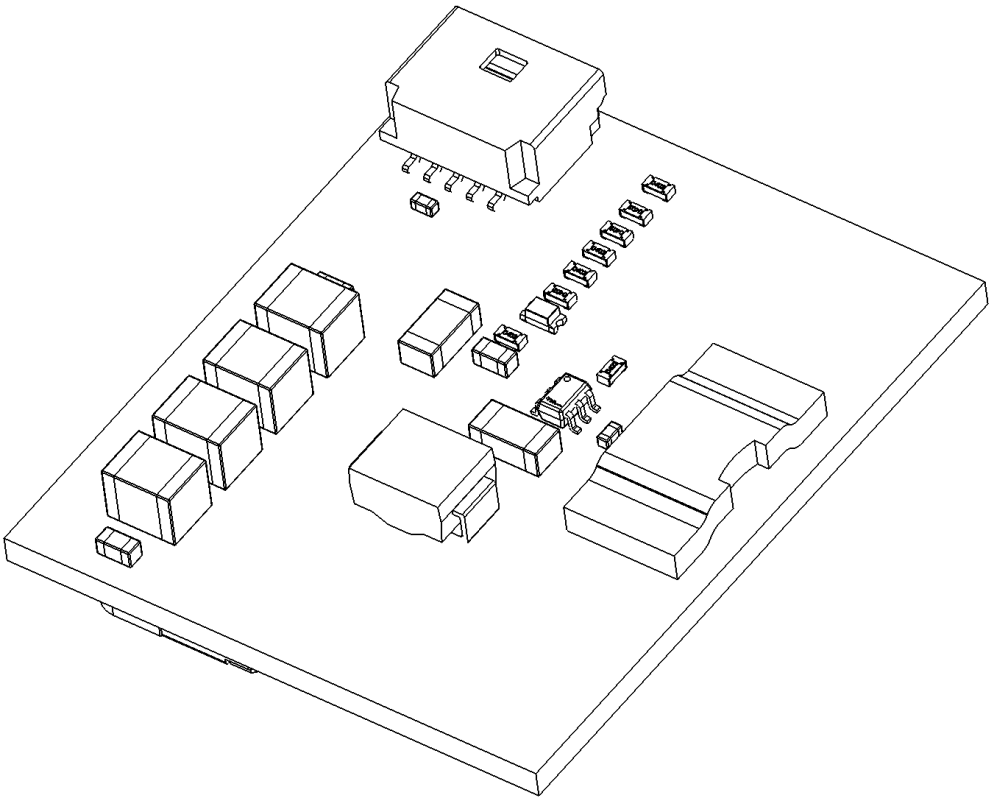
INDIPOWER-40A

v 1.0
2026.03

User Manual



Overview & Specifications

The **IndiPower 40A** is a high-performance Power Distribution Board (PDB) designed for UAVs, drones, and autonomous systems. It efficiently distributes power from the main battery to multiple Electronic Speed Controllers (ESCs) while providing regulated output for onboard electronics.
Engineered for reliability and compact integration, it supports high current loads and ensures stable power delivery in demanding flight conditions.

Key Features

- Supports **2S–6S LiPo batteries**
- High current handling: **40A continuous**, **60A burst (<60 sec)**
- Integrated **5.2V / 3A regulated output**
- Power distribution for up to **8 ESCs**
- Clean PWM signal routing from autopilot
- Compact and lightweight PCB design
- Optimized for drone and UAV applications

Key Features

Parameter	Value
Input Voltage	2S – 6S LiPo (7.4V – 25.2V)
Continuous Current	40A
Burst Current	60A (< 60 sec)
Regulated Output	5.2V / 3A max
ESC Outputs	Up to 8
Signal Support	PWM
Application	Multirotor UAVs

Package Contents

•1 × IndiPower 40A PDB
•1 × Pin header set (if applicable)
•Documentation (user manual)

Safety Information

- Ensure correct polarity before connecting battery
- Do **not exceed current ratings**
- Avoid short circuits during installation
- Use proper insulation and mounting
- Disconnect battery when not in use

Installation & Usage

Hardware Layout Overview

•**Battery Input Pads** – Main power input
•**ESC Power Pads (x8)** – Power output for ESCs
•**5.2V Regulator Section** – For FC and peripherals
•**Signal Pins/Header** – PWM signal routing
•**Mounting Holes** – Secure installation

Installation Guide

Step 1: Mounting
•Secure the PDB using vibration-damping standoffs
•Ensure no contact with conductive surfaces
Step 2: Battery Connection
•Solder battery leads to **VIN (+/-) pads**
•Double-check polarity before powering
Step 3: ESC Connection
•Connect each ESC power wire to designated pads
•Ensure proper soldering to handle high current
Step 4: Flight Controller Connection
•Connect PWM signal pins from autopilot
•Use provided header pins or wiring harness
Step 5: Powering Peripherals
•Use **5.2V output** for:

- Flight controller
- GPS module
- Receiver

Operating Guidelines

•Perform a **pre-flight power check**
•Monitor temperature under high load
•Avoid running continuously at burst current
•Use appropriate wire gauge (recommended: 14–18 AWG)

Maintenance

1. Inspect solder joints regularly
2. Keep board clean from dust and debris
3. Check connectors before each flight

Troubleshooting

Issue	Possible Cause	Solution
No power output	Loose connection	Check solder joints
Overheating	Excess current	Reduce load
ESC not working	Signal issue	Verify PWM wiring
FC not powering	Regulator overload	Check 5.2V usage

Battery & Power Safety

⚠ WARNING

Incorrect battery usage may result in fire, explosion, or permanent damage.

- Use only batteries that meet the recommended voltage and current specifications.
- Verify correct polarity before connecting the power supply.
- Do not exceed the maximum input voltage rating of the power module.
- Never use damaged, swollen, or leaking batteries.

⚠ CAUTION

Improper power connections can damage the power module and connected components.

- Ensure all power connections are secure and properly insulated.
- Avoid connecting or disconnecting power while the system is active.
- Monitor battery levels to prevent deep discharge.

⚠ EMERGENCY NOTICE

- In case of overheating, unusual smell, or smoke, immediately disconnect power.
- Move the system to a safe, non-flammable area.
- Do not reuse the battery until it has been inspected.

Warranty & Support

Warranty Terms
The power module is covered by a **limited warranty** against manufacturing defects in materials and workmanship under normal use.
Warranty Period: 12 months from the date of purchase.
The warranty applies only to the original purchaser and is non-transferable.

⚠ WHAT IS COVERED

•Manufacturing defects in hardware components
•Failure under normal operating conditions as described in this manual

⚠ WHAT IS NOT COVERED

•Damage caused by improper installation, wiring, or misuse
•Damage due to crashes, physical impact, or water exposure
•Electrical damage due to incorrect voltage, reverse polarity, or power surges
•Unauthorized modifications or repairs
•Normal wear and tear

⚠ IMPORTANT

Proof of purchase is required to claim warranty. Indiflo reserves the right to inspect and verify the defect before approving any claim.

Support Contact

For technical support, troubleshooting, or warranty claims, please contact:
Email: support@indiflo.com
Website: www.indiflo.com
Response Time: Typically, within 24–72 business hours
When contacting support, please provide:

- Product model and version (e.g., V1 / V1 Pro)
- Description of the issue
- Photos or videos (if applicable)
- Purchase details

Service Process:

1. Contact support and describe the issue.
2. Receive troubleshooting steps or service authorization.
3. If required, ship the product to the designated service center.
4. After inspection, the unit may be repaired, replaced, or returned based on warranty status.
   - •The customer is responsible for total shipping costs unless covered under warranty. (The customer will be responsible for covering the shipping costs associated with shipping the item when under warranty.)
   - •Repair or replacement timelines may vary depending on issue severity and part availability.