PDI-1102HB

JX Servo
Digital micro servo 2.1 g



Read the entire manual before first use and keep it for future reference.

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Contents

1. Product description

1.1 What it is for

1.2 Specifications and package contents

2. Use

2.1 Connection

2.2 Installation in the model

2.3 Setting the travel

2.4 Safety and maintenance

2.5 Troubleshooting

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

3.2 Disposal of electrical equipment

4. Warranty and rights arising from defective performance

1. Product description

1.1 What it is for

JX Servo PDI-1102HB is a miniature digital servo with plastic gears weighing 2.1 g. It is designed to drive control surfaces and other moving parts of very light model aircraft (e.g. indoor and micro models) and other modelling projects where every gram counts.

The servo is connected to a receiver or flight controller (FC) by a three-wire cable with a JR connector. Depending on the length of the control pulse, it turns the output shaft, onto which the servo arm (horn) is fitted. The arm then transfers the movement to the control surface via a pushrod.



JX Servo PDI-1102HB with cable and JR connector

1.2 Specifications and package contents

Product designation	JX Servo PDI-1102HB (servo label: “1102HB”)
Manufacturer	Shantou JiXian Electronic Technology Co., Ltd. (JX Servo), China
Type	digital servo, plastic gears
Supply voltage	4.8–6.0 V DC (according to the manufacturer)
Neutral position	1520 µs pulse
Dimensions	16.3 × 8.4 × 17.5 mm
Weight	2.1 g
Cable	100 mm, JR connector
Package contents	1× servo, 1× set of servo arms
Not included	receiver, flight controller, power supply (BEC), pushrods and pushrod connectors, extension cables, glue

2. Use

2.1 Connection

Plug the JR connector into a servo output on the receiver or flight controller (FC). The connector has three wires: **signal**, **plus (+)** and **minus (−)**. Before connecting, compare the wire colours with the pin markings on the receiver or FC and make sure the connector is oriented correctly – on a JR connector, plus is always in the middle.

- Power the servo only with a voltage in the range **4.8–6.0 V**. A higher voltage (e.g. direct connection to a 2S Li-Po battery) will permanently damage the servo.
- The servo power supply (BEC of the ESC, flight controller or a separate BEC) must be able to supply sufficient current for all connected servos at the same time.
- Route the cable so that it is not under tension, does not rub against sharp edges and cannot get into the propeller.
- Always connect and disconnect the servo with the power switched off.

2.2 Installation in the model

- Fasten the servo by its mounting lugs in the prepared opening or bed so that it does not move under load. In very light models, servos are commonly glued in – apply glue only to the case, never into the gap around the output shaft or onto the cable where it enters the servo.
- Before fitting the arm, switch on the transmitter and receiver with the sticks and trims centred. The servo moves to its neutral position.
- Fit the arm in the neutral position as close to perpendicular to the pushrod as possible and secure it with a screw, if available.
- Connect the pushrod so that it does not bind anywhere at full deflection and the control surface moves freely.

2.3 Setting the travel

Set the end points and direction of movement in the transmitter or in the flight controller configuration. Set the travel so that the servo **does not hit a mechanical stop** of the control surface or pushrod at its end positions. A servo pushing against a stop heats up, draws high current and can damage both the gears and the electronics.

- After setting up, test all deflections fully and listen: at rest, the servo must not buzz or jitter continuously.
- If the receiver or FC allows you to set the servo output refresh rate, start with the standard value of 50 Hz.

2.4 Safety and maintenance

- The servo is a small part – keep it out of the reach of children.
- Protect the servo from moisture, dust, sand and high temperatures; it is not waterproof.
- Do not overload the plastic gears – do not force the output shaft or control surface by hand while the servo is powered.
- After a crash, check that the servo moves smoothly and without skipping; do not use a damaged servo.
- When operating the model, follow the regulations of the country in which you operate it.

2.5 Troubleshooting

Problem	Cause and solution
Servo does not move	Check the connector orientation, the output assignment in the transmitter or FC and the presence of power on the servo output.
Servo buzzes at an end position	It is hitting a stop – reduce the travel (end point) or adjust the pushrod.
Servo twitches or jitters	Insufficient power or interference – check the BEC, shorten the cables and route them away from the ESC and motor.
Servo does not return to centre after power-up	Check the trims and subtrims; if the servo skips, the gears may be damaged.

3. Information for the EU and Czech Market

3.1 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

3.2 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.

4. 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 3.1.
- 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.