NOCO GENIUSPRO25

NOCO genius® GENIUSPRO25

DANGER

User Guide & Warranty

READ AND UNDERSTAND ALL SAFETY INFORMATION BEFORE USING THIS PRODUCT. Failure to follow these safety instructions may result in ELECTRICAL SHOCK, EXPLOSION, FIRE, which may result in a SERIOUS INJURY, DEATH, or PROPERTY DAMAGE.

Electrical Shock. Product is an electrical device that can shock and cause serious injury. Do not cut power cords. Do not submerge in water or get wet.

Explosion. Unmonitored, incompatible, or damaged batteries can explode if used with product. Do not leave product unattended while in use. Do not attempt to charge a damaged or frozen battery. Use product only with batteries of recommended voltage. Operate product in well ventilated areas.

Fire. Product is an electrical device that emits heat and is capable of causing burns. Do not cover product. Do not smoke or use any source of electrical spark or fire when operating product. Keep product away from combustible materials.

Eye Injury. Wear eye protection when operating product. Batteries can explode and cause flying debris. Battery acid can cause eye and skin irritation. In the case of contamination of eyes or skin, flush affected area with running clean water and contact poison control immediately.

Explosive Gases. Working in the vicinity of a lead-acid is dangerous. Batteries generate explosive gases during normal battery operation. To reduce risk of battery explosion, follow all safety information instructions and those published by the battery manufacturer and manufacturer of any equipment intended to be used in the vicinity of battery. Review cautionary markings on these products and on engine.

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For more information and support visit:

www.**no.co**/support

Important Safety Instructions

About GENIUSPRO25. The NOCO GENIUSPRO25 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 GENIUSPRO25 is designed for charging all types of 6V, 12V and 24V lead-acid batteries, including Wet (Flooded), Gel, MF (Maintenance-Free), CA (Calcium), EFB (Enhanced Flooded Battery), and AGM (Absorption Glass Mat), in addition to 6V, 12V and 24V Lithium ($LiFePO_4$) batteries. It is suitable for charging battery capacities up to 1000 Amp-Hours (6V and 12V), 500 Amp-Hours (24V) 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.** 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 72 inches (182.88cm). Allow for 12-inches (30.4cm) of slack between connections. **Proposition 65. ⚠ WARNING:** This product can expose you to chemicals including lead and exhaust fumes, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. **Personal Precaution.** Only use product as intended. Someone should be within range of your voice or close enough to come to your aid in case of emergency. Have a supply of clean water and soap nearby in the case of battery acid contamination. Wear complete eye protection and protective clothing while working near a battery. Always wash hands after handling batteries and related materials. Do not handle or wear any metal objects when working with batteries including; tools, watches or jewelry. If metal is dropped onto battery, it may spark or create a short circuit resulting in electrical shock, fire, explosion which may result in injury, death or property damage. **Minors.** If the product is intended by "Purchaser" to be used by a minor, purchasing adult agrees to provide detailed instructions and warnings to any minor prior to use. Failure to do so is the sole responsibility of the "Purchaser," who agrees to indemnify NOCO for any unintended use or misuse by a minor. **Choking Hazard.** Accessories may present a choking hazard to children. Do not leave children unattended with product or any accessory. The product is not a toy. **Handling.** Handle product with care. The product can become damaged if impacted. Do not use a damaged product, including, but not limited to, cracks to the casing or damaged cables. Do not use product with a damaged power cord. Exposure to humidity and liquids may damage product. Store and operate product in dry locations. Do not allow charger to remain wet. Do not disconnect the product by pulling on the cables. **Modifications.** Do not attempt to alter, modify or repair any part of the product. Disassembling product may cause injury, death or damage to property. If product becomes damaged, malfunctions or comes in contact with any liquid, discontinue use, and contact NOCO. Any modifications to the product will void your warranty. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this device. **Accessories.** This product is only approved for use with NOCO accessories. NOCO is not responsible for user safety or damage when using accessories not approved by NOCO. **Location.** Prevent battery acid from coming in contact with the product. Do not operate the product in a closed-in area or an area with restricted ventilation. Do not set a battery on top of product. Position cable leads to avoid accidental damage by moving vehicle parts (including hoods and doors), moving engine parts (including fan blades, belts, and pulleys), or what could become a hazard that may cause injury or death. **Operating Temperature.** This product is designed to work in ambient temperatures between -4° F and 122° F (-20° C and 50° C). Do not store or operate outside of the specified

temperature ranges. Do not charge a frozen battery. Discontinue use of product immediately if the battery becomes excessively warm. **Storage.** Do not use or store your product in areas with high concentrations of dust or airborne materials. Store your product on flat; secure surfaces so it's not prone to falling. Store your product in a dry location. The storage temperature is -30ºC - 60ºC (average temperature). Never exceed 80ºC under any condition. **Compatibility.** The product is only compatible with 6-volt, 12-volt and 24-volt Lead-Acid, AGM, and 6-volt, 12-volt and 24-volt Lithium batteries. Do not attempt to use product with any other type of battery. Charging other battery chemistries may result in injury, death or property damage. Contact the battery manufacturer prior to attempting to charge the battery. Do not charge a battery if you are unsure of the battery's specific chemistry or voltage. **Medical Devices.** Product may emit electromagnetic fields. Product contains magnetic components that may emit electromagnetic fields, which may interfere with pacemakers, defibrillators, or other medical devices. Consult with your physician prior to use if you have any medical device including pacemakers. If you suspect the product is interfering with a medical device, stop using the product immediately and consult your physician. **Cleaning.** Power off the product before attempting any maintenance or cleaning. Clean and dry product immediately if it comes in contact with liquid or any type of contaminant. Use a soft, lint-free (microfiber) cloth. Avoid getting moisture in openings. **Explosive Atmospheres.** Obey all signs and instructions. Do not operate product in any area with a potentially explosive atmosphere, including fueling areas or areas which contain chemicals or particles such as grain, dust or metal powders. **High-Consequence Activities.** This product is not intended for use where the failure of the product could lead to injury, death or severe environmental damage. **Radio Frequency Interference.** Product is designed, tested, and manufactured to comply with regulations governing radio frequency emissions. Such emissions from the product can negatively affect the operation of other electronic equipment, causing them to malfunction. **Model Number: GENIUSPRO25** This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

How To Use

Charging Modes.
The GENIUSPRO25 has seventeen (17) modes: Standby, 12V, 12V AGM, 12V LITHIUM, 6V, 6V AGM, 6V LITHIUM, 24V, 24V AGM, 24V LITHIUM, 6V REPAIR, 12V REPAIR, 24V REPAIR, 12V SUPPLY, 24V SUPPLY, 5A Mode and Force Mode. Some charge modes must be pressed and held for three (3) to five (5) seconds to enter the mode. These "Press and Hold" modes are advanced charging modes that require your full attention before selecting. 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 (Peak Voltage Measured At 25°C, Amperage Rating Is Bulk Amperage When Above 0°C)
Standby	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. Canbus is enabled in Standby mode. When in Standby, the orange Standby LED will illuminate.
	No Power
12V	For charging 12-volt lead-acid batteries only, like Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries. When selected, the 12V white LED will illuminate.
	14.5V I 25A I Up To 1000 AH Batteries
12V AGM	For charging 12-volt AGM batteries, which requires a higher than normal charging voltage. When selected, the 12V AGM white LED will illuminate.
	14.8V I 25A I Up To 1000 AH Batteries
12V LITHIUM	For charging 12-volt lithium iron phosphate (LiFePO4). When selected, the 12V Lithium blue LED will illuminate. For use on batteries with Battery Management Systems (BMS) only.
	14.6V I 25A I Up To 1000 AH Batteries
6V Press & Hold (3 Seconds)	For charging 6-volt lead-acid batteries only, like Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries. When selected, the 6V white LED will illuminate.
	7.25V I 25A I Up To 1000 AH Batteries
6V AGM Press & Hold (3 Seconds)	For charging 6-volt advanced AGM batteries, which requires a higher than normal charging voltage. When selected, a white LED will illuminate.
	7.4V I 25A I Up To 1000 AH Batteries
6V LITHIUM Press & Hold (3 Seconds)	For charging 6-volt lithium iron phosphate (LiFePO4). When selected, the 6V Lithium blue LED will illuminate. For use on batteries with Battery Management Systems (BMS) only.
	7.3V I 25A I Up To 1000 AH Batteries
24V Press & Hold (3 Seconds)	For charging 24-volt lead-acid batteries only, like Wet Cell, Gel Cell, Enhanced Flooded, Maintenance-Free and Calcium batteries. When selected, the 24V white LED will illuminate.
	29.0V I 12.5A I Up To 500 AH Batteries

24V AGM Press & Hold (3 Seconds)	For charging 24-volt AGM batteries, which requires a higher than normal charging voltage. When selected, the 24V AGM white LED will illuminate. **29.6V I 12.5A I Up To 500 AH Batteries**
24V LITHIUM Press & Hold (3 Seconds)	For charging 24-volt lithium iron phosphate (LiFePO4). When selected, the 24V Lithium blue LED will illuminate. For use on batteries with Battery Management Systems (BMS) only. **29.2V I 12.5A I Up To 500 AH Batteries**
Force Mode Press & Hold (5 Seconds)	For charging batteries with a voltage lower than 1V. Press and Hold for five (5) seconds to enter Force Mode. The selected charge mode will then operate under Force Mode for five (5) minutes before returning to standard charging in the selected mode. This mode is available at any time and can be used with the following modes only: 12V, 12V AGM, 12V LITHIUM, 6V, 6V AGM, 6V LITHIUM, 24V, 24V AGM, and 24V LITHIUM. **25A (6V, 12V) I 12.5A (24V)** [From Standby Press and Hold 5 Seconds while connected to battery, then toggle through modes]
12V SUPPLY	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 I 20A I Max 25A** [Press and Hold 3 Seconds while NOT connected to battery]
24V SUPPLY Press & Hold (3 Seconds)	Converts to a DC power supply for powering any 24V DC device, like a tire inflator, oil changer, or as a memory retainer when replacing a battery. When selected, a red LED will illuminate. **27.2V I 10A I Max 12.5A** [Press and Hold 3 Seconds while NOT connected to battery]
6V REPAIR Press & Hold (3 Seconds)	An advanced battery recovery mode for repairing and restoring, old, idle, damaged, stratified or sulfated batteries. When selected, a red LED will illuminate and flash. **Up To 8V I 3A I Up To 1000 AH Batteries** [From Standby Press and Hold 3 Seconds while connected to battery]
12V REPAIR Press & Hold (3 Seconds)	An advanced battery recovery mode for repairing and restoring, old, idle, damaged, stratified or sulfated batteries. When selected, a red LED will illuminate and flash. **Up To 16.5V I 3A I Up To 1000 AH Batteries** [From Standby Press and Hold 3 Seconds while connected to battery]
24V REPAIR Press & Hold (3 Seconds)	An advanced battery recovery mode for repairing and restoring, old, idle, damaged, stratified or sulfated batteries. When selected, a red LED will illuminate and flash. **Up To 32V I 1.5A I Up To 500 AH Batteries** [From Standby Press and Hold 3 Seconds while connected to battery]
5A MODE Press the 5A Mode Button	Reduced Charge Current mode will allow the unit to opperate at a lower charge current. This mode is available at any time and can be used with the following modes only: 12V, 12V AGM, 12V LITHIUM, 6V, 6V AGM, 6V LITHIUM, 24V, 24V AGM, and 24V LITHIUM. **5A I Up to 200 AH Batteries** [From Standby Press the 5A Mode Button while connected to battery]

Using Lithium Charge Modes.
Lithium charge modes are designed for 6-volt, 12-volt and 24-volt lithium iron phosphate (LiFePO4).

CAUTION. USE THIS MODE WITH EXTREME CARE. THIS MODE SHOULD ONLY BE USED WITH 6-VOLT, 12-VOLT AND 24-VOLT LITHIUM BATTERIES THAT HAVE A BUILT-IN BATTERY MANAGEMENT SYSTEM (BMS). 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 Supply Modes. [Press and Hold 3 Seconds While Not Connected To Battery]
Supply Mode converts the charger to a constant voltage DC power supply. It can be used to power 12VDC and devices, tire inflators, 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 (12V Supply) provides 13.6-volts up to 25A. Charger output voltage will drop if output load exceeds the 25A current limit.
27.2V Supply (24V Supply) provides 27.2-volts up to 12.5A. Charger output voltage will drop if output load exceeds the 12.5A current limit.

CAUTION. USE THIS MODE WITH EXTREME CARE. SUPPLY MODE DISABLES SAFETY FEATURES AND LIVE POWER IS PRESENT AT THE CONNECTORS. DO NOT TOUCH CONNECTIONS TOGETHER. RISK OF SPARKS, FIRE, EXPLOSION, PROPERTY DAMAGE, INJURY, AND DEATH.

Using Repair Modes. [From Standby Press and Hold 3 Seconds While Connected to the Battery]
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 Repair in attempt to reverse these problems. For optimal results, take the battery through a full charge cycle, bringing the battery to full charge, before using this mode. Repair Mode can take up to four (4) hours to complete the recovery process and will return to Standby when completed. Repeated repair cycles may be needed depending on size and condition of the battery, however battery temperature must be closely monitored.

CAUTION. USE THIS MODE WITH CARE. THIS MODE IS FOR 6-VOLT, 12-VOLT AND 24-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.

Force Mode. [Press & Hold for 5 seconds]

Force mode allows the charger to manually begin charging when the connected battery's voltage is too low to be detected. If battery voltage is too low for the charger to detect, press and hold the mode button for 5 seconds to activate Force Mode, then select the appropriate mode. All available modes will flash. Once a charge mode is selected, the Charge LEDs and the selected mode LED will alternate between each other, indicating Force Mode is active. After five (5) minutes the charger will return to the normal charge operation and low voltage detection will be reactivated.

CAUTION. USE THIS MODE WITH EXTREME CARE. FORCE MODE DISABLES SAFETY FEATURES AND LIVE POWER IS PRESENT AT THE CONNECTORS. ENSURE ALL CONNECTIONS ARE MADE PRIOR TO ENTERING FORCE MODE, AND DO NOT TOUCH CONNECTIONS TOGETHER. RISK OF SPARKS, FIRE, EXPLOSION, PROPERTY DAMAGE, INJURY, AND DEATH.

Using "Reduced Charge Current Mode". [Press the 5A Mode Button]

Reduced Charge Current mode will allow the unit to operate at a charge current of 5A. This mode is available at any time and can be used with the following modes only: 12V AGM, 12V LITHIUM, 6V, 6V AGM, 6V LITHIUM, 24V, 24V AGM, 24V LITHIUM and Force mode.

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.

FOLLOW THESE STEPS WHEN BATTERY IS INSTALLED IN VEHICLE. WARNING: A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:

1.) Position AC and DC cords to reduce risk of damage by hood, door, or moving engine part.

2.) Stay clear of fan blades, belts, pulleys, and other parts that can cause injury to persons.

3.) Check polarity of battery terminals. The POSITIVE (POS, P, +) battery terminal usually has a larger diameter than the NEGATIVE (NEG, N, -) battery terminal.

4.) Determine which battery terminal is grounded (connected) to the chassis. If negative battery terminal is grounded to chassis (as in most vehicles), see Step 5. If positive battery terminal is grounded to the chassis, see Step 6.

5.) For negative-grounded vehicle only, connect POSITIVE (RED) battery clamp or eyelet terminal connector from battery charger to POSITIVE (POS, P. +) ungrounded battery terminal. Connect NEGATIVE (BLACK) battery clamp or eyelet terminal connector to vehicle chassis or engine block away from battery. Connect to a heavy gauge metal part of the frame or engine block.

6.) For positive-grounded vehicle only, connect NEGATIVE (BLACK) battery clamp or eyelet terminal connector from battery charger to NEGATIVE (NEG, N, -) ungrounded battery terminal. Connect POSITIVE (RED) battery clamp or eyelet terminal connector to vehicle chassis or engine block away from battery. Connect to a

heavy gauge metal part of the frame or engine block.

7.) Connect the battery charger into a suitable electrical outlet. Do not face the battery when making this connection.

8.) When disconnecting the battery charger, disconnect in the reverse sequence, removing the negative first (or positive first for positive ground systems).

FOLLOW THESE STEPS WHEN BATTERY IS OUTSIDE VEHICLE. WARNING: A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:

1.) Check polarity of battery terminals. The POSITIVE (POS, P, +) battery terminal usually has a larger diameter than the NEGATIVE (NEG, N, -) battery terminal.

2.) Attach at least a 24-inch-long 6-gauge (AWG) insulated battery cable to NEGATIVE (NEG, N, -) battery terminal.

3.) Connect POSITIVE (RED) battery clamp or eyelet terminal connector from battery charger to POSITIVE (POS, P. +) battery terminal.

4.) Position yourself and free end of cable as far away from battery as possible - then connect NEGATIVE (BLACK) battery clamp or eyelet terminal connector to free end of cable.

5.) Connect the battery charger into a suitable electrical outlet. Do not face the battery when making this connection.

6.) When disconnecting charger, always do so in reverse sequence of connecting procedure and break first connection while as far away from battery as practical.

7.) A marine (boat) battery must be removed and charged on shore. To charge it on board requires equipment specially designed for marine use.

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.) [First time use] 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.

Auto-Memory: The charger has built in auto-memory and will return to the last charge mode when connected. To change modes after the first use, press the mode button.

Understanding Charge LEDs.

LED	Explanation
25% Red LED 	The 25% Charge LED will slowly pulse “on” and “off” when the battery is less than 25% charged. When the battery is 25% charged, the 25% LED will go solid and the next LED will begin to pulse.
50% Red LED 	The 50% Charge LED will slowly pulse “on” and “off” when the battery is 25% - 50% charged. When the battery is 50% charged, the 50% LED will go solid and the next LED will begin to pulse.
75% Orange LED 	The 75% Charge LED will slowly pulse “on” and “off” when the battery is 50% - 75% charged. When the battery is 75% charged, the 75% LED will go solid and the next LED will begin to pulse.
100% Green LED 	The 100% Charge LED will slowly pulse “on” and “off”, when the battery is less than 100% fully charged.
Charge Complete 	When the battery is fully charged, the Green LED will be solid, and the 25%, 50% and 75% Charge LEDs will turn “off”.
Optimization Bar LED 	During Optimization, the Optimization Bar LED will chase slowly. Once the battery is fully optimized the Optimization Bar LED will turn off. The charger can be left connected to the battery indefinitely.

Understanding Error LEDs.
Error Conditions will be indicated by the following LEDs.

LED		Reason/Solution
	Solid	Charger is in Standby mode or Battery voltage is too low for charger to detect.
	Solid	Battery voltage is too high for the selected charge mode. Check the battery and charge mode.
	Solid	Possible battery short / Battery will not hold a charge. Have battery checked by a professional.
	Solid	Reverse polarity. Reverse the battery connections.
	Solid	Charger internal temperature too high / Charger will resume function once the Charger internal temperature drops.
	Flashing	Charger ambient temperature too cold / Charger will resume function once the Charger ambient temperature rises.

Charging Times.

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. Temperature will also impact charging times. The GENIUSPRO25 Series features thermal compensation that automatically adjusts charging profiles to maximize charging performance.

Battery Size Ah (Amp hour)	**Approximate Time to Charge In Hours** 6V	12V	24V
25	0.75	0.75	1.5
50	1.5	1.5	3
100	3	3	6
200	6	6	12
500	15	15	30
1000	30	30	-