Instruction Manual Bedienungsanleitung Manuel d'utilisation Manuale di Istruzioni

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TRIO 350

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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 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 a 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 move the throttle fully down at rotor strike.
- 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.
- Never operate aircraft with damaged wiring.
- Never touch moving parts.

WARNING AGAINST COUNTERFEIT PRODUCTS: If you ever need to replace a Spektrum component 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.

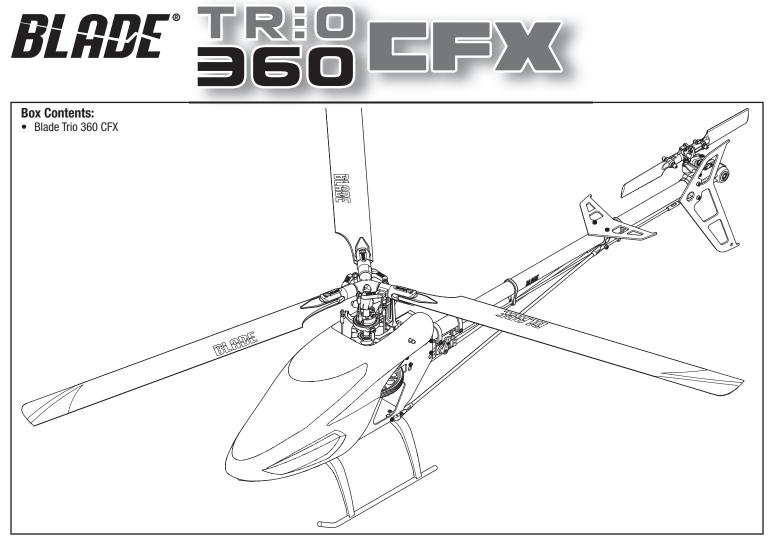


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Specifications					
Length	26.4 in (670mm)	Tail Rotor Diameter	6.9 in (175mm)		
Height	8.5 in (215mm)	Flying Weight	30 oz (850 g)		
Main Rotor Diameter	31.1 in (790mm)				

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First Flight Preparation

- Remove and inspect contents
- · Begin charging the flight battery
- Program your computer transmitter
- · Install the flight battery in the helicopter (once it has been fully charged)
- Bind your transmitter
- Familiarize yourself with the controls
- · Find a suitable area for flying

Low Voltage Cutoff (LVC)

The ESC will continuously lower power to the motor until complete shutdown when the battery reaches 18V under load. This helps prevent over-discharge of the Li-Po battery. Land immediately when the ESC activates LVC. Continuing to fly after LVC can damage the battery, cause a crash or both. Crash damage and batteries damaged due to over-discharge are not covered under warranty.

Transmitter Setup

Program your transmitter before attempting to bind or fly the helicopter. Transmitter programming values are shown below for the Spektrum DX6, DX7 (Gen 2), DX8 (Gen 2), DX9, DX18 and DX20.

DX6, DX7 (Gen 2), DX8 (Gen 2), DX9, DX18, DX20

Flying Checklist

- □ Always turn the transmitter on first
- Plug the flight battery into the lead from the ESC
- $\hfill\square$ Allow the ESC to initialize and arm properly
- Fly the model
- Land the model
- □ Unplug the flight battery from the ESC
- \Box Always turn the transmitter off last

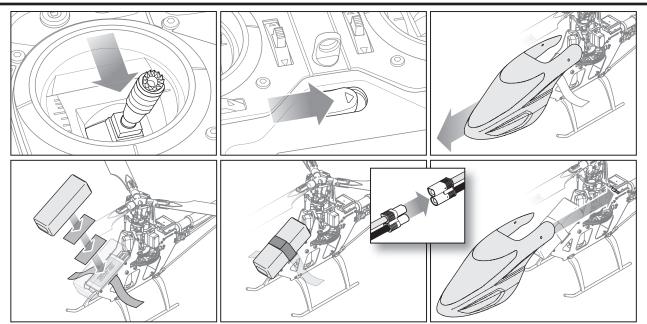
Repeatedly flying the helicopter until LVC activates will damage the helicopter battery.

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

The files for models using Spektrum[™] transmitters with AirWare[™] software are also available for download online at *www.spektrumrc.com.*

SETUP LIST		FUNCT	ON LIST									
Model Type	HELI	Servo S	Setup									
Swash Type	Normal	Chan	Travel	Reverse	;	Chan	Trave	el		Reve	rse	
F-Mode Setup		THR	130/110	Normal		RUD	100/1	00/100 Reverse				
Switch 1	Switch B	AIL	100/100	Reverse)	GER	100/1			Norr	nal	
Switch 2	Inhibit	ELE	100/100	Reverse)	PIT	100/1	00		Reve	rse	
Hold Switch	Switch H	D/R & E	хро			Thrott	le Curve					
Channel Assig		Chan	Switch (F) Pos	D/R	Expo	Switc	n (B) Pos	Pt 1	Pt 2	Pt 3	Pt 4	Pt 5
			0	100/100	0		Ν	0	30	30	30	30
Channel Input	Config	AILE	1	85/85	0		1	75	75	75	75	75
1 Throttle			2	85/85	0		2	100	100	100	100	100
2 Aileron			0	100/100	0	н	OLD	0	0	0	0	0
3 Elevator		ELEV	1	85/85	0	Pitch Curve						
4 Rudder			2	85/85	0		h (B) Pos	Pt 1	Pt 2	Pt 3	Pt 4	Pt 5
5 Flight Mode	Switch B		0	100/100	0		N	30	40	50	75	100
6 Collective		RUDD	1	85/85	0		1	0	25	50	75	100
Frame Rate			2	85/85	0		2	0	25	50	75	100
22ms	;	Gyro				H	OLD	0	25	50	75	100
DSMX Pos 0			58%		Timer							
		Pos 1		48%		Mode		Count Down				
		Pos 2		40%		Time		3:00				
		Channe		Gear		Start		Throttle Out				
		SW		В		Over		25%				
						One Ti	me		Inh	ibit		

Installing the Flight Battery



- 1. Lower the throttle.
- 2. Power on the transmitter.
- 3. Center the throttle trim.
- 4. To allow the ESC to arm and to keep rotors from initiating at startup, turn on throttle hold and normal flight mode before connecting the flight battery.
- 5. Attach hook material to the helicopter frame and loop material to the battery.
- 6. Install the flight battery on the helicopter frame. Secure the flight battery with a hook and loop strap. Connect the battery cable to the ESC.

CAUTION: Always keep the power lead positioned AWAY from the elevator servo. Failure to do so could cause the lead to get caught, resulting in a crash causing property damage and injury.

CAUTION: Make sure the flight battery does not come in contact with the motor. Failure to do so will cause the motor, ESC and battery to overheat, resulting in a crash causing property damage and injury.

- 7. Do not move the helicopter until the AR7210BX initializes. The swashplate will move up and down, indicating that the unit is ready. The AR7210BX will also emit a solid BLUE Status LED when it is ready.
- 8. The helicopter motor will emit 2 tones, incdicating the ESC is armed.

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.

Transmitter and Receiver Binding

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. You need to 'bind' your

chosen Spektrum $^{\rm TM}$ DSM2/DSMX technology equipped aircraft transmitter to the receiver for proper operation.

Binding Procedure

- 1. Program your transmitter using the Transmitter Setup found in this manual.
- 2. Insert the bind plug in the BND/DAT port on the receiver.
- 3. Connect the flight battery to the ESC. The H menu LED should be flashing, indicating the AR7210BX is in bind mode.
- 4. Move the throttle stick to the desired failsafe position (low throttle position in normal mode).
- 5. Follow the procedures of your specific transmitter to enter Bind Mode. The system will connect within a few seconds. Once connected, the H LED will turn off and the AR7210BX will start the initialization process.
- 6. When the initialization process is complete, the Status LED light will come ON solid BLUE.
- 7. Disconnect the flight battery and remove the bind plug from the AR7210BX. Store the bind plug in a convenient place.

WARNING: You must move the throttle to the LOW/OFF position during binding. Failure to do so may cause the rotor blades to spin and the helicopter to lift during the AR7210BX initialization, which could result in damage to property and injury.

NOTICE: Remove the bind plug to prevent the system from entering bind mode the next time the power is turned on.

If you encounter problems, obey binding instructions and refer to transmitter troubleshooting guide for other instructions. If needed, contact the appropriate Horizon Product Support office.

Throttle Hold

Throttle hold only turns off the motor on an electric helicopter. You maintain pitch and direction control.

The blades will spin if throttle hold is OFF. For safety, turn throttle hold ON any time you need to touch the helicopter or check the direction controls.

Throttle hold is also used to turn off the motor if the helicopter is out of control, in danger of crashing, or both.

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Control Tests

CAUTION: You must complete the Rudder and Cyclic tests prior to flight. Failure to complete the tests ensuring the sensor directions are not reversed can cause the helicopter to crash, resulting in property damage and injury.

Rudder

- 1. Power on the transmitter.
- 2. Turn TH HOLD ON and put transmitter in normal mode.
- 3. Connect the helicopter battery to the ESC.

NOTICE: Do not allow the helicopter to move until the Status LED is solid blue and all menu LEDs are OFF. The gyro will not operate correctly if the helicopter moves before the Status LED is solid blue.

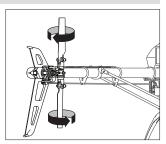
Cyclic

When using a flybarless rotor head, you are controlling rotational rates while the AR7210BX controls the servos. You are not directly controlling the servos with the transmitter.

It is normal for the swashplate to slowly move back to its original position after a stick input and for the servos to not move at the same speed as your control sticks.

- Move the rudder stick to the right. The tail rotor blades move as shown. If they do not move as shown, reverse the rudder channel in the transmitter (refer to your transmitter manual for instructions).
- 5. Release the rudder control. Manually turn the helicopter nose to the left. The tail rotor blades automatically move as shown. If they do not move as shown, refer to the AR7210BX manual for information on reversing the tail sensor direction

(Setup menu point F).

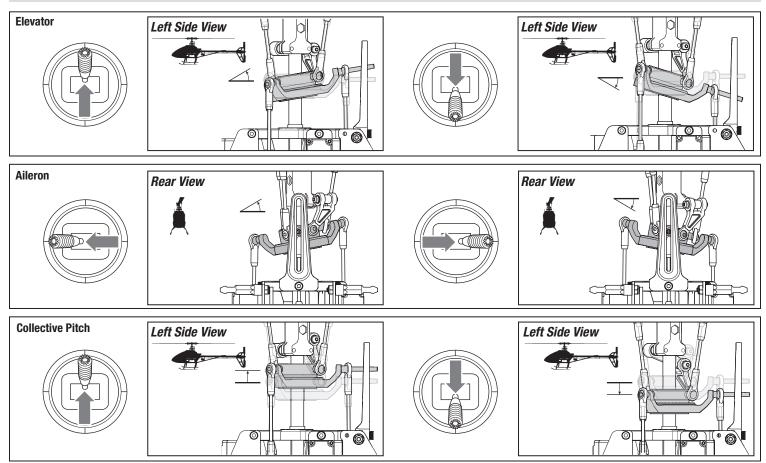


- 1. Tilt the helicopter forward. The swashplate should tilt backward.
- 2. Tilt the helicopter backward. The swashplate should tilt forward.
- 3. Roll the helicopter left. The swashplate should roll right.
- 4. Roll the helicopter right. The swashplate should roll left.
- If the swashplate does not move in the correct direction, you will need to reverse the cyclic sensor direction. Refer to the AR7210BX manual for more information (Setup menu point M).

Cyclic and Collective Control Test



WARNING: To prevent accidental motor startup and possible damage to property or personal injury, always disconnect the motor wires from the ESC prior to performing the cyclic and collective control tests.



Motor

Re-connect the motor wires to the ESC prior to attempting the motor test. Place the helicopter outdoors on a clean, flat and level surface (concrete or asphalt) free of obstructions. Always stay clear of moving rotor blades.

1. The motor beeps twice when the helicopter's ESC arms properly. Before you continue, confirm that TH HOLD is ON.

WARNING: The motor will spin when throttle is increased while TH HOLD is OFF.

2. Check the swashplate directions to ensure they are moving in the correct direction. Please refer to the diagrams for reference.

Pre-Flight Checklist

- Check all screws and ensure that they are tight
- $\hfill\square$ Check belt tension and ensure that it is not too tight or too loose
- Check main and tail blades to ensure they are not damaged
- Check all links and make sure they move freely but do not pop off easily
- Check that flight battery and transmitter battery are fully charged
- Check all wires to ensure that they are not cut, pinched, or chaffed and are properly secured

Flying the Blade Trio 360 CFX

Consult local laws and ordinances before choosing a location to fly your aircraft.

- Always keep aircraft in sight and under control
- · Always turn on throttle hold at loss of control or rotor strike
- 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 keep people and pets at least 30 feet away when the flight battery is connected
- · Never operate aircraft with damaged wiring

Never touch moving parts Select a large, open area away from people and objects. Your first flights should be outdoors in low-wind conditions. Always stay at least 30 feet (10 meters) away from the helicopter when it is flying.

The Blade Trio 360 CFX is intended to be flown outdoors.

CAUTION: This helicopter is intended for pilots with experience flying aerobatic, collective pitch helicopters. The helicopter is more responsive than other Blade helicopters. If you are not an experienced 3D or collective pitch helicopter pilot, do not attempt to fly this product.

Takeoff

Deliberately increase throttle and establish a hover at least 24" (0.6 meter) high, outside of ground effect.



CAUTION: Do not give any aileron, elevator or rudder commands before takeoff or the helicopter may crash during takeoff.



WARNING: Stay at least 30 feet (10 meters) away from the helicopter when the motor is running. Do not attempt to fly the helicopter at this time.

3. Ensure the throttle is lowered completely. Confirm the transmitter is still set to normal flight mode. Turn throttle hold off at this time. Slowly increase the throttle until the blades begin to spin. The main blades spin clockwise when viewing the helicopter from the top. The tail rotor blades spin counterclockwise when viewing the helicopter from the right-hand side.

Check all wire connections

- Check gears and make sure no teeth are missing
- Do a complete control test
- $\hfill\square$ Check that servos are functioning properly
- Check to make sure flight battery is properly secured
- Check to make sure AR7210BX is properly secured

Flying

The helicopter lifts off the ground when the rotor head reaches a suitable speed. Establish a low-level hover to verify proper operation of your helicopter. Do not set any trim; the flybarless design of the Blade 360 CFX renders trim unnecessary. Setting trim or sub-trim can cause an unwanted drift or rotation of the helicopter.

First flights should be performed in normal mode and low cyclic and rudder dual rates until you are familiar with the flying manner. Discover the rates that fit your flying style.



CAUTION: Always fly the helicopter with your back to the sun and the wind to prevent loss of flight control.

Landing

Establish a low level hover. Deliberately lower the throttle until the helicopter lands. Do not give any aileron, elevator or rudder commands when the helicopter is landing.

When the helicopter is in stunt mode:

- The Castle Creations Talon 35 ESC comes pre-programmed in Governor mode. To alter the settings, use the Castle Creations "Castle Link". Do not adjust the throttle curve in the transmitter.
- · The rotor head speed is constant.
- The main rotor will increase negative pitch as the throttle/collective stick is moved from the middle stick position to the low stick position. Negative pitch allows the helicopter to fly upside down and perform aerobatics.

Change between stunt and idle up modes in a hover with the throttle near the hovering stick position.

WARNING: Do not use wooden main blades with this helicopter or injury and/or property damage could occur. Only use Blade approved carbon fiber main blades.

Gyro Gain Adjustment

• If the tail wags or oscillates, lower the gain on the gyro.

On your transmitter's gyro menu, decrease the gyro gain values a small amount at a time until the helicopter is stable within a particular flight mode. • If the tail is drifting while hovering, increase the gain on the gyro.

On your transmitter, increase the gyro gain values a small amount at a time until the tail starts to wag/oscillate. Afterwards, reduce the gain until the tail stops wagging/oscillating within a particular flight mode.

Blade Helicopter Belt Tension

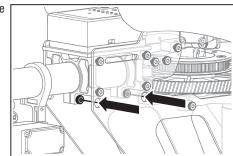
Belt tension that is too tight results in loss of power and causes the belt to wear more quickly. Tension that is too loose can cause belt damage and loss of tail rotor control in flight.

To check for proper belt tension:

- 1. View the tail rotor drive belt through the opening at the back of the main frame.
- 2. Use a hex wrench or standard screwdriver to compress the belt through the opening.
- 3. Apply light pressure on the belt, compressing the belt toward the left side of the tail boom.
- The belt tension is correct if the compressed side of the belt reaches approximately halfway to the opposite side of the belt.
 - a. If the compressed side of the belt reaches farther than halfway to the other side of the belt, the tension is too loose.
 - b. If the compressed side of the belt does not reach halfway to the other side of the belt, the tension is too tight.

To adjust belt tension:

- 1. Loosen the two horizontal stabilizer screws.
- 2. Loosen the 2 screws at the back of the main frame.
- 3. Slide the boom forward or aft to adjust the belt tension.
- 4. When the belt tension is properly adjusted, tighten the 2 screws at the back of the frame.
- 5. Tighten the horizontal stabilizer screws.



Post-Flight Inspections and Maintenance

Ball Links	Make sure the plastic ball link holds the control ball, but is not tight (binding) on the ball. When a link is too loose on the ball, it can separate from the ball during flight and cause a crash. Replace worn ball links before they fail.			
Cleaning	Vake sure the battery is not connected before cleaning. Remove dust and debris with a soft brush or a dry lint free cloth.			
Bearings	Replace bearings when they become notchy (sticky in places when turning) or draggy.			
Wiring	Make sure wiring does not block moving parts. Replace damaged wiring and loose connectors.			
Fasteners	Make sure there are no loose screws, other fasteners or connectors. Do not over tighten metal screws in plastic parts. Tighten screw so parts are mated together, then turn screw only 1/8th of a turn more.			
Rotors	Make sure there is no damage to rotor blades and other parts which move at high speed. Damage to these parts includes cracks, burrs, chips or scratches. Replace damaged parts before flying.			
Gyro	Make sure the AR7210BX is securely attached to the frame. Replace the double-sided tape when necessary. The helicopter will crash if the AR7210BX separates from the helicopter frame.			

Troubleshooting Guide

Problem	Possible Cause	Solution
	Low flight battery or transmitter battery voltage	Fully charge or replace the flight battery and/or transmitter batteries
Helicenter will not hind	AR7210BX is not in bind mode	Make sure the bind plug is connected to the AR7210BX BND/DAT port
Helicopter will not bind to the transmitter (during binding)	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 to a larger distance from the helicopter. Disconnect and reconnect the flight battery to the helicopter and follow binding instructions
Helicopter will not link to the transmitter	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
(after binding)	Flight battery/Transmitter battery charge is too low	Replace or recharge batteries
	The helicopter was moved during initialization	Lay the helicopter on its side during initialization if windy
AR7210BX will not initialize	The transmitter is powered off	Power on the transmitter
initian20	Controls are not centered	Center elevator, aileron and rudder controls. Make sure the throttle is at idle
	Throttle not at idle and/or throttle trim is too high	Lower the throttle stick and lower the throttle trim
Helicopter will not	The transmitter is not in normal mode or throttle hold is on	Make sure the transmitter is in normal mode and throttle hold is off
respond to the throttle but	The 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

Problem	Possible Cause	Solution	
	Flight battery has low voltage	Fully charge the flight battery	
	Flight battery is old or damaged	Replace the flight battery	
Helicopter power is lacking	Flight battery cells are unbalanced	Fully charge the flight battery, allowing the charger time to balance the cells	
io idolling	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 "Checking Tail Drive Belt Tension" in this manual	
	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	
Helicopter will not lift off	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	
	Rudder control and/or sensor direction reversed	Make sure the rudder control and the rudder sensor are operating in the correct direction	
The helicopter tail spins	Tail servo is damaged	Check the rudder servo for damage and replace if necessary	
out of control	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	
	Cyclic gain is too high	Decrease Dial 1 on the AR7210BX	
The helicopter wobbles in flight	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	

Limited Warranty

What this Warranty Covers

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

What is Not Covered

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

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

Purchaser's Remedy

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

Limitation of Liability

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

Law

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

WARRANTY SERVICES

Questions, Assistance, and Services

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

Inspection or Services

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

Warranty and Service Contact Information

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

Country of Purchase	Horizon Hobby	Contact Information	Address
	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	
United States of America	Horizon Product Support (Product Technical Assistance)	productsupport@horizonhobby.com 877-504-0233	4105 Fieldstone Rd Champaign, Illinois, 61822 USA
	Sales	websales@horizonhobby.com 800-338-4639	
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

FCC Information

This equipment has been tested and found to comply with the limits for 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 to an outlet on a circuit different from that to which the receiver is connected.

IC Information

This device complies with Industry Canada licence-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

EU Compliance Statement:



Horizon Hobby, LLC hereby declares that this product is in compliance with the essential requirements and other relevant provisions of the R&TTE and EMC Directives.



Instructions for disposal of WEEE by users in the European Union

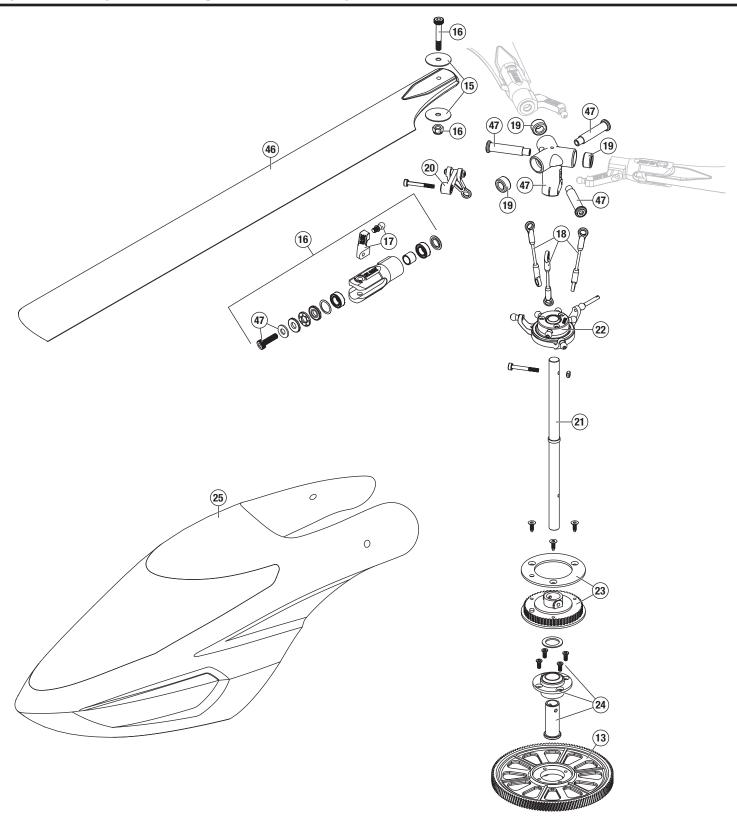
This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and make sure 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.

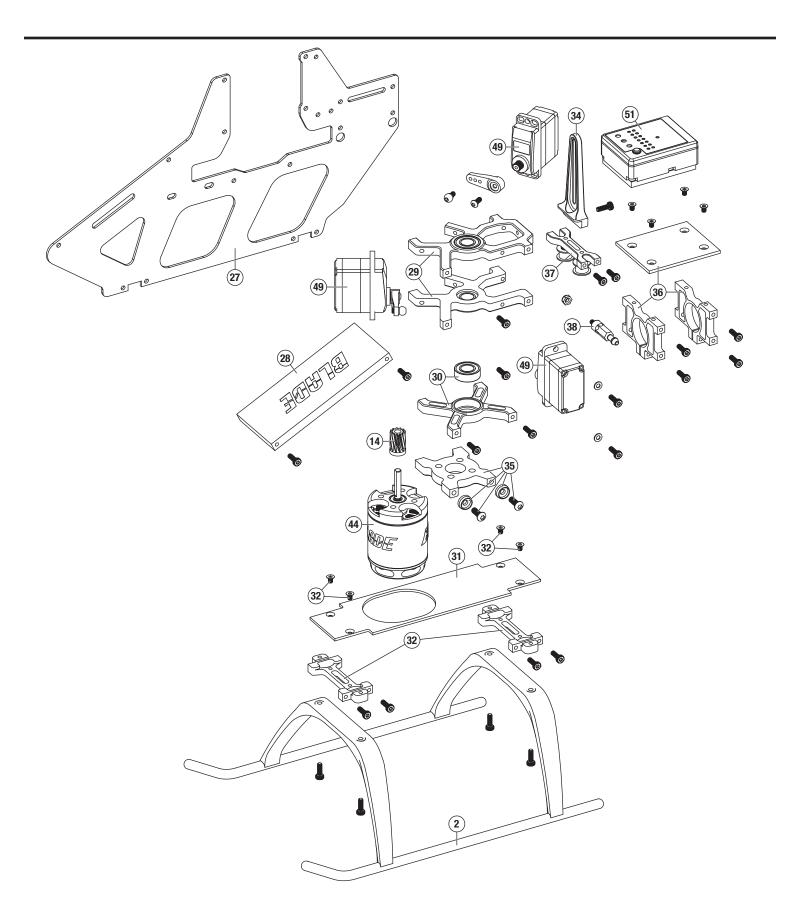
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

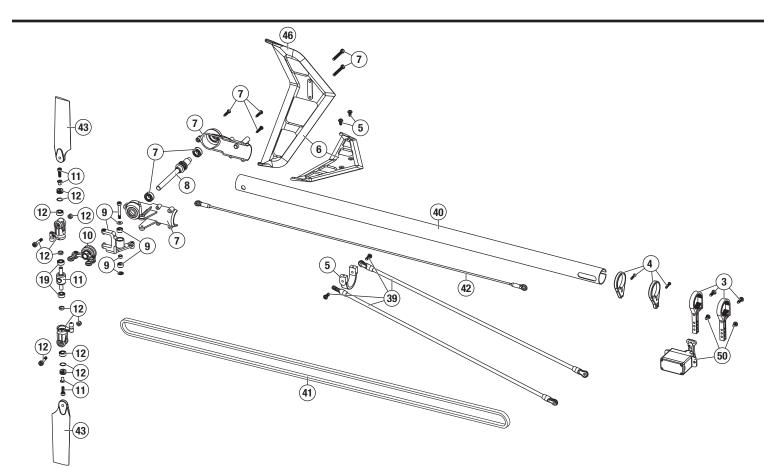
NOTICE: Modifications to this product will void the user's authority to operate this equipment.

A copy of the EU Declaration of Conformity is available online at:

http://www.horizonhobby.com/content/support-render-compliance.







Parts List / Ersatzteile / Pièces de Rechange / Pezzi di Ricambio

#	Part #	English	Deutsch	Français	Italiano
1	BLH1636	Control/Linkage Ball, Short (10): 360 CFX	Blade Kugelköpfe kurz (10): 360 CFX	Tringleries courtes/rotules (10) : 360 CFX	Sfere per i rinvii, corte (10): 360 CFX
2	BLH1645	Landing Gear Set: 360 CFX	Blade Landegestell: 360CFX	Train d'atterrissage: 360 CFX	Set carrello di atterraggio: 360 CFX
3	BLH1657	Tail Servo Boom Mount (2): 360 CFX	Blade Heckrohr (2): 360CFX	Support de servo d'anticouple: 360 CFX	Supporto servo per tubo coda (2): 360 CFX
4	BLH1660	Tail Pushrod Support/Guide Set: 360 CFX	Blade Halter Heckrotoranlenkstange: 360CFX	Guide de tringlerie d'anticouple: 360 CFX	Set supporto/guida per comando coda: 360 CFX
5	BLH1662A	Aluminum Horizontal Stab Fin Mount: 360 CFX	Blade Aluminium Leitwerksbefesti- gung/ Heckfinne: 360 CFX	Support de stabilisateur en aluminium: 360 CFX	Supporto in alluminio per piano di coda orizzontale: 360 CFX
6	BLH1672C	Stab/Fin Set, Carbon Fiber: 360 CFX	Carbon Leitwerk / Heckfinne : 360 CFX	Dérive et stabilisateur en carbone: 360 CFX	Set piani di coda, fibra di carbonio: 360 CFX
7	BLH1663	Tail Case Set: 360 CFX	Blade Heckrotor Gehäuse: 360 CFX	Boîtier d'anticouple: 360 CFX	Set scatola coda: 360 CFX
8	BLH1665	Tail Rotor Shaft and Drive Pulley (2): 360 CFX	Blade Heckrotorschaft (2): 360 CFX	Axe d'anticouple: 360 CFX	Albero rotore di coda con puleggia (2): 360 CFX
9	BLH1667	Tail Rotor Pitch Lever Set: 360 CFX	Blade Heckrotor Anlenkungset: 360 CFX	Levier d'anticouple: 360 CFX	Set leva passo per rotore di coda: 360 CFX
10	BLH1668	Tail Rotor Pitch Control Slider Set: 360 CFX	Heckrotorschiebehülse Set : 360 CFX	Coulisseau d'anticouple: 360 CFX	Set cursore controllo passo rotore di coda: 360 CFX
11	BLH1669	Tail Rotor Hub Set: 360 CFX	Heckrotor Zentralstück Set : 360 CFX	Moyeu d'anticouple: 360 CFX	Set mozzo rotore di coda: 360 CFX
12	BLH1670	Tail Rotor Blade Grip/Holder Set: 360 CFX	Blatthalter Heckrotor: 360 CFX	Pieds de pales d'anticouple: 360 CFX	Set portapala rotore di coda: 360 CFX
13	BLH1901	Helical Main Gear: 360 CFX	Hauptzahnrad schrägverz.: 360 CFX	Couronne principale hélicoïdale: 360 CFX	Ingranaggio principale elicoidale: 360 CFX
14	BLH1904	Helical Pinion, 12T: 360 CFX	Ritzel 12 Z schrägverz.: 360 CFX	Pignon 12T hélicoïdal: 360 CFX	Pignone elicoidale, 12T: 360 CFX
15	BLH4304	Main Blade Shims (4): 360 CFX	Unterlegscheiben Rotorblatthalter (4): 360 CFX	Rondelles de pales principales (4): 360 CFX	Spessori per pala principale (4): 360 CFX
16	BLH4701	Fbl Main Rotor Grip Set: 360 CFX	Rotorblatthalterset: 360 CFX	Pieds de pales principales FBL: 360 CFX	Set portapala Fbl rotore principale: 360 CFX
17	BLH4702	Fbl Main Grip Arms: 360 CFX	Rotorblatthalter: 360 CFX	Leviers de pieds de pales principales: 360 CFX	Bracci portapala principale Fbl: 360 CFX
18	BLH4703	Fbl Linkage Set: 360 CFX	Flybarlessanlenkungen: 360 CFX	Tringleries Fbl: 360 CFX	Set rinvii Fbl: 360 CFX
19	BLH4706	Dampers (4): 360 CFX	Dämpfer (4): 360 CFX	Amortisseurs (4): 360 CFX	Smorzatori (4): 360 CFX

#	Part #	English	Deutsch	Français	Italiano
20	BLH4707	Fbl Follower Arms: 360 CFX	Taumelscheibenmitnehmer: 360 CFX	Bras FBL: 360 CFX	Fbl Squadretta rinvio: 360 CFX
21	BLH4708	Main Shaft (2): 360 CFX	Hauptrotorwelle (2): 360 CFX	Axe principal: 360 CFX	Albero principale (2): 360 CFX
22	BLH4709	Aluminum Swashplate: 360 CFX	Taumelscheibe Aluminum: 360 CFX	Plateau cyclique en aluminium: 360 CFX	Piatto oscillante in alluminio: 360 CFX
23	BLH4710	Belt Drive Pulley: 360 CFX	Zahnriemenspannrad : 360 CFX	Poulie de transmission d'anticouple: 360 CFX	Puleggia per cinghia: 360 CFX
24	BLH4711	One-Way Bearing Hub w/One way bearing: 360 CFX	Freilauf: 360 CFX	Roue libre avec moyeu: 360 CFX	Mozzo con cuscinetto a ruota libera: 360 CFX
25	BLH4712	Stock FG Canopy: 360 CFX	Kabinenhaube: 360 CFX	Bulle d'origine en fibre: 360 CFX	Capottina FG di serie: 360 CFX
26	BLH4713	Optional FG Canopy: 360 CFX	optionale Haube: 360 CFX	Bulle optionnelle en fibre: 360 CFX	Capottina FG opzionale: 360 CFX
27	BLH4714	CF Main Frame Set: 360 CFX	Hauptrahmen: 360 CFX	Flancs de châssis en carbone: 360 CFX	Set telaio principale CF: 360 CFX
28	BLH4715	Battery Tray: 360 CFX	Akkuhalter: 360 CFX	Support de batterie: 360 CFX	Supporto batteria: 360 CFX
29	BLH4716	Servo Mounting Blocks: 360 CFX	Servohalter: 360 CFX	Paliers de fixation de servos: 360 CFX	Blocchi supporto servi: 360 CFX
30	BLH4717	Lower Bearing Block: 360 CFX	Lagerblock unten: 360 CFX	Palier inférieur: 360 CFX	Blocco cuscinetto inferiore: 360 CFX
31	BLH4718	Bottom Plate: 360 CFX	Bodenplatte: 360 CFX	Platine inférieure: 360 CFX	Piastra inferiore: 360 CFX
32	BLH4719	Landing Gear Mounts: 360 CFX	Halter Kufengestell: 360 CFX	Supports de train d'atterrissage: 360 CFX	Supporti carrello: 360 CFX
33	BLH4720	Linkage Set: 360 CFX	Anlenkungsset: 360 CFX	Tringleries: 360 CFX	Set rinvii di collegamento: 360 CFX
34	BLH4721	Anti-Rotation Bracket: 360 CFX	Taumelscheibenführung: 360 CFX	Guide de plateau cyclique: 360 CFX	Staffa antirotazione: 360 CFX
35	BLH4722	Motor Mount: 360 CFX	Motorhalter: 360 CFX	Support moteur: 360 CFX	Supporto motore: 360 CFX
36	BLH4723	Tail Boom Clamp: 360 CFX	Heckauslegerklampe: 360 CFX	Fixation de poutre de queue: 360 CFX	Supporto tubo coda: 360 CFX
37	BLH4724	Belt Tensioner: 360 CFX	Riemenspanner: 360 CFX	Tendeur de courroie: 360 CFX	Tenditore cinghia: 360 CFX
38	BLH4725	Canopy Posts: 360 CFX	Blade 360 CFX: Kabinenhaubenhalter	Supports de bulle: 360 CFX	Appoggi capottina: 360 CFX
39	BLH4726	Boom Support Set: 360 CFX	Blade 360 CFX: Heckauslegerhalter Set	Renforts de poutre: 360 CFX	Set supporto tubo: 360 CFX
40	BLH4727	Boom (2): 360 CFX	Heckrohr: 360 CFX	Poutre (2): 360 CFX	Tubo coda (2): 360 CFX
41	BLH4728	Tail Drive Belt: 360 CFX	Heckrotorriemen: 360 CFX	Courroie d'anticouple	Cinghia trasmissione coda: 360 CFX
42	BLH4729	Tail Pushrod Set (2): 360 CFX	Heckrotorgestänge: 360 CFX	Commande d'anticouple (2) : 360 CFX	Set asta comando coda (2): 360 CFX
43	BLH4730	Tail Rotor Blade Set: 360 CFX	Heckrotorblätter: 360 CFX	Paire de pales d'anticouple	Set pale rotore coda: 360 CFX
44	BLH4731	Brushless Out-Runner Motor, 1800Kv: 360 CFX	Brushless Aussenläufer: 360 CFX	Moteur brushless 1800Kv: 360 CFX	Motore brushless a cassa rotante, 1800Kv: 360 CFX
45	BLH4733	Vertical Fin: 360 CFX	Vertikale Finne: 360 CFX	Dérive: 360 CFX	Impennaggio verticale: 360 CFX
46	BLH4751	360mm Main Blades (3)	360mm Carbon Hauptrotorblätter (3)	Pales principales en carbone 360mm (3)	Pale rotore principale in carbonio da 360mm (3)
47	BLH4753	3-Blade Head Spindle	3-Blattrotorkopfspindel	Axe de pied de pale pour tête tripale	Perno testa rotore tripala
48	BLH4754	3-Blade Head Block	3-Blattrotorkopfblock	Moyeu de tête tripale	Set blocco testa rotore tripala
49	SPMSH3050	H3050 Sub-Micro Digital Heli Cyclic MG Servo	Spektrum Taumelscheibenservo dig. 9g MG	H3050 Sub-micro-servo digital, pignons métal pour anticouple.	H3050 Servo digitale sub-micro MG per ciclico
50	SPMSH3060	H3060 Sub-Micro Digital Heli Tail MG Servo	Spektrum Heckrotorservo dig. 9g MG	H3060 Sub-micro-servo digital, pignons métal pour cyclique.	H3060 Servo digitale sub-micro MG per coda
51	SPMAR- 7210BX	DSMX Flybarless Control System	DSMX Flybarless Control System	Récepteur DSMX flybarless	DSMX Sistema di controllo flybarless (senza barra stabilizzatrice)
	SPMSP1040	Gear Set: H3050	Getriebeset: H3050	H3050 - Set de couronnes	Set ingranaggio: H3050
	SPMSP2052	Case Set: H3050, H3060	Gehäuseset: H3050,H3060	H3050, H3060 - Boitier	Set scatola: H3050, H3060

Optional Parts / Optionale Bauteile / Pièces optionnelles / Pezzi opzionali

Part #	English	Deutsch	Français	Italiano
EFLB13006S30	1300 mAh 6S 22.2V 30C LiPo	1300 mAh 6S 22,2 V 30 C LiPo	Li-Po 6S 22,2V 1300mA 30C	1300 mAh 6S 22.2 V 30C LiPo

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