



NOCO



genius[®]

G26000_{V2.0}

User Guide



DANGER



PRIOR TO USE, READ AND UNDERSTAND PRODUCT SAFETY INFORMATION.

Failure to follow the instructions may result in ELECTRICAL SHOCK, EXPLOSION, or FIRE, which may result in SERIOUS INJURY, DEATH, DAMAGE TO DEVICE or PROPERTY. Do not discard this information.

Welcome. Thank you for buying the NOCO Genius[®] G26000. Read and understand the User Guide before operating the charger. For questions regarding our chargers, view our comprehensive support information at www.no.co/support. To contact NOCO for personalized support (not available in all areas), visit www.no.co/connect.

What's In The Box.

- G26000 Smart Charger
- (1) Battery Clamp Connectors
- (1) Eyelet Terminal Connectors
- User Guide
- Information Guide and Warranty

Contacting NOCO.

Phone: 1.800.456.6626

Email: support@no.co

Mailing Address: 30339 Diamond Parkway, #102

Glenwillow, OH 44139

United States of America

About G26000. The NOCO Genius® G26000 represents some of the most innovative and advanced technology on the market, making each charge simple and easy. It is quite possibly the safest and most efficient charger you will ever use. The G26000 is designed for charging all types of 12V & 16V lead-acid and 12V lithium-ion batteries, including Wet (Flooded), Gel, MF (Maintenance-Free), CA (Calcium), EFB (Enhanced Flooded Battery), AGM (Absorption Glass Mat), and LIB (Lithium Ion) batteries. It is suitable for charging battery capacities from 25 to 500 Amp-Hours and maintaining all battery sizes.

Getting Started. Before using the charger, carefully read the battery manufacturer's specific precautions and recommended rates of charge for the battery. Make sure to determine the voltage and chemistry of the battery by referring to your battery owner's manual prior to charging.

Mounting. The G26000 has four (4) external holes for mounting. Mount the charger in a desired location with #10 self-drill screws. Make sure there are no obstructions behind the mounting surface. It is important to keep in mind the distance to the battery. The DC cable length from the charger, with either the battery clamp or eyelet terminal connectors, is approximately 75-inches (1,900mm).

Charging Modes. The G26000 has eleven (11) modes: Standby, 12V NORM, 12V COLD/AGM, 24V NORM, 24V COLD/AGM, 12V LITHIUM, 12V AGM+, 16V AGM, 16V LITHIUM, 13.6V SUPPLY and 12V REPAIR, plus JumpCharge for engine starting. Some charge modes must be pressed and held for three (3) seconds to enter the mode. These "Press and Hold" modes are advanced charging modes that require your full attention before selecting. "Press and Hold" are indicated on the charger by a red line. It is important to understand the differences

and purpose of each charge mode. Do not operate the charger until you confirm the appropriate charge mode for your battery. Below is a brief description:

Mode	Explanation
Standby	<p>In Standby mode, the charger is not charging or providing any power to the battery. Energy Save is activated during this mode, drawing microscopic power from the electrical outlet. When selected, an orange LED will illuminate.</p> <p>No Power</p>
12V NORM	<p>For charging 12-volt Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries. When selected, a white LED will illuminate.</p> <p>14.5V 26A 50-500Ah Batteries</p>
12V COLD/ AGM	<p>For charging 12-volt batteries in cold temperatures below 50°F (10°C) or AGM batteries. When selected, a blue LED will illuminate.</p> <p>14.8V 26A 50-500Ah Batteries</p>
24V NORM	<p>For charging 24-volt Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries. When selected, a white LED will illuminate.</p> <p>29V 13A 25-250Ah Batteries</p>
24V COLD/ AGM	<p>For charging 24-volt batteries in cold temperatures below 50°F (10°C) or AGM batteries. When selected, a blue LED will illuminate.</p> <p>29.6V 13A 25-250Ah Batteries</p>

Mode	Explanation
12V LITHIUM Press & Hold	For charging 12-volt lithium-ion batteries, including lithium iron phosphate. When selected, a blue LED will illuminate. 14.2V 26A 50-500Ah Batteries
12V AGM+ Press & Hold	For charging 12-volt advanced AGM batteries, which requires a higher than normal charging voltage. When selected, a blue LED will illuminate. 15.5V 26A 50-500Ah Batteries
16V LITHIUM Press & Hold	For charging 16-volt lithium-ion batteries, including lithium iron phosphate, which are commonly used in racing vehicles. When selected, a blue LED will illuminate. 19.45V 20A 25-250Ah Batteries
16V AGM Press & Hold	For charging 16-volt AGM batteries, which are commonly used in racing vehicles. When selected, a blue LED will illuminate. 19.6V 20A 25-250Ah Batteries
13.6V SUPPLY Press & Hold	Converts to a DC power supply for powering any 12VDC device, like a tire inflator, oil changer, or as a memory retainer when replacing a battery. When selected, a red LED will illuminate. 13.6V 5A Max 6A
12V REPAIR Press & Hold	An advanced battery recovery mode for repairing and storing, old, idle, damaged, stratified or sulfated batteries. When selected, a red LED will illuminate and flash 16.5V 1.5A Any Capacity

Using 12V Lithium. [Press & Hold]

12V Lithium charge mode is designed for 12-volt lithium-ion batteries only, including lithium iron phosphate.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 12-VOLT LITHIUM BATTERIES ONLY. LITHIUM-ION BATTERIES ARE MADE AND CONSTRUCTED IN DIFFERENT WAYS AND SOME MAY OR MAY NOT CONTAIN A BATTERY MANAGEMENT SYSTEM (BMS). CONSULT THE LITHIUM BATTERY MANUFACTURER BEFORE CHARGING AND ASK FOR RECOMMENDED CHARGING RATES AND VOLTAGES. SOME LITHIUM-ION BATTERIES MAY BE UNSTABLE AND UNSUITABLE FOR CHARGING.

Using 12V AGM+. [Press & Hold]

12V AGM+ charge mode is designed for 12-volt advanced AGM batteries only. Advanced AGM batteries are a new battery technology typically found in start-stop micro-hybrid vehicles. These batteries accept a higher than normal charging voltage around 15.5-volts. 12V AGM+ charge mode is NOT suitable for traditional AGM batteries. Consult the battery manufacturer before using this mode.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 12-VOLT LEAD-ACID ADVANCED AGM BATTERIES ONLY. THIS MODE USES A HIGH CHARGING VOLTAGE AND MAY CAUSE SOME WATER LOSS IN WET (FLOODED) CELL BATTERIES OR OVERCHARGE IN SOME BATTERIES.

Using 16V Lithium. [Press & Hold]

16V Lithium charge mode is for 16V lithium-ion batteries only, including lithium iron phosphate batteries. 16-volt lithium-ion batteries are commonly found in racing vehicles, where the alternator might be removed, or used to improve the performance of the injector or fuel pump.

CAUTION. THIS MODE IS FOR 16-VOLT LITHIUM BATTERIES ONLY. LITHIUM-ION BATTERIES ARE MADE AND CONSTRUCTED IN DIFFERENT WAYS

AND SOME MAY OR MAY NOT CONTAIN A BATTERY MANAGEMENT SYSTEM (BMS). CONSULT THE LITHIUM BATTERY MANUFACTURER BEFORE CHARGING AND ASK FOR RECOMMENDED CHARGING RATES AND VOLTAGES. SOME LITHIUM-ION BATTERIES MAY BE UNSTABLE AND UNSUITABLE FOR CHARGING.

Using 16V AGM. [Press & Hold]

16V AGM charge mode is for 16V AGM batteries only. 16-volt AGM batteries are commonly found in racing vehicles, where the alternator might be removed, or used to improve the performance of the injector or fuel pump.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 16-VOLT AGM BATTERIES ONLY. DO NOT USE ON A 12-VOLT BATTERY. CONSULT THE BATTERY MANUFACTURER BEFORE CHARGING AND ASK FOR RECOMMENDED CHARGING RATES AND VOLTAGES.

Using 13.6V Supply. [Press & Hold]

13.6V Supply converts the charger to a constant current, constant voltage DC power supply. It can be used to power 12VDC devices, including; tire inflators, oil changers, coffee pots, seat heaters and more. As a power supply, it can also be used to retain a vehicle's on-board computer settings during battery repair or replacement. 13.6V Supply provides 13.6-volts at 5A with overload protection at 6A (Max).

CAUTION. THIS MODE IS FOR 12-VOLT LEAD-ACID BATTERIES ONLY. PRIOR TO USE, READ YOUR 12VDC DEVICE MANUAL TO DETERMINE IF IT IS SUITABLE FOR USE WITH THIS MODE. BOTH THE SPARK PROOF AND REVERSE POLARITY SAFETY FEATURES ARE DISABLED IN THIS MODE. DO NOT ALLOW THE POSITIVE AND NEGATIVE BATTERY CLAMP OR EYELET TERMINAL CONNECTORS TO TOUCH OR CONNECT TO EACH OTHER AS THE CHARGER COULD GENERATE SPARKS. CHECK THE POLARITY OF THE BATTERY TERMINALS BEFORE USING THIS MODE.

Using 12V Repair. [Press & Hold]

12V Repair is an advanced battery recovery mode for repairing and storing, old, idle, damaged, stratified or sulfated batteries. Not all batteries can be recovered.

Batteries tend to become damaged if kept at a low charge and/or never given the opportunity to receive a full charge. The most common battery problems are battery sulfation and stratification. Both battery sulfation and stratification will artificially raise the open circuit voltage of the battery, causing the battery to appear fully charged, while providing low capacity. Use 12V Repair in attempt to reverse these problems. For optimal results, take the 12-volt battery through a full charge cycle, bringing the battery to full charge, before using this mode. 12V Repair can take up to four (4) hours to complete the recovery process and will return to Standby when completed.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 12-VOLT LEAD-ACID BATTERIES ONLY. THIS MODE USES A HIGH CHARGING VOLTAGE AND MAY CAUSE SOME WATER LOSS IN WET (FLOODED) CELL BATTERIES. BE ADVISED, SOME BATTERIES AND ELECTRONICS MAY BE SENSITIVE TO HIGH CHARGING VOLTAGES. TO MINIMIZE RISKS TO ELECTRONICS, DISCONNECT THE BATTERY BEFORE USING THIS MODE.

JumpCharge.

JumpCharge is an innovative new feature for jumpstarting low-voltage or dead vehicle batteries. The JumpCharge process is much different than your traditional battery charger with an “engine start” feature. JumpCharge uses precision charge control to avoid overloading the battery that shortens the life of your battery.

To operate JumpCharge, the charger must be connected to a 12-volt battery with the Battery Clamp Connectors connected. Press the JumpCharge button to begin jumpstarting your vehicle.

Once initiated, the Charge LEDs will begin showing the progress of the JumpCharge from 25% to 100%. When using this mode, the Charge LEDs do not display the battery's state-of-charge (SOC), only the JumpCharge progress. Once the 100% green LED is illuminated solid,

Mode	Explanation
Jump CHARGE	Delivers 30A for five (5) minutes to jumpstart your dead vehicle battery. When selected, a white LED will illuminate. (Red Manual Mode)
	5Min 30A 50-400Ah Batteries

and the 25%, 50% and 75% Charge LEDs are “off”, the JumpCharge process is completed and your are ready to start your vehicle. For optimal results, allow JumpCharge to complete its five (5) minute charge.

If unsuccessful when starting your vehicle, let the battery rest for fifteen (15) minutes and try JumpCharge again. Most vehicles will start with one (1) JumpCharge, but larger vehicles with dual battery systems, may require an additional JumpCharge. If when pressing the JumpCharge button, an Error Condition (Error LED and Standby LED flashing) illuminates, the battery is below 2-volts. To JumpCharge a battery below 2-volts, press and hold the JumpCharge button for three (3) seconds, and JumpCharge will begin jumpstarting your battery.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 12-VOLT LEAD-ACID BATTERIES ONLY. DO NOT USE JUMPCHARGE MORE THAN TWO (2) TIMES WITHIN A TWENTY- HOUR (24) HOUR PERIOD. IF TWO (2) JUMPCHARGES CANNOT SUCCESSFULLY START YOUR VEHICLE, HAVE YOUR BATTERY EVALUATED BY A LOCAL BATTERY STORE.

Connecting to the Battery.

Do not connect the AC power plug until all other connections are made. Identify the correct polarity of the battery terminals on the battery. The positive battery terminal is typically marked by these letters or symbol (POS,P,+). The negative battery terminal is typically marked by these letters or symbol (NEG,N,-). Do not make any connections to the carburetor, fuel lines, or thin, sheet metal parts. The below instructions are for a negative ground system (most common). If your vehicle is a positive ground system (very uncommon), follow

the below instructions in reverse order.






- 1.) Connect the positive (red) battery clamp or eyelet terminal connector to the positive (POS,P,+) battery terminal.
- 2.) Connect the negative (black) battery clamp or eyelet terminal connector to the negative (NEG,N,-) battery terminal or vehicle chassis.
- 3.) Connect the battery charger's AC power plug into a suitable electrical outlet. Do not face the battery when making this connection.
- 4.) When disconnecting the battery charger, disconnect in the reverse sequence, removing the negative first (or positive first for positive ground systems).

Begin Charging.

- 1.) Verify the voltage and chemistry of the battery.
- 2.) Confirm that you have connected the battery clamps or eyelet terminal connectors properly and the AC power plug is plugged into an electrical outlet.
- 3.) The charger will begin in Standby mode, indicated by an orange LED. In Standby, the charger is not providing any power.
- 4.) Press the mode button to toggle to the appropriate charge mode (press and hold for three seconds to enter an advanced charge mode) for the voltage and chemistry of your battery.
- 5.) The mode LED will illuminate the selected charge mode and the Charge LEDs will illuminate (depending on the health of the battery) indicating the charging process has started.
- 6.) The charger can now be left connected to the battery at all times to provide maintenance charging.

Understanding Charge LEDs.

The charger has four (4) Charge LEDs per bank - 25%, 50%, 75% and 100%. These Charge LEDs indicate the connected battery(s) state-of-charge (SOC). See the explanation below:

LED	Explanation
25% Red LED 25% 50% 75% 100% 	The 25% Charge LED will slowly pulse "on" and "off", when the battery is less than 25% fully charged. When the battery is 25% charged, the red Charge LED will be solid.
50% Red LED 25% 50% 75% 100% 	The 50% Charge LED will slowly pulse "on" and "off", when the battery is less than 50% fully charged. When the battery is 50% charged, the red Charge LED will be solid.
75% Orange LED 25% 50% 75% 100% 	The 75% Charge LED will slowly pulse "on" and "off", when the battery is less than 75% fully charged. When the battery is 75% charged, the orange Charge LED will be solid.
100% Green LED 25% 50% 75% 100% 	The 100% Charge LED will slowly pulse "on" and "off", when the battery is less than 100% fully charged. When the battery is fully charged, the green LED will be solid, and the 25%, 50% and 75% Charge LEDs will turn "off".
Maintenance Green LED 25% 50% 75% 100% 	During maintenance charging, the 100% Charge LED will pulse "on" and "off" slowly. When the battery is topped off and fully charged again, the 100% Charge LED will turn solid green. The charger can be left connected to the battery indefinitely.

Understanding Advanced Diagnostics.

Advanced Diagnostics is used when displaying Error Conditions. It will display a series of blink sequences that help you identify the cause of the error and potential solutions.

All Error Conditions are displayed with the Error LED and Standby LED flashing back and forth. The number of flashes between each pulse denotes a potential Error Condition (except reverse polarity and low-voltage battery).

Error	Reason/Solution
Single Flash	Battery will not hold a charge. Have battery checked by a professional.
Double Flash	Possible battery short. Have battery checked by a professional.
Triple Flash	Battery voltage is too high for the selected charge mode. Check the battery and charge mode.
Error LED Solid Red	Reverse polarity. Reverse the battery connections.
Standby Solid Orange	Battery voltage is too low for charge to detect or charger is in supply. Jumpstart the battery to raise the battery voltage.



Memory

Returns to last selected mode when restarted



Interactive

Alters the charging process based on organic battery feedback



Recovery

Applies a high-voltage pulse charge when low-voltage, sulfation or lost capacity is detected



Safe

Protects against reverse polarity, sparks, overcharging, overcurrent, open-circuits, short-circuits and overheating



Fast

Charges two times faster than traditional battery chargers



Compensation

Adjusts for varying A/C line voltage for consistent charging



Rugged

Dirt, water, UV, impact and crush resistant



Compact

High-frequency energy conversion for ultra-compact, lightweight and portable charger



Start-Stop

Counteracts increased cyclic energy demands placed on batteries in micro-hybrid vehicles



Firewall

Multi-level safety barrier that prevents abnormal and unsafe conditions



Optimization

Stabilizes internal battery chemistry for increased performance and longevity



Maintenance Plus

Keeps the battery fully charged without overcharging allowing the charger to be safely connected indefinitely



Energy Save

Minimizes energy consumption when full power is not needed



Load Tracking

Charge LEDs dynamically track the batteries state-of-charge when a load outpaces the charge current



Diagnostics

Intuitive visual diagnostic tool for detecting reverse polarity, low-voltage or damaged batteries



CANBUS

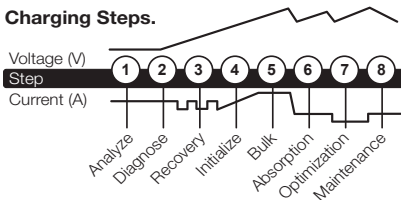
Automatically enables the charging port to charge CANBUS systems



Thermal Monitor

Internal temperature sensors adjust charge based on ambient climate

Charging Steps.



Step 1 & 2: **Analyze & Diagnose**

Checks the battery's initial condition, including voltage, state-of-charge and health, to determine if the battery is stable before charging.

Step 3: **Recovery**

Initializes the Recovery desulfation process (if needed) for deeply discharged or sulfated batteries by pulsing small amounts of current.

Step 4: **Initialize**

Starts the charging process with a gentle (soft) charge.

Step 5: **Bulk**

Begins the Bulk charging process based on the condition of the battery and returns 80% of the battery's capacity.

Step 6: **Absorption**

Brings the charge level to 90% by delivering small amounts of current to provide a safe, efficient charge. This limits battery gassing and is essential to prolonging battery life.

Step 7: **Optimization**

Finalizes the charging process and brings the battery to maximum capacity. In this step, the charger utilizes multi-layered charging profiles to fully recapture capacity and optimize the specific gravity of the battery for increased run time and performance. The charger will switch to Maintenance if the battery tells the charger that more current is needed.

Step 8: Maintenance

Continuously monitors the battery to determine when a maintenance charge should be initiated. If the battery voltage falls below its target threshold, the charger will restart the Maintenance cycle until voltage reaches its optimal state and then discontinues the charge cycle. The cycle between Optimization and Maintenance is repeated indefinitely to keep the battery at full charge. The battery charger can be safely left connected indefinitely without the risk of overcharging.

Charging Times.

The estimated time to charge a battery is shown below. The size of the battery (Ah) and its depth of discharge (DOD) greatly affect its charging time. The charge time is based on an average depth of discharge to a fully charged battery and is for reference purposes only. Actual data may differ due to battery conditions. The time to charge a normally discharged battery is based on a 50% DOD.

Battery Size Ah	Approx. Time to Charge In Hours	
	12V	24V
50	1.0	1.9
75	1.4	2.9
100	1.9	3.8
150	2.9	5.8
200	3.8	7.7

Technical Specifications.

Input Voltage AC:	110-120 VAC, 50-60Hz
Working Voltage AC:	85-130 VAC, 50-60Hz
Efficiency:	85% Approx.
Power:	443W Max
Charging Voltage:	Various
Charging Current:	26A (12V), 19.5A (16V), 13A (24V)
Low-Voltage Detection:	2V (12V), 2V (16V), 14V (24V)
Back Current Drain:	<5mA
Ambient Temperature:	0°C to +40°C
Charger Type:	8 Step, Smart Charger
Type of Batteries:	12V, 16V & 24V
Battery Chemistries:	Wet, Gel, MF, CA, EFB, AGM & LIB
Battery Capacity:	50-500Ah (12V), 25-250Ah (12V), Maintains All Battery Sizes
Housing Protection:	IP44
Cooling:	Fan Cooled
Dimensions (L x W x H):	12.13 x 5.7 x 3.07 Inches
Weight:	5.09 Pounds

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