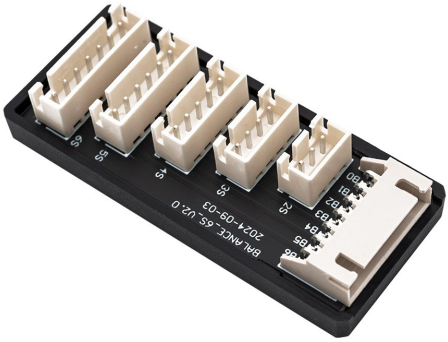
2-6S JST-XH

ToolkitRC – balance adapter board 2–6S
User manual



Read the entire manual before first use, in particular the safety instructions in Chapter 2.1. Keep this manual for future reference.

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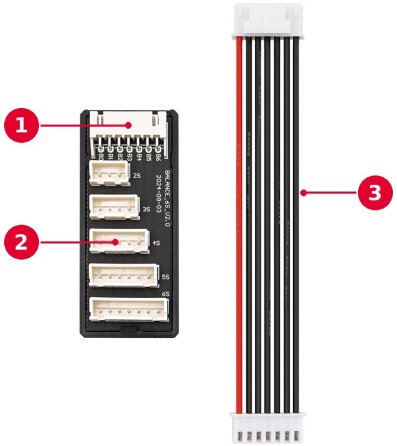
1. Product description

1.1 Purpose

The ToolkitRC 2-6S JST-XH adapter is a board for connecting a battery's balance connector to a charger. The board has one 7-pin JST-XH input for connection to the charger's balance port and five JST-XH slots marked **2S, 3S, 4S, 5S and 6S**. Plug the battery's balance connector into the slot whose marking matches the battery's cell count.

The adapter makes it easier to connect the balance connector of batteries with fewer cells than the charger's balance port is designed for. Through the adapter, the charger measures the voltage of the individual cells and balances them. The main (power) leads of the battery are connected directly to the charger's charging output – the charging current does not flow through the adapter.



① 7-pin JST-XH input (B0–B6) for connection to the charger · ② slots for the battery balance connector, 2S to 6S · ③ JST-XH connecting cable

1.2 Specifications and package contents

Product designation	ToolkitRC 2-6S JST XH Charging Adapter Board (board marking: BALANCE_6S_V2.0)
Manufacturer	ToolkitRC
Supported batteries	2S to 6S with JST-XH balance connector
Input	7-pin JST-XH connector, pins B0–B6
Adapter dimensions	60.9 × 26.3 × 13 mm
Connecting cable length	118 mm (including connectors)
Package contents	1× adapter, 1× JST-XH connecting cable
Not included	charger, battery, charging lead for the battery's main leads

2. Use

2.1 Safety instructions

- Always connect **only one battery** to the adapter. Never connect several batteries at the same time, not even to different slots.
- Connect the battery to the slot whose marking (2S–6S) matches its cell count. Set the same cell count and battery type on the charger.
- Charge under supervision, on a non-flammable surface and away from flammable objects, ideally in a Li-Po safety bag.
- Do not charge a battery that is swollen, mechanically damaged, overheated or has damaged leads or a damaged connector.
- Do not touch the adapter's contacts with metal objects and do not place the adapter on a conductive surface – there is a risk of a short circuit between the cell terminals.
- Do not use the adapter or the cable if they are damaged (cracked connector, melted insulation, loose wire).
- Protect the adapter from moisture, dust and metal shavings. The product is not a toy – keep it out of the reach of children.

2.2 Connection and charging

① Use the connecting cable ③ to connect the charger's balance port to input ① of the adapter. JST-XH connectors can only be inserted in one orientation – do not force them.

② Connect the battery's main (power) leads to the charger's charging output using a suitable charging lead.

③ Push the battery's balance connector fully into slot ② with the matching marking (2S, 3S, 4S, 5S or 6S).

④ On the charger, select balance charging, the battery type, the cell count and the charging current according to the battery's specifications. Before starting, check that the charger displays the voltage of all cells.

⑤ After charging, first disconnect the battery's balance connector from the adapter, then the battery's main leads.

※ When unplugging a connector, pull on the connector body, not on the wires.

2.3 Battery voltages

State	2S	3S	4S	5S	6S
Fully charged Li-Po 4.20 V/cell	8.4 V	12.6 V	16.8 V	21.0 V	25.2 V
Fully charged LiHV 4.35 V/cell	8.7 V	13.05 V	17.4 V	21.75 V	26.1 V
Storage 3.8 V/cell	7.6 V	11.4 V	15.2 V	19.0 V	22.8 V

Voltage values for checking on the charger display – per cell and for the whole battery.

2.4 Maintenance and troubleshooting

- Keep the adapter clean and dry. Do not clean the contacts with metal objects or liquids.
- Check the connectors and the cable before each use. Do not make makeshift repairs to a loose or damaged connector – replace the adapter.
- Store in a dry place at room temperature, away from direct sunlight.

Problem	Possible cause and solution
The charger reports a balance connection error or an incorrect cell count	Cable ③ is not fully inserted, the battery is in a slot with a different marking, or a different cell count is set on the charger. Check the connection and settings.
The charger does not display the voltage of one of the cells	Damaged connector or wire of the adapter, cable or battery. Do not use the damaged part.
The cell voltages differ significantly	The problem is on the battery side. Do not continue charging the battery and have it checked.

3. Information for the EU and Czech Market

The information in Chapters 3 and 4 describes the situation in the Czech Republic. If you use the product in another country, follow the regulations of the country in which you operate it – the law of the country in which the product is operated is decisive.

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.