Thank you for purchasing the E-flite® 25- to 46-Size Electric Retracts. These self-contained units are powered from your model’s receiver and do not require separate servos. The retracts are supplied with coil struts installed, plus adjustable axles, wheel collars, Allen wrenches and a 3-into-1 wire harness (for the tricycle set) or 2-into-1 wire harness (for main gear set). The nose gear unit is steerable and has a slot in the sliding steering arm to prevent binding of the steering cable when retracted.

### Specifications

**Current draw**
- Idle: 5mA
- Operating: 900mA (maximum)

**Pulse width trigger points**
- Down: 1.331ms
- Up: 1.690ms

**Operation with FM and DSM**
- FM: 22ms frame rate, 5V signal
- DSM: 20ms frame rate, 3.3V signal

**Sequence time**
- @4.8V: 2.75sec
- @6.0V: 2.50sec
- @7.4V: 2.25sec

**Operating voltage range**
- 4.8—7.4V

**Aircraft weight**
- 5.00—9.50 lb (2.25—4.30 kg)

**Unit weight**
- Nose gear: 3.5 oz (99.5 g)
- Main gear: 2.8 oz (79.5 g) each

### Parts Available

- EFLG30190 90-degree Main Retract Unit
- EFLG30185 85-degree Main Retract Unit
- EFLG321100L 100-degree Left Rotating Main Unit
- EFLG321100R 100-degree Right Rotating Main Unit
- EFLG302 Left Main Wire Strut
- EFLG303 Right Main Wire Strut
- EFLG304 Adjustable Axles
- EFLRYH9 Dual Plug Y-harness
- EFLG31190 90-degree Nose Retract Unit
- EFLG311105 105-degree Nose Retract Unit
- EFLG312 Nose Gear Wire Strut
- EFLG313 Nose Gear Steering Arm
- EFLRYH9TR Triple Plug Y-harness
- EFLG322100L 25-46 100-Deg Left Rotating Trunion
- EFLG322100R 25-46 100-Deg Right Rotating Trunion

### Tools Required

- Pencil
- Screwdriver
- Flat file
- Threadlock
- Safety glasses
- Rotary tool with cutoff wheel
- 1.5mm, 2mm, 2.5mm hex wrenches

### Installation

1. Use a 2mm hex wrench to remove the pair of setscrews retaining the strut in each main gear trunnion. Apply threadlock to the setscrews and reinstall them.
2. Test fit the retract unit in the wing or fuselage to determine the strut length and axle location. Cut the strut to length using a cutoff wheel in a rotary tool.

3. Make two flat spots on the end of the strut with a file and use a 2.5mm hex wrench to secure the axle to the strut. Apply threadlock to the threads of the retaining screws so they do not loosen from vibration.

4. Install the wheels on the axles. Slide the brass wheel collar onto the axle and secure it using a 1.5mm hex wrench. Apply threadlock to the setscrew to prevent it loosening due to vibration.

5. Mark the retract mounting hole locations on the rails using a pencil and drill appropriately sized holes for the hardware you intend to use.

6. Install the retracts in the model using the screws provided with the kit or those of your own choice. A #4 x 1/2-inch wood screw works well.

Nosegear Steering
Connect the steering pushrod clevis to the steering arm on the nosegear.
Radio Connections and Operation

1. Plug the connector from each of the retract units into the 3-into-1 wire harness supplied with the retracts.

2. Plug the single lead from the wire harness into the gear channel of your receiver. An auxiliary channel can be used if the gear channel is occupied.

3. Before operating the retracts in the model for the first time check that there are no obstructions in the wheel wells that could impede operation of the gear.

4. Turn on your transmitter and receiver. Use the gear or other assigned switch to activate the landing gear and check that it operates correctly.

5. If the switch direction is opposite of that desired, use the reversing function in the transmitter to change the retraction direction.

6. If using a 2.4GHz radio, once you have set the correct servo assigned switch to activate the landing gear and check that it operates correctly.

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 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 for a period of 1 year from the date of purchase by the Purchaser.

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, 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.

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 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.
Compliance Information for the European Union

**Declaration of Conformity**
(in accordance with ISO/IEC 17050-1)

No. HH2010093005

Product(s): 25–46 size Electric Retracts

Item Number(s): EFLG300, EFLG310, EFLG320, EFLG330

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European EMC Directive 2004/108/EC:

- EN55014-1 Electromagnetic compatibility - Emission
- EN55014-2 Electromagnetic compatibility - Immunity

Signed for and on behalf of:
Horizon Hobby, Inc.
Champaign, IL USA
September 30, 2010

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

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.