Nieuport 17 250 Slow Flyer Assembly Manual



ADVANCING ELECTRIC FLIGHT

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Introduction

The Nieuport 17 was designed by the French as a single-seat fighter biplane in World War I. It was a very maneuverable aircraft and many British and French pilots began their careers with a Nieuport 17. E-flite's Nieuport 17 Slow Flyer is an electric indoor version of the French biplane fighter. It's the third in a line of E-flite slow flyers and boasts a low weight and a more majestic type of slow flight thanks to the biplane design and reduced wing loading. So you can get to flying faster, the Nieuport 17 comes with many prefinished details including wood interplane and cabane struts, molded cowling, a dummy motor, a prepainted trim scheme and decals that are already applied.

The E-flite Nieuport 17 Slow Flyer 250 ARF is a fantastic flying foamie with outstanding slow speed characteristics—making it perfect for indoor flight.

Important Information Regarding Warranty Information

Please read our Warranty and Liability Limitations section on Page 24 before building this product. 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.

Using the Manual

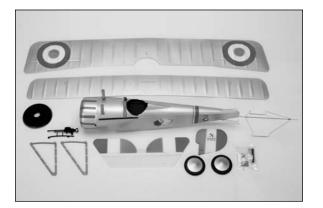
This manual is divided into sections to help make assembly easier to understand, and to provide breaks between each major section. In addition, check boxes have been placed next to each step to keep track of its completion. Steps with a single circle (O) are performed once, while steps with two circles (O O) indicate that the step will require repeating, such as for a right or left wing panel, two servos, etc.

Remember to take your time and follow the directions.

Contents of Kit/Parts Layout

Replacement Parts

EFL1951	Wing Set
EFL1952	Fuselage Set
EFL1953	Tail Set
EFL1954	Cowling
EFL1955	Wheel Set
EFL1956	Landing Gear
EFL1957	Wing Struts
EFL1958	Hardware Pack
EFL1959	Machine Gun
EFL1960	Dummy Motor



Recommended Radio Equipment

You will need a minimum 4-channel transmitter, receiver and two servos. You can choose to purchase a complete radio system. If you are using an existing transmitter, just purchase the other required equipment separately. We recommend the crystal-free, interference-free Spektrum™ DX5e 2.4GHz DSM® 5-channel system. If using your own transmitter, we recommend the E-flite® S60 Sub-Micro servos.

If you own a Spektrum radio, just add a DSM2 $^{\text{TM}}$ receiver and two E-flite S60 Sub-Micro servos. We show the installation of the AR6100 receiver in the manual.

Complete Radio System

SPM5500 DX5e DSM2 5CH system

Or Purchase Separately

SPMAR6100 AR6100 DSM2 6-Channel Park

Flyer Receiver (for DX5e, DX6i,

or DX7)

And

EFLRS60 6.0-gram Sub-Micro

Servo (2)

Required Tools and Adhesives

Tools & Equipment

Paper towels Pencil Pin drill Pliers

Ruler Hobby scissors

T-pins Medium grit sandpaper Felt-tipped pen Phillips screwdriver: #0, #1

Diagonal Cutters Low-tack Tape

Lead weight

Hobby knife (#11 blade) Drill bit: 1/16-inch (1.5mm)

5⁵/₈-inch (143mm) block of foam (2 required)

Adhesives

Threadlock Thin CA

RTV Silicone

Foam-safe CA (EFLA209)

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

Brushless Outrunner Setup

EFLM1130 Park 250 Brushless Outrunner

Motor, 2200Kv

GWSEP7035 7x3.5 Direct Drive Prop EFLA1010 10-Amp Pro Brushless ESC EFLB0990 7.4V 800mAh 2-Cell LiPo,

JST/Balance

Optional Accessories

EFLA110 Power Meter

EFLC3005 Celectra[™] 1- to 3-Cell

Li-Po Charger

EFLC505 Intelligent 1- to 5-Cell

Balancing Charger

Note on Lithium Polymer Batteries



Lithium Polymer batteries are significantly more volatile than alkaline or Ni-Cd/Ni-MH batteries used in RC applications. All manufacturer's instructions and warnings must be followed closely. Mishandling of Li-po batteries can result in fire. Always follow the manufacturer's instructions when disposing of Lithium Polymer batteries.

Warning

An RC aircraft is not a toy! If misused, it can cause serious bodily harm and damage to property. Fly only in open areas, preferably at AMA (Academy of Model Aeronautics) approved flying sites, following all instructions included with your radio.

Keep loose items that can get entangled in the propeller away from the prop, including loose clothing, or other objects such as pencils and screwdrivers. Especially keep your hands away from the propeller.



During the course of building your Nieuport 17 250 Slow Flyer we suggest that you use a soft base for the building surface. Such things as a foam stand, large piece of bedding foam or a thick bath towel will work well and help protect the model from damage during assembly.

Servo Installation

Required Parts

Fuselage Servo w/hardware (2)
Receiver Double-sided tape

Micro pushrod connector (2)

Micro pushrod connector backplate (2)

Required Tools and Adhesives

Pin drill Diagonal cutter

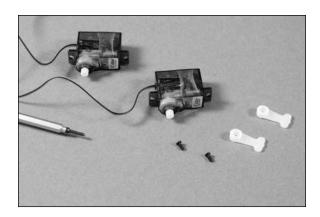
Thin CA Medium grit sandpaper

Pliers Pencil Phillips screwdriver: #0, #1 Drill bit: 1/16-inch (1.5mm)

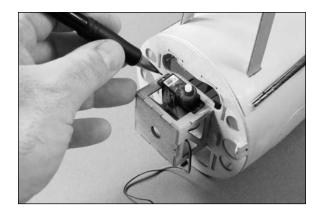
E-tips

The pushrods are pre-installed from the factory. You will also need to use a #0 Phillips screwdriver to remove the three screws from the cowling and remove the cowl from the fuselage to install the servos.

 Use a #0 Phillips screwdriver to remove the servo arms from the rudder and elevator servos.

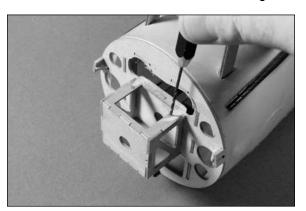


2. Position the rudder servo in the opening at the front of the fuselage as shown. Slide the servo as far back in the opening as possible. Use a pencil to mark the position for the screws that will be used to secure the rudder servo.

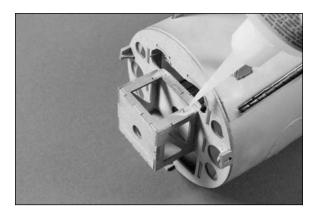




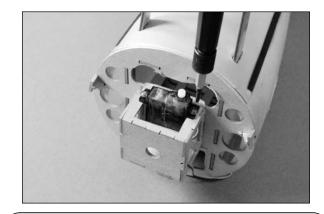
3. Use a pin drill and 1/16-inch (1.5mm) drill bit to drill the holes for the two servo mounting screws.



4. Apply 2–3 drops of thin CA into each of the holes to harden the surrounding wood. This is done to strengthen the wood and provide a stronger surface for the servo mounting screws.

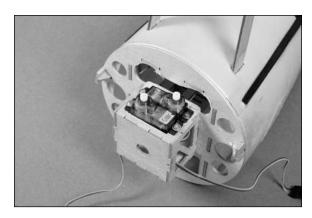


OO 5. Position the rudder servo back in the opening in the front of the fuselage. Use a #1 Phillips screwdriver and the screws provided with the servo to secure the rudder servo.

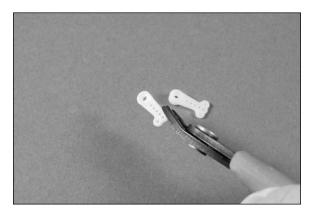


<u>Etips</u>

It is best to support the fuselage with the palm of your hand while installing the servo screws. The plywood structure is strong enough for the model and flight loads but could fail if extreme downward pressure is placed on it during the servo mount screw installation. 6. Repeat Steps 2 through 5 to install the elevator servo. Note the direction of the output of the elevator servo.

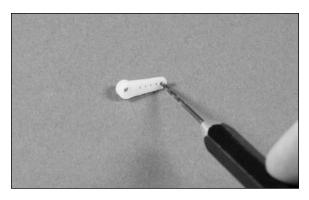


7. Use diagonal cutters to remove the ears of the servo arm as shown. Use medium grit sandpaper to smooth the servo arm for a finished look.

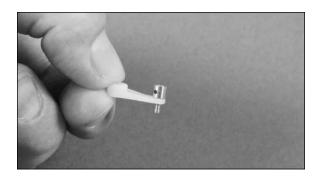




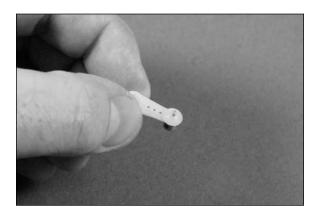
OO 8. Use a pin drill and 1/16-inch (1.5mm) drill bit to enlarge the outermost hole in the servo arm.



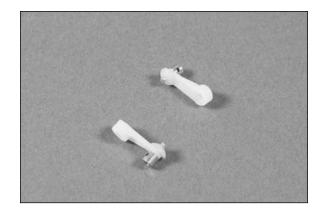
9. Insert the micro pushrod connector into the servo arm from the bottom of the horn as shown.



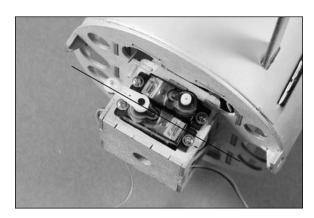
OO 10. Use a micro pushrod connector backplate to secure the pushrod connector to the servo arm. Use pliers to fully push the backplate tight on the connector.



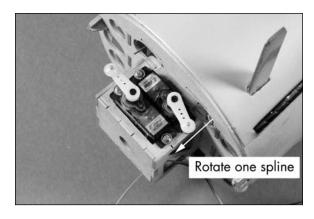
11. Repeat Steps 7 through 10 so two servo arms have been prepared for your servos.



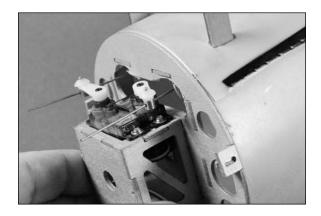
12. Install the servo arm on the elevator servo. The arm will be parallel to the center line of the servo as shown.

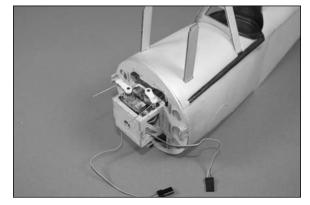


13. Install the servo arm on the rudder servo. The arm on the rudder servo is installed one spline off from center so it will not interfere with the fuselage during operation.



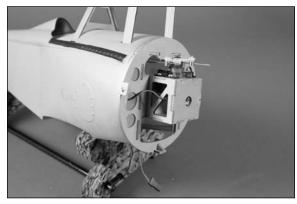
 14. Slide the pushrod wires through the pushrod connectors at this time.

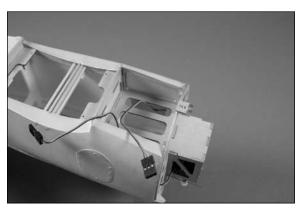


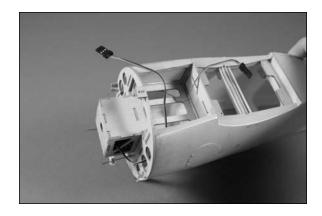


O 15. Pass the leads from the servos through the center hole in the sub firewall and into the battery compartment. Holes have been made inside the fuselage for the servo leads to pass through.





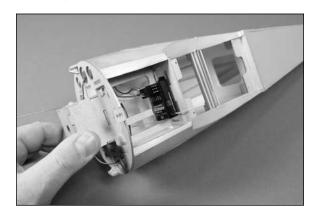




O 16. Plug the rudder and elevator servo leads into the appropriate ports of the receiver.



O 17. Use two-sided tape to secure the receiver in the fuselage as shown.



Stabilizer Installation

Required Parts

Fuselage Stabilizer/elevator

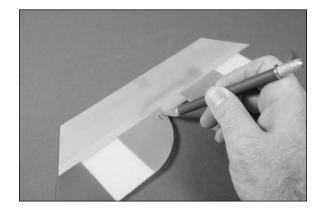
Micro control horn Micro control horn backplate

Required Tools and Adhesives

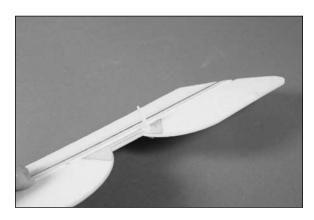
Foam-safe CA Hobby knife w/#11 blade

Felt-tipped pen Ruler T-pins Pencil

1. Use a hobby knife with a #11 blade to remove the hinge tape to fully expose the slot for the elevator control horn. You may also need to enlarge the plastic support piece slightly for the control horn to fit. You want this slot to have a snug fit, not a loose fit.

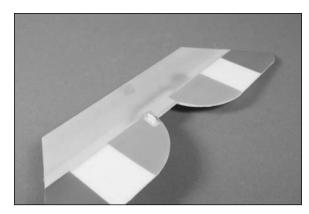


2. Slide the tab on the micro control horn through the elevator from the bottom side as shown.

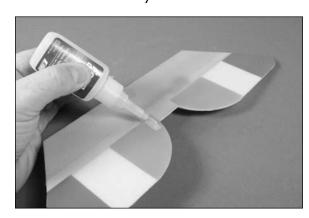


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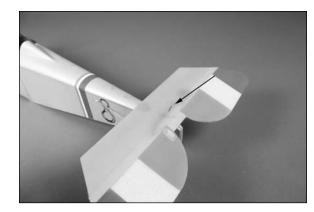
O 3. Slide the micro control horn backplate on the tab from the control horn. It will ratchet down and lock into position. Slide the backplate so it holds the control horn tightly in position.

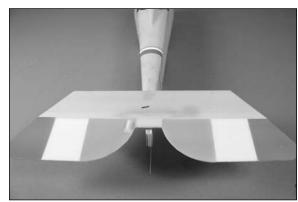


4. Apply 2-3 drops of foam-safe CA to the joint between the backplate and control horn to keep it secure for the life of your model.

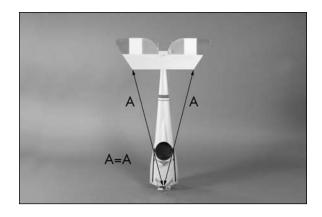


5. Position the stabilizer on the fuselage as shown. Make sure to center the stabilizer left-to-right on the fuselage. Use a T-pin at the back of the stabilizer to hold it in position for the following step.

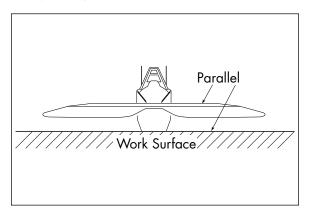




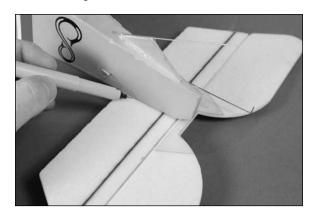
O 6. Use a ruler to measure from a point center at the front of the fuselage to each of the tips of the stabilizer. The measurements must be equal for the best performance from your model. Use a second T-pin to keep the stabilizer in position for the following step.



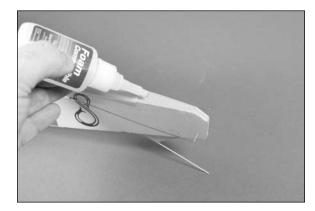
7. With the fuselage resting flat on your work surface, check to verify the stabilizer is parallel to the work surface. Lightly sand the area of the fuselage where the stabilizer rests to correct any alignment problems.



8. Use a pencil to trace the outline of the fuselage on the bottom of the stabilizer. You will only need to mark one side of the stabilizer in this step so you can return the stabilizer to the correct alignment on the fuselage.



9. Remove the stabilizer from the fuselage. Apply foam-safe CA to the fuselage where the stabilizer fits. Using the line drawn on the bottom of the stabilizer, reposition it on the fuselage. If the stab saddle is flat you will still need to sand the paint off this area before gluing the stab in place. Hold the stabilizer tightly against the fuselage until the CA fully cures.





Rudder Installation

Required Parts

Fuselage assembly CA hinge

Rudder

Micro control horn Micro control horn backplate

Required Tools and Adhesives

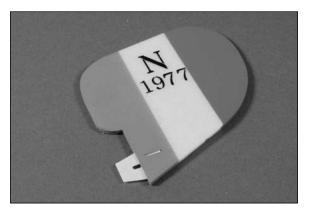
Felt-tipped pen Hobby scissors

Foam-safe CA Hobby knife w/#11 blade

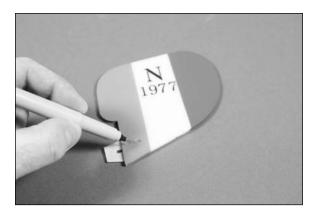


Please follow the procedure as illustrated for hinging the rudder. Trying to trim the hinge for the control horn after it has been glued in the rudder can cause damage to the rudder.

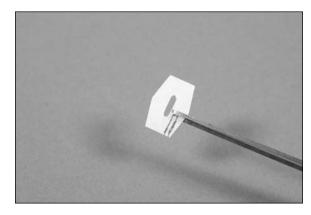
Insert the CA hinge in the slot in the rudder.

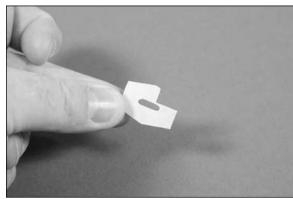


2. Use a felt-tipped pen to trace the outline of the slot for the micro control horn onto the hinge.

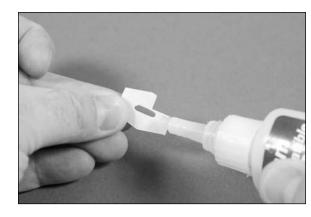


3. Use scissors to notch the hinge based on the position traced in the previous step. This is necessary to provide clearance for the rudder control horn.

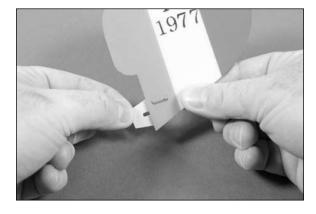




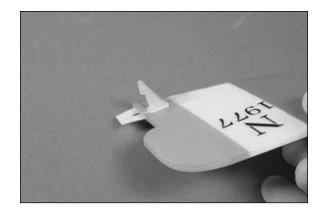
4. Apply a small amount of foam-safe CA on the side of the hinge that will be inserted in the rudder. Make sure to apply CA to both sides of the hinge to glue it securely in the rudder.



5. Insert the hinge half-way into the rudder. Allow the CA to fully cure before proceeding. Do not use CA accelerators as it will reduce the bond between the hinge and rudder.



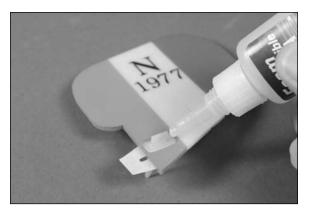
6. Insert the tab from the micro control horn through the hole in the rudder. Note the side of the rudder the control horn is installed in. You may need to open the slot slightly with a hobby knife and #11 blade. Ensure the control horn has a snug fit, not a loose fit.



7. Use a micro control horn backplate to secure the control horn in the rudder.

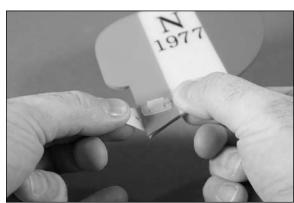


O 8. Apply a few drops of foam-safe CA to the joint between the tab on the control horn and control horn backplate to prevent it from coming loose.

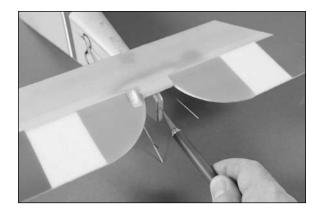


9. Once the CA has cured, flex the hinge back and forth a few times to break-in the hinge. This will reduce the effort needed from the servo to operate the control surface on your first flights.

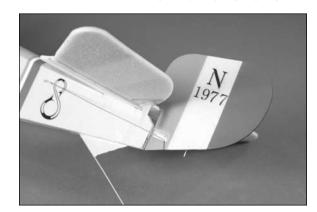


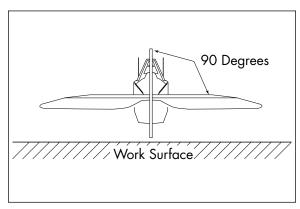


10. Use a hobby knife and #11 blade to cut a notch in the aft end of the fuselage for the rudder hinge.

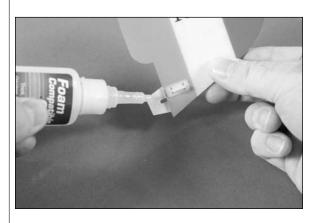


11. Insert the rudder hinge into the slot to check the fit and make sure everything aligns properly.

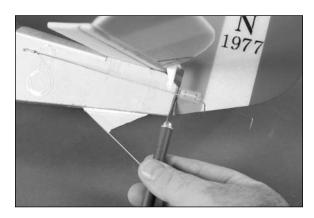




12. Apply a small amount of foam-safe CA on exposed hinge. Make sure to apply CA to both sides of the hinge to glue it securely in the fuselage.



13. When gluing the hinge in the fuselage, leave a small gap between the end of the fuselage and rudder so the rudder can operate properly. The back-side of a #11 blade works well to set the proper amount of gap between the fuselage and rudder.



Connecting the Linkages

Required Parts

Fuselage assembly Micro pushrod keeper (2)

1.5mm machine screw (2)

Required Tools and Adhesives

Pliers Phillips screwdriver: #1

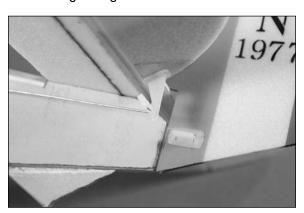
Ruler Diagonal cutter

Threadlock

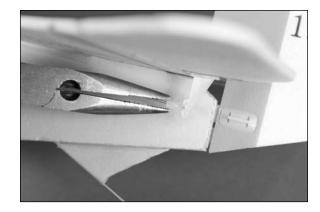
1. Insert the pushrod wire into the center hole of the elevator control horn.



2. Slide a micro pushrod keeper onto the wire extending through the control horn.



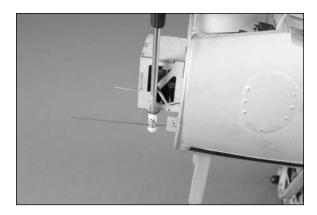
3. The pushrod keeper can now be snapped onto the pushrod wire. You may need to use pliers to apply enough pressure to snap the keeper onto the wire.



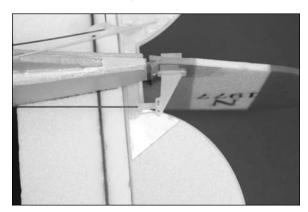
4. Use a ruler to align the elevator and stabilizer in the neutral position.



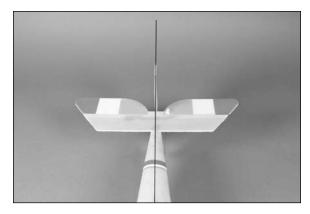
5. Use a #1 Phillips screwdriver to tighten the 1.5mm machine screw that will secure the pushrod wire in the pushrod connector. Use threadlock on the screw to prevent it from vibrating loose in flight.



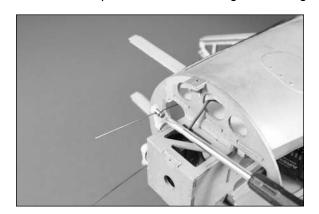
O 6. Repeat Steps 1 through 3 to secure the rudder pushrod to the center hole of the rudder control horn with a micro pushrod connector.



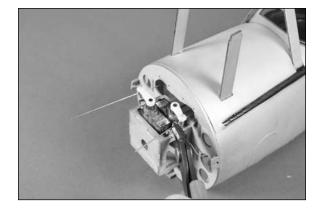
7. Align the rudder with the center line of the fuselage to center the control surface.

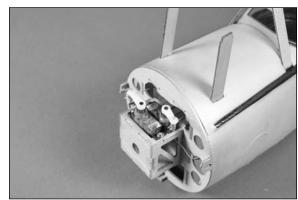


8. Use a #1 Phillips screwdriver to tighten the 1.5mm machine screw that will secure the pushrod wire in the pushrod connector. Use threadlock on the screw to prevent it from vibrating loose in flight.



9. Use diagonal cutters to trim the excess pushrod wire extending from the servos. If this is not trimmed it will interfere with the operation of the motor.





Motor and Speed Control Installation

Required Parts

Fuselage assembly Dummy motor
Motor Speed control
Propeller Motor battery

Cowling Tie wrap (not included)
Two-sided tape Carbon tube, 6mm x 42mm

2mm x 8mm wood screw (black) (3)

Required Tools and Adhesives

Foam-safe CA
Hobby scissors
RTV Silicone
Phillips screwdriver: #1
Hobby knife w/#11 blade
Hook and loop tape

Medium grit sandpaper

1. Use hobby scissors to remove the excess material from around the dummy motor. A line has been molded in the dummy motor to use as a guide.





2. Use a hobby knife and #11 blade to remove the material from between each cylinder of the dummy motor.



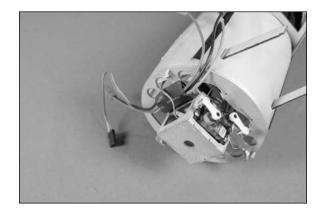
3. Locate the 6mm x 42mm carbon tube. Follow the instructions included with the motor to glue (using RTV silicone) the motor to the motor tube. Be careful not to get glue inside the motor bearing.

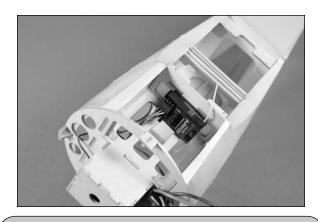


4. Use medium grit sandpaper to roughen the outside of the carbon tube so the CA used to glue it in the fuselage has a surface to attach to.



5. Mount the speed control using two-sided tape to the front of the fuselage as shown below. Route the servo lead back to the receiver and plug it into the throttle port of the receiver. Use a tie wrap (not included) to keep the wires from interfering with the operation of the motor.





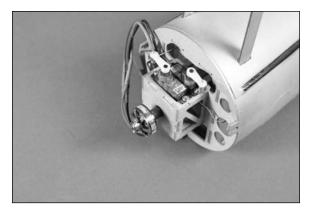
Etips

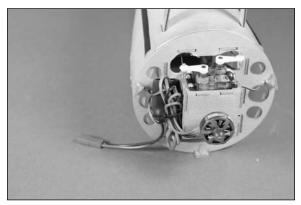
Leave the tie-wrap loose so the wires from the speed control can be moved when installing the motor.

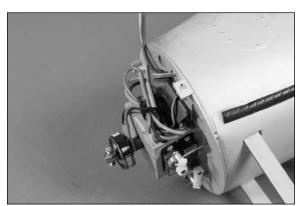
6. Connect the wires from the motor to the appropriate wires of the speed control.



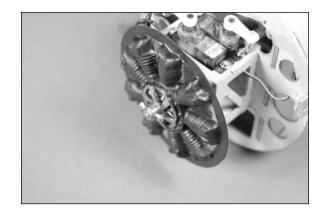
7. Slide the carbon tube into the hole in the fuselage. There are two hoes that will provide the proper alignment of the motor.

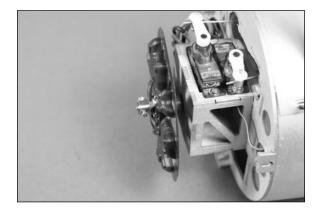


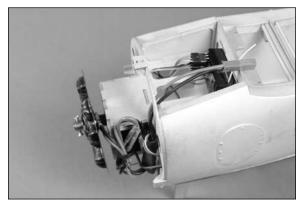




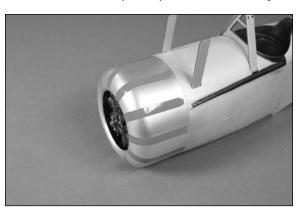
8. Slide the dummy motor on the motor. The front edge of the dummy motor will be roughly 30% (roughly 1/32-inch or .5mm) back on the motor. Spin the motor by hand to check that the dummy motor has been positioned evenly on the motor. Use foam-safe CA to lightly glue the dummy motor to the motor.



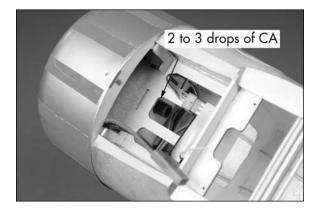




9. Slide the cowling on the fuselage. Use the three 2mm x 8mm black wood screws and a #1 Phillips screwdriver to temporarily attach the cowling.



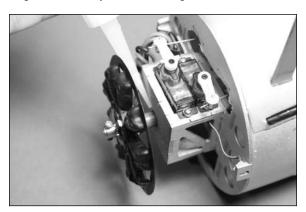
O 10. Slide the motor forward in the cowling. Finetune the position of the motor forward or backward as necessary so the dummy motor will not rub on the cowling when the motor is in operation. Apply 2–3 drops of foam-safe CA to the joint between the carbon tube and fuselage. Allow the CA to fully cure before proceeding.



E-tips

The measurement of the carbon tube through the two firewalls could be slightly different from the pictures shown here (1–2mm). This is because of how you might have positioned the dummy motor.

O 11. Once the CA has cured. Remove the cowling. Apply CA to the joint between the carbon tube and fuselage at both the front and back of the tube to glue it securely to the fuselage.



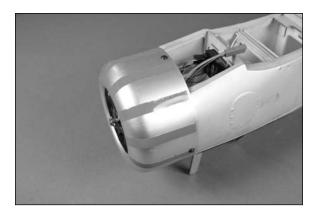
Etips

Important Information About Your Brushless ESC

Make sure your ESC brake is programmed to Off. Also, be sure to use an ESC with the proper low-voltage cutoff and it is set correctly for the batteries you are using. Never check the motor rotation on the bench with the propeller installed. The plane could move and cause serious injury. Always check the motor without the propeller to avoid injury.

12. Turn on the transmitter and bring the throttle trim and stick to the low throttle position. Plug the battery into the speed control and check the operation of the motor. It should rotate counterclockwise when viewed from the front of the aircraft. Use the instructions provided with your ESC to make corrections to the direction of rotation of the motor if necessary.

13. Slide the cowling back on the fuselage. Use the three 2mm x 8mm black wood screws and a #1 Phillips screwdriver to attach the cowling to the fuselage.

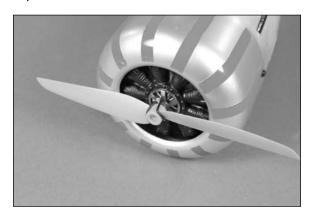


Etips

Important Information About Your Propeller

It is very important to check to be sure the propeller is balanced before installing onto the shaft. An unbalanced propeller may cause poor flight characteristics.

14. Attach the propeller to the motor using the materials and instructions provided with your particular motor.



15. Use hook and loop tape to install the battery in the fuselage as shown. Ensure the battery does not touch the dummy motor.



Bottom Wing and Landing Gear Installation

Required Parts

Fuselage assembly Bottom wing Landing gear Wheel (2)

Wheel retainer (2) 2mm x 8mm wood screw (4)

Required Tools and Adhesives

Hobby knife w/#11 blade Foam-safe CA

Phillips screwdriver: #1

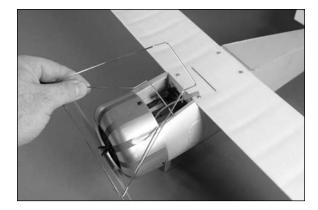
 1. Use a hobby knife and #11 blade to remove the foam from the notches in the wing for the outer struts



2. Use a #1 Phillips screwdriver and four 2mm x 8mm wood screws to secure the bottom wing to the fuselage. Ensure you do not overtighten the screws and crush the wing.



3. Remove the battery from the fuselage. Locate the landing gear. The rear of the gear fits into the slot in the middle of the bottom wing, while the front of the gear fits between the formers of the fuselage right behind the cowling. Press the gear in until fully seated, making sure not to damage the fuselage in the process.







E-tips

You will need to move the power lead from the speed control to fit the landing gear near the fuselage. Once the gear has been installed, you can position the lead back through the gear.

4. Slide one of the wheels onto the landing gear. The wheel should rotate freely on the gear. If not, use a hobby knife and #11 blade to enlarge the hole in the wheel slightly for free rotation.



OO 5. Slide the wheel retainer onto the landing gear wire. Use a drop of foam-safe CA on the side away from the wheel to secure the retainer. Make sure not to get CA on the wheel or axle, preventing the wheel from rotating.





O 6. Install the remaining wheel and secure it following the procedure described in Steps 4 and 5.



Top Wing and Outer Strut Installation

Required Parts

Airframe Top wing

Outer strut (2)

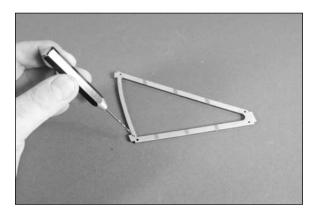
Required Tools and Adhesives

Hobby knife w/#11 blade Pin drill Drill bit: 1/16-inch (1.6mm) Foam-safe CA

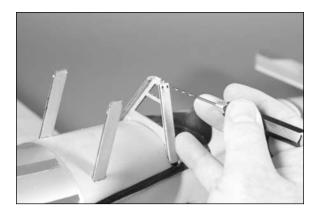
 Use a hobby knife and #11 blade to remove the foam from the notches in the wing for the outer struts and cabane strut.



2. Use a pin drill and 1/16-inch (1.5mm) drill bit, or a hobby knife and #11 blade to remove any clear coating that may be blocking the four holes in each outer strut.



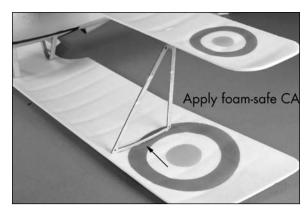
3. Use a pin drill and 1/16-inch (1.5mm) drill bit, or a hobby knife and #11 blade to remove any clear coating that may be blocking holes two holes on either side of the cabane strut.



3. Place a piece of waxed paper on your work surface. Place the top wing on the waxed paper. Use foam-safe CA to glue the top wing to the cabane strut.



O 5. Position the outer strut in the slots in the top and bottom wing. The strut will angle back from the top wing down to the bottom wing. Use foam-safe CA to glue the wing strut to the underside of the top wing.



OO 6. With the aircraft upright, apply foam-safe CA to the joint between the bottom of the outer strut and the top side of the bottom wing.



 7. Repeat Steps 5 and 6 to install the remaining outer strut.

Rigging Installation

Required Parts

Airframe Rigging thread

Required Tools and Adhesives

Foam-safe CA
Needle
Low-tack tape

Thin CA
Hobby knife
Lead weight

5⁵/₈-inch (143mm) block of foam (2 required)

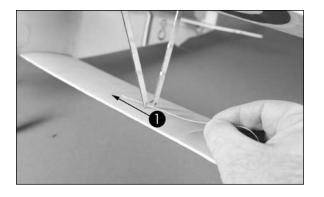
E-tips

Installing the rigging will add to the appearance and strength of your airplane, but you will not be able to remove the wings without cutting the rigging. The rigging is required on your model. DO NOT fly your model before installing the rigging.

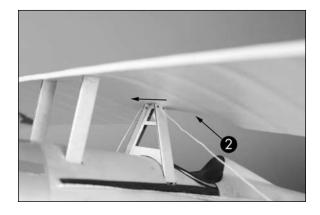
You may want to thread the rigging through a needle to make it easier to pass the rigging through the holes, especially the tubes in the fuselage near the bottom wing.

Another option is to soak the last 4 inches (100mm) of the rigging line with thin CA to stiffen it up so you can pass it through all the holes.

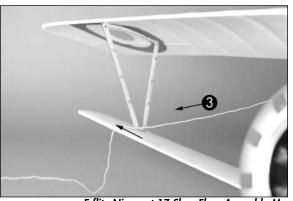
 Cut the rigging thread in half. You will need two pieces of thread to accomplish the rigging on the Nieuport 17. 2. Insert the rigging thread into the lower forward hole in the outer strut.



3. The rigging then is routed to the cabane strut and goes through the holes in the cabane that are to the front of the aircraft.

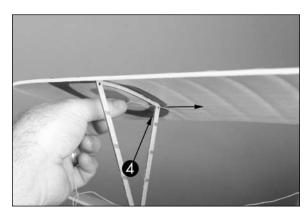


 4. Route the rigging down to the forward hole in the outer strut.

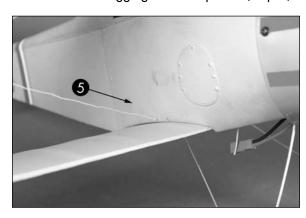


E-flite Nieuport 17 Slow Flyer Assembly Manual

• 5. Next, the rigging will go up and to the rear hole in the outer strut as shown.

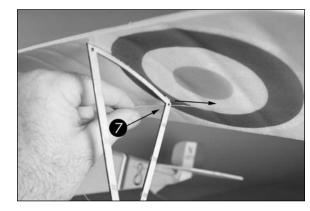


O 6. The rigging will now go through the rear tube in the fuselage. Note that the rigging in this step must be behind the rigging headed upward (Step 3).

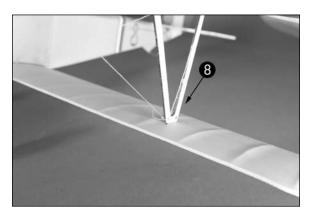


7. After exiting the tube, route the rigging up and to the rear hole in the outer cabane strut as shown.

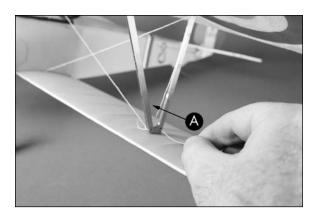




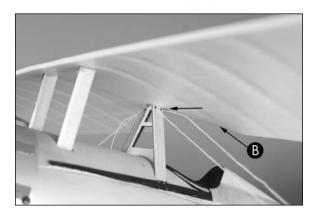
8. To complete the first stage of rigging, route it down and forward through the hole the rigging originally started at. Leave the end of the rigging loose at this time and do not tie it to the strut.



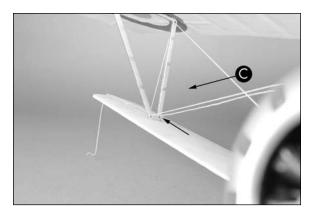
9. The second stage of rigging is similar to the first. Start by inserting the rigging thread through the rear hole in the outer strut.



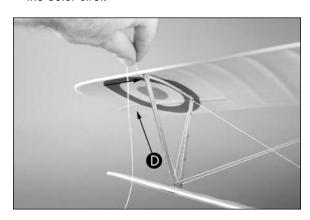
O 10. The rigging now heads to the cabane strut to go through the rear holes in the strut. This line will be in between the current rigging lines.



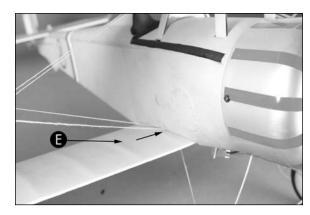
11. The rigging now heads to the rear hole in the outer strut. Again, this line will be between the current rigging lines.



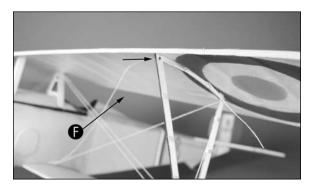
O 12. Route the rigging up and to the forward hole in the outer strut.



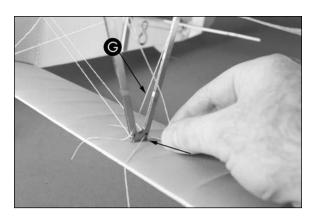
13. The rigging now goes down and through the forward tube in the fuselage. This line will be in front of all the other rigging lines.



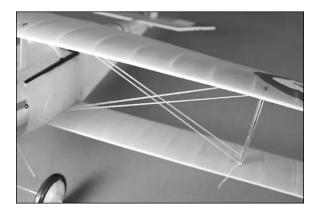
14. After exiting the fuselage, route the rigging up to the forward hole in the outer strut. Make sure the rigging is in front of all the previously installed rigging lines.



15. To complete the first stage of rigging, route it down and forward through the hole the rigging originally started at. Leave the end of the rigging loose at this time and do not tie it to the strut.

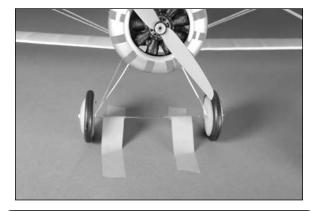


16. Use the following images to verify the rigging installation. The lines heading upward from the fuselage to the outer struts should be on the outsides (front and back) of the downward lines. When tensioned, the lines will all run perfectly straight and not cause others to be moved out of position.





O 17. Use tape or weights to keep the wheels secure on your work surface while setting the line tension and position.



Etips

You will note the model will be sitting slightly nose down in the up coming steps. The goal here is to set a dihedral and give strength to the main airframe. When you have completed the rigging the thread should be quite taunt through out.

O 17. Place a 5 ⁵/₈-inch (143mm) block of foam or other item under the leading edge of the bottom wing on both sides of the aircraft. You are supporting the wing at the outer strut, centering the can with the outer strut. Both the left and right must be blocked up at this time. A 5-ounce aerosol can of Pacer Zip Kicker works great for this procedure.





18. With the leading edge of the bottom wing in position, pull the rigging snug to remove any slack. Tie the loose ends of the rigging to the outer struts. Use a drop or two of medium CA at each point the rigging passes through the struts or fuselage to secure the rigging. This will set the correct dihedral for your model, providing the best flight performance. Sight from the back looking at the trailing edges to ensure the wings do not have any warps. Also sight from the front to check for warps.

Scale Accessory Installation

Required Parts

Airframe Machine gun

Required Tools and Adhesives

Foam-safe CA

 Use foam-safe CA to attach the machine gun to the top of the top wing.



Control Throws

- 1. Turn on the transmitter and receiver of your Nieuport 17 250 Slow Flyer. Check the movement of the rudder using the transmitter. When the stick is moved right, the rudder should also move right. Reverse the direction of the servo at the transmitter if necessary.
- Check the movement of the elevator with the radio system. Moving the elevator stick toward will make the airplane elevator move up.
- 3. Use a ruler to adjust the throw of the elevator and rudder. Adjust the position of the pushrod at the control horn to achieve the following measurements when moving the sticks to their endpoints.

Elevator High Rate

Up	1 ¹/ ₈ -inch	(29mm)
Down	1 ¹/ ₈ -inch	(29mm)

Elevator Low Rate

Up	3/4-inch	(19mm
Down	3/4-inch	(19mm

Rudder High Rate

Up	1 ³/₄-inch	(44mm)
Down	1 ³ /₄-inch	(44mm)

Rudder Low Rate

Up	1 ¹ / ₂ -inch	(38mm)
Down	1 ¹ / ₂ -inch	(38mm)



Measurements are taken at the inner or widest point on the control surface.

These are general guidelines measured from our own flight tests. You can experiment with higher rates to match your preferred style of flying.



Travel Adjust, Sub Trim and Dual Rates are not listed and should be adjusted according to each individual model and preference.

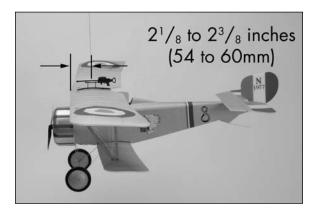
Center of Gravity

An important part of preparing the aircraft for flight is properly balancing the model.

Caution: Do not inadvertently skip this step!

The recommended Center of Gravity (CG) location for the Nieuport 17 250 Slow Flyer is $2^{1}/_{8}$ to $2^{3}/_{8}$ inches (54 to 60mm) back from the leading edge of the top wing as shown.

When balancing your Nieuport 17 250 Slow Flyer, support the plane by placing a small piece of string through the opening of the Lewis gun as shown. This will allow the model to be suspended. Adjust components as necessary so the model hangs level or slightly nose down. This is the correct balance point for your model. You should find the CG to be very close with the battery installed forward in the battery area inside the cowling.



After the first flights, the CG position can be adjusted for your personal preference.

Preflight

Check Your Radio

Before going to the field, be sure that your batteries are fully charged per the instructions included with your radio. Charge both the transmitter and receiver pack for your airplane. Use the recommended charger supplied with your particular radio system, following the instructions provided with the radio. In most cases, the radio should be charged the night before going out flying.

Before each flying session, be sure to range check your radio. See your radio manual for the recommended range and instructions for your radio system. Each radio manufacturer specifies different procedures for their radio systems. Next, start the motor. With the model securely anchored, check the range again. The range test should not be significantly affected. If it is, don't attempt to fly! Have your radio equipment checked out by the manufacturer.



Keep loose items that can get entangled in the propeller away from the prop. These include loose clothing, or other objects such as pencils and screwdrivers. Especially keep your hands away from the propeller.

Double-check that all controls (aileron, elevator, rudder and throttle) move in the correct direction.

Check the radio installation and make sure all the control surfaces are moving correctly (i.e. the correct direction and with the recommended throws). Test run the motor and make sure it transitions smoothly from off to full throttle and back. Also ensure the engine is installed according to the manufacturer's instructions, and it will operate consistently.

Check all the control horns, servo horns, and clevises to make sure they are secure and in good condition. Replace any items that would be considered questionable. Failure of any of these components in flight would mean the loss of your aircraft.

Range Test Your Radio

1. Before each flying session, be sure to range check your radio. This is accomplished by turning on your transmitter with the antenna collapsed. Turn on the receiver in your airplane. With your airplane on the ground and the engine running, you should be able to walk 30 paces (approximately 100 feet) away from your airplane and still have complete control of all functions.

If not, don't attempt to fly! Have your radio equipment checked out by the manufacturer.

- 2. Double-check that all controls (aileron, elevator, rudder and throttle) move in the correct direction.
- 3. Be sure that your transmitter batteries are fully charged, per the instructions included with your radio.

Flying Your Nieuport 17 Slow Flyer

You will find the Nieuport 17 Slow Flyer Slow Flyer to be a solid, honest-flying model.

Ensure your CG is set according to the manual and power up the aircraft. Move your throttle trim up slowly until the motor just begins to spin. This will be your flight idle that will help to establish a longer glide path and tends to make landings easier. Before taxiing out to the runway, double-check all controls are working in the correct direction and functioning properly. You will find the rudder very effective; on the ground, tracking is very predictable. Apply power smoothly and begin the takeoff roll. Correct with rudder as necessary and apply up elevator slowly until the model lifts off.

You will find flying the Nieuport 17 Slow Flyer to be very relaxing and easy. The model is not designed for high speed flight. Most flight is accomplished below half throttle and will yield flights in excess of 20 minutes with an 800mAh 2-cell battery with a Park 250 when outfitted with the GWS 7x3.5 prop. Landing the Nieuport 17 Slow Flyer Slow Flyer is as easy as setting up on final approach, lowering the throttle to idle and gliding in to a soft touch-down.



You will find the Nieuport 17 250 Slow Flyer capable of basic loops and stall turns. Flying these maneuvers is easy and fun with the Nieuport 17 250 Slow Flyer. After your first flight you will want to check your rigging to make sure none of the locations that were glued with CA have loosened. Check these areas on a regular basis to ensure safe and reliable operation.. We hope you enjoy the experience of flying the Nieuport 17 Slow Flyer.

Happy landings.

Safety, Precautions and Warnings

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.

Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use. 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 necessary to always keep a safe distance in all directions around your model, as this margin will help to avoid collisions or injury.

- Always operate your model in an open area away from cars, traffic or people.
- Avoid operating your model in the street where injury or damage can occur.
- Never operate the model out into the street or populated areas for any reason.
- Never operate your model with low transmitter batteries.
- Carefully follow the directions and warnings for this and any optional support equipment (chargers, rechargeable battery packs, etc.) that you use.
- 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.

Safety Do's and Don'ts for Pilots

- Check all control surfaces prior to each takeoff.
- Do not fly your model near spectators, parking areas or any other area that could result in injury to people or damage of property.
- Do not fly during adverse weather conditions.
 Poor visibility can cause disorientation and loss of control of your aircraft. Strong winds can cause similar problems.
- Do not take chances. If at any time during flight you observe any erratic or abnormal operation, land immediately and do not resume flight until the cause of the problem has been ascertained and corrected. Safety can never be taken lightly.
- Do not fly near power lines.

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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

- (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
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 party transactions are not covered by this warranty.
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 Further, Horizon reserves the right to change or modify
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- 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 goods by Purchaser must be approved in writing by Horizon before shipment.

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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).

SAFETY PRECAUTIONS

This is a sophisticated hobby Product and not a toy. 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. The Product 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 injury.

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 service technician.

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If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). 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. A Service Repair Request is available at www. horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

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 Hobby.

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 1/2 hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any

repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. *Please note: non-warranty repair is only* available on electronics and model engines.

Electronics and engines requiring inspection or repair should be shipped to the following address:

Horizon Service Čenter 4105 Fieldstone Road Champaign, Illinois 61822 or

Horizon Hobby UK
Units 1-4, Ployters Road
Staple Tye
Harlow, Essex
CM187NS
United Kingdom

or

Horizon Technischer Service Otto-Hahn-Str. 9a 25337 Elmshorn Germany

USA: Please call 1 877 504 0233 or visit horizonhobby.com to find our distributor for your country for support with any questions or concerns regarding this product or warranty.

UK: Please call +44 (0) 1279 641 097 or email sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

Germany: Please call +49 4121 46199 66 or email service@horizonhobby.de with any questions or concerns regarding this product or warranty.

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.



2008 Official Academy of Model Aeronautics Safety Code

GENERAL

- A model aircraft shall be defined as a non-humancarrying device capable of sustained flight in the atmosphere. It shall not exceed limitations established in this code and is intended to be used exclusively for recreational or competition activity.
- 2. The maximum takeoff weight of a model aircraft, including fuel, is 55 pounds, except for those flown under the AMA Experimental Aircraft Rules.
- I will abide by this Safety Code and all rules established for the flying site I use. I will not willfully fly my model aircraft in a reckless and/or dangerous manner.
- I will not fly my model aircraft in sanctioned events, air shows, or model demonstrations until it has been proven airworthy.
- 5. I will not fly my model aircraft higher than approximately 400 feet above ground level, when within three (3) miles of an airport without notifying the airport operator. I will yield the right-of-way and avoid flying in the proximity of full-scale aircraft, utilizing a spotter when appropriate.
- 6. I will not fly my model aircraft unless it is identified with my name and address, or AMA number, inside or affixed to the outside of the model aircraft. This does not apply to model aircraft flown indoors.
- 7. I will not operate model aircraft with metal-blade propellers or with gaseous boosts (other than air), nor will I operate model aircraft with fuels containing tetranitromethane or hydrazine.

- 8. I will not operate model aircraft carrying pyrotechnic devices which explode burn, or propel a projectile of any kind. Exceptions include Free Flight fuses or devices that burn producing smoke and are securely attached to the model aircraft during flight. Rocket motors up to a G-series size may be used, provided they remain firmly attached to the model aircraft during flight. Model rockets may be flown in accordance with the National Model Rocketry Safety Code; however, they may not be launched from model aircraft. Officially designated AMAAir Show Teams (AST) are authorized to use devices and practices as defined within the Air Show Advisory Committee Document.
- I will not operate my model aircraft while under the influence of alcohol or within eight (8) hours of having consumed alcohol.
- 10. I will not operate my model aircraft while using any drug which could adversely affect my ability to safely control my model aircraft.
- 11. Children under six (6) years old are only allowed on a flightline or in a flight area as a pilot or while under flight instruction.
- 12. When and where required by rule, helmets must be properly worn and fastened. They must be OSHA, DOT, ANSI, SNELL or NOCSAE approved or comply with comparable standards.

RADIO CONTROL

- 1. All model flying shall be conducted in a manner to avoid over flight of unprotected people.
- 2. I will have completed a successful radio equipment ground-range check before the first flight of a new or repaired model aircraft.
- 3. I will not fly my model aircraft in the presence of spectators until I become a proficient flier, unless I am assisted by an experienced pilot.
- 4. At all flying sites a line must be established, in front of which all flying takes place. Only personnel associated with flying the model aircraft are allowed at or in front of the line. In the case of airshows demonstrations straight line must be established. An area away from the line must be maintained for spectators. Intentional flying behind the line is prohibited.

- I will operate my model aircraft using only radio-control frequencies currently allowed by the Federal Communications Commission (FCC). Only individuals properly licensed by the FCC are authorized to operate equipment on Amateur Band frequencies.
- 6. I will not knowingly operate my model aircraft within three (3) miles of any preexisting flying site without a frequency-management agreement. A frequencymanagement agreement may be an allocation of frequencies for each site, a day-use agreement between sites, or testing which determines that no interference exists. A frequency-management agreement may exist between two or more AMA chartered clubs, AMA clubs and individual AMA members, or individual AMA members. Frequency-management agreements, including an interference test report if the agreement indicates no interference exists, will be signed by all parties and copies provided to AMA Headquarters.
- 7. With the exception of events flown under official AMA rules, no powered model may be flown outdoors closer than 25 feet to any individual, except for the pilot and located at the flightline.
- 8. Under no circumstances may a pilot or other person touch a model aircraft in flight while it is still under power, except to divert it from striking an individual.
- Radio-controlled night flying is limited to lowperformance model aircraft (less than 100 mph).
 The model aircraft must be equipped with a lighting system which clearly defines the aircraft's attitude and direction at all times.
- 10. The operator of a radio-controlled model aircraft shall control it during the entire flight, maintaining visual contact without enhancement other than by corrective lenses that are prescribed for the pilot. No model aircraft shall be equipped with devices which allow it to be flown to a selected location which is beyond the visual range of the pilot.

PARK FLYER SAFE OPERATING RECOMMENDATIONS

- Inspect your model before every flight to make certain it is airworthy.
- Be aware of any other radio frequency user who may present an interference problem.
- Always be courteous and respectful of other users of your selected flight area.
- Choose an area clear of obstacles and large enough to safely accommodate your flying activity.
- Make certain this area is clear of friends and spectators prior to launching your aircraft.
- Be aware of other activities in the vicinity of your flight path that could cause potential conflict.
- Carefully plan your flight path prior to launch.
- Abide by any and all established AMA National Model Aircraft Safety Code.





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