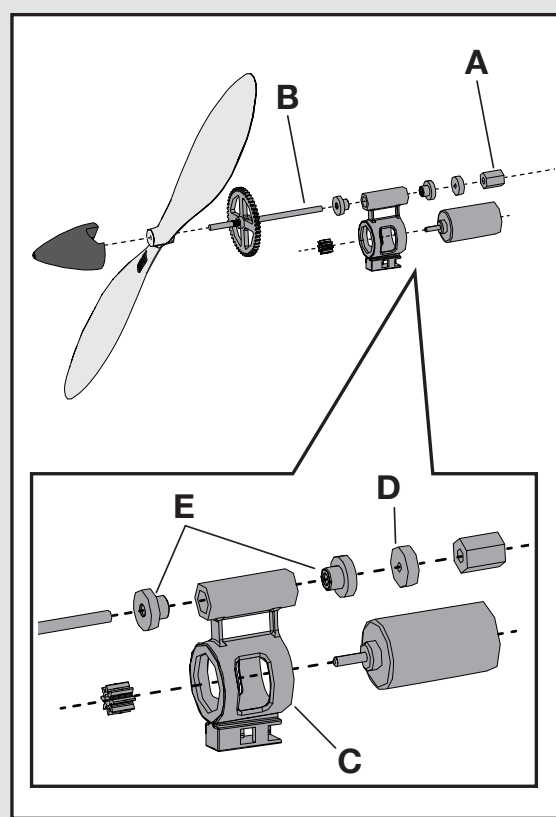
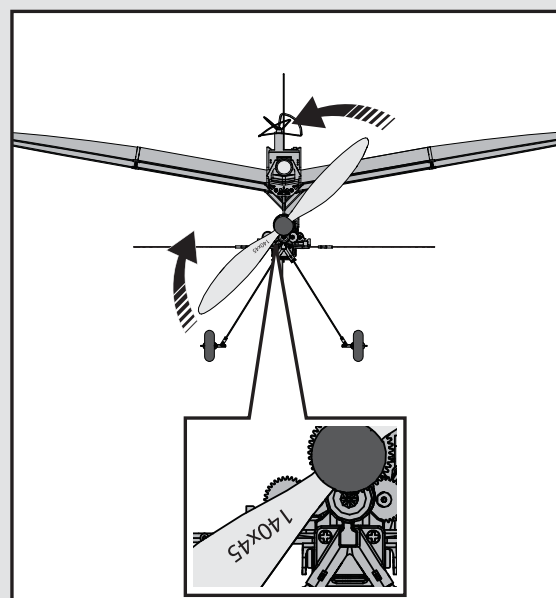
1. Disconnect the battery from the ESC/receiver.
2. Hold the spur gear and turn the propeller counterclockwise (looking from the front of the model) to remove. Turn the propeller clockwise to install. Make sure the propeller size numbers (140 x 45) face away from the motor (see illustration).
3. Carefully remove the spinner and glue from the propeller.
4. Hold the nut (A) on the end of the prop shaft using needle-nose pliers or hemostats.
5. Turn the gear on the shaft clockwise (looking from front of model) to remove the nut.
6. Gently pull the shaft (B) from the gearbox (C) and make sure the washer (D) and two bushings (E) are not lost.
7. Disconnect the motor from the ESC/receiver.
8. Gently push the motor out of the gearbox and remove the motor.

NOTICE: DO NOT remove the gearbox from the aircraft. Damage to the aircraft could result.

Assembly

Assemble the aircraft using the instructions above in reverse order.

- Correctly align the prop shaft gear with the pinion gear on the motor.
- Correctly connect the motor to the ESC/receiver so that the powered motor turns the propeller counter clockwise (looking from the front of the model).
- Attach the spinner to the propeller using foam-compatible CA (cyanoacrylate adhesive).



Troubleshooting Guide

Problem	Possible Cause	Solution
Aircraft will not respond to throttle but responds to other controls	Throttle stick and/or throttle trim too high	Reset controls with throttle stick and throttle trim at lowest setting
	Throttle channel is reversed	Reverse throttle channel on transmitter
	Motor disconnected from receiver	Make sure motor is properly connected to the receiver
Extra propeller noise or extra vibration	Damaged propeller, prop shaft, spinner or motor	Replace damaged parts
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 power drawn	Replace battery or use a larger capacity battery
LED on receiver flashes and aircraft will not bind to transmitter (during binding)	Transmitter too near aircraft during binding process	Power off transmitter, move transmitter a larger distance from aircraft, disconnect and reconnect flight battery to aircraft and follow binding instructions
	Bind switch or button not held long enough during bind process	Power off transmitter and repeat bind process. Hold transmitter bind button or switch until receiver is bound
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt binding again
LED on receiver flashes rapidly and aircraft will not respond to transmitter (after binding)	Less than a 5-second wait between first powering on transmitter and connecting flight battery to aircraft	Leaving transmitter on, disconnect and reconnect flight battery to aircraft
	Aircraft bound to different model memory (ModelMatch™ radios only)	Select correct model memory on transmitter and disconnect and reconnect flight battery to aircraft
	Flight battery/transmitter battery charge is too low	Replace/recharge batteries
	Transmitter may have been bound to a different model (or with a different DSM Protocol)	Select the right transmitter or bind to the new one
	Aircraft or transmitter is too close to large metal object, wireless source or another transmitter	Move aircraft and transmitter to another location and attempt linking again
Control surface does not move	Control surface, control horn, linkage or servo damage	Replace or repair damaged parts and adjust controls
	Wire damaged or connections loose	Do a check of wires and connections, connect or replace as needed
	Flight battery charge is low	Fully recharge flight battery
	Control linkage does not move freely	Make sure control linkage moves freely
Controls reversed	Transmitter settings reversed	Adjust controls on transmitter appropriately

Troubleshooting Guide (Continued)

Problem	Possible Cause	Solution
Motor loses power	Damage to motor or power components	Do a check of motor and power components for damage (replace as needed)
	Flight battery charge is too low	Fully recharge flight battery
Motor power quickly decreases and increases then motor loses power	Battery power is down to the point of receiver/ESC Low Voltage Cutoff (LVC)	Recharge flight battery or replace battery that is no longer performing
Servo locks or freezes at full travel	Travel adjust value is set above 100%, overdriving the servo	Set Travel adjust to 100% or less and/or set sub-trims to Zero and adjust linkages mechanically

Limited Warranty

What this Warranty Covers

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

What is Not Covered

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

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy

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

Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF

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

Law

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

WARRANTY SERVICES

Questions, Assistance, and Services

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

Inspection or Services

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

is available at http://www.horizonhobby.com/content/_service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

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

Warranty Requirements

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

Non-Warranty Service

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

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

Warranty and Service Information

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

FCC Information

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.

ICC Information

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

Compliance Information for the European Union

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)
No. HH2014100204

Product(s): FPV Vapor BNF without Headset
Item Number(s): EFLU6680
Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC, EMC Directive 2004/108/EC and LVD Directive 2006/95/EC:

Vapor BNF

EN 301 489-1 V1.7.1: 2006
EN 301 489-17 V1.3.2: 2008
EN60950-1:2006+A11:2009+A1:2010+A12: 2011
EN61000-3-2:2006+A1:2009+A2:2009
EN61000-3-3:2008
EN55022:2010 + AC:2011
EN55024:2010

FPV Camera

EN 300 440-1 V1.6.1
EN 300 440-2 V1.4.1
EN 301 489-1 V1.9.2: (2011-09)
EN 301 489-3 V1.6.1 (2013-08)
EN 62479:2010
EN 60950-1:2006+A11:2009+A1:2010+A12: 2011



Signed for and on behalf of:
Horizon Hobby, LLC
Champaign, IL USA
October 2, 2014

Mike Dunne
Executive Vice President
Product Divisions
Horizon Hobby, LLC

(in accordance with ISO/IEC 17050-1)
No. HH2014100205

Product(s): FPV Vapor RTF with Headset
Item Number(s): EFLU6600
Equipment class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC, EMC Directive 2004/108/EC and LVD Directive 2006/95/EC:

Vapor RTF

EN 300-328 V1.7.1: 2006
EN 301 489-1 V1.7.1: 2006
EN 301 489-17 V1.3.2: 2008
EN60950-1:2006+A11:2009+A1:2010+A12: 2011
EN61000-3-2:2006+A1:2009+A2:2009
EN61000-3-3:2008
EN55022:2010 + AC:2011
EN55024:2010

FPV System

EN 300 440-1 V1.6.1
EN 300 440-2 V1.4.1
EN 301 489-1 V1.9.2: (2011-09)
EN 301 489-3 V1.6.1 (2013-08)
EN55022:2010 + AC:2011
EN55024:2010
EN 62479:2010
EN 60950-1:2006+A11:2009+A1:2010+A12: 2011



Signed for and on behalf of:
Horizon Hobby, LLC
Champaign, IL USA
October 2, 2014

Mike Dunne
Executive Vice President
Product Divisions
Horizon Hobby, LLC

Instructions for disposal of WEEE by users in the European Union



This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.

Istruzioni per lo smaltimento di WEEE da parte di utenti dell'Unione Europea



Non smaltire questo prodotto assieme ai rifiuti domestici. È responsabilità dell'utente lo smaltimento di tali rifiuti, che devono essere portati in un centro di raccolta predisposto per il riciclaggio di rifiuti elettrici e apparecchiature elettroniche. La raccolta differenziata e il riciclaggio di tali rifiuti provenienti da apparecchiature nel momento dello smaltimento aiuteranno a preservare le risorse naturali e garantiranno un riciclaggio adatto a proteggere il benessere dell'uomo e dell'ambiente. Per maggiori informazioni sui punti di smaltimento dei dispositivi si prega di rivolgersi all'ufficio competente locale, al servizio di smaltimento rifiuti o al negozio presso il quale è stato acquistato il prodotto.

Replacement Parts – Ersatzteile – – Pièces de rechange – Pezzi di ricambio –

Part # • Nummer Numéro • Codice	Description	Beschreibung	Description	Descrizione
PKZU1152	3-Ch Rx/ESC DSMX	Parkzone 3-Kanal Empfänger /Regler w/ LED Port: Night Vapor	Rx/ESC DSMX 3 voies	3-Ch Rx/ESC DSMX
EFLU6620	Main Wing: FPV Vapor	E-flite FPV Vapor: Tragfläche	Aile: FPV Vapor	Ala principale: FPV Vapor
EFLU6624	Horizontal Stabilizer: FPV Vapor	E-flite FPV Vapor: Höhenruder	Stabilisateur horizontal: FPV Vapor	Stabilizzatore orizzontale: FPV Vapor
EFLU6625	Rudder: FPV Vapor	E-flite FPV Vapor: Seitenruder	Dérive: FPV Vapor	Timone: FPV Vapor
EFLUP14045C	Clear Prop w/ Spinner: FPV Vapor	E-flite FPV Vapor: Propeller transparent m. Spinner	Hélice avec Jeu de cônes: FPV Vapor	Elica con ogiva: FPV Vapor
EFLU6631	Camera Mount: FPV Vapor	E-flite FPV Vapor: Kamerahalter	Support de caméra: FPV Vapor	Supporto fotocamera: FPV Vapor
EFLU6632	Camera Power Lead Extension:FPV Vapor	E-flite FPV Vapor: Stromkabelverlängerung	Rallonge pour caméra: FPV Vapor	Prolunga per alimentazione fotocamera: FPV Vapor
PKZ3307	Tail Skid: Vapor/ Night Vapor	Parkzone Spornrad : Vapor	Sabot de queue: Vapor/Night Vapor	Pattino di coda: Vapor/Night Vapor
PKZ3316	Main Motor: Vapor/ Night Vapor	Parkzone Antriebsmotor : Vapor	Moteur: Vapor/Night Vapor	Motore principale: Vapor/Night Vapor
PKZ3322	Pushrod Set: Vapor/ Night Vapor	Parkzone Antriebsmotor : Vapor	Jeu tringleries: Vapor/Night Vapor	Set rinvii: Vapor/Night Vapor
PKZ3327	Gearbox without Motor: Vapor/Night Vapor	Parkzone Getriebe ohne Motor : Vapor	Réducteur sans moteur: Vapor/Night Vapor	Riduttore senza motore: Vapor/Night Vapor
PKZ3328	Prop Shaft with Gear (2): Vapor/ Night Vapor	Parkzone Luftschraubenwelle plus Getriebe (2) : Vapor	Arbre d'hélice avec réducteur (2): Vapor/Night Vapor	Albero elica con ingranaggio: Vapor/ Night Vapor
EFLR1064	Transmitter, 2.4GHz with Spektrum DSM2	2.4 Ghz Sender mit Spektrum DSM2	Emetteur 2,4GHz avec Spektrum DSM2	Trasmittitore 2,4GHz con Spektrum DSM2
PKZU1106	Main Landing Gear Set: Night Vapor	Parkzone Fahrwerkset: Night Vapor	Jeu de train d'atterrissage: Vapor/Night Vapor	Set carrello principale: Vapor/Night Vapor

Part # • Nummer Numéro • Codice	Description	Beschreibung	Description	Descrizione
PKZU1161	Fuselage with Electronics: Night Vapor	Parkzone Rumpf mit Elektronik: Night Vapor	Fuselage avec électronique: Vapor/ Night Vapor	Fusoliera con elettronica: Vapor/ Night Vapor
PKZU1167	Bare Fuselage: Night Vapor	Parkzone Rumpf: Night Vapor	Fuselage nu: Vapor/ Night Vapor	Solo fusoliera: Vapor/ Night Vapor
EFLH1066	Replacement Servo Mechanics	Ersatzeinheit Servos	Servos de remplacement, mécaniques	Meccanica di ricambio per i servi
EFLH1067	Replacement Servo Retaining Collars	Sicherung Servo	Servos de remplacement, Colliers de fixation	Collari di ricambio per fissaggio servi
EFLC1008	1S USB Li-Po Charger, 300mA	1S USB Li-Po Ladegerät 350mA	Chargeur Li-Po, 1S 300mA	1S USB Li-Po Caricatore, 300mA
EFLB1501S25	150mAh 1S 3.7V 25C Li-Po battery	E-flite 150mAh 1-Cell 3.7V 25C LiPo	Batterie Li-Po 1S 3.7V 150mA 25C	Batteria 150mAh 1S 3.7V 25C Li-Po
SPMVA1100	Ultra Micro FPV Camera and Video Transmitter	Ultra Micro FPV Kamera und Videosender	Ultra Micro Module FPV et Emetteur Vidéo	Videocamera e Trasmettitore Video Ultra Micro FPV
SPMVR1100	Teleporter V4 Video Headset with Head Tracking	Teleporter V4 Video Headset mit Headtracker	Lunettes Teleporter V4 avec Head Tracking	Teleporter V4 Occhiali con Visori Video con Head Tracking
FSV1701	1A 7V4 Headset Battery Pack	1A 7V4 Headset Akkupack	Batterie pour Lunettes 1A 7V4	1A 7V4 Pacco Batterie per Occhiali

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

Part # • Nummer Numéro • Codice	Description	Beschreibung	Description	Descrizione
PKZ1039	Hook and Loop Set (5): Ultra Micros	Parkzone: Klettband Set Ultra Micros	Ultras Micros - Bande auto-agrippante (5)	Set fascette a strappo (5): Ultra Micro
	DX5e DSMX 5-Channel Transmitter	DX5e DSMX 5-Kanal Sender	Emetteur DX5e DSMX 5 voies	DX5e DSMX Trasmettitore 5 canali
	DX6i DSMX 6-Channel Transmitter	DX6i DSMX 6-Kanal Sender	Emetteur DX6i DSMX 6 voies	DX6i DSMX Trasmettitore 6 canali
	DX6 DSMX 6-Channel Transmitter	DX6 DSMX 6-Kanal Sender	Emetteur DX6 DSMX 6 voies	DX6 DSMX Trasmettitore 6 canali
	DX7s DSMX 7-Channel Transmitter	Spektrum DX7s 7 Kanal Sender	Emetteur DX7s DSMX 7 voies	DX7s DSMX Trasmettitore 7 canali
	DX8 DSMX Transmitter	Spektrum DX8 nur Sender	Emetteur DX8 DSMX 8 voies	DX8 DSMX Solo trasmettitore
	DX9 DSMX Transmitter	Spektrum DX9 nur Sender	Emetteur DX9 DSMX 9 voies	DX9 DSMX Solo trasmettitore
	DX10t Transmitter	Spektrum DX10t nur Sender	Emetteur DX10t DSMX 10 voies	DX10t DSMX Solo trasmettitore
	DX18 Transmitter	Spektrum DX18 nur Sender	Emetteur DX18 DSMX 18 voies	DX18 DSMX Solo trasmettitore

© 2014 Horizon Hobby, LLC.

E-flite, ParkZone, Vapor, DSM, DSM2, DSMX, ModelMatch, Bind-N-Fly, the Bind-N-Fly logo and the Horizon Hobby logo are trademarks or registered trademarks of Horizon Hobby, LLC.

The Spektrum trademark is used with permission of Bachmann Industries, Inc.

Futaba is a registered trademark of Futaba Denshi Kogyo Kabushiki Kaisha Corporation of Japan.

All other trademarks, service marks and logos are property of their respective owners.

US 7,898,130. US D578,146. PRC ZL 200720069025. PRC ZL 2007001249.
Other patents pending.

www.e-fliterc.com

