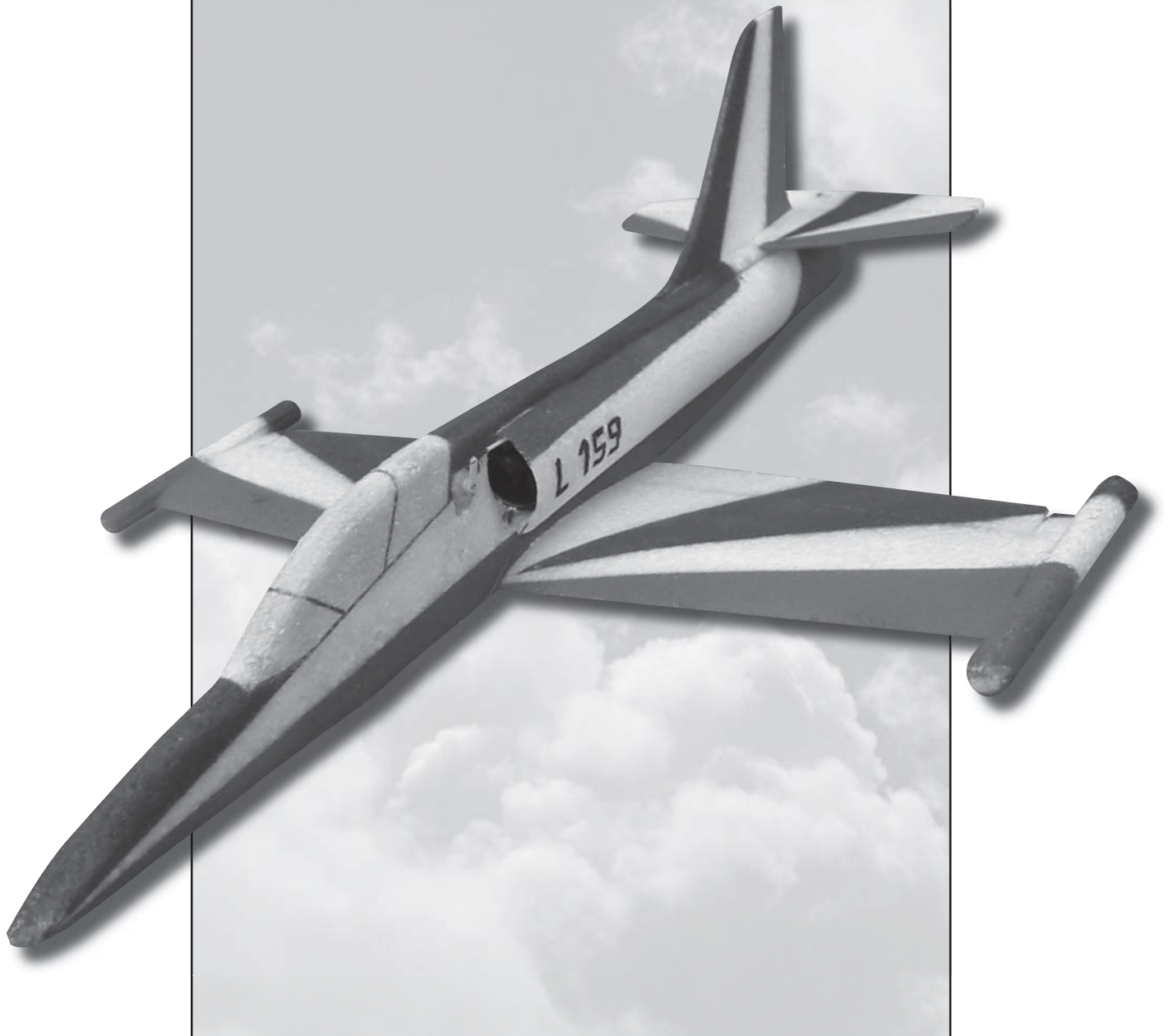




# L-159 Alca



[www.freeair.cz](http://www.freeair.cz)

Dear customer, congratulations on the purchase of the **L-159 Alca** model. Before you begin, please, read carefully the building instructions and make sure that you understand the building process.

## DESCRIPTION OF THE MODEL:

The model is completely made of EPP. With its weight beginning at 120 grams it is an ideal model for flying in any suitable spot (e.g. a school playground or in the street). It is intended not only for experienced pilots, but also for the advanced modellers. To power it you may use a brushless motor Feigao with 3 LiPol cells. Thanks to a well thought-out design the construction would take only about 60 minutes.

## BUILDING PROCESS:

All parts of this model glue by thin CA glue, only adjutage from depron glue by CA glue meant for polystyrene. First of all through diameter of tube about 20-35 mm roll the depron part of adjutage (Fig. 1). On this tube wind the depron part, so we gain camber (Fig. 2 and 3). In this way gained cylinder glue by Styro CA glue (Fig. 4) or ensure it by paper adhesive tape (Fig. 5). On the picture number 6, there are both alternatives depicted. Ducted fan (EDF) put in the adjutage (Fig. 7). It is not necessary ensure the EDF by glue, this solution guarantee easy exchange in case that arise any problem with EDF or motor. Using a sharp knife trim the fuselage (Fig. 8). In the fuselage cut opening for motor supply cable (Fig. 9). EDF put in the slot in the fuselage and glue the adjutage to the fuselage, then trim overlapped part of adjutage at the end of the fuselage (Fig. 10). According to Fig. 11 trim motor nacelle and glue them to fuselage (Fig.12 and 13). In case that you want have elevator control rod hidden in the fuselage, you must wait with glue of the left motor nacelle until you installed elevator control rod. In elevator cut the groove and glue the lever into it (Fig. 14), take care that the lever is on the same side as elevator servo.

Glue elevator and rudder (Fig. 15), take care to perpendicular. In the wing cut the groove and glue aileron control horns (Fig. 16) and install aileron push-pull rods (Fig. 17). Into the prepared groove glue the elevator servo and install rods (Fig. 18 and 19), which we can disguise by motor nacelle.

Join servos and controller to the receiver (Fig. 20). Opening for controller cut in fuselage or in wing, how you need. In case that everything works, glue the wing to the fuselage (Fig. 21). Again check the perpendicular of the wing, fuselage and tail. Battery pack put in the prepared opening in the fuselage (Fig. 22). In case that you use the recommended equipment, it is not necessary balance the model. Antenna of the receiver can take out for example according to

PARTS LIST			
Part name	Pcs	Part name	Pcs
Fuselage of EPP	1	Aileron horns	2
Elevator control rod	2	Elevator	1
Wing of EPP	1	Aileron levers	2
Motor nacelle	2	Instructions	1
Vertical tail of EPP	1	Adjutage from depron	1

**You will need the following tools and materials:**  
 CA glue, CA glue accelerator, a sharp (modelling) knife. To complete the model you will need: a receiver (MZK), servos (W-038), a controller (HCS C 12A or similar), a battery pack (2-3 LiPol cells of 360-640 mAh), EDF 40 from GWS.

the Fig. 23. The centre of gravity is 45 mm to the rear of the wing leading edge and it is not critical, so you can adapt it as used to. Thanks to its non-shifty features you can fly not only in the hall, but also outside when the strength of wind is 4-5 m/s.

Now the model is complete.

For the first flight, set the deflection of the controls to the half of their travel. As the model, thanks to the propeller torque, tends to roll to the left, set the trailing edge of the right half of the elevator some 4 mm up. The model has specific flight characteristics - thanks to its layout it can fly not only fast, but also very slow.

This model is no toy - therefore avoid flying in crowded places or such areas where health or property not only of yourselves, but also of third persons could be jeopardised.

*Lots of fun and many happy landings wishes FreeAir.*

## TESTED CONFIGURATION

- EDF GWS 40 original motor + 2 Lipol cells
- EDF GWS 40 feigao brushless motor 6100kv + 2 Lipol cells (400mAh)
- EDF GWS 40 feigao brushless motor 6100kv + 2 Lipol cells (600mAh)
- EDF GWS 40 feigao brushless motor 4100kv + 3 Lipol cells (400mAh)



