MIG-15

Manual

- The PNP version as a reference manual, please contrast this manual if you purchase another version, to matching the appropriate parts for assembly.

Freewing Model
www.sz-freewing.com

Please read all instructions carefully before assembly and flight!

Thank you for purchasing the Mig-15. This model is designed for the intermediate to advanced flyer. The model is receiver ready and includes everything that you need to assemble and fly your Mig-15, except for the radio transmitter and receiver. Please read the following instructions carefully, assembly is easy and should only take an hour or so.

Main Specifications

Wingspan: 28" (711mm)
Fuselage length: 28" (711mm)
Flight weight: 18-1/2 oz. (524g)
64mm EDF
4300KV out-runner brushless motor.
3-cell, 11.1V, 1600mAh 20C lipo battery genuine Deans Ultra Connector
30A ESC w/ BEC and genuine Deans Ultra Connector
3pcs. 9g Servo
No Landing gear

Required but not included

Radio System with minimum 3-channel Transmitter and Receiver
Battery charger capable of charging a 3-cell Lipo battery

Safety Statement

1. This is not a toy. It is for experienced modelers only. You are responsible for the safe operation of this model and any damage or harm it may cause.

2. Before flying the Mig-15 for the first time please read through the instructions carefully and make sure that your radio equipment is working properly and has been range tested prior to flight.

3. Young people under the age of 14 should only be permitted to operate this model under the instruction and supervision of an adult with modeling experience.

4. Please keep these instructions for future reference after completing model assembly. They contain information critical to the safe operation of this model.

5. If you have any further questions regarding the safe operation of your RC model, please contact your local hobby shop or flying club or Freewing Model Company for professional help and advice.

Safety Precautions!

Please read this section and follow all recommendations!

1. Do not fly in strong wing or bad weather.
2. Never fly the model in crowded areas where there are lots of people, automobiles on the road or power lines overhead. Do not fly near full-scale airport.
3. Make sure that you have enough open area for flying as the model can travel at a high rate of speed and cover a lot of area quickly. Initial flights should be made in an area with a minimum size of a football field.
4. This model is not recommended for children under the age of 14.
5. When charging the LiPo batteries always charge them on a non-flammable surface and monitor the charge process. Improper charging of LiPo batteries is dangerous and can lead to a fire!
6. The Mig-15 is made from EPO foam and plastic. These materials are flammable and can be damaged by high heat. Never leave your Mig-15 near a heat source or in an automobile.
7. Do not attempt to catch your Mig-15 while flying.
8. Never leave your Mig-15 unattended when ready for flight.
9. When preparing for flight, always turn on your transmitter first and make sure that your throttle is in the off position prior to plugging in the flight batteries. Failure to follow this step may lead to unintended motor start and damage to the model.

Illustration of Assembly

1. Open box and carefully unwrap all parts.

2. Apply a small amount of epoxy to the right stabilizer

3. Put into position on the vertical fin.

4. Check that it is at 90 degrees from the fin. When the epoxy has cured drill a 3mm hole through the vertical fin from the left side. Drill a hole inside the stab to accept the 3mm carbon tube reinforcement.

5. Apply a little epoxy to one end of the tube and insert it through the fin and into the stab. Drill the left stab in the appropriate location and slip it on the carbon tube and glue to the fin.

6. Check that the stabilizers are at 90 degrees to the vertical fin. Mix some 5-minute epoxy and apply an even coat to the root of one wing panel.

7. Insert the aileron servo wire through the hole in the fuselage and then push the wing panel into position

8. Make sure that the wing panel is fully inserted into the fuselage. Check both the top and bottom surfaces of the wing to be sure.

9. If there are any places where the epoxy has been forced to the surface. Take a paper towel and some Alcohol and wipe it off before the epoxy sets.

10. After the wings have cured, prepare the fuselage and vertical fin for gluing. Sand the base of the fin to remove paint and scrape the mating surface on the rear of the fuselage to remove paint.

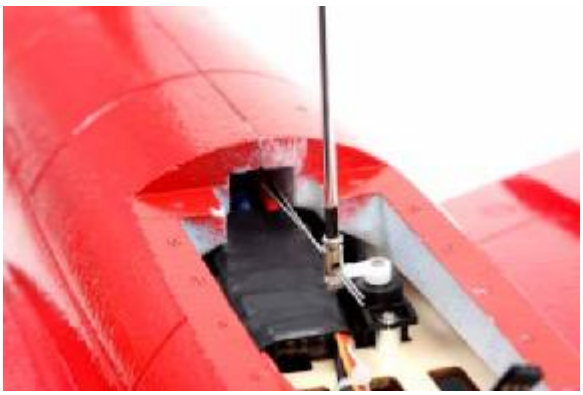
11. It does not have to be perfect, just rough enough for a good bond.

12. Epoxy the fin in position make sure to feed the left elevator pushrod tube through the fin.

13. Slip the right elevator pushrod tube through the other fin part and glue into position.

14.Insert the wire pushrods from the rear and feed them into the hatch area of the fuselage.
15.Slip both pushrods into the pushrod keeper do not tighten yet.

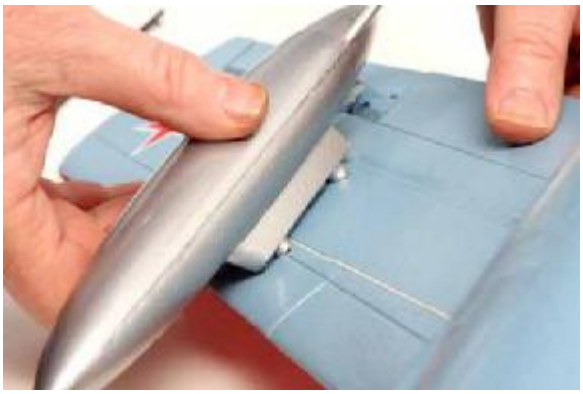
16. Insert the pushrod wire in the elevator keeper and tighten. While holding the elevator halves in neutral position tighten the keeper at the servo to pinch both wires.



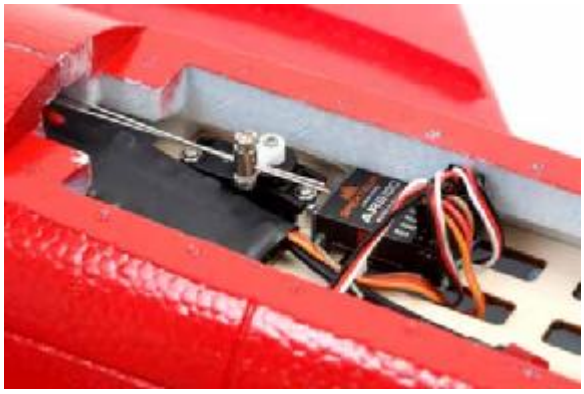
17. Locate the drop tanks and their plastic reinforcements. These function as skid plates, glue one to the bottom of each tank as shown.

18.Install the drop tank to the bottom of the wing with a small amount of glue.

19. Route all of the servo wires to the top of the plywood battery tray.



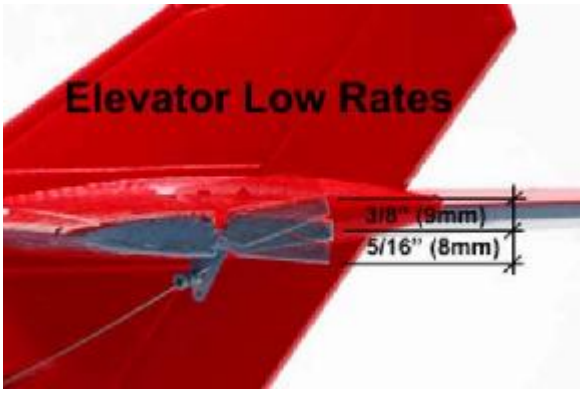
20. Install your receiver. Ailerons can be plugged in either using a Y-connector or to individual channels depending on what radio you choose.

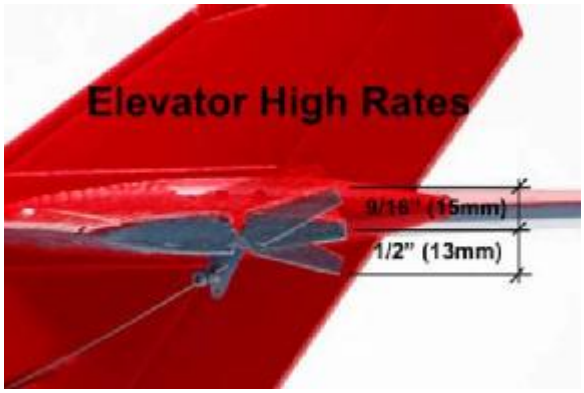


21. Install the battery pack in the front of the battery tray and secure with Velcro.

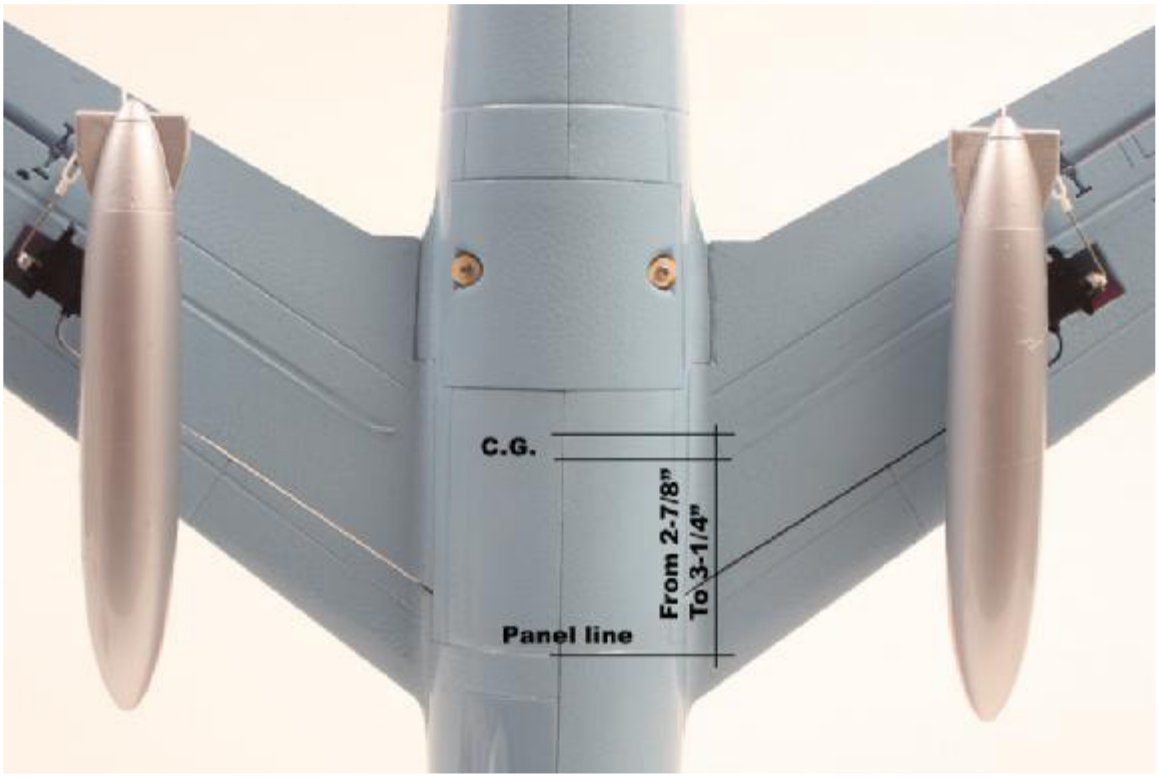
22. Aileron control throws are **3/8” Up and 1/4” Down on Low Rates**. They are **1/2" Up and 5/16” Down on High Rates**. If using the Y-connector you will not be able to adjust aileron differential. Set the up throw to be about 7/16” -1/2”. Elevator control throws are 7/16” in both directions.

23. Elevator control throws are **3/8” Up and 5/16” Down on Low Rates**. They are **9/16" Up and 1/2"” Down on High Rates**.





24. The Center of Gravity range for the Mig-15 is from about 2-7/8” to 3-1/4” back from the panel line on the bottom of the fuselage near the front of the wings. Adjust the position of the battery to achieve correct balance. Never attempt to fly a model that is not correctly balanced.



Preparation before flight

25. Set throttle to the lowest position And set transmitter trims to neutral.

26. Turn on the transmitter

27. Connect the flight battery to the ESC. After ESC initializes check that the correct channel is controlling each control surface and that they are traveling in the correct direction when commanded. Example: right stick moved to the right and the aileron on the right wing moves upward while the aileron on the left wing moves downward.

28. Adjust each control surface to its neutral position by mechanically adjusting each clevis.

Recommended control throws for Mig-15

Elevator	**Aileron**
Low Rates 3/8” Up and 5/16” Down	Low Rates 3/8” Up and 1/4” Down
High Rates 9/16” Up and 1/2" Down	High Rates 1/2” Up and 5/16" Down

After initial flights adjust the control throws to best suit your flying style and ability.

Check before flight

1. Make sure that your transmitter is fully charged. Conduct a range test of your radio system per the manufacturer’s specs.
2. Check all flying surfaces for correct direction of movement, correct amount of movement and for correct centering, adjust as required.
3. Fully charge your flight batteries prior to flying.
4. Hand launch into the wind and land into the wind.

Flight Adjustment

1. On initial flight climb to about 75-100 feet and see if any trim is required. If the model rolls to the right, apply some left aileron trim to level the wings. If the model dives, apply some up elevator trim, ect.
2. Landing should be made into the wind, reduce the throttle to just above idle and keep the nose level or a little high allowing the airplane to sink toward the ground. Apply a little throttle as the model reaches an altitude of a foot or so, this will slow the descent and aid in the flare to a smooth landing.

Have Fun
We hope that you have many pleasant flights with your Mig-15

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