



Operating instructions

Quick start system 600A

Item no. 2127443

Intended use

The quick start system provides quick and easy start-up support for petrol or diesel powered cars with a 12 V/DC on-board electrical system. It provides start-up support for petrol engines with a capacity of up to 4.0 litres and diesel engines with a capacity of up to 2.5 litres.

The quick start system is powered by an integrated, compact, high-performance lithium-ion battery.

In addition, you can use a USB charging output to charge small electronic devices. The quick start system serves as a high-performance power bank.

An integrated LED light can either be set to permanent light, SOS signal light or strobe hazard warning light.

The quick start system has a charge level indicator and is charged via standard USB chargers (not included). A suitable charging adapter cable (USB-A to Micro USB) is included.

The device is dust and jet water proof according to IP66 and can also be used in bad weather conditions such as rain and snow.

Operation under adverse ambient conditions is not permitted.

Adverse conditions include:

- explosive atmosphere
- flammable gases, vapours or solvents,
- strong vibrations.

Any use other than that described above is not permitted and may damage the product. Furthermore, there are dangers such as short circuit, fire, electric shock, etc.

The product must not be modified or reassembled!

Always observe the safety instructions and the operating instructions of the connected devices!

Package contents

- Quick start system
- Starter cable with pole terminals
- Micro USB/USB-A charging cable
- Carrying case
- Operating instructions



Up-to-date operating instructions

To download the latest operating instructions, visit www.conrad.com/downloads or scan the QR code on this page. Follow the instructions on the website.

Explanation of Symbols



The symbol with the exclamation mark in the triangle is used to highlight important information in these operating instructions. Always read this information carefully.



The arrow symbol indicates special information and advice on how to use the product.



This product has been CE tested and complies with the necessary national and European regulations.

Safety instructions



These instructions contain important information on how to use the device correctly. Please read them carefully before using the device for the first time.

Damage caused due to failure to observe these instructions will void the warranty. We shall not be liable for any consequential damages!

We shall not be liable for damage to property or personal injury caused by incorrect handling or failure to observe the safety information! Such cases will void the warranty/guarantee.

- For safety and licensing reasons, the unauthorised conversion and/or modification of electrical devices is not allowed.
- Do not leave the charger, and the rechargeable batteries that are connected to it, unattended while in operation.
- To ensure safe operation, the user must follow the safety instructions and warning notices that are included in these operating instructions.

- Chargers and accessories should be kept away from children! They are not toys.
- For installations in industrial facilities, follow the accident prevention regulations for electrical systems and equipment issued by the national safety organisation or the corresponding national authority.
- In schools, training centres, hobby and self-help groups, the use of chargers and accessories must be supervised by trained personnel in a responsible manner.
- Improper handling may cause overcharge or destruction of the rechargeable battery. In the worst case, the rechargeable battery can explode and thereby cause serious damage.
- Allow the device to reach ambient temperature when it is brought from a cold environment to a warm one. The condensation which forms can damage the device.
- If you suspect that safe operation is no longer possible, stop using the device immediately and prevent unauthorised use.
- Safe operation can no longer be assumed if:
 - There are signs of damage
 - The device does not function properly
 - The device was stored under unfavourable conditions for a long period of time
 - The device was subjected to rough handling during transport.
- Make sure that you always have these instructions at hand to ensure safe operation. Keep these operating instructions in a safe place and give them to any subsequent owners. When connecting and operating the device, a number of safety instructions must be observed.
- Place the device in a secure place so that it is absolutely stable and cannot fall down! Otherwise, this could cause injuries. Never place the device on a flammable surface (such as carpet). Always use a suitable, non-flammable, heatproof surface.
- Ensure that there is sufficient ventilation during operation. Never cover the device.
- Always keep the device away from flammable materials, both during and after charging. Charge and store the device in a fireproof container.

Notes on rechargeable batteries

Despite the fact that both rechargeable and non-rechargeable batteries have become a normal, everyday item, there are still numerous dangers and problems associated with them. When using LiPo/Li-Ion/LiFe rechargeable batteries with high energy content (compared to conventional NiCd or NiMH rechargeable batteries) in particular, different instructions must be followed in order to avoid explosion and fire hazards.

Always make sure that you have read and understood the following information and safety instructions before handling rechargeable batteries.

Also read and observe the notes provided with the rechargeable battery!

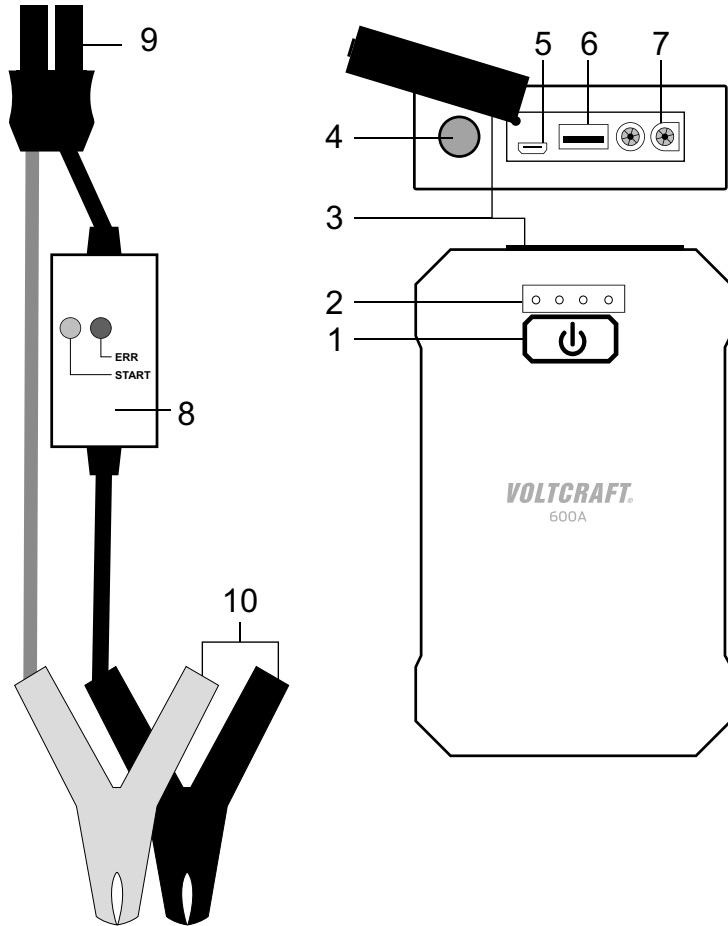
a) General Information

- Rechargeable batteries are not toys. Keep rechargeable batteries away from children.
- Rechargeable batteries must not be short-circuited, disassembled or thrown into a fire. This may cause a fire or explosion!
- Leaking or damaged rechargeable batteries can cause corrosive injuries in case of contact with the skin. Therefore you should use suitable protective gloves for this.
- Do not recharge normal, non-rechargeable batteries. This may cause a fire or explosion!
- Non-rechargeable batteries are only meant to be used once and must be disposed of properly when empty.
- Rechargeable batteries must not become wet or damp.
- Do not leave rechargeable batteries/devices unattended while charging/discharging.
- Pay attention to the correct polarity (plus pole/+ and minus pole/-). This device has a protection function against wrong connection of the car battery poles. It is nonetheless possible that improperly installed rechargeable batteries will cause damage under certain conditions.
- If you are not going to use the product for a long time (for example, during storage), disconnect all cables from the device.
- Do not charge/discharge damaged, leaking or deformed rechargeable batteries. This may cause a fire or explosion! Dispose of unusable rechargeable batteries in an environmentally friendly manner. Do not continue to use these rechargeable batteries.
- Charge the device about every 3 months, otherwise there is a risk that the rechargeable battery will self-discharge and that it will not be ready for use in case of necessity.
- Remove the fully charged device from the charger.
- Since both the device and the rechargeable batteries become hot during charging/discharging, adequate ventilation must be provided. Never cover devices!

b) Additional information on lithium rechargeable batteries

- Li-Ion batteries installed in this device require special care during charging/discharging, operation and handling.
- Never destroy or damage the rechargeable battery, do not drop it or puncture it with any objects. Protect the rechargeable battery from mechanical stress. This may cause a fire or explosion!
- Ensure that the device does not overheat during use, charging, discharging, transport and storage. Do not place the device near heat sources and protect it from exposure to direct sunlight. If the device overheats, there is a risk of fire and explosion!
- The device must not exceed a temperature of +60 °C.
- If a device is damaged or the outer cover is puffed/swollen, discontinue use of the device. Do not recharge it. This may cause a fire or explosion!

Overview of parts



- 1 Button for charge level indicator and activation of LED light and power bank function
- 2 Charge level indicator
- 3 Protective cover
- 4 LED light
- 5 Micro USB charging input "Input"
- 6 USB charging output "Output"
- 7 Mechanically coded connection for starter cable
- 8 MOSFET housing with LED status indicator for starter operation
- 9 Mechanically coded plug for quick start system
- 10 Pole terminals (red +, black -)

Start-up and charging

- The quick start system must be fully charged before use.
- Standard USB quick chargers with a charging current of at least 1 A are suitable for charging. An output charging current of at least 1.5 A is recommended because it shortens the charging time.
- Connect the included charging adapter cable to the USB charger (not included).
- Plug the Micro USB cable into the Micro USB charging input "Input" (5).
- As soon as your USB charger provides sufficient charging current, the charging process is indicated by the LEDs of the charge level indicator (2), which light up one after another.
- If all 4 LEDs of the charge level indicator light up at the same time or are permanently lit, the charging process is completed.
- Remove the charging cable from the start system.
- Briefly press the activation button (1) to display the current charge status.

View	Meaning
4 LEDs	Start system is fully charged and can be used without restriction.
3 LEDs	Start system is 75% charged and can be used without restriction.
2 LEDs	Start system is 50% charged. It can only be used as power bank or LED light.
1 LED	Start system is 25% charged. It can only be used as power bank or LED light.
0 LED	Start system is not ready for use and must be charged.

Operation

a) Start support function

The quick start system can support a weak starter battery when starting the engine. During start-up a very high current is needed. The quick start system emits multiple high current pulses during the start-up phase. This is usually enough to support a weak starter battery.



Never short-circuit the two pole terminals. This will discharge the quick start system and damage the rechargeable battery.

To perform start-up, proceed as follows:

- Check the charge status of the quick start system. For a start-up support at least 3 LEDs must light up. If fewer LEDs are lit, the quick start system must first be charged.
- Open the protective cover (3) on the quick start system.
- Insert the starter cable plug (9) into the connection for the starter cable (7). The plug is mechanically coded and fits together only with the correct polarity. Ensure firm and reliable contact.
- The green LED status indicator on the MOSFET housing (8) starts to flash.
- Connect the red pole terminal (10) to the plus pole (+) and the black pole terminal (10) to the minus pole (-) of the car battery. Ensure that the contact is connected properly. Turn the terminals back and forth to break possible oxide layers on the poles.
- Once the contact is established, the green LED glows steadily after a few seconds and you will hear a short beep. Start your car within 30 seconds. The quick start system now emits multiple current pulses during the start-up phase. They should be enough to start the engine.
- When the engine starts, disconnect the quick start system and remove the starter cable from the quick start system. Close the connections with the protective cover.
- If the engine does not start, disconnect the quick start system. Wait approx. 5 minutes and then repeat a start-up operation.
- If the engine still does not start after three attempts, the start support process must be terminated. Probably, the car battery is defective, or there is another problem. In this case, have the vehicle checked by a specialist workshop.

LED status indicator on the MOSFET housing (8)

View	Meaning
Green flashing	Quick start system is ready
Green steady light with beep	Start mode is activated
Red steady light	Connection error. Please check all contacts

Power bank function

- The quick start system has a USB charging output. It can be used to portably charge small electronic consumers.
- The USB output has overload protection.
- USB charging output "Output" (6): 5 V/DC max. 2.1 A
- To enable the power bank function, press the button for charge level indicator (1). The charging output is released.
- Plug the devices to be charged (charging cable not included) into the USB charging output (6). The included Micro USB cable for the quick start system is also suitable for devices with a Micro USB connection.
- If you do not need the power bank function, remove the charging cable from the device.

→ The power bank output has overload protection and switches off automatically in case of overload. If the output has been switched off by the system, remove the charging cable from the device. Wait approx. 30 seconds. After that the output can be re-enabled.

LED light function

The quick start system has a USB lamp.

To enable the light function, press and hold down the button for LED light (1) for approx. 3 seconds. The lamp is permanently lit. Another brief press switches the light mode.
Permanent light -> SOS signal -> Strobe light -> Off.

To disable the light function in any mode, press and hold down the button (1) for approx. 3 seconds. Disable the light function if you do not need it.



Do not look directly into the light source. The bright LED light source blinds the eye and can cause short-term vision problems.

Disposal



Electronic products are raw material and do not belong in the household waste. At the end of its service life, dispose of the product according to the relevant statutory regulations.

Disposal of Flat Accumulators

You are required by law to return all used batteries. They must not be placed in household waste.



Contaminated batteries/rechargeable batteries are labelled with symbols to indicate that disposal in the domestic waste is forbidden. The abbreviations for heavy metals in batteries are: Cd = cadmium, Hg = mercury, Pb = lead (the marking can be seen on the battery, e.g., underneath the refuse bin symbol shown on the left). Used (rechargeable) batteries can be returned to collection points in your municipality, our stores or wherever (rechargeable) batteries are sold.

That way you fulfil your statutory obligations and contribute to the protection of the environment!

Technical data

Vehicle on-board system	12 V/DC
Li-Ion battery capacity	7200 mAh, 14.8 V (26.64 Wh)
Starting current (peak value)	300 A (600 A)
Fit for engine sizes (capacity).....	petrol engine up to 4.0 litres diesel engine up to 2.5 litres
USB power bank (output) "Output"	5 V/DC max. 2.1 A
Charging function (input) "Input"	Micro USB: 5 V/DC, 1.5 A
Li-Ion charging time 100%.....	approx. 6 h
Charge level indicator.....	4 LEDs (25%, 50%, 75%, 100%)
Protection class	IP66 (dust and jet water proof)
Operating temperature	-20 to +60 °C
Storage temperature.....	0 to 45 °C
Starter cable length	approx. 45 cm
Product dimensions (L x W x H)	140 x 85 x 27 mm
Weight	approx. 320 g