

NOCO GENIUS2X2

NOCO GENIUS2X2 Smart Battery Charger User Manual

Model: GENIUS2X2 | Brand: NOCO

1. INTRODUCTION AND OVERVIEW

The NOCO GENIUS2X2 is a sophisticated two-bank battery charger designed for simultaneous charging and maintenance of multiple batteries. It functions as a comprehensive solution, including battery charging, maintenance, trickle charging, and desulfation capabilities for two 6-volt or 12-volt lead-acid and lithium-ion (LiFePO4) batteries, supporting capacities up to 40 amp-hours. This device incorporates an advanced thermal sensor that automatically adjusts charging parameters based on ambient temperature, preventing both overcharging in warm conditions and undercharging in cold environments. The GENIUS2X2 can initiate charging on batteries with as little as 1 volt and features a 'Force Mode' for manually charging completely discharged batteries (down to zero volts). Its smart monitoring system ensures safe, continuous connection for long-term battery care, while precision pulse charging technology aids in restoring battery health by reversing sulfation and acid stratification. This charger is compatible with a wide range of vehicles and battery types, offering reliable performance for automotive, marine, powersport, and lawn and garden applications.

2. WHAT'S IN THE BOX

The NOCO GENIUS2X2 package includes the following components:

- GENIUS2X2 4A 2-Bank Smart Battery Charger and Battery Maintainer (120-220 VAC)
- (2) Needle-Nose Battery Clamps With Integrated Eyelet Terminals
- Type-A, Type-C, Type-G and Type-I AC Cables (for various regions)
- (2) Charging Extension Cables
- (2) Black Truss-Head Screws
- Battery Charger User Guide

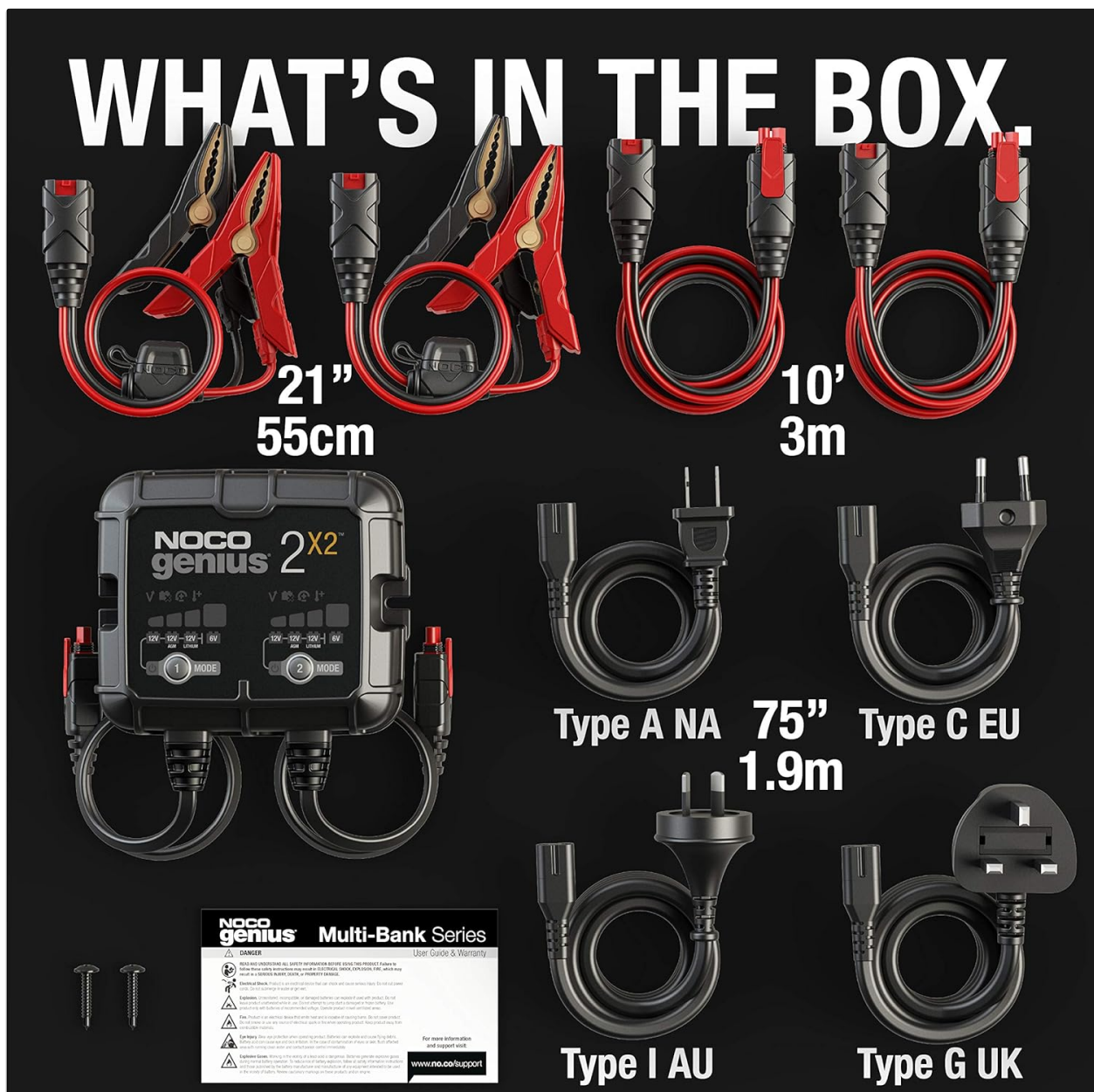


Figure 2.1: Package Contents of the NOCO GENIUS2X2 Charger.

3. KEY FEATURES

- **Two-Bank Charging:** Charges and maintains two batteries simultaneously.
- **Multi-Voltage & Chemistry:** Designed for 6-volt and 12-volt lead-acid (AGM, Gel, SLA, VRLA) and lithium-ion (LiFePO4) batteries, including flooded, maintenance-free, deep-cycle, marine, and powersport batteries.
- **Precision Charging:** Integrated thermal sensor dynamically adjusts charge based on ambient temperature, preventing overcharging in hot weather and undercharging in cold.
- **Dead Battery Charging:** Can charge batteries from as low as 1 volt, with a 'Force Mode' to manually charge completely dead batteries down to zero volts.
- **Worry-Free Maintenance:** Smart monitoring allows for safe, indefinite connection for long-term battery maintenance without overcharging.
- **Battery Restoration:** Precision pulse charging automatically detects and reverses battery sulfation and acid stratification, restoring battery health.
- **Wide Compatibility:** Suitable for various vehicles including cars, motorcycles, ATVs, trucks, RVs, boats, and more.

EVERYTHING CHARGER. DO MORE WITH GENIUS.

MULTI-BANK
Charge and maintain two batteries at the same time.

MULTI-VOLTAGE.
6-volt and 12-volt lead-acid and lithium-ion batteries.

CHEMISTRIES.
Flooded, gel, maintenance-free and AGM batteries.

TYPES.
Starter, deep-cycle, marine, powersport and more.

6V & 12V 4A
2 BANK 2A 2A

Universal Input:
120-240VAC, 50-60Hz

Figure 3.1: The GENIUS2X2 supports various battery types and voltages.

4. SETUP

1. **Unpack the Charger:** Carefully remove all components from the packaging.
2. **Mounting (Optional):** The charger can be mounted to a wall or flat surface using the provided screws. Ensure the mounting location is dry and well-ventilated.
3. **Connect to AC Power:** Select the appropriate AC cable for your region (Type-A, Type-C, Type-G, or Type-I) and connect it to the charger. Plug the AC cable into a suitable wall outlet. The charger will power on.
4. **Connect to Battery:**
 - For temporary connections, use the provided battery clamps. Connect the red positive (+) clamp to the positive battery terminal and the black negative (-) clamp to the negative battery terminal.
 - For permanent or semi-permanent connections, utilize the integrated eyelet terminals. Securely attach the red positive (+) eyelet to the positive battery terminal and the black negative (-) eyelet to the negative battery terminal.



Figure 4.1: The GENIUS2X2 connected to batteries.

5. **Initial Mode Selection:** Upon connecting to a battery, the charger will automatically detect the battery voltage and type. You can manually select a specific charging mode (e.g., 6V, 12V, 12V AGM, 12V Lithium) by pressing the "MODE" button for each bank.

5. OPERATING INSTRUCTIONS

5.1 Charging Modes

The GENIUS2X2 offers several charging modes to accommodate different battery types and conditions:

- **12V Mode:** For 12V wet cell, gel, enhanced flooded, maintenance-free, and calcium batteries.
- **12V AGM Mode:** Specifically for 12V AGM batteries.
- **12V Lithium Mode:** For 12V lithium-ion batteries (including lithium iron phosphate) with Battery Management Systems (BMS).
- **6V Mode:** For 6V wet cell, gel, enhanced flooded, maintenance-free, and calcium batteries.
- **Force Mode:** Used to charge batteries below 1V. All charge mode LEDs will flash, and the selected mode will illuminate. This mode allows manual charging of completely dead batteries (down to zero volts).



Figure 5.1: Available Charging Modes.

5.2 Automatic Operation

The charger is designed for completely automatic, worry-free battery charging:

- **Auto Detect:** The charger automatically detects the battery type and condition.
- **Thermal Compensation:** An integrated thermal sensor dynamically adjusts the charge based on ambient temperature, preventing overcharging in hot weather and undercharging in cold.
- **Auto Desulfation & Repair:** Precision pulse charging automatically detects and reverses battery sulfation and acid stratification, restoring battery health for improved performance and extended lifespan.
- **Zero Overcharge:** The smart charger constantly monitors the battery, allowing it to be left connected safely indefinitely for worry-free maintenance.

THERMAL COMPENSATION.

OPTIMIZED FOR ANY CLIMATE.



Figure 5.2: Thermal Compensation for optimal charging in any climate.

COMPLETELY AUTOMATIC. WORRY-FREE BATTERY CHARGING.



YEAR-ROUND CHARGING.
Provides all-season, all-weather, charging for a healthy battery.

ZERO OVERCHARGE.
Leave plugged in 24/7 with no worries of overcharging.

AUTO MEMORY.
Automatically returns to its last selected mode.

Figure 5.3: Completely automatic and worry-free battery charging.

6. MAINTENANCE

The NOCO GENIUS2X2 is designed for minimal maintenance. For optimal performance and longevity of your batteries:

- Keep the charger clean and free from dust and debris.
- Ensure connections to the battery terminals are secure and free of corrosion.
- The charger can be left connected to the battery indefinitely for long-term maintenance, as its smart monitoring prevents overcharging.
- The automatic desulfation feature helps maintain battery health over time.

7. TROUBLESHOOTING

This section provides guidance for common issues you might encounter with your GENIUS2X2 charger.

| Problem | Possible Cause | Solution |
|---------|----------------|----------|
|---------|----------------|----------|

| Problem | Possible Cause | Solution |
|--|---|---|
| Charger does not turn on. | No AC power; faulty outlet. | Check AC power connection. Try a different outlet. Ensure the AC cable is fully inserted into the charger. |
| Charger not charging (no LEDs illuminated or error LED). | Incorrect battery connection; battery voltage too low; incompatible battery type. | Verify correct positive (+) and negative (-) connections to the battery terminals. For batteries below 1V, activate 'Force Mode' by pressing and holding the MODE button for 3 seconds. Ensure the selected charging mode matches your battery type. |
| Charging is slow or not completing. | Battery sulfation; extreme temperatures; battery capacity too large. | Allow the automatic desulfation process to run. Ensure the charger is operating within its specified temperature range. The thermal compensation feature will adjust, but extreme conditions can affect speed. Verify the battery capacity is within the charger's recommended range (up to 40 Ah). |
| Charger LEDs are flashing erratically. | Internal error; short circuit; open circuit. | Disconnect the charger from both AC power and the battery. Wait a few minutes, then reconnect. If the issue persists, contact NOCO support. |



Figure 7.1: Force Mode allows charging of deeply discharged batteries.

8. SPECIFICATIONS

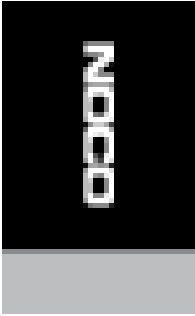
| Feature | Detail |
|----------------|-----------|
| Model Number | GENIUS2X2 |
| Output Voltage | 6V / 12V |

| Feature | Detail |
|--------------------------|---|
| Charging Amperage | 4A (2A per Bank) |
| Battery Capacity | Up to 40 Amp-Hours |
| Compatible Battery Types | Lead-Acid (AGM, Gel, SLA, VRLA, Flooded, Maintenance-Free, Deep-Cycle, Marine, Powersport), Lithium-Ion (LiFePO4) |
| Input Voltage | 120-240 VAC |
| Product Dimensions | 5.31"D x 6.97"W x 10.24"H |
| Item Weight | 4.59 Pounds |
| Manufacturer | NOCO |
| Date First Available | July 31, 2020 |

9. WARRANTY AND SUPPORT

The NOCO GENIUS2X2 comes with a **three-year warranty** from the date of purchase, covering defects in material and workmanship. For warranty claims or technical support, please contact NOCO customer service. For additional information, FAQs, and support resources, please visit the official NOCO website or refer to the included Battery Charger User Guide.

NOCO Support: [no.co/support](https://noco.co/support)




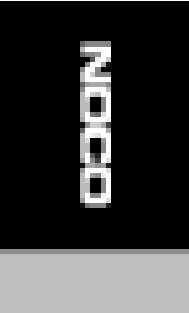

[NOCO Genius Multi-Bank Series Battery Charger User Guide & Warranty](#)

Comprehensive user guide and warranty information for the NOCO Genius Multi-Bank Series battery chargers (GENIUS2X2, GENIUS2X4). Covers safety, charging modes, specifications, and support for 6V/12V lead-acid, AGM, and lithium batteries.



[NOCO GENIUS1 1A Smart Battery Charger and Maintainer | Charge Dead Batteries](#)

The NOCO GENIUS1 is a 1A smart battery charger and maintainer for 6V and 12V lead-acid and lithium batteries. Features include zero-volt charging, thermal compensation, and advanced diagnostics for automotive, marine, RV, and powersport applications.

| | |
|---|---|
|  | <p>NOCO Genius Multi-Bank Series Battery Charger User Guide & Warranty</p> <p>Comprehensive user guide and warranty information for NOCO Genius Multi-Bank Series battery chargers (GENIUS2X2, GENIUS2X4), covering safety, charging modes, technical specifications, and warranty details.</p> |
|  | <p>NOCO Genius Multi-Bank Series User Guide & Warranty</p> <p>Discover the NOCO Genius Multi-Bank Series battery chargers with this comprehensive user guide. Learn about safe operation, charging modes for 6V/12V Lead-Acid, AGM, and Lithium batteries, technical specifications, and warranty details for models GENIUS2X2 and GENIUS2X4.</p> |
|  | <p>NOCO Genius Multi-Bank Series User Guide & Warranty</p> <p>Comprehensive user guide and warranty information for the NOCO Genius Multi-Bank Series battery chargers. Learn about safety precautions, charging modes, LED indicators, technical specifications, and warranty conditions for NOCO Genius chargers.</p> |



[NOCO GENIUS5 Battery Charger User Manual](#)

Comprehensive user manual for the NOCO GENIUS5 battery charger, detailing technical specifications, safety warnings, various charging modes (including 6V, 12V, Lithium, Force, and Repair), connection instructions, and LED indicator explanations. It covers compatibility with lead-acid and lithium batteries, optimal usage, and maintenance guidelines.