NOCO genius®

wicked smart chargers™

G7200

7.2A (7200mA)

12V & 24V

Owner's Manual & User Guide

⚠ WARNING

Risk of SERIOUS INJURY OR DEATH.

ELECTRICAL SHOCK, EXPLOSION, FIRE, AND EYE INJURY HAZARDS.

PROTECT YOURSELF AND OTHERS.

Before use, **READ AND UNDERSTAND** the manufacturer's instructions and Owner's Manual and User Guide.

Failure to read and understand this information could result in SERIOUS INJURY or DEATH.

DO NOT REMOVE OR COVER THIS INFORMATION.

WELCOME!

Thank you for buying the **NOCO Genius G7200. SAVE THESE INSTRUCTIONS.** This Owner's Manual and User Guide contains important safety and operating instructions for model G7200.

WHAT'S IN THE BOX:

- **G7200 Charger**
- **Battery Clamp Connectors**
- **Eyelet Terminal Connectors**
- **Quick Start Guide**

CONTACTING NOCO GENIUS

About Our Products

For questions regarding our products, you can contact technical support at:

Phone: 1.800.456.6626
Email: support@geniuschargers.com

You can also find troubleshooting tips in this manual. See the section called "Troubleshooting." You can also find our troubleshooting tips online at: **geniuschargers.com/support/faq**

About Our Products

NOCO Genius is a brand of Wicked Smart Battery Chargers developed by The NOCO Company.

THE NOCO COMPANY
30339 Diamond Parkway, #102
Glenwillow, OH 44139
United States of America

Hours of Operation:
Between 8AM & 5PM (EST)
Monday through Friday

NOCO genius
wicked smart chargers™

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geniuschargers.com

IMPORTANT SAFETY INSTRUCTIONS

⚠ DANGER

ELECTRICAL SHOCK HAZARD

CHARGER IS AN ELECTRICAL DEVICE THAT CAN SHOCK AND CAUSE SERIOUS INJURY.

DO NOT CUT POWER CORDS.

DO NOT SUBMERGE IN WATER OR GET CHARGER WET.

EXPLOSION HAZARD

UNMONITORED, INCOMPATIBLE, OR DAMAGED BATTERIES CAN EXPLODE IF USED WITH CHARGER.

DO NOT LEAVE CHARGER UNATTENDED WHILE IN USE.

DO NOT ATTEMPT TO CHARGE DAMAGED OR FROZEN BATTERIES.

USE CHARGER ONLY WITH BATTERIES OF RECOMMENDED VOLTAGE.

OPERATE CHARGER ONLY IN WELL-VENTILATED AREAS.

⚠ WARNING

FIRE HAZARD

CHARGER IS AN ELECTRICAL DEVICE THAT EMITS HEAT AND CAN BURN.

DO NOT COVER CHARGER.

DO NOT SMOKE OR USE ANY OTHER SOURCE OF ELECTRICAL SPARK OR FIRE WHEN OPERATING CHARGER.

KEEP CHARGER AWAY FROM COMBUSTIBLE MATERIALS.

BATTERY POSTS, TERMINALS, AND RELATED ACCESSORIES CONTAIN CHEMICALS, INCLUDING LEAD, KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

ALWAYS WASH YOUR HANDS AFTER HANDLING THESE PRODUCTS.

⚠ WARNING

EYE INJURY HAZARD

BATTERIES CAN EXPLODE AND CAUSE FLYING DEBRIS.

BATTERY ACID CAN CAUSE EYE IRRITATION.

WEAR EYE PROTECTION WHEN OPERATING CHARGER.

AVOID CONTACT WITH EYES AND WASH HANDS AFTER USING CHARGER.

IN CASE OF EYE CONTACT, FLUSH AFFECTED AREA WITH PLENTY OF WATER.

⚠ WARNING

RISK OF EXPLOSIVE GASES

WORKING IN VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF UTMOST IMPORTANCE THAT YOU FOLLOW THE INSTRUCTIONS EACH TIME YOU USE THE CHARGER.

To reduce risk of battery explosion, follow these instructions and those published by battery manufacturer and manufacturer of any equipment intended to be used in vicinity of battery. Review cautionary marking on these products and on engine.

⚠ CAUTION

Do not expose charger to rain or snow.

Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.

To reduce risk of damage to electric plug and cord, pull by plug rather than cord when disconnecting charger.

Do not operate charger with damaged cord or plug – replace the cord or plug immediately.

Do not operate charger if it has received a sharp blow, been dropped, or otherwise damaged in any way; take it to a qualified serviceman.

Do not disassemble charger; take it to a qualified serviceman when service or repair is required. Incorrect reassembly may result in a risk of electric shock or fire.

To reduce risk of electric shock, unplug charger from outlet before attempting any maintenance or cleaning. Turning off controls will not reduce this risk.

DO NOT USE EXTENSION CORDS unless absolutely necessary. Using an improper extension cord could result in a risk of fire and electric shock and may result in property damage, personal injury or death. If extension cord must be used, make sure that:

1.) The pins on the extension cord plug have the same number, size, and shape as those of the AC power cord plug on the charger.
2.) The extension cord is properly wired and is in good electrical condition.
3.) The wire size is as specified in Table I below:

TABLE 1: RECOMMENDED MINIMUM AWG SIZE FOR EXTENSION CORDS FOR BATTERY CHARGERS

AC INPUT RATING, AMPERES*		AWG SIZE OF CORD			
		Length Of Cord, Feet (m)			
Equal To Or Greater Than	But Less Than	25 (7.6)	50 (15.2)	100 (30.5)	150 (45.6)
0	2	18	18	18	16
2	3	18	18	16	14
3	4	18	18	16	14
4	5	18	18	14	12
5	6	18	16	14	12
6	8	18	16	12	10
8	10	18	14	12	10
10	12	16	14	10	8
12	14	16	12	10	8
14	16	16	12	10	8
16	18	14	12	8	8
18	20	14	12	8	6

*If the input rating of a charger is given in watts rather than amperes, the corresponding ampere rating is to be determined by dividing the wattage rating by the voltage rating - for example:

1250 watts/125 volts = 10 amperes

PERSONAL PRECAUTIONS

USE THE FOLLOWING PRECAUTIONS WHEN YOU WORK NEAR LEAD-ACID BATTERIES:

• Someone should be within range of your voice or close enough to come to your aid if you have an accident.
• Have plenty of fresh water and soap nearby in case battery acid contacts skin, clothing, or eyes.
• Wear complete eye protection and protective clothing. Avoid touching your eyes while working near a battery. If battery acid contacts your skin or clothing, wash immediately with soap and water. If acid enters an eye, immediately flood the eye with running cold water for at least ten (10) minutes and seek medical attention as soon as possible.
• Be extra cautious when handling metal tools around a battery. If you drop a metal tool near a battery, it might spark or create a short circuit between the battery terminals and some other metal part. Either event may cause a dangerous electrical shock hazard, a fire, or even an explosion, resulting in property damage, personal injury, or death.
• Never smoke or allow an open spark or flame in the vicinity of the battery or engine.
• Remove all personal items made of metal, such as, rings, bracelets, necklaces, and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuited current high enough to weld a metal ring or other piece of jewelry, causing a severe burn.
• This battery charger is for charging LEAD-ACID BATTERIES ONLY. DO NOT USE THE BATTERY CHARGER FOR DRY-CELL BATTERIES THAT ARE COMMONLY USED WITH HOME APPLIANCES. THESE TYPES OF BATTERIES MAY BURST AND MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.
•NEVER charge a frozen battery.

BEFORE CHARGING

• To avoid an electric arc (or spark), turn off or disconnect all of the accessories in the vehicle. Always remove the cable that is connected to grounded terminal from battery first.
• Make sure the area around the battery is well-ventilated while the battery is being charged. If necessary, use a non-metallic material to blow away the gas

in the area.
• If necessary, clean the battery terminals. Be careful to keep the corrosion and other debris from coming in contact with your skin or eyes.
• If the battery is not a sealed battery, add distilled water to each cell (if necessary) until the battery acid solution reaches the level specified by battery manufacturer. Do not overfill. For a battery without cell caps, such as a valve regulated lead-acid battery (VRLA), carefully follow the battery manufacturer's charging instructions.
• Before charging, carefully read the battery manufacturer's specific precautions and recommended rates of charge.
• Determine the voltage of the battery by referring to the vehicle's owner's manual and make sure that the charge mode is set at the correct voltage.
• Connect and disconnect the DC output cables only after the battery charger is placed in the STANDBY mode and the AC cord is removed from the electrical outlet. Never allow the battery clamp or eyelet terminal connectors to touch each other.

LOCATING BATTERY CHARGER

• Locate the battery charger as far away from the battery as possible.
• Never place the battery charger directly above the battery; gases from battery will corrode and damage battery charger.
• When reading electrolyte specific gravity or filing battery, never allow battery acid to come in contact with the battery charger.
• Do not operate the battery charger in a closed-in area or an area with restricted ventilation.
• Do not set a battery on top of battery charger.

MOUNTING BATTERY CHARGER

The G7200 has four (4) external mounting holes in the casing of the battery charger enclosure. These external mounting holes can be used to mount the battery charger permanently in a desired location for battery charging. When mounting the battery charger to a fixed location, keep in mind the distance to the battery from the battery charger. The cable length from the battery charger with either the battery clamp or eyelet terminal connectors is approximately 72" (6'). Allow for at least 12" (1') of slack in the battery connections. Thus, we recommend not to extend the battery connections past 60" (5').

BATTERY SPECS

The following recommendations should ONLY be considered as guidelines. Always refer to the battery manufacturer's recommendations for battery charging. The G7200 is suitable for charging all types of 12V & 24V lead-acid batteries, including Wet (Flooded), Gel, MF (Maintenance-Free) and AGM (Absorption Glass Mat) batteries. The G7200 can be used on battery sizes from 14 to 230Ah (12V) and 14-120Ah (24V). The battery charger can also maintain all sizes of 12V & 24V batteries.

CHARGE MODES

The G7200 is equipped with six (6) charging modes, 12V NORM, 12V COLD/AGM, 24V NORM, 24V COLD/AGM, 13.6V SUPPLY and 16V BOOST. Before selecting a charge mode, it is important to understand the differences and the purpose of each mode. The charge modes are explained below:

MODE	EXPLANATION
12V NORM 14.4V 14-230Ah 7.2A (7200mA) Red LED	The "normal" ("NORM") charge mode is for charging 12V Wet Cell, Maintenance-Free and Gel Cell batteries. If you are unsure of the chemistry of your battery, use the NORM charge mode. When selected, a Red LED will illuminate.
12V COLD/AGM 14.7V 14-230Ah 7.2A (7200mA) Blue LED	The COLD/AGM charge mode is for charging 12V batteries in cold weather and AGM (also known as "spiral wound") batteries. If a battery's (Wet, Gel, MF or AGM) temperature is below 32°F (0°C), use the COLD/AGM charge mode. If you are unsure of the chemistry of your battery, DO NOT use this charge mode, and use the NORM charge mode instead. When selected, a Blue LED will illuminate.

CHARGE MODES continued

MODE	EXPLANATION
24V NORM 28.8V 14-120Ah 3.6A (3600mA) Red LED	The "normal" ("NORM") charge mode is for charging 24V Wet Cell, Maintenance-Free and Gel Cell batteries. If you are unsure of the chemistry of your battery, use the NORM charge mode. When selected, a Red LED will illuminate.
24V COLD/AGM 29.4V 14-120Ah 3.6A (3600mA) Blue LED	The COLD/AGM charge mode is for charging 24V batteries in cold weather and AGM (also known as "spiral wound") batteries. If a battery's (Wet, Gel, MF or AGM) temperature is below 32°F (0°C), use the COLD/AGM charge mode. If you are unsure of the chemistry of your battery, DO NOT use this charge mode, and use the NORM charge mode instead. When selected, a Blue LED will illuminate.

The 13.6V SUPPLY and 16V BOOST charge modes are highly specialized charging modes, as indicated by the gray box on the user interface. These charge modes should be used with CAUTION. It is extremely important you read and understand these charge modes before operating. **The 13.6V SUPPLY and 16V BOOST are for 12V LEAD-ACID BATTERIES ONLY.** The 13.6V SUPPLY and 16V BOOST charge modes are explained on the next page.

Continued On Next Page

WICKED SMART TIP

Amp Hour (Ah) is a rating that measures a battery's storage capacity. The Ah rating indicates how much amperage is available in the battery over a twenty (20) hour period. In order to determine how many constant Amps the battery can output for 20 hours, divide the Ah rating by 20. For example, if you have a 100Ah battery, it can deliver 5 Amps for 20 hours before it is fully discharged (100 / 20 = 5).

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CHARGE MODES continued

MODE	EXPLANATION
13.6V SUPPLY 13.6V 14-230Ah 5A (5000mA) Red LED	The 13.6V SUPPLY mode is used for low voltage batteries, maintenance charging or as a power supply. The 13.6V SUPPLY provides a constant voltage of 13.6V at 5A (5000mA). For low voltage batteries, the 13.6V SUPPLY mode will increase the battery voltage (regardless of the starting voltage) to a point where the battery charger can perform a normal charge cycle. For help with low voltage batteries, see the section entitled “Troubleshooting.” For maintenance charging, the 13.6V SUPPLY mode will provide a “float” charge for larger capacity batteries. As a power supply (hence, SUPPLY), the 13.6V SUPPLY mode can be used to power equipment that requires 13.6V at 5A (5000mA). This mode has an overload protection feature at 6A (6000mA) max. The 13.6V SUPPLY mode can also be used as a Power Supply to act as a battery when changing or replacing a battery. When selected, a Red LED will illuminate. **FOR USE WITH 12V BATTERIES ONLY.**
16V BOOST 16.5V 14-230Ah 1.5A (1500mA) Red LED	The 16V BOOST mode is used to recover battery capacity from a stratified (sulfated) battery by applying a specialized high 16.5V (17V Max) voltage to soften and melt down sulfate from the battery plates so that the material becomes usable again. When selected, a Red LED will illuminate. **FOR USE WITH 12V BATTERIES ONLY.**

CONNECTING TO THE BATTERY

Before you connect to the battery, make sure that the AC power plug is not connected to an electrical outlet. DO NOT CONNECT THE BATTERY CHARGER AC POWER PLUG TO THE ELECTRICAL OUTLET UNTIL ALL OTHER CONNECTIONS ARE MADE. Make sure you have identified 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,-). If you are having difficulty determining the polarity of the battery terminals, see the Wicked Smart Tip below before proceeding.

IF THE BATTERY IS OUTSIDE OF THE VEHICLE

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. If you have accidentally reversed the polarity, an ERROR LED (Orange) will illuminate. The battery charger has an internal safety feature to protect the battery charger from damage if this situation should occur. Reverse the connections to clear the ERROR LED and proceed to the next step.
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.

WICKED SMART TIP

HOW TO IDENTIFY THE POSITIVE AND NEGATIVE BATTERY TERMINALS. The Reverse Polarity Protection feature on the G7200 is enabled even when the AC power plug is not connected. MAKE SURE THE AC POWER PLUG IS NOT CONNECTED TO AN ELECTRICAL OUTLET. Connect the battery clamp or eyelet terminal connectors to the battery terminals. If an ERROR LED (Orange) illuminates, the battery connections are reversed (positive to negative, and vice versa). If the ERROR LED (Orange) DOES NOT illuminate, the battery connections were made correctly. In either case, you will be able to identify the polarity of the battery terminals. Make sure to make a note of it.

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IF THE BATTERY IS INSTALLED INSIDE OF THE VEHICLE

1.) Position both the AC power plug and battery clamps or eyelet terminal connectors to avoid accidental damage by moving vehicle parts (i.e. hoods, doors) or moving engine parts (i.e. fan blades, belts, pulleys).
2.) Determine the vehicle's battery system. If the POSITIVE (POS,P,+) battery terminal is connected to the vehicle chassis, then the vehicle has a Positive Ground System. If the NEGATIVE (NEG,N,-) battery terminal is connected to the vehicle chassis, then the vehicle has a Negative Ground System. Negative Ground Systems are the most common.
3: Option A) For **Negative Ground Systems**, connect the POSITIVE (Red) battery clamp or eyelet terminal connector to the POSITIVE (POS,P,+) battery terminal. Next, connect the NEGATIVE (Black) battery clamp or eyelet terminal connector to the vehicle chassis. DO NOT CONNECT TO THE CARBURETOR, FUEL LINES, OR THIN SHEET METAL PARTS. MAKE THE CONNECTION TO THE ENGINE BLOCK OR A HEAVY GAUGE METAL PART OF THE FRAME.
3: Option B) For **Positive Ground Systems**, connect the NEGATIVE (Black) battery clamp or eyelet terminal connector to the NEGATIVE (NEG,N,-) battery terminal. Next, connect the POSITIVE (Red) battery clamp or eyelet terminal connector to the vehicle chassis. DO NOT CONNECT TO THE CARBURETOR, FUEL LINES, OR THIN SHEET METAL PARTS. MAKE THE CONNECTION TO THE ENGINE BLOCK OR A HEAVY GAUGE METAL PART OF THE FRAME.
4.) Connect the battery charger's AC power plug into a suitable electrical outlet. DO NOT FACE THE BATTERY WHEN MAKING THIS CONNECTION.
5.) When disconnecting the battery charger, disconnect in the reverse sequence.

WICKED SMART TIP

Positive Ground Systems are not very common nowadays. They are typically found on vintage cars (i.e. classic cars) and tractors manufactured before the early 1970's. The reason for the conversion to Negative Ground Systems was primarily due to the battery corrosion that accumulated on the positive battery terminals. It was believed that Positive Ground Systems suffered from increased battery corrosion due to the opposite polarity since anodes have an oxidation reaction and cathodes have a reduction reaction. In a battery, the cathode is the positive.

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HOW TO START CHARGING

1.) Confirm that you have connected the battery clamp or eyelet terminal connectors properly and the AC power plug is plugged into an electrical outlet.
2.) The battery charger will begin in the STANDBY mode, indicated by a Green LED. In the STANDBY mode, the battery charger is not outputting any current. By pressing the MODE button, toggle to the appropriate charge mode, based on the size and chemistry of your battery, to begin the charging process.
The 13.6V SUPPLY and 16V BOOST modes require a special selection to enter into these charge modes. See "USING 13.6V SUPPLY MODE" and "USING 16V BOOST MODE."
3.) Depending on the charge mode selected, an LED will illuminate the selected charge mode and the CHARGE LEDs (25%, 50%, 75%, 100%) will begin to illuminate (depending on the health of the battery), indicating the charging process has started.
4.) When the battery is fully charged, all the CHARGE LEDs will be a solid color (Red, Red, Yellow, Green), indicating the charge process is completed.
5.) The battery charger can be left connected to the battery at all times to provide maintenance charging. However, it is good practice to check the battery periodically.

WICKED SMART FEATURE

INITIALIZATION. When the battery charger is plugged into an AC electrical outlet and connected to a battery, there will be a brief (one to three seconds) delay, then all LEDs will light up for a half (1/2) second, to confirm all LEDs are operational. After the initialization, the only LED that will illuminate is the last mode selected. If not in STANDBY mode, the battery charger will begin charging after five (5) seconds. The five (5) second delay allows time to toggle through the charge modes.

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USING 13.6V SUPPLY MODE

The 13.6V SUPPLY mode is used for low voltage batteries, maintenance charging or as a power supply for 12V batteries (14-230Ah).

In order to operate the 13.6V SUPPLY mode, the battery charger **MUST NOT** be connected to the battery.

CAUTION. USE THIS MODE WITH CARE. BOTH THE SPARK PROOF AND REVERSE POLARITY SAFETY FEATURES ARE DISABLED. PAY CLOSE ATTENTION TO THE POLARITY. DO NOT ALLOW THE POSITIVE AND NEGATIVE BATTERY CLAMP OR EYELET TERMINAL CONNECTORS TO TOUCH OR CONNECT TO EACH OTHER AS THE BATTERY CHARGER COULD GENERATE SPARKS. CHECK THE POLARITY OF THE BATTERY TERMINALS BEFORE USING THIS MODE.

To operate the 13.6V SUPPLY mode, follow these steps:

1.) Confirm that the AC power plug is plugged into an electrical outlet, the battery charger is NOT CONNECTED TO THE BATTERY and you have a 12V battery. **THIS MODE IS FOR 12V BATTERIES ONLY.**

2.) Check the polarity of the battery terminals. Make sure you understand which battery terminal is POSITIVE and which one is NEGATIVE.

3.) Without a battery attached, PRESS and HOLD the MODE button for three (3) seconds until the Red LED illuminates, indicating the 13.6V SUPPLY mode is initiated.

4.) PAYING CLOSE ATTENTION TO THE POLARITY (POSITIVE TO POSITIVE, NEGATIVE TO NEGATIVE) attach the battery clamps or eyelet terminal connectors to the battery, starting with the POSITIVE cable first (NEGATIVE first, if a Positive Ground System).

5.) When finished, PRESS the MODE button one (1) time to exit the 13.6V SUPPLY mode and return the battery charger to STANDBY mode.

WICKED SMART TIP

After using this mode for low voltage batteries, if the battery voltage is still below 7.0VDC, repeat the steps above and try leaving the battery charger in 13.6V SUPPLY for a longer period of time. If after twenty-four (24) hours the battery voltage is still below 7.0VDC, you may have a battery in poor condition.

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USING 16V BOOST MODE

The 16V BOOST mode is used to recover battery capacity from a stratified (sulfated) 12V battery (14-230Ah).

In order to operate the 16V BOOST mode, the battery charger **MUST** be connected to the battery.

CAUTION. USE THIS MODE WITH CARE. THIS MODE USES A HIGH 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. FOR OPTIMAL RESULTS, TAKE THE BATTERY THROUGH A FULL CHARGE CYCLE, BRINGING THE BATTERY TO FULL CHARGE, BEFORE USING THIS MODE. TO MINIMIZE RISKS TO ELECTRONICS, DISCONNECT THE BATTERY BEFORE USING THIS MODE.

To operate the 16V BOOST mode, follow these steps:

1.) Confirm you have a 12V battery. **THIS MODE IS FOR 12V BATTERIES ONLY.**

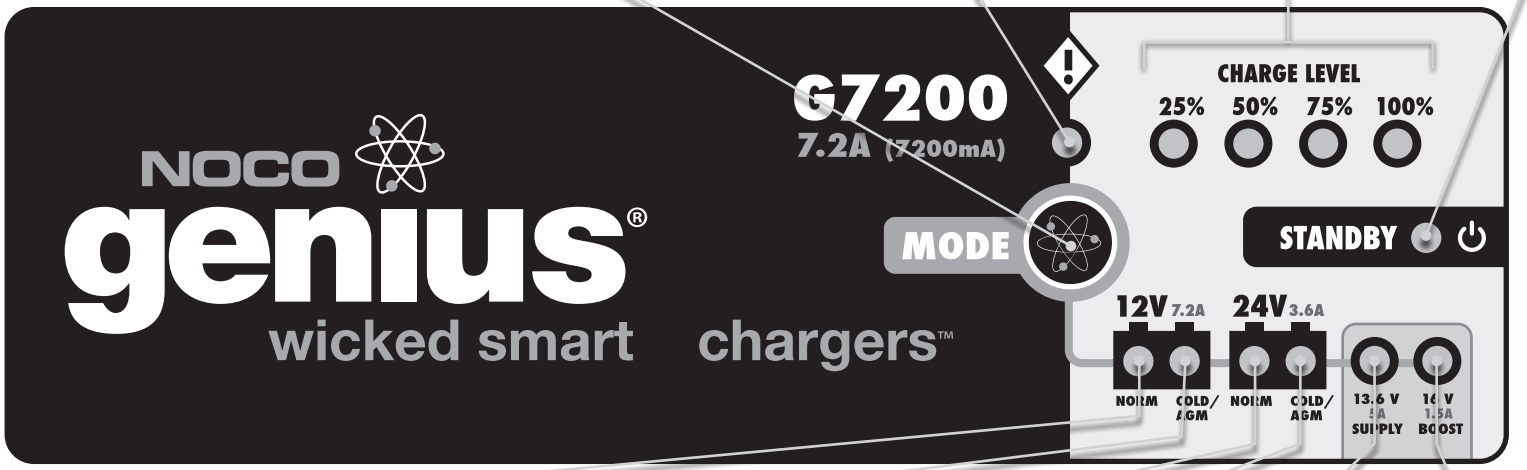
2.) Attach the battery clamps or eyelet terminal connectors to the battery, starting with the POSITIVE cable first (NEGATIVE first, if a Positive Ground System). If you have accidentally reversed the polarity, an ERROR LED (Orange) will illuminate. The battery charger has an internal safety feature to protect the battery charger from damage if this situation should occur. Reverse the connections to clear the ERROR LED and proceed to the next step.

3.) Connect the battery charger's AC power plug into a suitable electrical outlet. DO NOT FACE THE BATTERY WHEN MAKING THIS CONNECTION.

4.) With a battery attached, PRESS and HOLD the MODE button for three (3) seconds until the Red LED illuminates, indicating the 16V BOOST mode is selected. After five (5) seconds, the Red LED will begin blinking indicating the 16V BOOST mode has been initiated.

5.) When finished, PRESS the MODE button one (1) time to exit the 16V BOOST mode and return the battery charger to STANDBY mode.

USER INTERFACE



MODE BUTTON
The MODE button is used to select the charging modes manually.

ERROR LED
The ERROR LED (Orange) will illuminate when an error condition or reverse polarity is present.

CHARGE LEVEL
Indicates the current charge level of the battery.

The STANDBY LED (Green) illuminates when a charging mode has not been selected.

12V NORM LED
Charge mode for 12V Wet, Gel and MF batteries.
(14-230Ah)

12V COLD/AGM LED
Charge mode for 12V batteries below 32°F (0°C) and AGM batteries.
(14-230Ah)

24V NORM LED
Charge mode for 24V Wet, Gel and MF batteries.
(14-120Ah)

24V COLD/AGM LED
Charge mode for 24V batteries below 32°F (0°C) and AGM batteries.
(14-120Ah)

13.6V SUPPLY LED
A 12V charge mode for maintenance charging or low voltage batteries.
(14-230Ah)

16V BOOST LED
A 12V charge mode for recovering battery capacity from sulfated batteries.
(14-230Ah)

WICKED SMART FEATURE

ERROR CONDITION. An ERROR condition could happen for multiple reasons. If an ERROR condition occurs, the ERROR LED and CHARGE LEDs (25%, 50%, 75%, 100%) will blink “on” and “off” at 5Hz. For assistance in resolving ERRORs, see the section entitled, “TROUBLESHOOTING.”

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WICKED SMART FEATURE

EXTENSION CABLE ACCESSORY. If you have a preferred location, but the length of the battery connectors is too short, you can use an Extension Cable to increase the length. A 10’ Extension Cable is available from NOCO Genius, Model Number GC004. Using an Extension Cable may increase the battery charge times.

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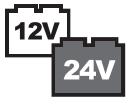
FEATURE OVERVIEW



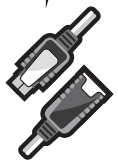
12V/24V COMPATIBILITY
Charges 12V & 24V batteries

AUTO-MEMORY
Returns to last selected mode when restarted

FULLY INTERACTIVE
Automatically adjusts itself to changing current needs

DESIGNED FOR SAFETY
Reverse polarity, short circuit, open circuit, spark proof, overheat, overcurrent & overcharge

HF/HE SWITCH MODE DESIGN
High-frequency, high-efficiency for a lightweight, compact charger



EXTENDABLE CONNECTORS
Plug-n-play connectors for easy accessory changes

RAPID CHARGING TECHNOLOGY
Charges batteries 2X faster than traditional linear battery chargers

VARIABLE INPUT COMPENSATED
100% full charge even with varying A/C input voltages

MULTIPLE BATTERY CHEMISTRY
Safely charges Wet, Gel, MF & AGM batteries

RECOVERY MODE
Recovers deeply discharged & sulfated batteries with pulse charging

ABNORMALITY PROTECTION
Automatically shuts “off” if charger remains in Bulk charge mode for an extended period of time

COLD/AGM MODE
Optimized charge mode for cold weather or AGM batteries

13.6V SUPPLY MODE
Revive low voltage batteries & can act as a power supply

16V BOOST MODE
Helps recover deeply discharged or sulfated batteries

WICKED SMART FEATURE

The VosFX Processor is a revolutionary smart processor utilizing sophisticated levels of intelligence to alter the charge process based on organic feedback from the battery to extend battery life. The VosFX Processor quickly and efficiently makes decisions on how to charge the battery without risking user safety or damage to the battery.

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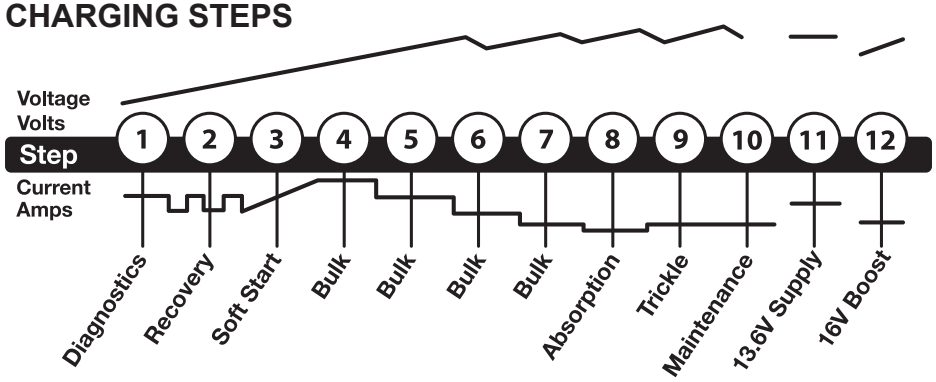
CHARGING STEPS



Step 1: Diagnostics
Checks the battery voltage to make sure battery connections are good and the battery is in a stable condition before beginning the charge process.

Step 2: Recovery
Initializes the Recovery process, if needed, for deeply discharged or sulfated (desulfation) batteries by pulsing small amounts of current.

Step 3: Soft Start
Begins Bulk charging process with a gentle (soft) charge.

Step 4-7: Bulk
The Bulk charging process continues using Max Rate, High Rate, Medium Rate and Low Rate charges and returns 80% of battery capacity, indicated by the 25%, 50% and 75% CHARGE LEDs.

Step 8: Absorption
Brings the charge level to 90%. The battery charger will deliver small amounts of current to provide a safe, efficient charge and limit battery gassing.

Step 9: Trickle
Battery is fully charged and ready to use, indicated by the 100% CHARGE LED being a solid Green. In this step, the battery charger will only deliver enough current to keep the battery full. If the battery tells the charger that more current is needed, the battery charger will switch to Maintenance.

Step 10: Maintenance
Continuously monitors the battery voltage to determine if a Maintenance charge should be initiated. If the terminal voltage falls below 12.8V (12V) and 25.6V (24V), the charger will start the Maintenance cycle until voltage reaches 14.4V (12V) and 28.8V (24V) and then discontinues the charge cycle. The cycle between Trickle and Maintenance is repeated indefinitely to keep the battery at full charge, without overcharging. The battery charger can be left connected
indefinitely.

Step 11: 13.6V Supply
The 13.6V SUPPLY mode is used for low voltage batteries, maintenance charging or as a power supply.

Step 12: 16V Boost
The 16V BOOST mode is used to recover battery capacity from a stratified (sulfated) battery by applying a specialized high 16.5V (17V Max) voltage to soften and melt down sulfate from the battery plates so that the material becomes usable again.

WICKED SMART FEATURE
RECOVERY MODE. The Recovery Mode is a specialized charging step designed to rescue sulfated batteries by switching to a pulse cycle, if needed, to help regain battery capacity. The Recovery Mode is not always used. The Recovery Mode will only be initiated if the battery charger detects it can improve the battery's performance.
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WICKED SMART FEATURE
AUTO-MEMORY. If at any time the battery charger is disconnected from its power source, either from a power loss or accidentally disconnecting the AC power plug from the electrical outlet, the battery charger will remember the previously selected charge mode when power is restored. The battery charger will automatically resume the charging process to ensure your battery is fully charged.
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WICKED SMART FEATURE

ABNORMALITY PROTECTION. If the battery charger is in the Bulk mode for more than 41 hours, the battery charger will go into an ERROR condition. This feature prevents damage if the battery is faulty.

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CHARGING TIMES

The time required for the G7200 to charge a normally discharged battery is shown below. Deeply discharged batteries may take longer to charge depending on the depth of discharge (DOD). The charge time is based on an average depth of discharge to a fully charged battery.

BATTERY SIZE (Ah)	APPROX. TIME TO CHARGE IN HOURS* 12V	24V
14	1.5	3.5
25	3.0	6.0
30	4.0	7.5
40	5.0	10.0
50	6.0	12.5
60	7.5	15.5
100	12.5	25.0
120	15.5	30.00
180	22.0	-
230	29.0	-

*Note: The above table is for reference purposes only. Actual data may differ due to battery conditions. The time required for the G7200 to charge a normally discharged battery is based on an average DOD of 50%.

MAINTENANCE

The G7200 does not require any maintenance. Do not attempt to open or repair the battery charger as it will invalidate the limited warranty. A damp cloth may be used to clean dust, dirt, or other debris off of the battery charger. BEFORE ATTEMPTING TO CLEAN THE BATTERY CHARGER, MAKE SURE YOU REMOVE THE AC POWER PLUG FROM THE POWER SOURCE.

Input Voltage AC	110-120 VAC, 50-60Hz
Working Voltage AC	85-130 VAC, 50-60Hz
Input Current	2000mA RMS Max
Efficiency	85% Approx.
Power	150W Max
Charging Voltage	14.4/28.8V (Norm), 14.7/29.4V (Cold/AGM), 13.6V (Supply), 16.5V (Boost)
Charging Current	7200mA (12V), 3600mA (24V), 5000mA (Supply), 1500mA (Boost)
Back Current Drain	<5mA
Ripple	<2%
Charger Type	12 Step, Fully Automatic, Switch-Mode
Type of Batteries	12V & 24V Lead-Acid
Battery Chemistries	Wet, Gel, MF & AGM
Battery Capacity	14-230Ah (12V), 14-120Ah (24V)
Housing Protection	IP65
Cooling	Natural Convection
Noise Level	<50 dB
Dimensions (L x W x H)	8.9 x 3.8 x 2.4 Inches
Weight	1.7 Pounds

WICKED SMART TIP

RIPPLE. Describes the disturbances by current and voltage. A ripple voltage may cause damage to other equipment connected to the battery. Less than 2% is wicked low, which will help increase battery life and protect equipment from damage.

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TROUBLESHOOTING

ORANGE ERROR LED ILLUMINATES
If you have accidentally reversed the battery connections, POSITIVE to NEGATIVE (and vice versa), an ERROR LED (Orange) will illuminate solid. If you see the ERROR LED illuminated, you will need to clear the ERROR by correcting the battery connections, POSITIVE to POSITIVE and NEGATIVE to NEGATIVE. The ERROR LED is a visual diagnostic tool to inform you that you have made the wrong battery connections. Accidentally connecting to the battery in reverse polarity will not cause any damage to the battery charger or battery. This safety feature is enabled even when the AC power plug is unplugged.

BLINKING ERROR AND CHARGE LED ILLUMINATES
When the battery charger detects an ERROR condition, the ERROR LED and CHARGE LEDs (25%, 50%, 75%, 100%) will blink. If you are seeing this ERROR condition, it could be the result of one of the following situations:

- **BATTERY VOLTAGE INCOMPATIBILITY**
  Check to make sure you have selected the correct charge mode for your battery. For example, if you have a 12V battery, make sure you have selected a 12V charge mode. If you have accidentally selected the wrong charge mode, it could cause this ERROR condition. Select the appropriate charge mode to resolve this ERROR condition.
- **SULFATED, DAMAGED, OR POOR BATTERY**
  This ERROR condition can be the result of a sulfated, damaged, or poor battery. To properly diagnose a sulfated, damaged, or poor battery, take the battery to a local battery store for an evaluation. If you have checked all other possible ERROR conditions and cannot clear the ERROR, it is probably the result of a sulfated, damaged, or poor battery. For other possible conditions of a sulfated, damaged, or poor battery, see the sections entitled “CHARGE LEDs FULLY ILLUMINATE IMMEDIATELY” and “BATTERY CHARGER MAKING A CLICKING SOUND” below.
- **LOW VOLTAGE BATTERY**
  If the battery voltage is below 7.0VDC (12V) or 14.0VDC (24V), it could cause this ERROR condition. See the section entitled “LOW VOLTAGE BATTERY” below to resolve this ERROR condition.

- **HIGH VOLTAGE BATTERY**
  If the battery voltage is above 14.0VDC and you have selected 12V charge mode, it could cause this ERROR condition. This ERROR will cause the CHARGE LED and ERROR LED to blink continuously. To resolve this ERROR condition, select 24V charge mode.
- **ABNORMALITY PROTECTION**
  This ERROR condition is the result of the battery charger being in the Bulk mode for more than 41 hours. This ERROR condition is the result of a bad battery. To resolve this ERROR condition, take the battery to a local battery store for an evaluation.
- **POOR AC CONNECTION**
  Check if the AC outlet has power. If the AC outlet has no or limited power, it could cause this ERROR condition. Plug a light into the AC outlet to check if the outlet has power. If the light is extremely dim, this could be the result of limited AC power. The battery charger is designed for use at 85-130VAC. If there is no power or the power is below 85VAC, locate another AC outlet that has sufficient power to resolve this ERROR condition.

BATTERY CHARGER STAYS IN STANDBY MODE AND WILL NOT CHANGE MODES
If the battery charger stays in the STANDBY mode and will not change modes, it could be the result of one of the following situations:

- **BLOWN FUSE IN BATTERY CONNECTOR HARNESS**
  Check the fuse in the battery connector harness. If the fuse in the battery connector harness has blown, it could cause this ERROR condition. Replace the fuse with a 10 amp automotive blade-type fuse to resolve this ERROR condition.
- **CORROSION ON BATTERY TERMINALS**
  Check the battery connections for battery corrosion. If battery corrosion is present on the battery connections, it could cause this ERROR condition. Remove the battery corrosion to resolve this ERROR condition.
- **LOOSE BATTERY CONNECTIONS**
  Check the battery connections to the battery. If the battery connections are loose, it could cause this ERROR condition. Tighten the battery connections to resolve this ERROR condition.

CHARGE LEDs IMMEDIATELY ILLUMINATE TO 100%
If the battery charger's CHARGE LEDs immediately illuminate to 100% when the AC power is applied to the battery charger, the battery is either already fully charged or the battery is in extremely poor condition as a result of sulfation or damage. If the battery is new, the battery is likely already fully charged. If the battery is relatively old and has not been used for a long period of time, the battery is probably so severely damaged that the battery cannot accept any current.

BATTERY CHARGER MAKING A CLICKING SOUND
If the battery charger is making a "clicking" sound and will not go into a charge mode, it is probably the result of a battery in extremely poor condition as a result of sulfation or damage. The "clicking" sound you hear does not signify a battery charger failure. The "clicking" sound is the battery charger attempting to enter into a charge mode, but when current is applied to the battery, the battery voltage rises too quickly, and the battery charger shuts off. Once the current is removed from the battery, the battery voltage rapidly decreases, and the battery charger again tries to enter into a charge mode. The "clicking" sound and this ERROR loop condition will continue until the poor battery is removed.

LOW VOLTAGE BATTERY
If the battery voltage is below 7.0VDC (12V) or 14.0VDC (24V), the ERROR LED (Orange) and the CHARGE LEDs (25%, 50%, 75%, and 100%) will blink, indicating the battery is out of range for the battery charger. In this situation, the battery charger has determined that the battery voltage is too low to begin a normal charge mode. In order to increase the battery voltage to allow the battery charger to begin charging, follow these steps:

- **FOR 12V BATTERIES**
  If you are trying to charge a 12V battery that is below 7.0VDC, you will need to select the 13.6V SUPPLY mode. The 13.6V SUPPLY mode is for 12V batteries ONLY. In this mode, the battery charger does not use battery voltage as a restriction to begin applying current. Before selecting the 13.6V SUPPLY mode, make sure you understand how to use this charge mode by reading "USING 13.6V SUPPLY MODE."

Continued On Next Page

As a standard matter of practice, allow the battery charger to charge the battery in this mode for at least sixty (60) minutes. After the elapsed time, the battery voltage should be above 7.0VDC. Press the MODE button one (1) time to exit the 13.6V SUPPLY mode and return the battery charger to STANDBY mode. Return the battery charger back to the appropriate 12V charge mode, depending on the chemistry of your battery, to begin the charge cycle.

- **FOR 24V BATTERIES**
  If you are trying to charge a 24V battery that is below 14.0VDC you will need to select the 13.6V SUPPLY mode. The 13.6V SUPPLY mode is for 12V batteries ONLY. If your battery system is comprised of two (2) 12V batteries in series, you can follow the instructions given above in the 'For 12V Batteries' section and charge each individual 12V battery independently until the combined battery voltage exceeds 14.0VDC. Return the battery charger back to the appropriate 24V charge mode, depending on the chemistry of your battery, to begin the charge cycle. IF YOUR 24V BATTERY SYSTEM IS COMPRISED OF SOMETHING OTHER THAN TWO (2) 12V BATTERIES, THEN YOU WILL NEED TO JUMP START THE BATTERY.

WICKED SMART TIP
If you have a severely discharged battery, a battery that is below 9.0VDC (12V) or 18.0VDC (24V), it could be the result of a defective battery. Batteries that have been severely discharged as a result of an accidental load should respond quickly when current is applied to the battery, resulting in a sharp increase in battery voltage.
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TESTING TO SEE IF CHARGER IS CHARGING

Before applying AC power to the charger, measure the battery with a digital volt meter and write the value down. Then plug the charger in making sure that within 5 seconds the charger is indicating that the charging process has begun (See WICKED SMART FEATURE: INITIALIZATION). Wait 30 seconds and measure the battery again with the digital volt meter. The battery voltage should be higher and slowly moving up.

WICKED SMART FEATURE

16V BOOST MODE. The 16V BOOST mode is an extremely powerful and useful charge mode for recovering lost battery capacity due to stratification. After the 16V BOOST mode is initialized, it may take up to four (4) hours for the charge cycle to complete. When complete, the battery charger will determine how successful the 16V BOOST charge mode was at recovering battery capacity. If the 16V BOOST mode was able to recover battery capacity, the battery charger will automatically switch over to a normal charge mode to begin charging the battery's recovered capacity. If the battery charger determines that the 16V BOOST mode was NOT SUCCESSFUL, the battery charger will automatically return the battery charger to STANDBY mode. If the battery charger returns to STANDBY mode, this may be an indication that the battery is in poor condition and that the stratification is so severe that it cannot be reversed. Battery stratification that cannot be reversed is considered permanent damage, as the battery has permanently lost battery capacity.

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The NOCO Company ("NOCO") warrants that its Battery Charger products (the "Product") will be free from defects in material and workmanship for a period of five (5) years from the date of purchase (the "Warranty Period"). For defects reported during the Warranty Period, NOCO will, at its discretion, and subject to NOCO's technical support analysis, either repair or replace, for the fees set forth below, any Product manufactured by NOCO that contains such a defect. Replacement parts and products will be new or serviceably used, comparable in function and performance to the original part and warranted for the remainder of the original Warranty Period.

THE FOREGOING LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES NOT EXPRESSLY SET FORTH HEREIN, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

NOCO'S LIABILITY UNDER THIS LIMITED WARRANTY IS EXPRESSLY LIMITED TO REPLACEMENT (IN THE FORM AND UNDER THE TERMS ORIGINALLY SHIPPED), OR TO REPAIR, WHETHER SUCH CLAIMS ARE FOR BREACH OF WARRANTY OR FOR NEGLIGENCE. NOCO SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL LOSSES, DAMAGES OR EXPENSES OF ANY KIND, INCLUDING, WITHOUT LIMITATION, ANY SUCH LOSSES, DAMAGES, OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, HANDLING, OR USE OF THE PRODUCT FROM ANY OTHER CAUSE RELATING THERETO, OR FROM PERSONAL INJURY OR LOSS OF PROFIT.

Some states do not allow the exclusion or limitation of incidental or consequential damages or length of an implied warranty so the above limitation(s) or exclusion(s) may not apply. This Limited Warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

This Limited Warranty is made to the original purchaser from NOCO and does not extend to any other person or entity and is not assignable. It is the obligation of the original purchaser to forward the Product, with the proof of purchase and completed Product registration, prepaid, to NOCO. All warranties should be sent to:

The NOCO Company
Attn: Warranty Department
30339 Diamond Parkway, #102
Glenwillow, OH 44139 USA

THE COSTS OF TRANSPORTING PRODUCTS TO NOCO FOR WARRANTY SERVICE IS THE RESPONSIBILITY OF THE ORIGINAL PURCHASER. THIS LIMITED WARRANTY IS VOID UNDER THE FOLLOWING CONDITIONS:

1.) The Product is misused, subjected to careless handling, or operated under conditions of extreme temperature, shock, or vibration beyond NOCO's recommendations for safe and effective use.

2.) The Product has not been installed, operated, or maintained in accordance with approved procedures.

3.) The Product is disassembled, altered, or repaired by anyone, except NOCO.

4.) The electrical connections to either the AC input or the DC output of the charger are modified without the express written consent of NOCO.

5.) The Product is subject to improper storage or accident.

6.) The original purchaser fails to complete and submit the Product registration online.

THIS LIMITED WARRANTY DOES NOT COVER:
1.) Normal wear and tear.

2.) Cosmetic damage that does not affect functionality.

3.) Products where the NOCO serial number is missing, altered, or defaced.

LIMITED WARRANTY FEES

These fees apply only to Product during the Warranty Period. The Limited Warranty is void either by elapsed time from date of purchase or from the conditions listed earlier in this document. Return Product with the appropriate documentation along with a check for the applicable fees, as set forth below. Make checks payable to The NOCO Company.

$USD

	WITH RECEIPT 2.5-5 YEARS		NO RECEIPT ANYTIME
G750	$0.00	$9.95	$13.95
G1100	$0.00	$13.95	$18.95
G3500	$0.00	$16.95	$23.95
G7200	$0.00	$30.95	$42.95
G26000	$0.00	$87.95	$122.95

The Warranty Fee structure may change without notice. Please refer to our website for the current fee structure.

REGISTER MY BATTERY CHARGER

You must register the battery charger in order to validate the Limited Warranty.

To register your product on-line, please visit: geniuschargers.com/register. Complete the requested information and click "submit."

G7200

7.2A (7200mA)

12V & 24V

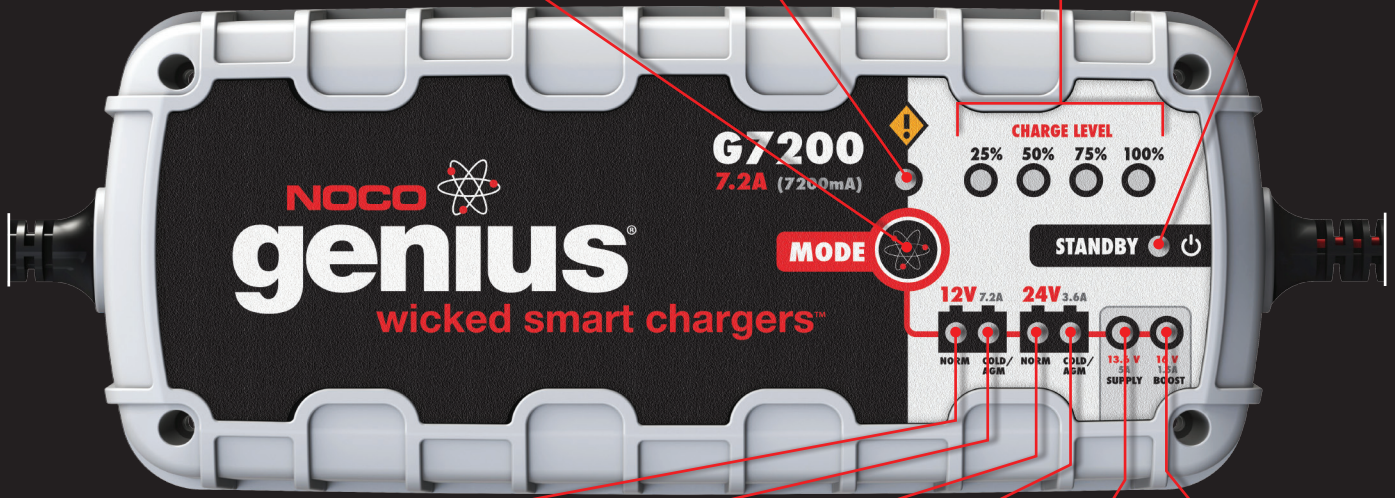
Interface Guide

MODE BUTTON
The MODE button is used to select the charging modes manually.

ERROR LED
The ERROR LED (Orange) will illuminate when an error condition or reverse polarity is present.

CHARGE LEVEL
Indicates the current charge level of the battery.

STANDBY LED
STANDBY LED (Green) illuminates when a charging mode has not been selected.



12V NORM LED
Charge mode for 12V Wet, Gel and MF batteries. (14-230Ah)

12V COLD /AGM LED
Charge mode for 12V batteries below 32°F (0°C) and AGM batteries. (14-230Ah)

24V NORM LED
Charge mode for24V Wet, Gel and MF batteries. (14-120Ah)

24V COLD/AGM LED
Charge mode for 24V batteries below 32°F (0°C) and AGM batteries. (14-120Ah)

13.6V SUPPLY LED
A 12V charge mode for maintenance charging or low voltage batteries. (14-230Ah)

16VBOOST LED
A 12V charge mode for recovering battery capacity from sulfated batteries. (14-230Ah)

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NGC7200B-ENG