OPERATING INSTRUCTIONS

CAUTION The Phase 3 Models Mini Scale Series Spitfire is designed for intermediate to advanced pilots. It's not intended for beginner pilots. It is not a trainer!

Includes 1 Cell 1300mAH Li-Po Battery and 12V DC Li-Po Charger!

CE

Phase 3 Models
P.O. Box 1496,
Tsuen Wan PO,
Hong Kong.

SPECIFICATION & FEATURES:

- **Wingspan:** 540mm (21 1/4")
- **Length:** 472mm (18 1/2")
- **Flying Weight:** 185g (6 1/2oz)
- Almost Ready to Fly - only requires simple final assembly
- Durable factory-moulded foam airframe
- 2 micro servos and electronic speed controller included
- Micro motor, Li-Po battery and charger included
- Just add transmitter and receiver!

IMPORTANT Before beginning assembly, please read and understand the warnings listed on the next page. Failure to read and understand these warnings could lead to bodily harm and/or injury. The Phase 3 Models Mini Scale Series Spitfire is not intended for those under 14 years of age, unless closely supervised by an adult.

Part Number: PH017

FOR YOUR SAFETY - PLEASE READ AND UNDERSTAND THESE WARNINGS

GENERAL WARNINGS

- Do not fly your aircraft if another model is on the same frequency as you.
- Never fly your aircraft from the street or at night. Always fly in an open area free of obstructions.
- When flying, make sure any spectators are behind you.
- Always be conscious of the spinning propeller. Be careful not to allow loose clothing to be drawn into the propeller.
- Because your aircraft is operated by radio control, it is important to make sure you are always using fresh and/or fully charged batteries. Never allow the batteries to run low or you could lose control of the aircraft.
- Never attempt to disassemble any of the aircraft's components, especially the electronics.
- Do not allow any of the electrical components to get wet or electrical damage may occur.
- You should complete a successful range check of your radio equipment prior to each new day of flying, or prior to the first flight of a new or repaired aircraft.
- If your aircraft gets dirty, do not use any solvents to clean it. Solvents will damage the foam and plastic. Use a dry cloth to clean any dirt from the outside of the aircraft.

RADIO SYSTEM WARNINGS

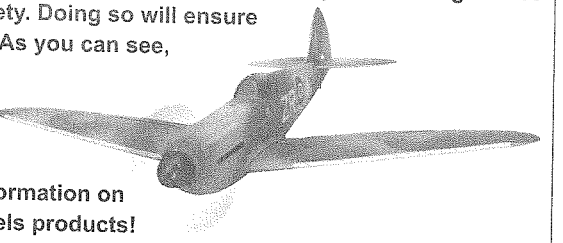
- Always turn on your transmitter before turning on the aircraft and always turn off the aircraft before turning off your transmitter.
- Always unplug the battery when not flying the aircraft.
- Never cut the receiver antenna shorter or you could lose control of the aircraft during flight.
- When flying the aircraft, make sure your transmitter antenna is completely extended.
- Never attempt to disassemble or modify any of the radio system components.

LITHIUM POLYMER BATTERY WARNINGS - YOU MUST READ THIS BEFORE CHARGING THE BATTERY

- This product may explode or catch fire. Serious injury can result from misuse. Serious injury, loss of property, fire and death can result from misuse of this product.
- All instructions, warnings and cautions must be followed at all times. Failure to do so can lead to serious injury or fire.
- Do NOT use this product before reading and understanding all directions and warnings.
- Do NOT use or charge if the battery is hot.
- Do NOT leave in direct sunlight or in a hot car or storage area.
- Do NOT overcharge. Maximum voltage for each pack must be followed.
- Do NOT get wet or expose to moisture.
- Do NOT short-circuit the battery.
- ONLY discharge and charge the battery outdoors or in a firesafe container.
- Do NOT leave the battery connected when not in use.
- Do NOT operate or charge unattended.
- Do NOT use the product if you do not understand the warnings and proper use of the product.
- Always let the battery cool and "rest" between uses and charging.
- We recommend the use of a firesafe container when charging or storing.
- Do NOT charge inside your car or inside your house.
- Inspect the battery before each use for swelling or other malformation. If the cell has ballooned, it MUST be discarded.
- Check polarity and then connect battery to charger.
- In use, do not over-discharge or exceed maximum discharge.
- When handling the battery, remember not to poke, bend or damage the cell. The cell outer casing is soft and can be damaged.
- Remember, the cells must never exceed 160 degrees Fahrenheit for any reason.

INTRODUCTION

Thank you for purchasing the Phase 3 Models Mini Scale Series Spitfire. Before completing the final assembly of your new aircraft, please carefully read through these operating instructions in their entirety. Doing so will ensure your success the first time around. As you can see, there's not much to it!

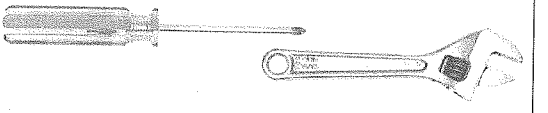


Check out our website for more information on this and other exciting Phase 3 Models products!

WWW.PHASE3MODELS.COM

ITEMS NEEDED FOR FINAL ASSEMBLY

- Small Phillips Head Screwdriver
- Adjustable Wrench



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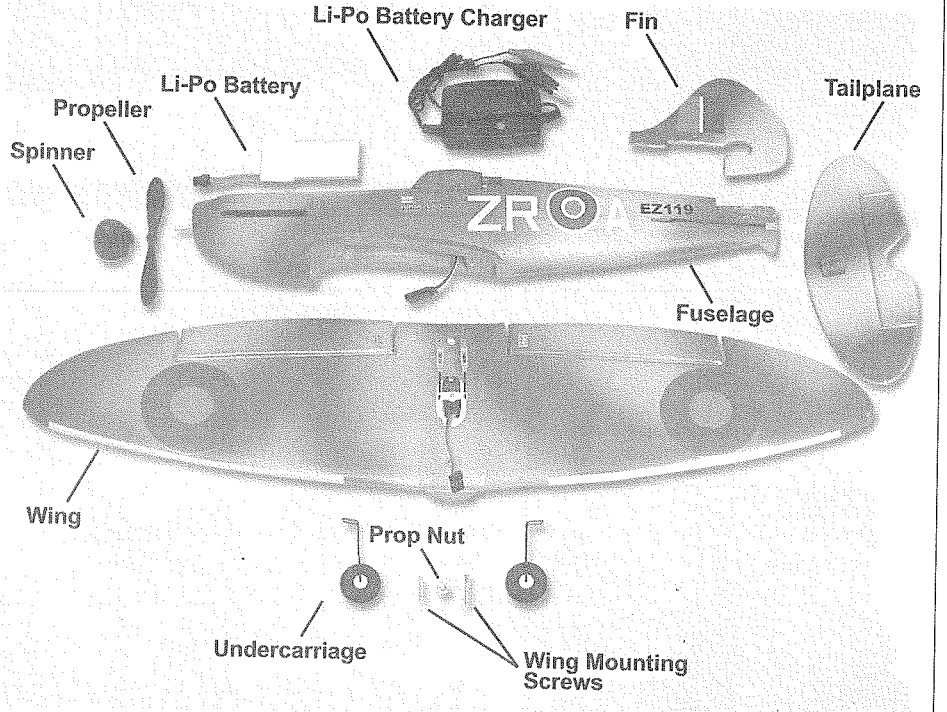
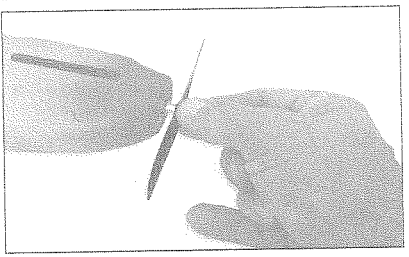
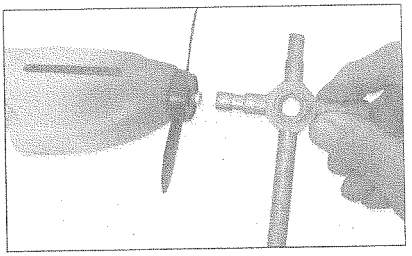


ASSEMBLING THE MINI SCALE SERIES SPITFIRE

STEP 1: INSTALLING THE PROPELLER



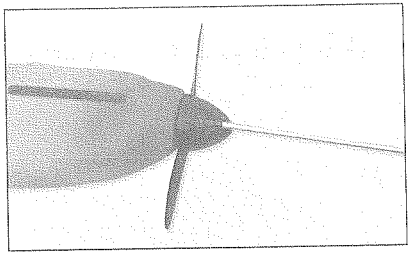
❑ Slide the propeller onto the aluminium propeller driver that has been pre-installed on the motor.



❑ Unscrew the spinner 'nose' using a small Posidrive screwdriver to remove the two retaining screws.

❑ Slip the rear part of the spinner over the propeller and secure with the propeller nut.

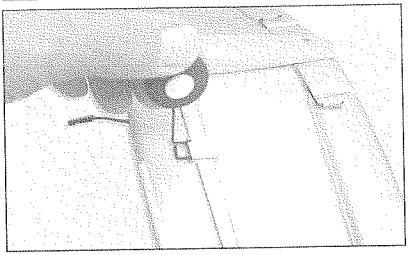
IMPORTANT Do not overtighten the nut.



❑ Align the spinner nose and refit the two retaining screws. Ensure they are tightened evenly to avoid distorting the back plate.

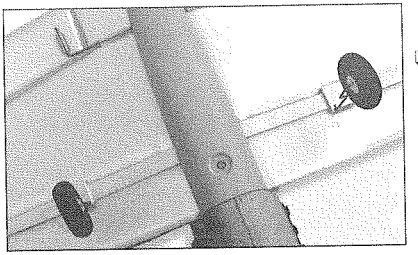
IMPORTANT Do not overtighten the screws.

STEP 2: FITTING THE UNDERCARRIAGE



❑ The Mini Scale Spitfire can be flown with or without undercarriage. Simply slide the pre-bent undercarriage legs into the 'pockets' on the underside of the wing.

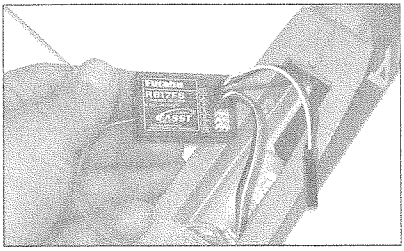
NOTE Unless you are flying from a smooth surface, we do not recommend fitting the undercarriage.



❑ Note the orientation of the undercarriage legs - each of the wires should locate in the moulded cut-outs in the pockets.

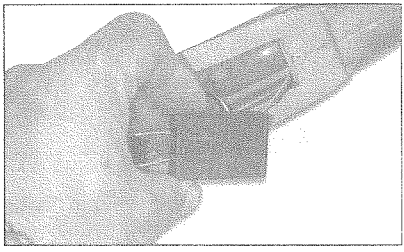
ASSEMBLING THE MINI SCALE SERIES SPITFIRE

STEP 3: INSTALLING YOUR RECEIVER

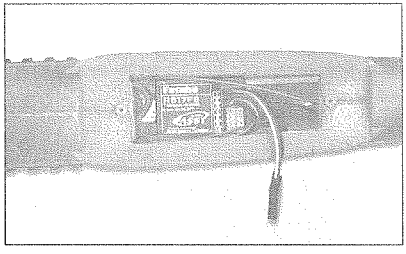


❑ Connect the aileron extension lead (supplied) to your receiver's aileron output socket.

❑ Now connect the factory installed speed controller to your receiver's throttle output socket and the elevator servo to your receiver's elevator output socket.



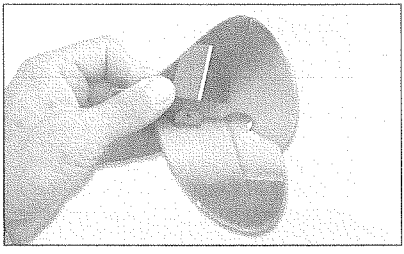
❑ Attach a piece of double-sided foam tape to the back of your receiver as shown.



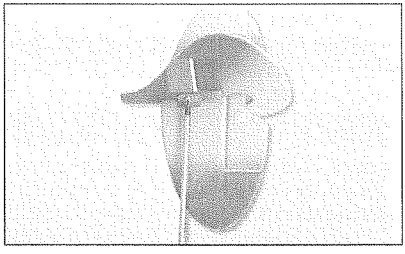
❑ Attach the receiver to the cockpit floor so that it is accessible through the wing seat opening. If you are not using 2.4GHz radio, you will need to route the aerial down the fuselage and let it exit through the rear.

IMPORTANT Do not cut or otherwise shorten the receiver aerial - let it hang from the rear of the fuselage.

STEP 4: FITTING THE TAILPLANE AND FIN



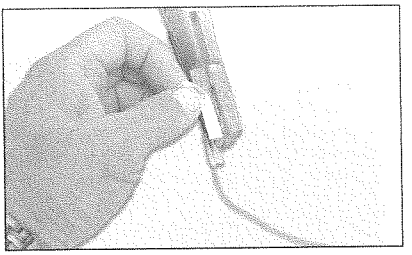
❑ Locate the tailplane and fin. Slide the fin into the bracket on the top of the tailplane making sure the pre-drilled holes align.



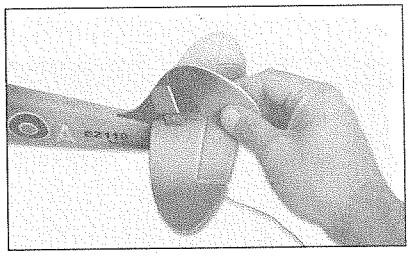
❑ Using a Posidrive screwdriver, install the fin retaining screw and tighten to secure the fin in place.

IMPORTANT Don't overtighten the wood screw or you might strip the hole in the plastic mount.

STEP 4: FITTING THE TAILPLANE AND FIN

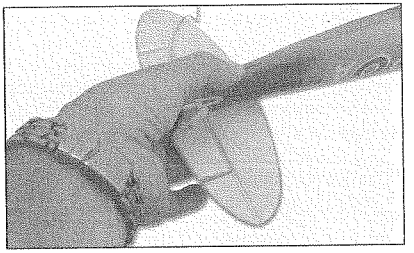


❑ Now remove the backing paper from the double-sided tape already in place on the tailplane seat.

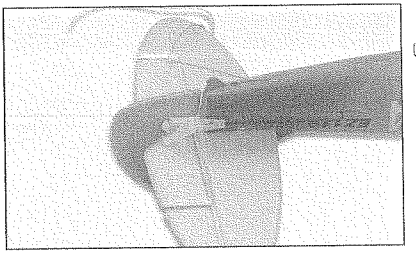


❑ Insert the front of the fin into its slot in the rear of the fuselage.

IMPORTANT Ensure that the tail and fin is square to the fuselage.

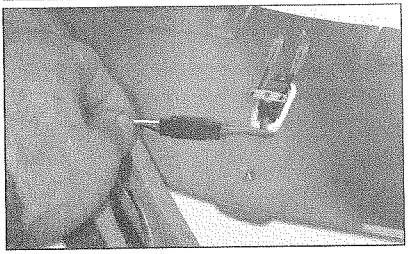


❑ Press the tailplane firmly in position, making sure that the tailplane is accurately positioned on its seat.



❑ Connect the elevator snap link to the control horn on the underside of the tailplane. Use the second hole out from the tailplane.

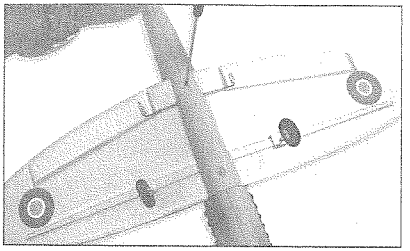
STEP 5: FITTING THE WING



❑ Connect the aileron servo to the extension lead from your receiver.

ASSEMBLING THE MINI SCALE SERIES SPITFIRE

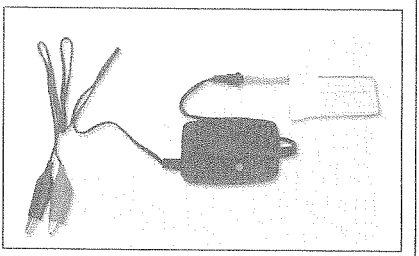
STEP 5: FITTING THE WING



❑ The wing can now be fitted using the two screws supplied. Note that the longer screw is for the front of the wing and the shorter one is for the rear.

IMPORTANT Ensure that you don't trap the aileron servo wire in the wing join.

STEP 6: CHARGING THE BATTERY



- Read the charging warnings on page 2 before charging the battery.
- Always run the motor until it stops before recharging the battery. This will ensure that the battery is properly discharged.
- Charge-time for a fully discharged battery is approximately 20-30 minutes.
- If the battery becomes hot to the touch, unplug it from the charger immediately.
- Always allow the battery to completely cool before recharging it.
- Never leave the battery unattended during the charging process.
- Do not charge any other type or size of battery using the charger and do not modify the connectors.
- Do not block the cooling holes and vent slots during the charging process.
- Plug the battery connector into the battery charger connector. When plugged in properly the connectors should "click" together.

NOTE: As a safety feature, the connectors can only be plugged in one way.

- Connect the red positive (+) clip to your 12V battery's positive terminal, then connect the black negative (-) clip to you 12V battery's negative terminal. The LED on the charger will be solid green.
- Press the CHARGE button once and the LED will turn solid red. This indicates that the battery is charging.
- Allow the battery to charge. The charge time will be approximately 20-30 minutes. When the LED turns solid green, the battery has been fully charged and should be removed from the charger.
- To unplug, squeeze the tab on the battery connector and pull the two connectors apart.
- After charging the battery, install it in the Spitfire using the hatch on the top of the fuselage.

WARNING: Always remove the battery from the fuselage when charging.

STEP 7: BALANCING THE SPITFIRE

Using the battery supplied, the Mini Scale Series Spitfire is designed to balance correctly - straight out of the box with a wide range of receivers. You may wish to double check the centre of gravity point before flying. The completed model should balance at the rear of the moulded wing spar - 34mm back from the leading edge, measured at the wing root.

FLYING THE MINI SCALE SERIES SPITFIRE

TESTING THE CONTROL SURFACES

When checking the operation of the control surfaces, make sure that nothing is in the way of the propeller and it is free to turn. Ensure that hands and clothing are kept away from the propeller.

Move the throttle stick to its idle position. Switch on the transmitter. Connect the flight battery (there is no onboard switch). The model is ready to test. Check that the elevator and aileron servos are centred when the transmitter sticks and trims are at neutral. Check that the ailerons and elevators move in the correct direction when the transmitter sticks are moved. Now check the operation of the throttle by slowly advancing the throttle stick.

The model is now ready to charge and fly!

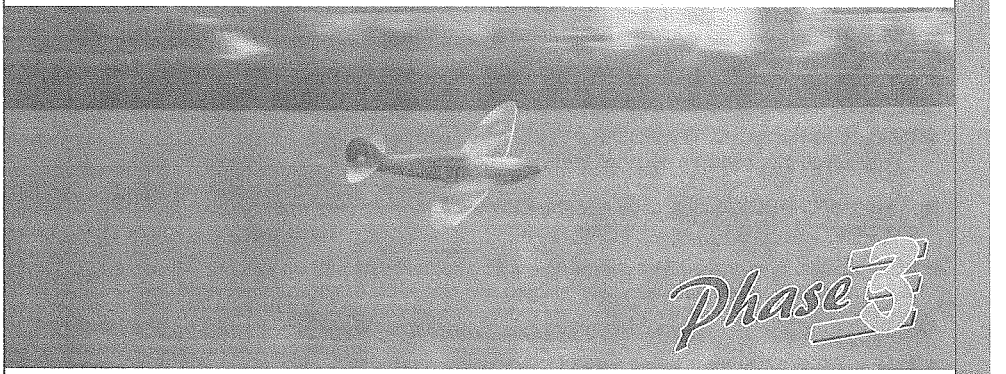
FLYING THE MINI SCALE SERIES SPITFIRE

Ensure that your transmitter is fully charged. Fully charge the flight battery using the directions in step 6. Choose a large, open field with grass for your first flights. Ensure that there are no vehicles, buildings, power lines or trees in the vicinity.

Once you are satisfied that your frequency is clear to fly, perform a range check to ensure that the radio system is operating correctly. For the first flights, we recommend an assistant launches the model for you. Make sure the Spitfire is firmly launched with its wings level and nose slightly down. Always launch directly into the wind. Once airborne, familiarise yourself with the control response, then gain height and check the stall characteristics. The model has a good turn of speed but can be slowed right down for landings. Aerobatic manoeuvres can be performed with ease - just trade height for speed and keep the manoeuvres smooth and large.

Landing should always be carried out into the wind with the wings level. Reduce the throttle and allow the model to descend while keeping the turns flat and gentle. When the aircraft is over the landing spot, the throttle can be pulled completely back to stop the motor and allow the model to land straight ahead. Just before touch-down, gently pull back on the elevator control stick to 'flair' the landing.

Happy and safe flying!



OUR GUARANTEE

Phase 3 Models guarantees this kit to be free from defects in both material and workmanship, at the date of purchase. This does not cover any component parts damaged by use, misuse or modification. **In no case shall Phase 3 Model's liability exceed the original cost of the purchased kit.**

In that Phase 3 Models has no control over the final assembly or materials used for final assembly, no liability shall be assumed for any damage resulting from the use by the user of the final user-assembled product. By the act of using the final user-assembled product, the user accepts all resulting liability.