HGLRC Thor 4 Pro

Parallel charging board for 2–6S Li-Po batteries
with discharge module · User manual



Read the entire manual before first use, in particular the safety instructions in Chapter 2.1. Always charge and discharge Li-Po batteries under supervision.

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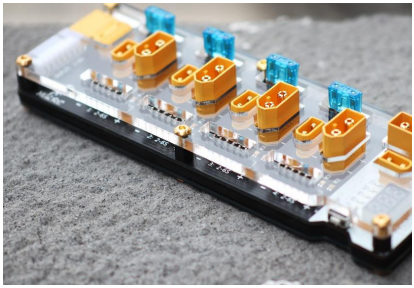
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1. Product description

1.1 Intended use

The HGLRC Thor 4 Pro is a **parallel charging** board for Li-Po batteries with 2 to 6 cells (2–6S). It allows you to charge up to **4 batteries at the same time**, even on a single-channel charger. The batteries are connected via an XT60 or XT30 connector and a balance connector. To the charger, the batteries connected in parallel appear as one battery whose capacity is the sum of the capacities of all connected batteries.

At the end of the board there is a separate **discharge module** that works independently of the charging section. It is used to discharge a battery to the **storage voltage of 3.8 V/cell**, for example when you end up not using a charged battery. Each port of the board is protected by its own fuse, the balance connectors by self-resetting thermal fuses.



Thor 4 Pro board – ports 1 to 4 and the discharge module (right)

1.2 Specifications and package contents

Product type	Parallel charging board with discharge module
Product designation	HGLRC Thor 4 Pro (Thor Lipo Battery Balance Charger Board Pro, 4 ports)
Manufacturer	HGLRC, Building B1, Hongxintai Industrial Park, No. 28, Yinying Road, Dalang Town, Dongguan, 523771, China · support@hglrc.com · www.hglrc.com
Batteries	Li-Po 2–6S
Number of battery ports	4 (each with XT60 and XT30 connectors and a balance connector)
Max. input current	40 A
Max. balance current	2 A

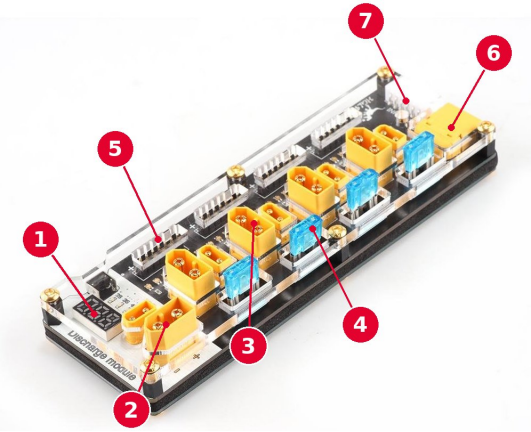
Power connector protection	each XT60/XT30 port has its own 15 A automotive fuse
Balance connector protection	self-resetting thermal fuses between all balance pins, short circuit indicated by LED
Discharge module	Li-Po 2–6S (XT60 or XT30), cut-off voltage 3.8 V/cell, discharge current depends on the battery voltage (approx. 0.5 A for 6S)

▶ Package contents

- 1× HGLRC Thor 4 Pro board
- 1× balance cable (200 mm) for connection to the charger
- 1× XT60 female – XT60 female cable (200 mm) for connection to the charger

Not included: charger and its power supply, batteries, adapters and cables with other connector types.

1.3 Parts description



View of the board with parts description

① Discharge module display
② Discharge module connectors (XT60 and XT30)
③ Battery ports 1–4, each with an XT60 and an XT30 connector
④ 15 A fuse of the respective port
⑤ Balance connector of the respective port (2–6S)
⑥ XT60 power input for connection to the charger
⑦ Balance output for connection to the balance port of the charger

2. Use

2.1 Safety instructions

Improper handling of Li-Po batteries can lead to fire, explosion or the release of toxic gases. Never charge or discharge batteries unattended.

- Use the board only with **2–6S Li-Po** batteries.
- Charge and discharge on a non-flammable surface, ideally in a fireproof bag or box, away from flammable materials and within reach of a fire extinguisher.
- Only connect batteries with the **same cell count** and the same voltage at the same time. The voltage difference between the batteries must not exceed **0.2 V**, otherwise the battery or the board may be damaged.
- Batteries of different capacities may be connected; however, set the charging current according to the rules in Chapter 2.2.
- Never connect a damaged, swollen, punctured or overheated battery.
- Connect only one battery to each port – either via the XT60 or the XT30 connector, never via both at the same time.
- Do not exceed the maximum input current of the board of **40 A** or a current of 15 A per port.
- Never bridge the fuses or replace them with a fuse of a higher rating.
- The discharge module heats up during operation. Do not cover it, do not touch it and do not place the board on a flammable surface.
- Protect the board from moisture, dust, metal objects and mechanical damage. Keep it out of the reach of children.
- A fully charged Li-Po cell has a voltage of **4.20 V** (3S = 12.6 V, 4S = 16.8 V, 6S = 25.2 V). Always select the Li-Po program on the charger.

2.2 Parallel charging

Before charging, prepare a charger with a balance port that supports the current and capacity of all batteries combined.

① **Check the batteries.** Measure the voltage of all batteries you want to charge. They must have the same cell count and their voltage difference must not exceed 0.2 V.

② **Connect the board to the charger.** Connect the power input ⑥ to the charger output using the supplied XT60 cable. Connect the balance output ⑦ to the balance port of the charger using the supplied balance cable.

③ **Connect the batteries.** Plug the battery power connector into the XT60 or XT30 connector of port ③ and its balance connector into the balance connector ⑤ of **the same port** (the ports are numbered 1–4 on the board). Insert the balance connector according to the “−” and “+” markings next to the connector on the board.

④ **Set up the charger.** Select the Li-Po balance program and the cell count of one battery. Set the charging current to no more than the **sum of the recommended charging currents** of all connected batteries and do not exceed 40 A or the capabilities of the charger.

⑤ **Charge under supervision.** Check the temperature of the batteries continuously. If you notice an odour, swelling or heating, stop charging immediately.

⑥ **Disconnect the batteries.** After charging, first disconnect the batteries (balance and power connector), then disconnect the board from the charger.

※ The charger sees the batteries connected in parallel as one battery. If the charger allows you to enter the capacity, enter the sum of the capacities of all connected batteries.

2.3 Discharge module – preparing for storage

Li-Po batteries should not be stored fully charged. The discharge module discharges the battery to the storage voltage of **3.8 V/cell** (3S = 11.4 V, 4S = 15.2 V, 6S = 22.8 V) and then stops discharging by itself. The module works independently of the charging section of the board.

① Connect the battery to the XT60 or XT30 connector of the discharge module ② – always only one battery via one connector.

② Use the button on the module to select the **cell count** of the connected battery.

③ Discharging runs automatically and stops when 3.8 V/cell is reached. The discharge current is low (approx. 0.5 A for 6S), so discharging takes a long time.

④ When discharging is finished, disconnect the battery.

Always set the correct cell count. If you set a lower cell count than the battery has, the battery would be deeply discharged and damaged.

※ The module heats up during discharging. Ensure free air circulation and do not leave discharging unattended.

2.4 Fuses and protection

- Each XT60/XT30 port is protected by its own **15 A automotive fuse** ④. If the fuse blows, the port stops conducting current. After eliminating the cause, replace it with a fuse of the same type and size rated 15 A.
- There are **self-resetting thermal fuses** between all pins of the balance connectors. A short circuit at a balance connector is indicated by an LED. The fuse resets by itself once the cause has been eliminated and it has cooled down.
- The fuses protect the board, but they do not replace supervision of charging.

3. Maintenance and troubleshooting

3.1 Maintenance and storage

- Check the connectors, fuses and cables before each use. Do not use a loose, burnt or damaged connector.
- Keep the board dry and clean, remove dirt with a dry brush. Do not use water or solvents.
- Store the board in a dry place, without batteries connected and out of the reach of children.
- Store Li-Po batteries charged to 3.8 V/cell.

3.2 Troubleshooting

Problem	Possible cause and solution
The battery in one port does not charge	Blown port fuse – replace it (15 A) after identifying the cause. Check that the power connector is properly inserted.
The short circuit LED is lit	Short circuit at a balance connector – disconnect the batteries, check the orientation and condition of the balance connectors and cables.
The charger reports a balancing or cell count error	The balance cable between the board and the charger is not connected, the batteries have a different cell count or their balance connector is not connected.
The discharge module does not discharge	A higher cell count than the battery has is selected, or the battery is already at 3.8 V/cell or lower.
The discharge module is warm	Normal during discharging – ensure free air circulation.

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.