J-POWER®

Assembly and Operating Manual

Mini P38

Specification:
* Length: 28-1/2" (725 mm)
* Wing span: 39-2/5" (1000 mm)
* Flying weight: 30 oz. (850g)
Dear customer,

Congratulations on your choice of a factory-assembled model aircraft from the jpower Mini Warbirds range and thank you for placing your trust in us.

The model can very quickly be completed ready to fly. Please read right through these instructions and the separate information sheets before attempting to assemble and fly the model, as this will make it much easier to complete the tasks required.

All directions, such as “right-hand”, are as seen from the tail of the model, looking forward.

Notes on the power system

A brushless outrunner motor, propeller and spinner are factory-installed.

The motor is connected to the speed controller, ready to use, and the controller is correctly set up at the factory.

To complete the power system all you have to do is connect the LiPo flight battery.

The radio control system

For this model you require a radio control system with at least four channels. We particularly recommend 2.4 GHz systems.

The receiving system is powered by the speed controller’s integral BEC system.

Before you check the model’s working systems, set the control surfaces to neutral from the transmitter (transmitter sticks and trims central).

Before operating the model always move the throttle stick to the “motor stopped” position before switching the transmitter on. Only then connect the flight battery.

To switch off, first disconnect the flight pack from the speed controller, and only then switch the transmitter off.

Glued joints, suitable adhesives

Foam safe epoxy is recommended and available from most reputable model retail shops.

Trial-fit all parts “dry” before applying glue.

Follow the recommended curing time suggested by the glue manufacturer. Allow the glue to fully cure (harden) to the point where the joint can be placed under stress.

Kit contents

Fuselage, complete with motor, speed controller and servo.
Integral wing panels with L.H / R.H. ailerons and servos
Tailplane and elevator
Fin
Factory-fitted propeller and spinner
2 X Aileron pushrod, Two Z-bend
2 X Elevator pushrod, Two Z-bend.
2 X Rudder pushrod Two Z-bend
8 X Y-lead
6 X Control surface horn
1 X 3S1P LiPo battery, 1300 mAh, 25C
Figs. 1

- Glue the control rod to Horizontal tail. (glue not included)

Figs. 2

- Remove any excess glue and hold in position until glue sets. The photo shows the finished view.

Fig. 3

- Glue the control rod to vertical tail. (glue not included)

Fig. 4

- Remove any excess glue and hold in position until glue sets. The photo shows the finished view.
Fig. 5
- Glue the control rod to elevator. (glue not included)

Fig. 6
- Remove any excess glue and hold in position until glue sets. The photo shows the finished view.

Fig. 7
- Reverse the procedure to the right side. The photo shows the finished view.

Fig. 8
- Glue the vertical tail in place with adhesive. Put it in place while the glue is hardening.
Fig. 9
- Assemble the horizontal tail on the fuselage.

Fig. 10
- Photo shows the horizontal tail assembled on the fuselage.

Figs. 11
- Apply glue to the fuselage.

Figs. 12
- Apply glue to the wing panel.
Figs. 13
- Photo shows the wing set have assembled on the fuselage.

Figs. 14
- Put the elevator pushrod and aileron pushrod into a carbon fiber tube.

Figs. 15
- Photo shows the finished view.

Figs. 16
- Connect the vertical fin pushrod to control rod.
Figs. 17

-Tighten the control rod with screw.

Figs. 18

-Connect elevator pushrod to the control rod.

Figs. 19

- Tighten the control rod with screw.

Figs. 20

-Photo shows the finished view.
Figs. 21

-Reverse the procedure to the left side. The photo shows the finished view.

Figs. 22

-Connect the aileron push rod to the servo arm at the second hole.

Figs. 23

-Connect the aileron push rod to the control rod.

Figs. 24

-Tighten the control rod with screw.
Figs. 25
- Photo shows the finished view.

Figs. 26
- Apply glue to the fuselage and put the missile in position.

Figs. 27
- Photo shows the missile glued on the fuselage.

Figs. 28
- Glue aerial into fuselage.
Figs. 29
-Photo shows the finished view.

Figs. 30
-Glue the aerial into horizontal tail.

Figs. 31
-Photo shows the finished view.

Figs. 32
-Glue the cooler device on fuselage.
Figs. 33
- Photo shows the cooler device have glued on the fuselage.

Figs. 34
- Assemble the propeller to motor.

Figs. 35
- Fix the propeller with screw.

Figs. 36
- Photo shows the propeller have assembled.
Figs.37
- Place the flight battery in the fuselage.

Figs.38
- Connect to the receiver and place the receiver in the middle of the fuselage.

Figs.39
- Photo shows battery leads connected to the speed controller.

Figs.40
- Opening and closing the canopy:
  The canopy is retained by the cowl at the front, and by a tongue at the rear.
- To open the canopy, slide it forward, raise it at the rear and lift it off.
- Reverse the procedure to replace the canopy.

Figs.41
- Congratulation! You have finished all the assemble steps.

Figs.42
- Photo shows the balancing weight.
- Place the canopy on the fuselage.
- Place the battery in the model of balancing; do not connect it.
- Make the Centre of Gravity on both sides.
- Support the model at the marked C.G. and allow it to hang freely. The model is correctly balanced when it hangs level, ideally with the nose inclined slightly down.
- Adjust the position of the flight battery if necessary.
- Mark the battery location in the fuselage, so that you can be confident of replacing it in the same position after removing it.
Figs. 43
- Charge the flight battery; connect the Equalizer lead using and adapter lead matching your charger (adapter lead not included).

Figs. 44
- Switch the transmitter on, and move the throttle stick to the “Motor OFF” position. (Diagram MODE 1 right throttle control stick)
Figs. 45 – 47 Function test

- Check the channel assignment at the receiver, and if necessary swap the plugs as necessary.
- Set the transmitter sticks and trims to centre.
- The control surfaces should now also be at centre (neutral). Adjust the clevis where necessary.
- Check the direction of rotation of the servos.
- Stand behind the model. - When you move the rudder stick to the right, the rudder should also deflect to the right.
- Pull the elevator stick back towards you, and the rear edge of the elevator should rise.
- Moving the aileron stick to the right, you MUST check that the trailing edge of the right aileron rises, the left aileron should go down.
- If any function works the wrong way round, correct it using the servo reverse facility on your transmitter.
- Set the control throw using the transmitter servo end point adjustment function.
- The travels are measured at the inboard end of the control surfaces.
- The stated control throws are just a guide for the first few flights. You will probably need to adjust the actual settings to suit your individual flying style.
- The Expo settings should also be adjusted to suit the pilot's preference.
Fig. 48 checking the electric power system

- **Caution**: position the throttle stick in such a way that the motor cannot possibly start running.
- Switch the transmitter on, and connect the flight pack.

- Check the direction of rotation of the motor: when viewed from the front, the output shaft must rotate anti-clockwise. If this is not the case, perhaps because you are using components other than those recommended, swap over any two motor wires to reverse the direction of rotation.

Note: whenever you are installing, adjusting or servicing the power system, keep well clear of the rotational plane of the propeller – injury hazard. Ensure also that nobody stands in front of the model when the motor is running.

- First disconnect the battery from the speed controller, and then switch the transmitter off.

- The model is ready for flying once you have recharged the battery.

Test-flying, flying notes

Read the sections in the Safety Notes entitled “Routine pre-flight checks” and “Flying the model” before attempting to fly the model for the first time.

- Advice on control surface travels

- The stated control surface travels are just a guide for the first few flights. Every pilot will need to adjust the settings slightly to suit his or her individual flying style. Exponential settings should also be set to suit your personal preference.

- For your first few flights please wait for a day with no more than a gentle breeze.

- A good flying site consists of a large, flat, open grassy field, devoid of trees, fences, high-tension overhead cables etc.

- Repeat the check of all the working systems.

- Ask an experienced modeling friend to hand-launch the aircraft for you. He should be capable of giving the model a reasonably strong, flat launch.

- The model must be launched directly into any wind.

- With the motor running at full-throttle, give the aeroplane a firm launch directly into any breeze, with the fuselage and wings level.

- Allow the Mini P-38 to fly straight ahead initially; don’t initiate turns close to the ground.

- Adjust the control surface trims if necessary, so that the model flies straight with a reasonable rate of climb “hands off”.

- Check the model’s reaction to control inputs. If necessary, you may need to increase or reduce the control surface travels after the first landing.

- Check the aeroplane’s stalling speed at a safe height.

- Keep the model’s speed well above the stall for the landing approach.

- If you needed to adjust the trims during the test-flight, correct the length of the appropriate pushrod once the model is back on the ground, then return the transmitter trims to centre so that full trim travel is available to both sides of neutral for subsequent flights.

- We reserve the right to introduce technical modifications and suggest that you check our website for updates.