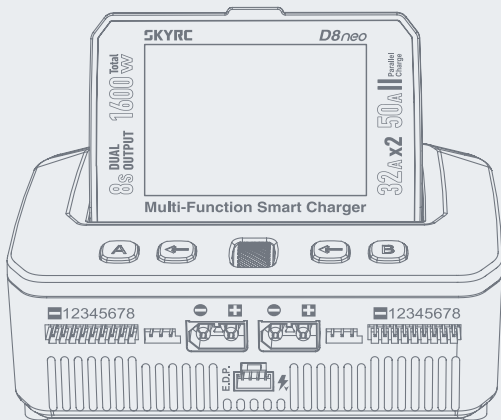


Instruction Manual

v. 15

SKYRC



D8neo

Multi-Function Smart Charger

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Introduction

Congratulations on choosing the SkyRC D8neo Multi-Function Smart Charger.













The D8neo features two independent channels and supports the vast majority of RC batteries on the market. It handles up to 8-cell LiPo batteries, delivering up to 32A per channel—or an impressive 50A when parallel charging. Featuring a 0°-90° adjustable flip screen, it provides full visibility of all parameters at a natural viewing angle. With a DC output power of up to 1600W, D8neo delivers robust performance to meet diverse high-efficiency charging demands. Beyond standard charging, it offers DC power output, parallel charging, and reverse discharge, making it a powerful and versatile all-in-one platform for RC enthusiasts.

Before first use, carefully read the manual, warnings, and safety instructions. Incorrect use of the charger or charging batteries improperly can be extremely hazardous, potentially leading to fires or even explosions.

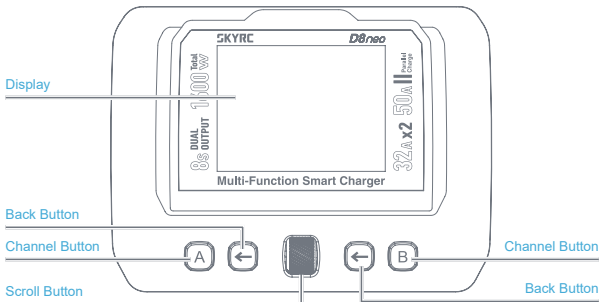
Warning

D8neo is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the charger by a person responsible for their safety.

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

-  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 place 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.
-  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 use the charger on car seats, carpets, or similar surfaces.
-  Always operate the charger away from flammable and explosive materials.

Meet D8neo

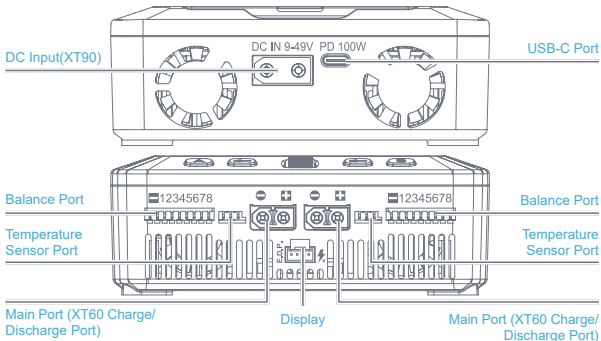


Channel Button: Press to select the channel or navigate through charging screens.

Back Button: Back to the previous interface.

Scroll Button:

- Short-press to enter the menu or confirm a setting;
- Scroll to select a menu or set parameters;
- Short-press to terminate the current program or confirm the pop-up;
- Hold for seconds on the main interface to access System Settings.



Specifications

Input Voltage	DC	9-49V
Input Current	DC Input	Single Channel: 32A ±10% Dual Channels: 55A ±10%
Battery Type	LiPo/LiFe/Li-ion/LiHV	1S~8S
	NiMH/NiCd	1S~20S
	Pb	3S/6S/12S
Working Modes	LiPo/LiFe/Li-ion/LiHV	Balance Charge/ Charge/ Storage/ Discharge/ Parallel Charge/ Reverse Discharge
	NiMH/NiCd	Charge/ Re-Peak/ C-D Cycle/ D-C Cycle/ Discharge/ Reverse Discharge
	Pb	Normal/ AGM Charge/ Cold Charge/ Discharge/ Reverse Discharge
Charge Current	1S: LiPo/LiFe/Li-ion/LiHV NiMH/NiCd	0.1A~0.5A(±0.1A) 0.6A~10A(±10%)
	2S-8S: LiPo/LiFe/Li-ion/LiHV	0.1A~0.5A(±0.1A) 0.6A~32A(±10%)
	PB	0.1A~0.5A(±0.1A) 0.6A~15A(±10%)
Discharge Current	LiPo/LiFe/Liion/LiHV/NiMH/ NiCd/Pb	0.1A(±0.05A) 0.2A-4.0A(±10%)
Balance Current	LiPo/LiFe/Li-ion/LiHV	1.9A Max
Charging Power		Single Channel: 1100W(±10%) Dual Channel: 1600W(±10%)
Type-C		Protocol: PD3.0 100W 5V/3A; 9V/3A; 12V/3A; 15V/3A; 20V/5A
Discharge Power	Main Port	45W (±10%)
	Balance Port	20W Max (LiPo/8s)
Parallel Charge Current	2-8S LiPo/LiFe/Li-ion/LiHV	33A~50A
Reverse Discharge Power	LiPo/LiFe/Li-ion/LiHV 2S~8S NiMH/ NiCd 8S~20S PB 3S/6S/12S	1100W (±10%)
External Discharge	Channel A	BD380/BD380+ Current: 0.5A~40A

Specifications

External Temperature Sensor	Channel A/B	LiPo/LiFe/Li-ion/LiHV/NiMH/NiCd/Pb 40°C~65°C Default: 50°C
DC Power Supply	Voltage	5V-36V (±0.5V) Default: 12V
	Current	0.3A-32A Default: 20A 0.3A-2.0A (±0.2A) 2.1A-32A (±10%)
	Power	1100W (±15%)
App	iOS/ Android	SkyCharger
Language		English/ 简体中文 / 日本語 /Deutsch/Français/ Español Default: English
Working Environment	Temperature	0°C/32°F ~ 40°C/104°F
	Humidity	5%~75% RH, non-condensing.
Charge Current	Temperature	-10°C/14°F ~ 70°C/158°F
	Humidity	5%~75% RH, non-condensing.
Dimension		131x98x46.5mm
Weight		530g

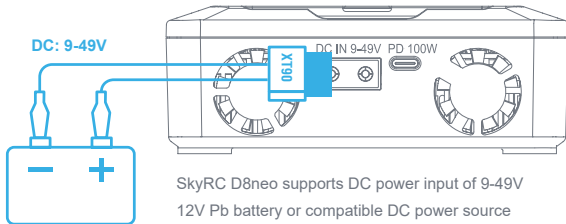


Standard Battery Parameters

	LiPo	Li-ion	LiFe	LiHV	NiMH	NiCd	Pb
Nominal Voltage	3.7V/cell	3.6V/cell	3.3V/cell	3.8V/cell	1.2V/cell	1.2V/cell	2.0V/cell
Charge Voltage	4.15V~ 4.25V/cell	4.05V~ 4.25V/cell	3.58V~ 3.70V/cell	4.25V~ 4.50V/cell	N/A	N/A	2.30V~ 2.75V/cell
Storage Voltage	3.75V~ 3.90V/cell	3.70V~ 3.85V/cell	3.25V~ 3.40V/cell	3.85V~ 3.95V/cell	N/A	N/A	N/A
Allowable fast charge current	≤ 1C	≤ 1C	≤ 1C	≤ 1C	≤ 1C	≤ 1C	≤ 0.4C
Discharge Voltage	3.0~ 3.4V/cell	2.6~ 3.7V/cell	2.6~ 3.0V/cell	3.1~ 3.5V/cell	0.6~ 1.0V/cell	0.6~ 1.0V/cell	1.8V~ 2.0V/cell

Power and Battery Connection

1. Connecting to Power Source



2. Connecting the battery

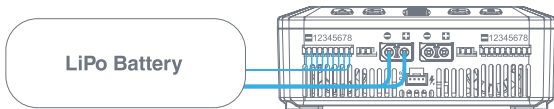


WARNING!

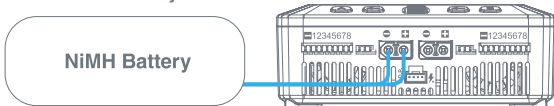
TO AVOID SHORT CIRCUITS, ALWAYS CONNECT THE CHARGE LEADS TO THE CHARGER FIRST AND THEN TO THE BATTERY. REVERSE THE SEQUENCE WHEN DISCONNECTING.

LiPo Battery Connection with Balance Adapter

- For safety reasons, it is highly recommended to charge Lithium batteries (LiPo, Lilon, LiFe and LiHV) using Balance CHG mode unless the battery comes without a balance connector.
- The battery balance connector must connect to the charger with the black wire aligned with the negative marking. Ensure correct polarity!



NiMH/NiCd or Pb Battery Connection



Battery Operations Matrix

This table lists all the operations that D8neo can perform based on the battery type.

Battery Type	Working Mode	Description
LiPo Li-ion LiFe LiHV	Balance CHG	This mode is to balance charge the lithium battery according to the user-defined charging rate. It ensures each cell of the battery is balanced.
	Charge	This mode charges the lithium battery based on the selected charging rate.
	Storage	This mode stores the battery via charging or discharging its voltage to a specific storage value.
	Discharge	This mode is to discharge the lithium battery based on the selected discharging rate.
	Parallel Charge	This mode is to parallel charge the battery with a higher charge rate of up to 50.0A.
	Reverse Discharge	Reverse discharge mode allows transferring energy from an idle battery to another.
NiMH NiCd	Charge	This mode charges the NiMH/NiCd battery based on the selected charging rate.
	Discharge	This mode is to discharge the NiMH/NiCd battery based on the discharging rate selected.
	Repeak	In Repeak mode, the charger automatically peaks the battery twice in a row. This helps ensure the NiMH/NiCd battery is fully charged.
	Cycle_D_C	A cyclic and continuous process of 1 to 3 discharge > charge cycles can be used to refresh and restore the performance of NiMH/NiCd batteries.
	Cycle_C_D	A cyclic and continuous process of 1 to 3 charge > discharge cycles can be used to refresh and restore the performance of NiMH/NiCd batteries.
	Reverse Discharge	Reverse discharge mode allows transferring energy from an idle battery to another.
Pb	Normal	This mode charges the Pb battery based on the selected charging rate.
	AGM Charge	This mode charges the AGM battery based on the selected charging rate.
	Cold Charge	This mode charges the Pb battery under a low temperature based on the selected charging rate.
	Discharge	This mode is to discharge the Pb battery based on the selected discharging rate.
	Reverse Discharge	Reverse discharge mode allows transferring energy from an idle battery to another.

*1S LiPo/LiFe/Li-ion/LiHV and NiMH/NiCd cannot be used in Parallel Charge and Reverse Discharge modes

Lithium Battery Program

(LiPo/LiFe/Li-ion/LiHV)



Scan or Click to Watch

A Charge Setting	
Battery Type	LiPo
Battery Cell	6S(22.5V)
Task	Bal. CHG
Condition	4.20V
Cycle	0
Charge Current	12.0A

Enter Charge Settings

Press the Scroll button to enter Charge Settings.

A Charge Setting	
Battery Type	LiPo
Battery Cell	LiHV
Task	LiFe
Condition	LiIon
Cycle	NiCd
Charge Current	NiMH

Select Battery Type

Press the Scroll button to enter into the Battery Type menu, then scroll to choose your preferred lithium battery type.

A Charge Setting	
Battery Type	1S(3.8V)
Battery Cell	2S(7.6V)
Task	3S(11.4V)
Condition	4S(15.2V)
Cycle	5S(19.0V)
Charge Current	6S(22.8V)

Select Battery Cell

Scroll and short-press the button to select the correct battery cells.

A Charge Setting	
Battery Type	Balance CHG
Battery Cell	Charge
Task	Discharge
Condition	Reg. Discharge
Cycle	Storage
Charge Current	Cycle

Select Task

Scroll and short-press the button to select the working mode.

A Charge Setting	
Battery Type	4.18V
Battery Cell	4.19V
Task	4.20V
Condition	4.21V
Cycle	4.22V
Charge Current	4.23V

Set Cut-off Condition

Scroll and short-press the button to set the cut-off voltage.

A Charge Setting	
Battery Type	0
Battery Cell	1
Task	2
Condition	3
Cycle	
Charge Current	

Select Cycle Count

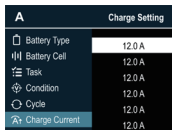
Scroll and short-press the button to set the cycle count (0-3).

Lithium Battery Program

(LiPo/LiFe/Li-ion/LiHV)

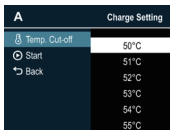


Scan or Click to Watch



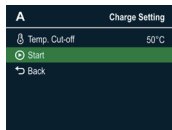
Select Charge Current

Scroll and short-press the button to set the desired working current.



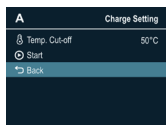
Select Temp. Cut-off

Scroll and short-press the button to set temperature protection thresholds.



Start

Press the Scroll button to stop the program. If confirm to stop, press the Scroll button again to confirm. If not stop, short-press the Port button to back.



Back

Press to return to the main interface.



Stop

Long press the Stop button to terminate the current program.

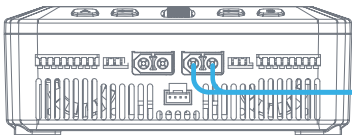
DC Power

1. Connect your desired DC device.
2. On the main interface, hold the Scroll button for five seconds to enter System Settings.
3. Select DC Power and adjust the output voltage and current.
4. Press the Scroll button to activate the power function after setting.



Scan or Click to Watch

*In standby mode, long press the channel button on the single-channel interface to access its DC power interface.



Disclaimer:

The DC power supply function is intended as a supplementary output for RC accessories (e.g., SkyRC Pit Light, Tire Warmer, Tire Sander).

It is not designed to support Capacitive Loads such as RC chargers or power supplies.

Improper use may result in product damage or reduced service life.

- Note:**
- On the DC Power interface, press the Port button to switch between Port A and Port B.
 - From the main interface, long press the Stop button to exit the DC Power function.
 - Do NOT use DC mode to charge the battery.

Parallel Charging

SkyRC D8neo features a Parallel Charging mode to deliver higher charging current.

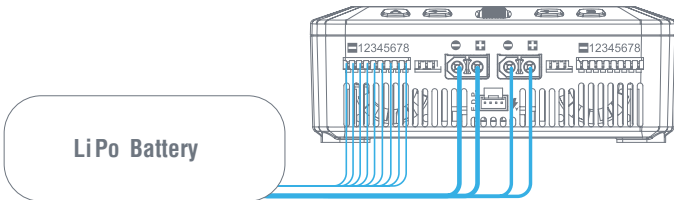
Note: Parallel Charging is only supported for 2-8S lithium batteries. Other battery types are not supported!



Scan or Click to Watch

Please use the dedicated parallel charging cable (SK-600023-22/SK-600023-23)* to correctly connect the battery's charging wire and balance wire.

1. Select the channel to which the battery's balance lead is connected, e.g., Channel A;
2. Choose the correct battery type (LiPo / LiFe / Li-ion / LiHV);
3. In the task menu, select the "Parallel Charge" program;
4. Set the charging current (adjustable range: 33–50A);
5. Start the program after setting up.



***The parallel charging cable is sold separately!**

***Both main ports need to be connected, and the channel used for starting needs to be connected to the balancing port.**

Reverse Discharge

With Reverse Discharge mode, SkyRC D8neo allows you to transfer energy from an idle battery to another battery, reducing energy waste.

For instance, we use Channel B to discharge the source battery and Channel A to charge the target battery.



Scan or Click to Watch

1. Select the correct battery type.

Only following battery types are supported(the charge side has no restrictions):

- 2–8S LiXX
- 8–20S NiXX
- 3S / 6S / 12S Pb

2. Select the number of cells.

If the balance lead is connected, the system can automatically detect the cell count. You may also set it manually. If no balance lead is connected, manual input is required.

3. From the task menu, select “Reverse Discharge.”

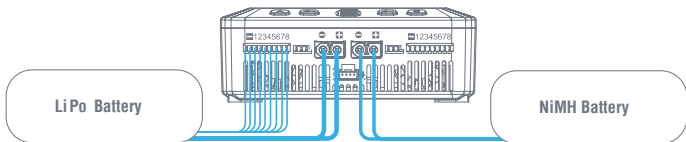
4. Configure Discharge parameters:

- Cut-off voltage
- Discharge current
- Cut-off temperature

5. Press "Continue at A" to Configure Charge parameters:

- Battery type
- Cell count
- Target voltage
- Charge current
- Cut-off temperature

6. Press “Start” to begin reverse discharge.



Notes:

- DC input must be <40V to enable reverse discharge function.
- Cannot operate simultaneously with DC power input
- Cannot operate simultaneously with Type-C input
- Minimum discharge power requirement: >20W (system will not activate below this threshold)

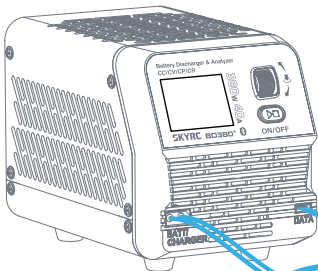
External Discharge

D8neo supports external discharge, reaching up to 40A when connected to the BD380/BD380+ discharger.

- Once the power supply is connected, D8neo powers up and enters the main interface automatically;
- Connect the BD380/BD380+ discharger to D8neo;
- Connect the battery to Port A on D8neo;
- Select the battery type, number of cells, discharge program, cut-off voltage, and discharge current;
- Start the program once the settings are configured.

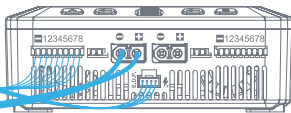


Scan or Click to Watch



Notes:

- The BD380/BD380+ discharger is not included and must be purchased separately.
- External discharge is available only on Port A.



Battery

Voltage Calibration

For expert user only)

You can calibrate the voltage directly on the charger with a 8S LiPo battery. For more information, please contact us at support@skyr.com.

App Control with SkyCharger

This charger comes equipped with a built-in Bluetooth 5.0 module, enabling users to easily control the charger via the SkyCharger app. Firmware upgrades are also supported through the SkyCharger app.

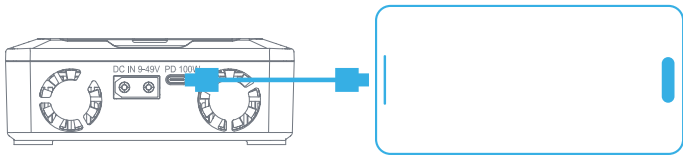


Firmware Upgrade

1. Open the SkyCharger app.
2. Tap "+" to add the device, verify the corresponding Bluetooth number, and connect to D8neo.
3. Enter the Settings page, when the SkyCharger app detects a new firmware, choose to upgrade.
4. Wait for the progress bar to reach 100%.

PD/QC3.0 Output with USB Type-C

In addition to charging RC batteries, the charger can also charge mobile devices through the USB Type-C PD3.0 output with a charging power of up to 100W.



* When the DC input is greater than 26.8V, PD will not operate.

Errors Explained

In the event of a fault, D8neo will display an error message indicating issues such as connection problems or battery mismatches. Refer to the table below for troubleshooting solutions based on the error code.

Input Volt Too Low!	Input Volt Too Low!
Input Volt Too High!	Input Volt Too High!
Connection Break!	The battery connection is broken!
Cell Count Error!	Cell Count Error!
Battery Type	The battery type is wrong!
Capacity Limit!	Charge/Discharge capacity exceeds the MAX. Capacity limits set in the system setting.
Time Limit!	Charge/Discharge capacity exceeds the Safety Timer limits set in the system setting.
Int. Temp. Too High!	The internal temperature is high!
Parallel charge and DC power can't operate together!	Parallel charge and DC power can't operate together!
Overload Protection!	The charger is overloaded!
Reversed Polarity!	The battery connection is reversed!
Fully Charged!	The battery is fully charged already!
Output Overload!	Output Overload!
Balance Port Error!	Balance Port Error!
Cell Volt Diff!	The voltage difference between each cell is high!
The Allocable Power has Reached its Maximum.	The Allocable Power has Reached its Maximum.
Discharger idle current high. Fan may be on!	Discharger idle current high. Fan may be on!
No Current!	No Current Detected at Discharge Terminal!
Offline!	Discharger offline.
Ensure the Correct Discharger!	Ensure the Correct Discharger!
Port Voltage Exceeds Set Voltage!	DC Power Supply Output Port Voltage Exceeds Set Value!
No Available Power Output!	No Available Power Output!
Reverse Dchg and DC Power can't run together!	Reverse Dchg and DC Power can't run together!
Input volt. > 40V! Mismatch with reverse discharge settings!	DC input>40V! Incompatible with Reverse Discharge Mode!
Reverse discharge power < 20W	Reverse discharge power < 20W. Incompatible with Reverse Discharge Mode!
PD active, limited reverse discharge power!	PD active, limited reverse discharge power!

System Settings

On the main interface, hold the Scroll button for five seconds to enter the system settings.

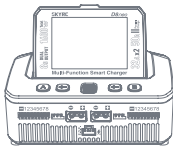
Menu	Option	Definition
Task Parameters	Safety Timer	Customize a period for program protection.
	Max.Capacity	Customize the maximum capacity.
	Trickle Charge	Enable/disable trickle charge.
	Keep Voltage	Enable/disable holding voltage. If the difference great than 0.02V between each cells detected, a small current will be applied to keep the battery voltage.
	Float	Start/Stop the float charging of Pb battery.
	Back	Back to the previous interface.
Preference	Language	Select your desired system language.
	Max. Input Power	The maximum charge power: AC Input: 100W DC Input: max. 240W
	Min. Input Voltage	In DC Input, set the minimum voltage for input protection.
	LCD Backlight	Adjust the brightness of the screen.
	Screen Timeout	Adjust/Turn off the screen time of the display
	Keypress Beep	Adjust/Turn off the volume of the keypress beep.
	Notify Beep	Adjust/Turn off the volume of the notify beep.
	Completion Tone	Choose the way you'd like to be reminded when the program is completed. If Repeat is chosen, the charger will play the completion signal every half an hour.
	Warning	Enable/disable boot warning.
Back	Back to the previous interface.	
DC Power	Voltage	Set the output voltage. (5.0-36.0V)
	Current	Set the output current. (0.3-32.0A)
	Start	Enable DC power output and return to the main interface.
	Back	Back to the previous interface.
Battery Meter	N/A	Measure the battery voltage and internal resistance. (Switch A/B ports or recheck by pressing the Port button)
User Guide	N/A	Scan the QR code to access the user manual.
Factory Setting	N/A	Restore to the factory settings.
System Info	N/A	Check the current system status.
Regulatory	N/A	Check regulatory information.
Back	N/A	Back to the previous interface.

Conformity Declaration

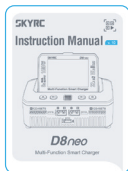
D8neo satisfies all relevant and mandatory CE directives and FCC Part 15 Subpart B.

Test Standards	Title	Result
EN 60335-1	Household and similar electrical appliances - Safety - Part 1: General requirements	Conform
EN 60335-2-29	Household and similar electrical appliances – Safety – Part 2-29: Particular requirements for battery chargers.	Conform
EN 55014-1	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission	Conform
EN 55014-2	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity Product Family Standard	Conform
EN 61000-3-2	Electromagnetic compatibility (EMC) – Part 3-2: – Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	Conform
EN 61000-3-3	Electromagnetic compatibility (EMC) - Part 3-3: Limitation of voltage supply systems for equipment with rated current ≤ 16 A.	Conform
FCC Part Subpart 15B	Title 47 Telecommunication PART 15 - RADIO FREQUENCY DEVICES Subpart B Unintentional Radiators	Conform
EN 301489-1 EN 301489-17	Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements. Part 17: Specific conditions for Broadband Data Transmission Systems.	Conform
EN 50663: 2017	Generic standard for assessment of low power electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (10 MHz - 300 GHz)	Conform

In The Box



1*SkyRC MC5000 Charger



1*Instruction Manual

Liability Exclusion

This charger is designed and approved exclusively for use with the types of battery stated in this Instruction Manual. SkyRC accepts no liability of any kind if the charger is used for any purpose other than that stated. We are unable to ensure that you follow the instructions supplied with the charger, and we have no control over the methods you employ for using, operating, and maintaining the device.

For this reason, we are obliged to deny all liability for loss, damage, or costs that are incurred due to the incompetent or incorrect use and operation of our products, or which are connected with such operation in any way. Unless otherwise prescribed by law, our 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

We guarantee 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, which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification, or as a result of failure to observe the procedures outlined in this manual.

Note:

1. The warranty service is valid in China only.
2. If you need warranty service overseas, please contact your dealer in the first instance, who is responsible for processing guarantee claims overseas. Due to high shipping costs, and complicated custom clearance procedures to send back to China, please understand that SkyRC can't provide warranty service to overseas end users directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send an email to info@skyrcc.com

SKYRC

The manual is subject to change without notice;
please refer to our website for the latest version!

Manufactured by
SKYRC TECHNOLOGY CO., LTD.

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