

Fw 190



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Dear customer, congratulations on the purchase of the Fw190 model. To enjoy building and flying the model most, please read carefully the building instructions before you begin and make sure that you understand the building process.

DESCRIPTION OF THE MODEL:

The Spitfire model is completely made of the expanded polypropylene EPP. Its light weight (from 160 grams) makes it an ideal model for flying in any environment. Thanks to its powerplant it is extremely suitable not only for a leisurely flying, but for the air combat as well.

Due to its well-engineered design the assembly of the model would take only about 60 minutes. It would survive unharmed many crashes and mid-air collisions in the air combat with other models.

BUILDING THE MODEL:

Unless otherwise stated, all parts are to be glued by the medium-thick CyA glue. Start the building by gluing the elevator joiner in place (Fig. 1). Then glue the empennage to the fuselage, (Fig. 2) ensuring that the empennage planes are at right angles and at the correct angles to the fuselage. Then comes the wing (Fig. 4), that has to be glued to the fuselage so as to keep the symmetry and correct relative angles (Fig. 5). Using the (Fig. 6) as a guide, assemble the undercarriage leg mounts and glue them into the wing cut-outs (Fig. 7). If you are not going to fly with the undercarriage, omit this and the next two steps completely. Place the wheels on the axles and secure them with the quick locks (Fig. 8). At this moment you can also attach the undercarriage doors (Fig. 9).

Cut out the opening for the elevator servo (Fig. 10), glue in place the elevator control horn (Fig. 11) and install the elevator push-pull rod (Fig. 12). Glue in place the aileron control horns (Fig. 13) and cut out the opening for the aileron servo (Fig. 14). Install the aileron servo and push-pull rods (Fig. 15). Glue the motor mount and connect the controller (Fig. 16). By the set-screw, attach the motor in the mount (Fig. 17), then insert the receiver into the fuselage. Place the battery in the opening cut into the wing and fuselage (Fig. 18). Check the position of the centre of gravity (C/G) and adjust it by shifting battery or, eventually, adding some weight as necessary. Now the model is ready to fly, it is only necessary to apply the decals and to trim the controls.

The displacement of control surfaces should be set to about 30 degrees for the first flights, adding exponential displacement as used to. The model is sufficiently sensitive to controls and nimble. Always take into consideration your own skills and fly so as not to endanger yourself or people in your vicinity.

Many happy landings! Your FreeAir.

PARTS LIST

Part name	Pcs	Part name	Pcs
Fuselage of EPP	1	Undercarriage wheel	2
Elevator push-pull rod	1	Undercarriage leg	2
Wing of EPP	1	Quick Lock	2
Control surfaces of EPP	2	Undercarriage wheel covers	2
Motor mounting	1	Control horns	3
Motor 20/8/16	1	Undercarriage leg mount, part A	2
200/180 mm (8"/6") propeller	1	Elevator joiner (aluminium wire)	1
Undercarriage leg mount, part B	4	Instructions	1
Decal sheet	1	Aileron push-pull rod	2
Tail skid	1		

You will need the following tools and materials:

CyA glue, CyA glue accelerator, a sharp (modelling) knife, and sandpaper. To complete the model you need the following: a receiver (MZK), two servos (Waypoint), an AC controller (TMM 0710-3), a battery pack (2-3 LiPol cells of 720-1200 mAh). For the 20/8/16 motor with two LiPol cells, the 200/130 (8"/6") propeller is the optimum, the same motor with the 180/130 (7"/6") propeller would need three LiPol cells.





