TD-8130MG

Readytosky – 30 kg digital servo
User manual



Read this manual carefully before first use and keep it for future reference.

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1. Product description

1.1 What it is for

Readytosky TD-8130MG is a powerful standard-size digital servo with metal gears. It converts the control signal from a receiver, flight controller (FC) or other control circuit into a precise rotation of the output shaft, onto which the servo horn is fitted. It is suitable for a wide range of RC projects – for example steering RC cars and boats, operating the control surfaces of larger model aircraft or moving robot mechanisms.

The servo is slower but has **high torque** – it is intended for applications where a lot of force is needed. It is powered within the range of **4.8–7.4 V** and controlled by a standard PWM servo signal: over a pulse width range of 1000–2000 µs the output shaft rotates by 90°.



TD-8130MG servo with horns and accessories (illustrative photo)

1.2 Specifications and package contents

Parameter	Value
Product designation	Readytosky TD-8130MG
Manufacturer	ShenZhen ReadytoSky Technology Co., Ltd., Longhua New District, Shenzhen, GD 518109, China · info@readytosky.com
Type	digital servo
Gears	metal
Supply voltage	4.8–7.4 V
Torque	28.5 kg·cm (4.8 V) · 30 kg·cm (7.4 V)
Speed	≤ 0.24 s/60° (4.8 V) · ≤ 0.18 s/60° (7.4 V)
Current at max. load	2.6 A (4.8 V) · 3.4 A (7.4 V)
Travel	90° (1000–2000 µs)
Dimensions	41 × 40 × 20 mm
Weight	73 g
Cable length	30 cm

▶ **Package contents**

- 1× Readytosky TD-8130MG servo
- 1× set of plastic servo horns

▶ **Not included**

- receiver, flight controller or servo tester supplying the signal to the servo,
- power source (BEC, battery) and extension cables,
- pushrods, pushrod connectors and other parts for connecting to the model's mechanism.

2. Use

2.1 Wiring

The servo has a three-wire cable terminated with a servo connector. The wires are colour-coded:

Wire	Function
orange	signal (PWM)
red	power + (4.8–7.4 V)
brown	ground − (GND)

① Plug the connector into the output of the receiver, flight controller or servo tester so that the signal wire matches the signal pin (usually marked S) and the brown wire matches the − / GND pin.

② Check that the servo supply voltage is within **4.8–7.4 V**. A higher voltage will destroy the servo.

③ The power source (BEC) must be able to supply sufficient current. At maximum load the servo draws up to **2.6 A at 4.8 V** and **3.4 A at 7.4 V**. A weak BEC will sag under servo load and may cause the receiver or flight controller to brown out.

④ If the servo is powered from a different source than the control circuit, both sources must share a common ground (−).

Do not reverse the supply polarity and do not exceed 7.4 V. Connect and disconnect the connector only with the power switched off.

2.2 Centring and fitting the horn

Fit the horn only after centring the servo; otherwise the mechanism will not have symmetrical travel.

① Connect the servo to the control circuit and switch on the power. Set the channel to centre – 1500 µs (the middle of the 1000–2000 µs range). The servo moves to its centre position.

② Choose a suitable horn from the set and fit it onto the output shaft as close as possible to the required position (for a pushrod usually perpendicular to it). Secure the horn with the centre screw.

③ Correct any small deviation from centre with the centre fine-tuning (subtrim) in the transmitter or flight controller.

④ Set the end points so that the mechanism does not hit a mechanical stop in any position. A servo pushing against a stop draws a high current and heats up.

※ The manufacturer states the 90° travel for a 1000–2000 µs signal. The manufacturer does not specify the servo's behaviour with a signal outside this range.

2.3 Installation in the model

- Fasten the servo firmly by its mounting lugs into the servo tray or bracket so that it does not move under load. Given the high torque, the bracket must also be sufficiently rigid.
- Tighten the screws with care – overtightening may damage the plastic mounting lugs.
- Route the pushrods without play and without binding. The mechanism must move freely over its full range before it is connected to the servo.
- Route the cable so that it is not under tension, does not rub against sharp edges and cannot get into moving parts.
- After installation, check the movement over the full travel range and the direction of movement; if necessary, reverse it in the transmitter or flight controller.

3. Safety and maintenance

3.1 Safety instructions

- The servo produces a large force. Keep your hands away from the moving parts of the mechanism while the power is on – there is a risk of trapped fingers.
- Secure the model when switching on and adjusting for the first time; the servo may move abruptly after power-up.
- Do not exceed the 7.4 V supply voltage and do not overload the servo by pushing continuously against a stop. An overloaded servo heats up and the gearbox or electronics may be damaged.
- The servo is not a toy. Keep it out of the reach of children – small parts (screws, horns) pose a risk of inhalation or swallowing.
- Do not open the servo case or modify its electronics.
- When operating the model, follow the regulations of the country in which you operate it – the law of that country always applies.

3.2 Maintenance and storage

- Regularly check the tightness of the horn screw and mounting screws and the play in the gearbox.
- Check that the cable and connector are not damaged. Do not use a damaged cable.
- Keep the servo dry and clean and protect it from sand, dust and impacts.
- Store in a dry place, away from direct sunlight and heat sources.

3.3 Troubleshooting

Problem	Cause and solution
The servo does not move	Check the connector orientation, the power supply (4.8–7.4 V) and whether the control circuit outputs a signal on that output.
The servo moves the wrong way	Reverse the channel direction in the transmitter or flight controller.
The servo buzzes and gets hot	The mechanism hits a stop or is overloaded. Reduce the end points and check that the pushrods move freely.
The receiver or FC restarts when the servo moves	The power source cannot supply the required current. Use a stronger BEC or a separate servo supply with a common ground.
The horn is not centred	Refit the horn one spline tooth over on the shaft and finish the adjustment with subtrim.

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 of electrical equipment



- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

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.