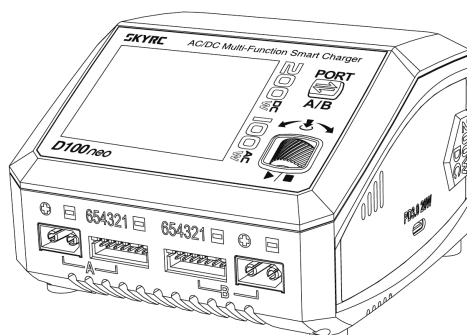




SkyRC D100neo

AC/DC Multi-Function Smart Charger
Instruction Manual



Before first use, carefully read the entire manual and the safety instructions. Keep this manual for future reference.

Manufacturer: SKYRC TECHNOLOGY CO., LTD., www.skyrc.com · Importer: Rotorama, s.r.o.,
www.rotorama.cz

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1. Introduction

1.1 About the charger

Introducing the **SkyRC D100neo AC/DC** Multi-Function Smart Charger, an enhanced version of the D100.

With dual independent ports and compatibility with various RC batteries, it adapts to different chemistries. It can act as a dual-output digital power supply, offering adjustable voltage (2-27 V) and current (0.2-10 A) per output. The 20 W USB-C PD 3.0 charging port allows rapid charging of smartphones, tablets and the MacBook Air (2020).

Connect it effortlessly via USB-C and control it with *Charger Master* on a Windows PC or Mac.

Before using the charger for the first time, carefully read through the instructions, warnings and safety tips provided. Improperly charging a battery or misusing the charger can lead to potentially hazardous situations such as fire or explosion.

1.2 Package contents

Item	Qty
SkyRC D100neo charger	1 pc
User manual	1 pc
AC power cord	1 pc

2. Safety Instructions

This product may only be used by persons aged 14 and over.

Failure to exercise caution while using this product and to comply with the following warnings could result in product malfunction, electrical issues, excessive heat, **FIRE** and ultimately injury and property damage.

2.1 Manufacturer's warnings

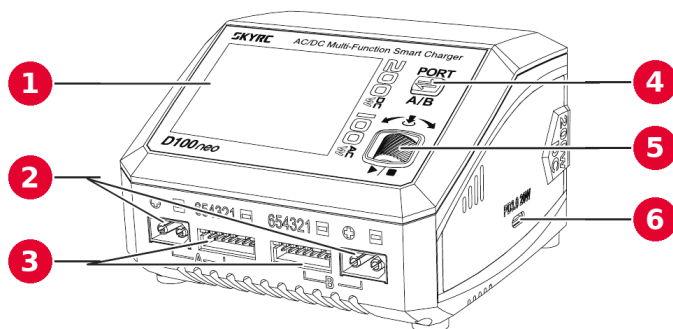
- Never leave charging batteries unattended during use.
- Never charge batteries overnight.
- Never attempt to charge dead, damaged or wet battery packs.
- Never attempt to charge a battery pack containing different types of batteries.
- Never charge batteries in extremely hot or cold places or in direct sunlight.
- Never charge a battery if the cable has been pinched or shorted.
- Never connect the charger if the power cord has been pinched or shorted.
- Never attempt to dismantle the charger or use a damaged charger.
- Never attach the charger to both an AC and a DC power source at the same time.
- Always use the charger with the correct charging and discharging program.
- Always use only rechargeable batteries designed for use with this type of charger. Never charge non-rechargeable batteries – they may explode.
- Never use the charger on car seats, carpets or similar surfaces.
- Always operate the charger away from flammable and explosive materials.

2.2 Safe charging practice

- Place the charger and battery on a firm, non-flammable surface; preferably charge lithium batteries in a fireproof bag.
- Do not cover the charger's ventilation openings and fan, and ensure sufficient airflow.
- Do not charge a swollen, deformed or otherwise damaged battery. Let a battery that is hot after use cool down first.
- If the battery overheats, swells, smokes or smells during charging, stop the program immediately.
- Keep the charger and batteries out of the reach of children and pets.

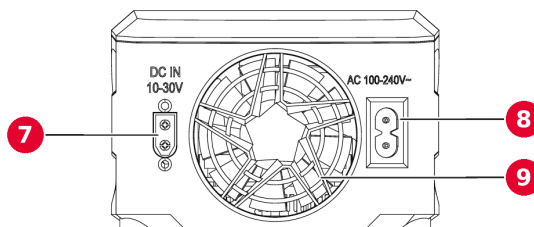
3. Charger Overview

3.1 Front and rear



Front of the charger

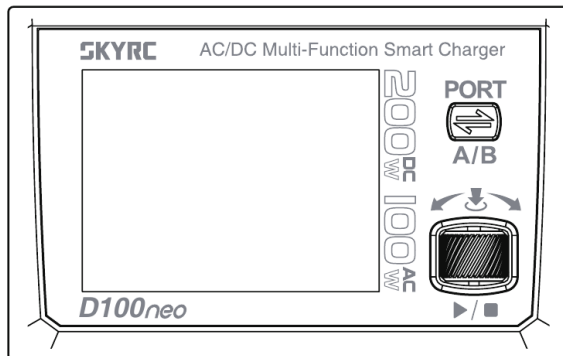
- ① LCD display
- ② XT60 output sockets (port A and port B)
- ③ Balance ports (port A and port B)
- ④ PORT button - switch between ports A and B
- ⑤ Scroll wheel - select and set parameters, confirm
- ⑥ USB-C PD/QC3.0 port - charging devices and data connection to a PC



Rear of the charger

- ⑦ DC input 10-30 V
- ⑧ AC input 100-240 V
- ⑨ Smart ventilation fan

3.2 Controls



Control panel

► **PORT button**

- Switches between ports A and B.

► **Scroll wheel**

- Navigates through ports A and B in the home menu.
- Short-press to enter the parameter settings and confirm your selection.
- Scroll the wheel to select different menus or adjust parameters.
- Press and hold the scroll wheel for two seconds to access the *SYSTEM SETTING* menu.

4. Specifications

4.1 Specifications

Item	Option	Specification
Model		D100neo
Input voltage	AC	100–240 V (50/60 Hz)
	DC	10–30 V
Input current	DC	20 A
Charge power	AC	A: 0–100 W, B: 0–100 W, A + B = 100 W
	DC	A: 0–100 W, B: 0–100 W, A + B = 200 W
Discharge power	Main port	5 W
	Main port + balance port	max. 30 W (LiPo/6S)
Charge current	LiPo/LiFe/Lilon/LiHV/ NiMH/NiCd/Pb	0.2–10.0 A
Discharge current	LiPo/LiFe/Lilon/LiHV/ NiMH/NiCd/Pb	0.1–2.0 A
Balance current	LiPo/LiFe/Lilon/LiHV	max. 1000 mA
Trickle charge current	NiMH/NiCd	200 mA / OFF
Battery types	LiPo/LiFe/Lilon/LiHV	1–6S
	NiMH/NiCd	1–15S
	Pb	3S/6S/12S
Working modes	LiPo/LiFe/Lilon/LiHV	Balance CHG, Charge, Discharge, Storage
	NiMH/NiCd	Charge, Discharge, Re-Peak, CYCLE_D_C, CYCLE_C_D
	Pb	Normal, AGM Charge, Cold Charge, Discharge
DC power supply	Voltage	2.0–27.0 V
	Current	0.2–10.0 A
	Power	max. 100 W
USB-C output	QC3.0	5 V / 3 A, 9 V / 2 A, 12 V / 1.5 A; 18 W
	PD	5 V / 3 A, 9 V / 2.2 A, 12 V / 1.67 A; 20 W

Item	Option	Specification
Size	L × W × H	116 × 110 × 79 mm
Weight	Net weight	470 g
Working environment	Temperature	0-40 °C
	Humidity	5-75 %
Storage environment	Temperature	-10 °C to 60 °C
	Humidity	5-75 %

4.2 Standard battery parameters

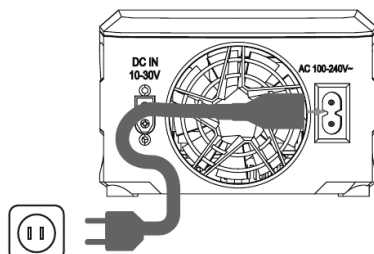
Select the correct operating procedure in accordance with the battery parameters. Incorrect settings may cause the battery to burn or even explode.

	LiPo	Lilon	LiFe	LiHV	NiMH	NiCd	Pb
Nominal voltage (V/cell)	3.7	3.6	3.3	3.8	1.2	1.2	2.0
Max. charge voltage (V/cell)	4.2	4.1	3.65	4.35	1.5	1.5	2.4
Storage voltage (V/cell)	3.8	3.7	3.3	3.85	-	-	-
Allowable fast charge current	≤ 1C	≤ 1C	≤ 4C	≤ 1C	1C-2C	1C-2C	≤ 0.4C
Min. discharge voltage (V/cell)	3.0-3.4	2.9-3.3	2.6-3.0	3.1-3.5	0.6-1.0	0.6-1.0	1.8-2.0

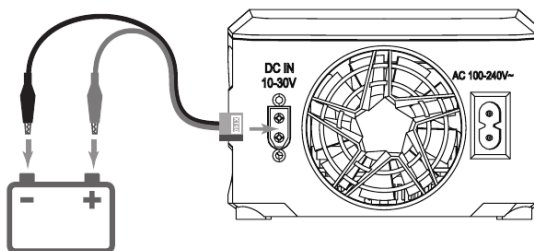
5. Power and Battery Connection

5.1 Connecting to a power source

There are two input options for the D100neo: **AC 100-240 V** or **DC 10-30 V**.



AC 100-240 V mains supply



12 V DC battery or 10-30 V DC power supply

Never attach the charger to both an AC and a DC power source at the same time.

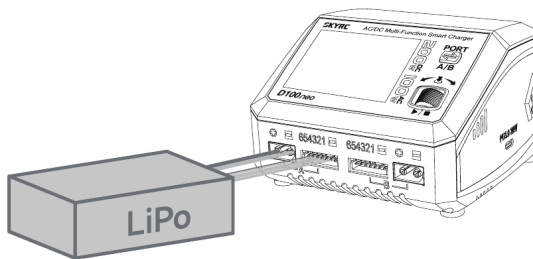
5.2 Connecting the battery

TO AVOID SHORT CIRCUITS, ALWAYS CONNECT THE CHARGE LEADS TO THE CHARGER FIRST AND THEN TO THE BATTERY. REVERSE THE SEQUENCE WHEN DISCONNECTING.

► Lithium battery with balance connector

For safety reasons, it is highly recommended to charge lithium batteries (LiPo, Lilon, LiFe and LiHV) using the *Balance CHG* mode unless the battery comes without a balance connector.

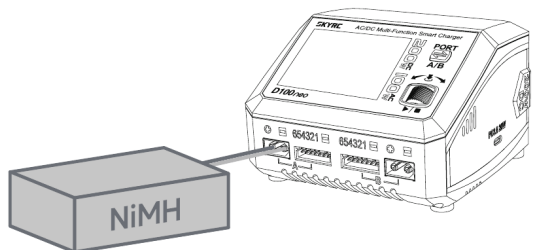
The battery balance connector must be connected to the charger with the **black wire** aligned with the negative marking. Ensure correct polarity!



Lithium battery connection

► NiMH/NiCd or Pb battery

NiMH, NiCd and Pb batteries are connected using the main charge lead only.

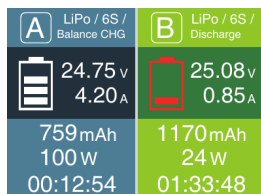


NiMH/NiCd or Pb battery connection

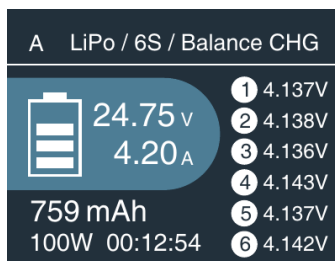
6. Charging Programs

6.1 Home screen

The home screen shows the status of both ports. Use the PORT button to switch between the combined view and the detailed view of port A or B, which also shows the individual cell voltages.



Combined view of ports A and B



Detailed port view - voltage, current, capacity, power, time and cell voltages

6.2 Working modes overview

Various operations are applicable depending on the battery type. This chart illustrates which operations are relevant for the different battery types.

Type	Mode	Description
LiPo Lilon LiFe LiHV	Balance CHG	Balance charges the lithium battery at the charge rate set by the user; balances each cell of the battery.
	Charge	Charges the lithium battery at the selected charge rate.
	Storage	Charges or discharges the battery to a specific storage voltage.
	Discharge	Discharges the lithium battery at the selected discharge rate.

Type	Mode	Description
	Charge	Charges the NiMH/NiCd battery at the selected charge rate.
	Discharge	Discharges the NiMH/NiCd battery at the selected discharge rate.
NiMH NiCd	Re-Peak	The charger automatically peak-charges the battery twice in a row - useful to confirm the battery is fully charged.
	CYCLE_D_C	1 to 3 continuous discharge > charge cycles for refreshing and restoring the performance of NiMH/NiCd batteries.
	CYCLE_C_D	1 to 3 continuous charge > discharge cycles for refreshing and restoring the performance of NiMH/NiCd batteries.
	Normal	Charges the Pb battery at the selected charge rate.
	AGM Charge	Charges the AGM battery at the selected charge rate.
Pb	Cold Charge	Charges the Pb battery at low temperature at the selected charge rate.
	Discharge	Discharges the Pb battery at the selected discharge rate.

6.3 CHARGE SETTING menu items

On the home screen, press the scroll wheel to enter the *CHARGE SETTING* menu. Press the PORT button to switch between ports A and B.

Item	Definition
Battery Type	Select the battery type (LiPo, Lilon, LiFe, LiHV, Pb, NiMH, NiCd).
Battery Cell	Select the number of cells by battery type (Li-xx: 1-6S, Ni-xx: 1-15S, Pb: 3S/6S/12S).
Task	Select the work mode (Balance CHG, Charge, Storage, Discharge, etc.).
Condition	Set the cut-off voltage.
Current	Set the charge or discharge current.
Start	Start the program.
Back	Back to the home screen.

6.4 Lithium battery program (LiPo/LiFe/Lilon/LiHV)

The following flowchart is a reference for setting the program manually. Scroll to select the port and short-press to confirm.

CH A CHARGE SETTING	
Battery Type	LiPo
Battery Cell	6S(22.2V)
Task	Balance CHG
Condition	4.2V
Current	10.0A
Start	
Back	

① Enter CHARGE SETTING

Short-press the scroll wheel to enter the *CHARGE SETTING* menu.

CH A CHARGE SETTING	
Battery Type	
Battery Cell	
Task	
Condition	LiPo
Current	Lilo
Start	LiFe
Back	LiHV

② Select battery type

Short-press the scroll wheel to call out the *Battery Type* menu and scroll to select LiPo (or Lilon, LiFe, LiHV).

CH A CHARGE SETTING	
Battery Type	1S
Battery Cell	2S
Task	3S
Condition	4S
Current	5S
Start	6S
Back	

③ Select battery cell

Scroll to *Battery Cell*, call out the menu and scroll to select the correct number of cells.

CH A CHARGE SETTING	
Battery Type	
Battery Cell	
Task	Balance CHG
Condition	
Current	Charge
Start	Storage
Back	Discharge

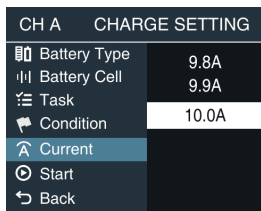
④ Select task

Scroll to *Task*, call out the menu and scroll to select the working mode.

CH A CHARGE SETTING	
Battery Type	4.18V
Battery Cell	4.19V
Task	
Condition	4.21V
Current	4.22V
Start	4.23V
Back	4.24V

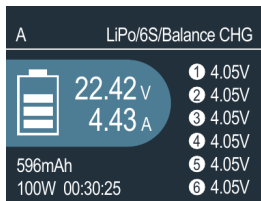
⑤ Select condition

Scroll to *Condition*, call out the menu and select the terminal charging voltage.



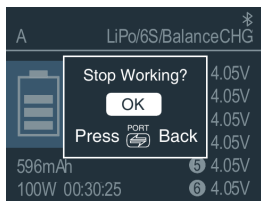
⑥ Set current

Scroll to *Current*, call out the menu and scroll to select the charge or discharge current.



⑦ Start

Scroll to *Start* and short-press the scroll wheel to confirm and initiate the program.



⑧ Stop

Short-press the scroll wheel to stop the program. To confirm, short-press the scroll wheel again; to continue the program, short-press the PORT button to go back.

6.5 NiMH/NiCd battery program

Scroll to select the port and short-press to confirm.

CH A	CHARGE SETTING
Battery Type	NiMH
Battery Cell	6S(7.2V)
Task	Charge
Condition	-6ΔmV
Charge Current	3.0A
Temp Cut-off	50°C
Start	
Back	

① Enter CHARGE SETTING

Short-press the scroll wheel to enter the *CHARGE SETTING* menu.

② In *Battery Type*, select NiMH or NiCd.

③ In *Battery Cell*, select the correct number of cells.

CH A	CHARGE SETTING
Battery Type	
Battery Cell	
Task	
Condition	
Charge Current	Charge
Temp Cut-off	Re-Peak
Start	CYCLE_C_D
Back	CYCLE_D_C

④ Select task

Scroll to *Task*, call out the menu and scroll to select the working mode.

CH A	CHARGE SETTING
Battery Type	-3mV
Battery Cell	-4mV
Task	-5mV
Condition	-6mV
Charge Current	-7mV
Temp Cut-off	-8mV
Start	-9mV
Back	

⑤ Set condition

Scroll to *Condition*, call out the menu and set the delta voltage (Δ mV) that terminates charging.

⑥ In *Charge Current*, set the charge or discharge current.

⑦ Short-press the scroll wheel on *Start* to confirm and initiate the program.

⑧ Short-press the scroll wheel to stop the program. Short-press the scroll wheel again to confirm, or short-press the PORT button to return.

6.6 Pb lead-acid battery program

Charge lead-acid batteries only in a well-ventilated area - explosive gases may be released during charging. Keep away from open flames and sparks.

Scroll to select the port and short-press to confirm.

CH A	CHARGE SETTING
Battery Type	PB
Battery Cell	6S(12.0V)
Task	AGM Charge
Condition	2.45V
Current	5.0A
Start	
Back	

① Enter CHARGE SETTING

On the home screen, press the scroll wheel to enter the *CHARGE SETTING* menu.

② In *Battery Type*, select PB.

③ In *Battery Cell*, select the correct number of cells (3S, 6S or 12S).

CH A	CHARGE SETTING
Battery Type	
Battery Cell	
Task	Normal
Condition	AGM Charge
Current	Cold Charge
Start	Discharge
Back	

④ Select task

Scroll to *Task*, call out the menu and scroll to select the working mode (Normal, AGM Charge, Cold Charge, Discharge).

⑤ In *Condition*, set the cut-off voltage.

⑥ In *Current*, set the charge or discharge current.

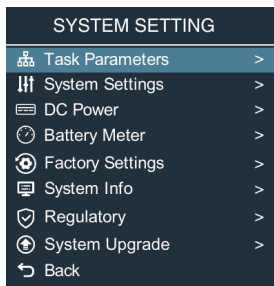
⑦ Short-press the scroll wheel on *Start* to confirm and initiate the program.

⑧ Short-press the scroll wheel to stop the program. Short-press the scroll wheel again to confirm, or short-press the PORT button to return.

7. System Settings and Other Functions

7.1 SYSTEM SETTING menu

On the home screen, press and hold the scroll wheel for two seconds to enter the *SYSTEM SETTING* menu.



SYSTEM SETTING menu

► Task Parameters

Option	Definition
Safety Timer	Customise a time period for program protection.
Max. Capacity	Customise the capacity protection.
Trickle Charge	Enable/disable trickle charge.
Li Volt Hold	Enable/disable Li Volt Hold. If a difference greater than 0.02 V between cells is detected, a small current is applied to maintain the battery voltage.
Back	Back to the previous menu.

► System Settings

Option	Definition
Language	Select the desired language.
Min. Input Voltage	Set the minimum input voltage, adjustable from 10.0 to 24 V.
LCD Backlight	Adjust the screen brightness.
Volume	Adjust or turn off the key and beep volume.
Completion Signal	Choose how you are reminded when the program completes. If <i>Repeat</i> is chosen, the charger plays the completion signal every half hour.
USB	USB-C port mode: <i>Auto</i> - the charger detects the connected device automatically; <i>Data</i> - communication with a computer; <i>Charge</i> - charging digital devices.

Option	Definition
Warning	Turn on or off the warning message shown when the charger is powered on.
Back	Back to the previous menu.

► Other menu items

Menu	Definition
DC Power	Set and enable the DC power output (see chapter 7.2). Press the PORT button to switch between ports A and B.
Battery Meter	Measure the battery voltage and internal resistance. Press the PORT button to switch between ports A and B.
Factory Settings	Restore the factory settings.
System Info	Check the system status - hardware and firmware version, serial number.
Regulatory	Check the certification information.
System Upgrade	Upgrade the system firmware.
Back	Back to the previous menu.

> Battery Meter		A
①	4.15V	5 mΩ
②	4.17V	6 mΩ
③	4.18V	10 mΩ
④	4.20V	8 mΩ
⑤	4.19V	11 mΩ
⑥	4.15V	12 mΩ
Total	25.13V	28mΩ

*Battery Meter - voltage
and internal resistance
of each cell*

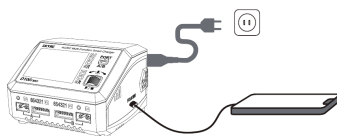
7.2 DC power supply

Each of the outputs A and B can work as an adjustable DC power supply, for example to power tyre warmers.

- ① On the home screen, hold the scroll wheel for two seconds and select *SYSTEM SETTING* → *DC Power*.
- ② Set the output voltage (*Voltage*, 2.0–27.0 V) and current (*Current*, 0.2–10.0 A).
- ③ Select *Start* to activate the DC power output and return to the home screen.

7.3 USB-C PD/QC3.0 output

The 20 W USB-C PD 3.0 port allows rapid charging of smartphones, tablets or the MacBook Air (2020). To charge devices, set *System Settings* → *USB* to *Auto* or *Charge*.



Charging a device from the USB-C port

7.4 Charger Master software

The D100neo can be operated directly from a Windows or macOS computer. The software displays parameters such as charge time, capacity, charge current and voltage as curves.

- ① Download the latest *Charger Master* software, unzip it and open it.
- ② Choose *Data* for the USB work mode in *System Settings* → *USB*.
- ③ Connect the charger to your computer with a USB-C cable.
- ④ In the top-left panel of the software, choose the desired work mode to initiate the program.

7.5 Firmware upgrade

Firmware is upgraded via the *Charger Master* software or the *System Upgrade* item in the *SYSTEM SETTING* menu. To recover from a firmware upgrade failure, follow these steps:

- ① Press and hold the scroll wheel, then connect the power cord. The charger powers on with a blue screen.
- ② Connect the charger to your computer with a USB-C cable.
- ③ Launch *Charger Master* on your computer.
- ④ When the status shows *CONNECTED*, click to check for new firmware.
- ⑤ Click to upgrade after new firmware is detected.
- ⑥ Wait for the progress bar to reach 100 %. The process takes about 5 minutes.

7.6 Errors and warnings

In the event of a fault, the charger displays an error message and sounds an alarm.

Error message	Explanation
Error: DC Input Low!	DC input voltage is lower than the preset value.
Error: DC Input High!	DC input voltage is higher than the preset value.
Error: Battery Error!	The battery is broken or not detected.
Error: Connection Break!	The battery connection is broken.
Cell Error	The cells do not match.
Battery Type Error!	The battery type is wrong.
Error: Overcharge!	The battery is overcharged.
Error: Over Time!	The program has timed out.
Error: Internal Temp. Too High!	The internal temperature is too high.
Error: Over Load!	The charger is overloaded.
Error: Reversed Polarity	The battery connection is reversed.
Error: Fully Charged	The battery is already fully charged.
Error: Outlet Overload	The output is overloaded.
Error: Balance Connection Break	The balance connection is disconnected.
Error: Cell Volt Diff.	The voltage difference between cells is too high.
Error: AC to DC Too Low!	The input voltage is too low.
Error: Power Setting Error	The DC power setting is incorrect.

7.7 Voltage calibration (for expert users only)

You can calibrate the voltage directly on the charger with a 6S LiPo battery. For more information, contact the manufacturer at info@skyrc.com.

8. Information for the EU and Czech Market

8.1 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@rotorاما.cz
Phone	+420 252 252 098
Website	www.rotorاما.cz

8.2 Product conformity



- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorاما.cz.
- **Product identification:** the type designation (D100neo) is given on the product, product code SK-100199; the serial number (SN) and the hardware and firmware versions are shown in the **SYSTEM SETTING** → *System Info* menu.

8.3 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>.

9. Warranty and rights arising from defective performance

9.1 Rights of the buyer under Czech law

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 manufacturer's warranty terms set out below (Chapter 9.2) **do not in any way limit** the buyer's rights arising from these regulations.

- 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 8.1.
- 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.

9.2 Manufacturer's warranty terms

❖ **The following text is a translation of the manufacturer's warranty conditions.**

Liability exclusion. This charger is designed and approved exclusively for use with the types of battery stated in this manual. SkyRC accepts no liability of any kind if the charger is used for any purpose other than that stated. As the manufacturer has no control over whether the instructions are followed or over the methods used for operating and maintaining the charger, it denies all liability for loss, damage or costs incurred due to incompetent or incorrect use and operation of its products, or connected with such operation in any way. Unless otherwise prescribed by law, the manufacturer's obligation to pay compensation, regardless of the legal argument employed, is limited to the invoice value of those SkyRC products which were immediately and directly involved in the event in which the damage occurred.

Warranty and service. The manufacturer guarantees this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects present at the time of purchase. During that period, the manufacturer will repair or replace free of charge products deemed defective due to those causes. The

manufacturer's warranty does not cover damage or subsequent damage arising from misuse, modification or failure to observe the procedures outlined in this manual.

The manufacturer's warranty service is valid in China only; outside China it is provided by the dealer from whom you purchased the product (see chapter 9.1).