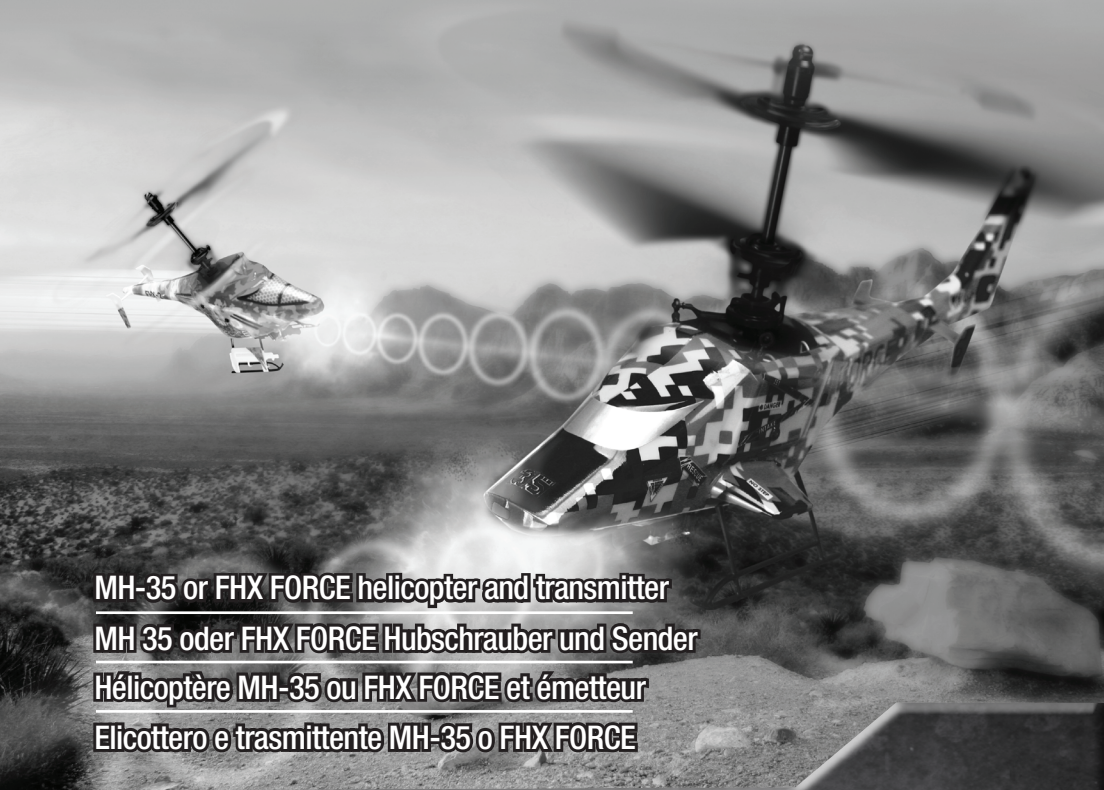


# FORCE RC™

LET THE BATTLE BEGIN!™

Instruction Manual | Bedienungsanleitung | Manuel d'utilisation | Manuale di istruzioni



**MH-35 or FHX FORCE helicopter and transmitter**

**MH 35 oder FHX FORCE Hubschrauber und Sender**

**Hélicoptère MH-35 ou FHX FORCE et émetteur**

**Elicottero e trasmittente MH-35 o FHX FORCE**

Note: Attempting to fly the helicopter without completely reading the manual may cause injury to yourself and people in the vicinity, as well as damage to the helicopter.

Hinweis: Der Versuch, den Helikopter zu fliegen, ohne das Handbuch vollständig zu lesen, kann Verletzungen an Ihnen selbst und Menschen in der Nähe, wie auch Schäden am Helikopter verursachen.

A noter: tenter de faire voler l'hélicoptère sans avoir lu l'intégralité du manuel peut provoquer des blessures (à vous-même et aux personnes alentour) ainsi que des dégâts à l'hélicoptère.

Nota: Un tentativo di far volare l'elicottero senza aver letto completamente il manuale può avere come risultato una lesione del manovratore e delle persone circostanti, nonché danni all'elicottero stesso.

## NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. For up-to-date product literature, visit [horizonhobby.com](http://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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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.

### Warning

An RC helicopter is not a toy! If misused, it can cause serious bodily harm and damage to property. Fly only in open areas, preferably at approved flying sites, following all instructions.

Keep items that can get entangled in the rotor blades away from the main and tail blades, including loose clothing, pencils and screwdrivers. Especially keep your hands away from the rotor blades.

## Additional Safety Precautions and Warnings



**Age Recommendation: 14 years or over.** Not a toy. Not intended for use by children without direct adult supervision.

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

This model is controlled by a radio signal that is subject to interference from many sources outside your control. This interference can cause momentary loss of control so it is advisable to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

- Never operate your model with low transmitter batteries.
- Always operate your model in open spaces away from full-size vehicles, traffic and people.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.).
- Keep all chemicals, small parts and anything electrical out of the reach of children.
- Moisture causes damage to electronics.  
Avoid water exposure to all equipment not specifically designed and protected for this purpose.
- Never lick or place any portion of your model in your mouth as it could cause serious injury or even death.

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In order to provide the best possible product, some parts may vary slightly from those shown.

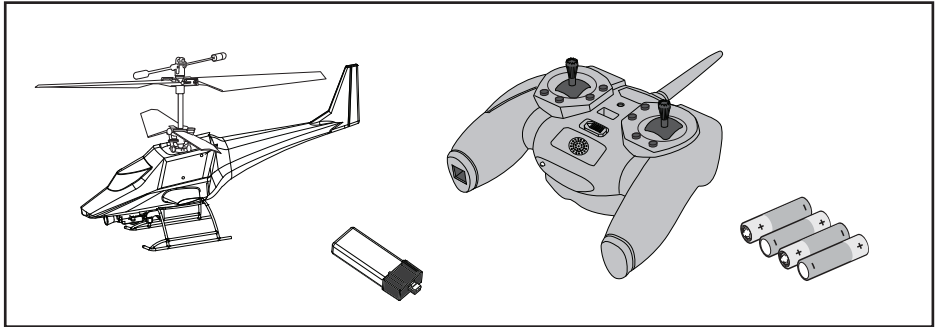
## Product Registration

Please register your product at [www.force-rc.com](http://www.force-rc.com).

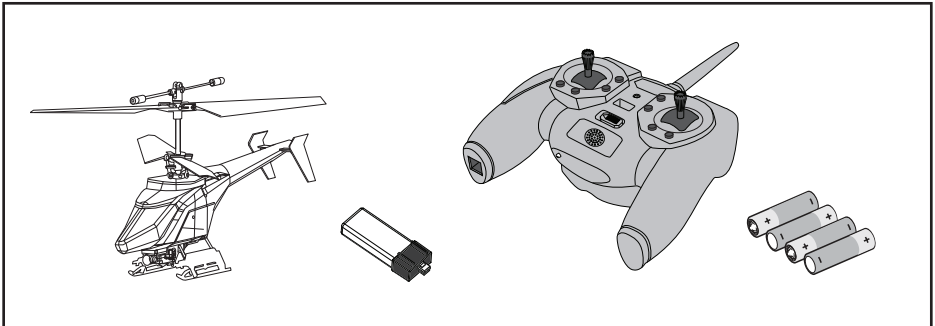
## Box Contents

Box contents will vary, depending on which helicopter you've purchased.

### FHX



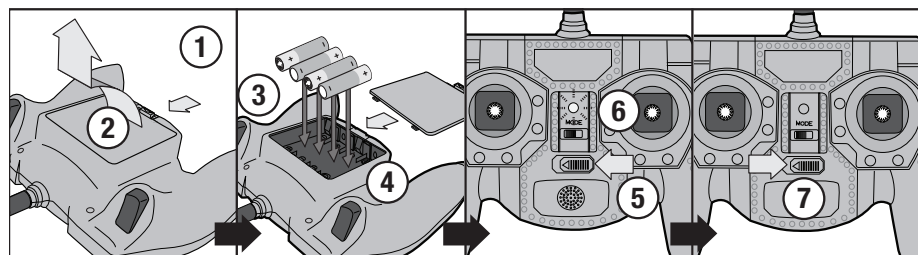
### MH-35



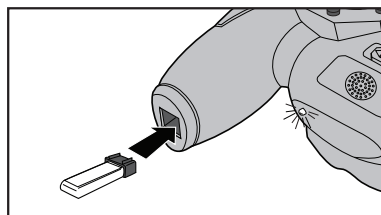
## Battery Warnings and Guidelines



<p><b>⚠ CAUTION</b></p>  <p>Always use a charger compatible with batteries.</p>	<p><b>⚠ WARNING</b></p>  <p>Always charge Batteries away from flammable materials.</p>	<p><b>⚠ WARNING</b></p>  <p>Never leave charging Batteries unattended.</p>		
<p><b>⚠ WARNING</b></p>  <p>Never charge damaged Batteries.</p>	<p><b>⚠ WARNING</b></p>  <p>Always remove batteries after use.</p>	<p><b>⚠ WARNING</b></p>  <p>Always remove batteries before disassembly.</p>	<p><b>⚠ WARNING</b></p>  <p>Never touch or use hot Batteries.</p>	<p><b>⚠ WARNING</b></p>  <p>Never Alter Batteries.</p>

## Installing the Transmitter Batteries



## Battery Charging



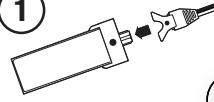

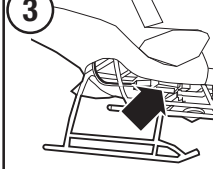
-  Solid LED while charging
-  Flashing LED when charging is almost complete
- No LED when charging is complete

Note: A flight battery may be charged in the transmitter's charging port while the transmitter is in use.

Note: When transmitter charging LED continues to flash after flight battery is removed, replace transmitter batteries. When charging a flight battery requires longer than 20 minutes, transmitter batteries may require replacement.

An optional flight battery charger, *Celectra 4-Port Charger with AC Adapter Combo* (EFLC1004AC) is available from [www.horizonhobby.com](http://www.horizonhobby.com).

## Installing the Flight Battery

<p><b>1</b></p>  <p>Align red dots and push helicopter connector on flight battery.</p>	<p><b>2</b></p>  <p>Do not move for 5–10 seconds</p> <p>Once LED goes solid, install flight battery in battery cradle.</p>	<p><b>3</b></p> 
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Note: Keep helicopter still after connecting flight battery to let helicopter gyroscope calibrate. Make sure the throttle control stick is fully lowered for 3 seconds to arm the throttle for flight. Throttle trim may need to be set at neutral or lower.

# Flying your FORCE helicopter

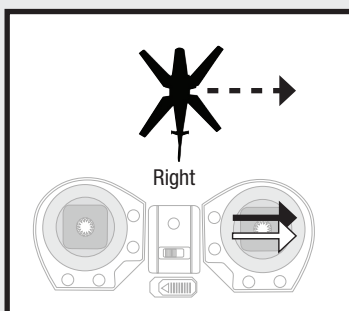
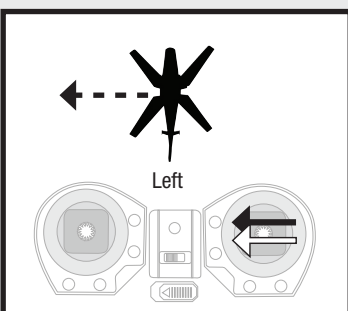
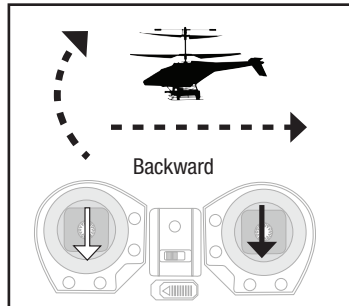
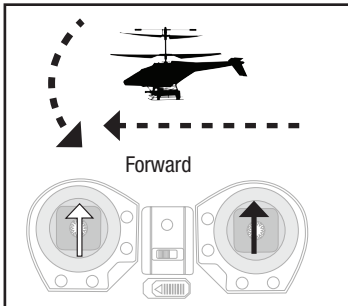
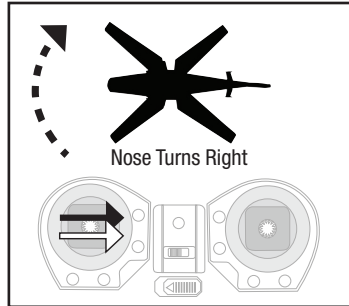
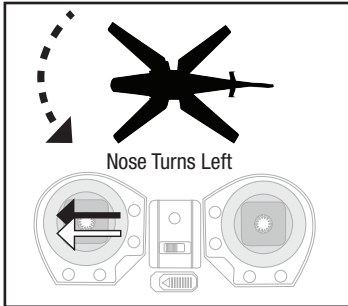
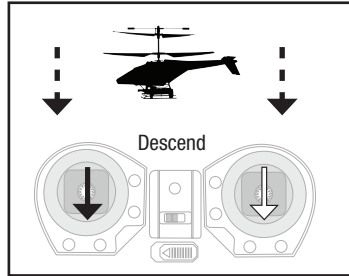
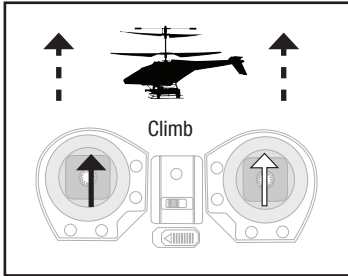
If you are not accustomed to the controls of your FORCE heli, familiarize yourself with them before attempting your first flight. To learn more about advanced flying techniques, visit [www.force-rc.com](http://www.force-rc.com).

## Transmitter Mode Legend

MODE 2



MODE 1



This movement is disabled in SimpliFly™ mode



# Transmitter Control Identification

**Mode 2/Mode 1**

**Fire Buttons**

**Rear of Transmitter**

Note: When pressed down, trim buttons make a sound that increases or decreases in pitch at each pressing. The middle or neutral trim position uses a middle-range tone. A series of beeps sounds end of control range.

You can convert your Mode 1 transmitter to Mode 3 or Mode 2 transmitter to Mode 4. The Mode Switch allows you to change the Aileron and Rudder between right and left flight control sticks for mode change. For more information on Modes 3 and 4, please visit [www.force-rc.com](http://www.force-rc.com).

## Flying the helicopter

Note: Learn about more advanced flying on the product page for the FORCE helis on [www.force-rc.com](http://www.force-rc.com) to see many of these maneuvers and adjustments performed by the helicopter and pilot.

1. Throttle must be at the lowest setting for 3 seconds to arm ESC.
2. Increase throttle until helicopter rises 1 foot (30cm) above floor.
3. Adjust throttle so the helicopter stays at this height.
4. When helicopter does not stay in one place, you may need to push trim buttons to adjust controls. Always land the helicopter and make trim adjustments when the helicopter is not easy to control.
  - a) When helicopter drifts forward or backward, adjust elevator trim using buttons by elevator control stick. For example, when helicopter drifts forward, increase back elevator trim.
  - b) When helicopter drifts left or right, adjust aileron trim. For example, when helicopter drifts left, increase right aileron trim.
  - c) When helicopter spins left or right, adjust rudder trim. For example, when there is leftward spin, increase right rudder trim.

**⚠ WARNING**

Always keep vehicle in sight and under control.

**⚠ WARNING**

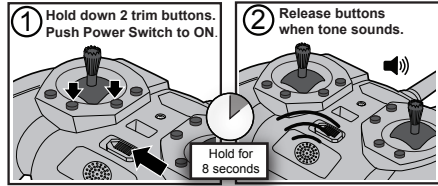
Always keep transmitter powered on while vehicle is powered.

**⚠ WARNING**

Always decrease throttle at rotor strike.

## Restore Transmitter to Factory Settings

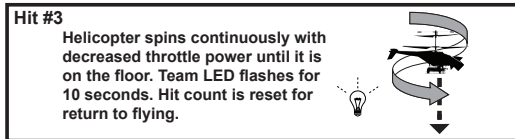
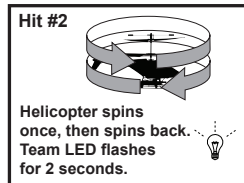
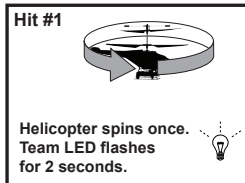
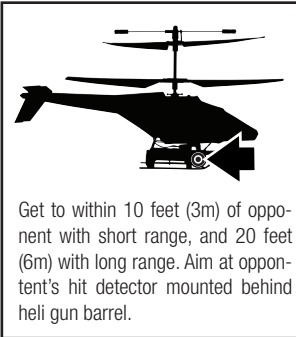
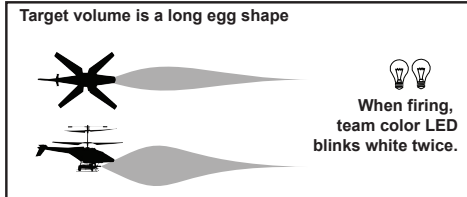
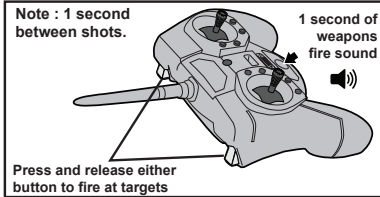
Press and hold down two trim buttons (see illustration) while pushing power switch to ON. Hold trim buttons 8 seconds. Release trim buttons when tone sounds, indicating transmitter has been restored to factory settings. Only transmitter settings are reset with this procedure. See FORCE Operations Setup Mode instructions for changing helicopter settings such as shot range and team color.



## VDAS Visual Damage Assessment System

Please fly your helicopter, do tests of firing, team color, shot range and the response to hits (VDAS) before going head-to-head in battle.

Hold your powered helicopters and see if there is a reaction (blinking white LED at Team color LED) when helicopters fire on each other.

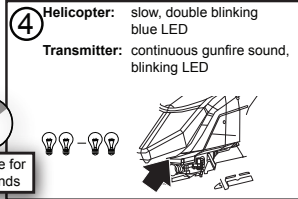
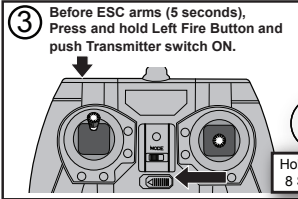
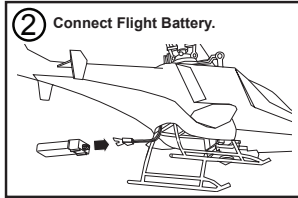
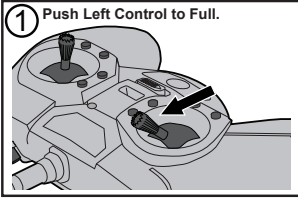


Note: DO NOT use elevator and aileron controls at Hit #3 response or the helicopter may not land safely on its landing gear. Rudder and throttle controls may be used at Hit #3 response.

Note: Distance from the opponent and bright sunlight may interfere with shooting and helicopter response to shots. Go to [www.force-rc.com](http://www.force-rc.com) for battle tactics and tips.

# FORCE Operations Setup Mode

Your helicopter is ready for battle when you open the box. Factory settings are standard flight (not SimpliFly), Green team (rogue or free-for-all), and long range (20 feet (6m)). Only when you want to change these battle settings is FORCE Operations Setup Mode required.

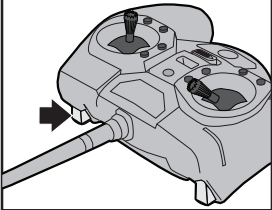


Note: If heli LED is blinking rapidly after step 3, unplug the flight battery and try again.

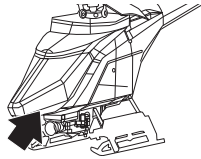
## Range Limit Function

Default: Long Range

Press and Release Right Fire Button to change Range



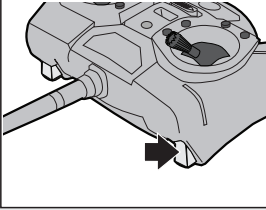
**Low:** Up to 10-foot (3m) range  
 LED blinks slowly  
**High:** Up to 20-foot (6m) range  
 LED blinks rapidly



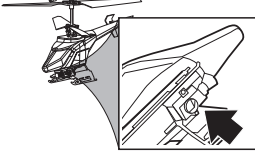
## Team ID Function

Default: Green

Press and Release Left Fire Button to change Team Color



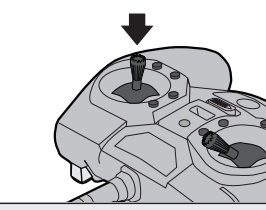
**Green LED:** Accepts any hits.  
**Blue LED:** Accepts hits only from Red and Green teams.  
**Red LED:** Accepts hits only from Blue and Green teams.



## SimpliFly Mode

Default: SimpliFly disabled

Push stick down into case until it clicks



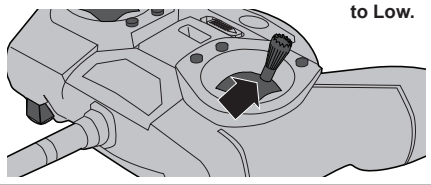
**SimpliFly:** 2 beeps at stick push. Transmitter LED blinks.  
**Standard:** 1 beep at stick push. LED solid light.



## Save and Exit

To Save settings and Exit Setup Mode

Push Left Control Stick to Low.



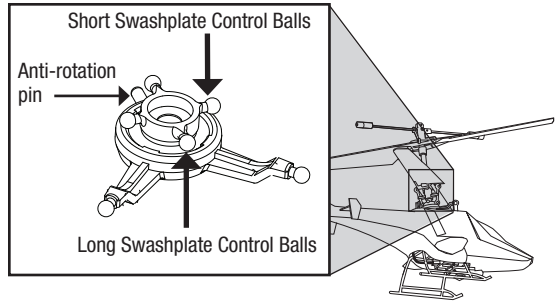


## Advanced Swashplate Settings

More information is available at [www.force-rc.com](http://www.force-rc.com) for advanced settings and adjustments for your FORCE helicopter and transmitter.

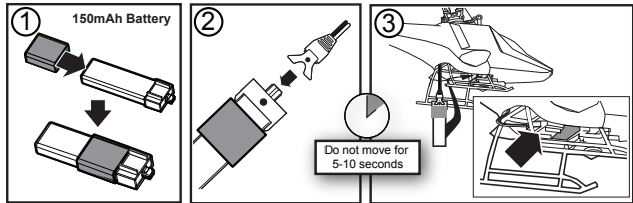
The FORCE helicopter comes with an adjustable swashplate for advanced pilots. Move lower rotor head links from the shorter to the longer set of inner swashplate control balls (see illustration). This change provides increased helicopter response for flying against drafts or air movement.

Note: Always attach links to control balls opposite each other.



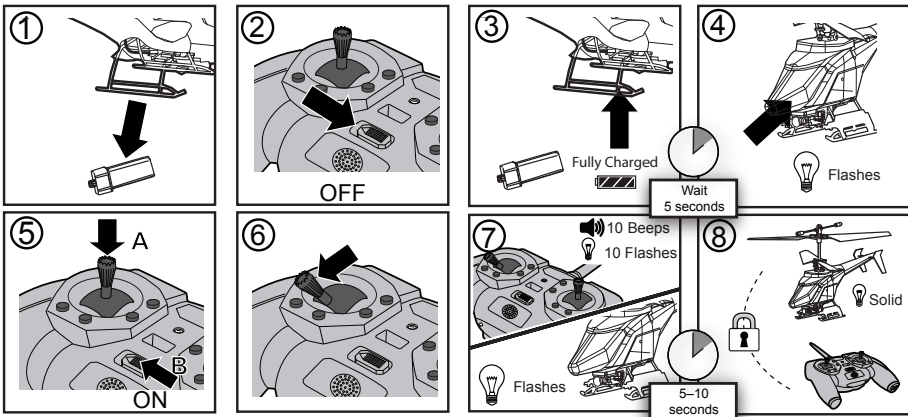
## Installing Optional 150mAh Flight Battery

Before installing an optional 150mAh flight battery, install short tubing on the battery. This will keep installation of this battery (longer than the 120mAh battery) from interfering with flight operation.



## Re-Binding your FORCE Helicopter

The transmitter and helicopter in the box are bound together at the factory. Re-binding is for transferring helicopter control between transmitters or restoration after accidental loss of binding.



## Troubleshooting Guide

Some issues may be not addressed in this short guide. Please refer to more FORCE information at [www.force-rc.com](http://www.force-rc.com).

Problem	Possible Cause	Possible Solution
Gun does not seem to fire	<ul style="list-style-type: none"><li>• Damage to IR Combat Unit</li></ul>	<ul style="list-style-type: none"><li>• Replace IR IR Combat Unit</li></ul>
Helicopter does not respond to fire from opponent	<ul style="list-style-type: none"><li>• Battle conditions interfere</li><li>• Damage to IR Combat Unit</li></ul>	<ul style="list-style-type: none"><li>• Do a check of IR Combat Unit range settings, decrease lighting in room, etc.</li><li>• Replace IR IR Combat Unit</li></ul>
Aircraft will not respond to throttle but other controls function	<ul style="list-style-type: none"><li>• Throttle and throttle trim not lowered at aircraft initializing.</li><li>• Your transmitter throttle channel might be set to the wrong direction.</li></ul>	<ul style="list-style-type: none"><li>• Lower throttle stick and throttle trim to lowest settings to arm throttle correctly.</li><li>• Restore transmitter to factory settings</li></ul>
Charger light on transmitter stays on after Li-Po battery is disconnected or remains on for longer than 40 minutes when charging.	<ul style="list-style-type: none"><li>• Transmitter batteries have low charge</li></ul>	<ul style="list-style-type: none"><li>• Replace AA batteries in the transmitter</li></ul>
Aircraft has bad cyclic control reactions (for example, forward elevator input results in aircraft flying sideways left or right)	<ul style="list-style-type: none"><li>• Swashplate anti-rotation pin is out of the main frame bracket</li></ul>	<ul style="list-style-type: none"><li>• Carefully put pin of swashplate in the bracket channel, high at the back of the main frame</li></ul>
Transmitter control stick blocked or "sticky"	<ul style="list-style-type: none"><li>• Stick gimbal moved up in transmitter</li></ul>	<ul style="list-style-type: none"><li>• Disconnect flight battery from 5-in-1 unit, power off the transmitter and push in the transmitter control stick until it clicks</li></ul>

## Replacement Parts

For replacement and optional parts to keep your helicopter battle-ready, go to [www.force-rc.com](http://www.force-rc.com)

## Warranty and Repair Policy

**Warranty Period:** Exclusive Warranty- Horizon Hobby, Inc., (Horizon) warranties that the Products purchased (the "Product") will be free from defects in materials and workmanship at the date of purchase by the Purchaser.

**Limited Warranty: Horizon reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied.**

(a) This warranty is limited to the original Purchaser ("Purchaser") and is not transferable. REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE PURCHASER. This warranty covers only those Products purchased from an authorized Horizon dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for all warranty claims.

(b) Limitations- HORIZON MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE PRODUCT. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

(c) Purchaser Remedy- Horizon's sole obligation hereunder shall be that Horizon will, at its option, (i) repair or (ii) replace, any Product determined by Horizon to be defective. In the event of a defect, these are the Purchaser's exclusive remedies. Horizon reserves the right to inspect any and all equipment involved in a warranty claim. Repair or replacement decisions are at the sole discretion of Horizon. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance, or attempted repair by anyone other than Horizon. Return of any Product by Purchaser must be approved in writing by Horizon before shipment.

**Damage Limits:** HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE PRODUCT, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. 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 this Product, you are advised to return this 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).

## WARRANTY SERVICES

**Questions, Assistance, and Repairs:** Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact 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 direct your email to [productsupport@horizonhobby.com](mailto:productsupport@horizonhobby.com), or call 877.504.0233 toll free to speak to a Product Support representative. You may also find information on our website at [www.horizonhobby.com](http://www.horizonhobby.com).

**Inspection or Repairs:** If this Product needs to be inspected or repaired, please use the Horizon Online Repair 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 Repair Request is available at [www.horizonhobby.com](http://www.horizonhobby.com) under the Repairs tab. 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 repair. 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 batteries to Horizon. If you have any issue with a battery, please contact the appropriate Horizon Product Support office.**

**Warranty Inspection and Repairs: To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date.** Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon.

**Non-Warranty Repairs: Should your repair not be covered by warranty the repair 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 repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair 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 cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for inspection or repair, you are agreeing to Horizon's Terms and Conditions found on our website under the Repairs tab.

Country of Purchase	Horizon Hobby	Address	Phone Number/ Email
United States	Horizon Service Center (Electronics and engines)  Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois 61822 USA	877-504-0233  productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS, United Kingdom	+44 (0) 1279 641 097  sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Hamburger Str. 10 25335 Elmshorn Germany	+49 (0) 4121 46199 66  service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70

## FCC Statement

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.

## Compliance Information for the European Union

**CE Declaration of Conformity** (in accordance with ISO/IEC 17050-1)  
No. HH20100806

Product(s): FORCE MH-35 Heli RTF, FORCE MH-35 Heli RTF Mode 1,  
FORCE FHX Heli RTF, FORCE FHX Heli RTF Mode 1

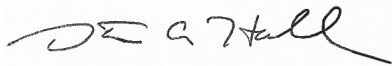
Item Number(s): FCE2000, FCE2000M1, FCE2100, FCE2100M1

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:

EN 300-328 Technical requirements for Radio equipment.  
EN 301 489 General EMC requirements  
EN 60950 Safety

Signed for and on behalf of:  
Horizon Hobby, Inc.  
Champaign, IL USA



Steven A. Hall  
Vice President  
International Operations and Risk Management  
Horizon Hobby, Inc.

Aug 06, 2010

## 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 collection 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.

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US 7,391,320. US D578,146. PRC ZL 200720069025.2. Other patents pending.  
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