Mobula7 O4 M80

Replacement 80 mm tinywhoop frame
User manual



Read this manual and disconnect the drone battery before replacing the frame.

www.rotorama.com

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1. Product description

1.1 Purpose

Happymodel M80 is a plastic frame for a tinywhoop-type FPV drone with a diagonal motor-to-motor distance of **80 mm** and protective ducts for propellers up to **45 mm** in diameter. The manufacturer supplies it as a **replacement frame for the Happymodel Mobula7 O4 drone** – use it when the original frame breaks, cracks or deforms after a crash.

The flight controller (FC) sits lower in the frame, between the protective ducts. This leaves room above the flight controller board (AIO) for another board – the video transmitter (VTX). The frame is designed for flying on **1S and 2S** batteries.



The M80 frame fitted in the Happymodel Mobula7 O4 drone (photo: Happymodel)

1.2 Specifications and package contents

Product designation	Happymodel M80 Frame (for Mobula7 O4)
Manufacturer	Happymodel
Diagonal motor distance	80 mm
Max. propeller diameter	45 mm
FC mounting pattern	25.5 × 25.5 mm
Weight	7.75 g
Material	plastic
Colour	transparent black
Drone batteries	1S and 2S
Package contents	1× M80 frame

Not included: flight controller, motors, propellers, video transmitter and camera, camera canopy, screws and battery. Transfer these parts from the original frame or purchase them separately.



Happymodel M80 frame – top view

2. Use

2.1 Before you start

- **Disarm** the drone (motors off) and **disconnect the battery**. Never work on the drone with the battery connected.
- Prepare a suitable screwdriver (the manufacturer includes one with the Mobula7 O4 drone), tweezers and a small tray for the tiny screws.
- Before disassembly, **take photos of the drone** from all sides – especially the routing of the motor wires and the placement of the video transmitter, antennas and camera. This will make reassembly easier.

2.2 Replacing the frame

① Remove the propellers. Note which propeller belongs on which motor – the propellers spin in different directions.

② Unscrew the camera canopy and remove the camera and the video transmitter.

③ Unscrew the flight controller (FC) and carefully lift it out of the frame. The motor wires remain soldered to the board – do not pull on them.

④ Unscrew the motors from the arms of the old frame and fit them into the corresponding positions of the new frame. **Each motor must be in the same position as in the original frame**, otherwise the motor order and spin direction will not match.

⑤ Place the flight controller into the new frame **in the same orientation** as in the original one and screw it in. Tighten the screws gently – the plastic holes strip easily.

⑥ Refit the video transmitter, the camera and the camera canopy. Route the wires so that they cannot reach the propellers and are not pinched.

⑦ Fit the propellers according to the original layout.

2.3 Check after assembly

- Turn each motor by hand – it must spin freely and neither the motor bell nor the propeller may rub against the frame anywhere.
- Check that no wire reaches into the propeller area.
- **Without propellers**, connect the drone to a computer and in Betaflight Configurator (*Motors* tab) check the motor order and spin direction. On the *Setup* tab, check that the model on the screen follows the tilting of the drone.
- Make the first take-off in a safe, open place and low above the ground. If the drone behaves unusually (vibrations, spontaneous yawing), Disarm immediately.

3. Safety and care

- The frame is part of an FPV drone. Always follow the safety instructions for the drone and the rules for operating unmanned aircraft that apply in the country where you fly.
- Inspect the frame before every flight. **Do not use a cracked or deformed frame** – the protective ducts may then fail to guard the propellers safely and the drone may fly unstably.
- Protective ducts reduce, but do not eliminate, the risk of injury from spinning propellers. Keep your hands out of the propeller area while the drone is armed (Arm – motors on).
- Do not expose the frame to high temperatures (e.g. in a car in the sun) – the plastic may soften and deform.
- This product is not a toy. Keep small parts and screws out of the reach of small children.

4. Information for the EU and Czech Market

4.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

4.2 Disposal

- The frame contains no electronic components or batteries. The frame on its own therefore **does not belong in the take-back scheme for electrical equipment**.
- Dispose of a damaged or unneeded frame in sorted waste according to the rules of your municipality. Sort the packaging by material.
- The electronic parts of the drone (flight controller, motors, video transmitter, camera) and batteries, on the other hand, must not go into mixed waste – hand them over at a take-back point for electrical equipment and batteries.

5. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 4.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.

※ The frame is a consumable part that is exposed to impacts during normal drone operation. Cracking or deformation of the frame caused by a crash or impact is not a product defect.