OPTIMA® ORANGETOP™

QH6

LITHIUM IRON PHOSPHATE BATTERY

User Manual

	This User Manual contains important information on safety, installation, charging, operation, troubleshooting and maintenance. You should read the entire manual before installing your battery and save it for future reference.

For customer service contact us at:

(888) 8OPTIMA
(888) 867-8462

5757 N. Green Bay Ave
P.O. Box 591
Glendale, WI 53209

https://www.optimabatteries.com/contact-us info@optimabatteries.com

Say Hello to The Ultimate Power Source!

Congratulations on your purchase of an OPTIMA® Batteries ORANGETOP™ with HYPERCORE LITHIUM TECHNOLOGY™, one of the world's most sophisticated lithium batteries. OPTIMA is a division of Clarios, one of the world's largest suppliers of OE 12V lithium battery systems. Our industry leading team has Engineered the Quit Out of Your Battery, so you can be confident it'll start when you need it.

Your new battery includes many innovative features such as a sophisticated Battery Management System (BMS) that continuously monitors battery charging and discharging, short circuit protection and current management to provide better performance and reliability for you. The on-battery controls and display provides real-time battery mode and charge information. If you are interested in learning more about the technology of your new battery, please visit our web site at www.optimabatteries.com

In order for you to benefit from these performance and safety features it is necessary that you familiarize yourself with the proper way to install, charge, operate, care for and store your battery as described in this manual. It is important that you read and understand everything in this manual. Your safety and satisfaction depend on it!

The OPTIMA Lithium Bluetooth app is strongly recommended to utilize its many features, including the ability to wirelessly activate OPTIMA CPR (built-in jumpstart feature).

If you have questions or are uncertain about anything having to do with your new battery please contact our customer service department by phone at **(888) 8OPTIMA / (888) 867-8462,** by email at **info@optimabatteries.com** or on the web at https://www.optimabatteries.com/contact-us**.**

Sincerely,

The *OPTIMA* Team

Important Safety Information

Safe and effective use of your new OPTIMA battery requires that you make yourself aware of your responsibilities for selecting the right battery for your application, preparing for and installing your battery and the proper charging, use and care of your battery. The OPTIMA Battery has been designed to minimize the risk of personal injury and equipment damage arising from the intended use or foreseeable misuse of this battery. However, this is a battery and therefore it is a source of energy that, if not used properly, could lead to personal injury or vehicle damage.

Throughout this User Manual the following signal words and/or symbols will be used to call your attention to specific information as described below.

⚠WARNING	**WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION	**CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE	**NOTICE** indicates information considered important, but not hazard-related.

The following symbols are used to call your attention to specific safety measures you should follow.

Read User Manual. This message refers not only to this User Manual, but also your vehicle and battery charger User Manuals.

No sparks, fire or smoking. It is important that you minimize the presence of ignition sources and extreme heat near your battery and your internal combustion engine.

Use protective eyewear. You should always wear goggles or safety glasses as well as gloves when working on or near batteries and any automotive equipment.

Table of Contents

Selecting the Right Battery

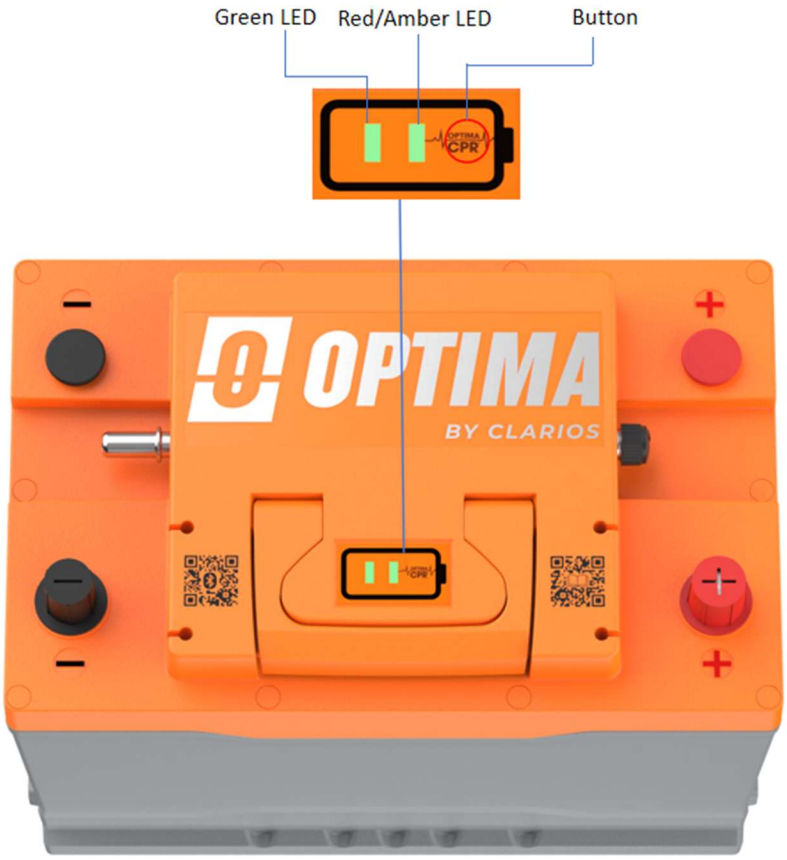
This battery is intended to be a starter battery for a variety of listed cars and trucks. Fitment can be checked on optimabatteries.com, in the “find a battery” section. This battery is not intended to be used as a power source for propulsion of electric or hybrid vehicles.

Before proceeding with the installation and use of this battery you need to make sure that this battery is appropriate for your intended use. See section “Technical Specifications” in this manual or on our website at www.optimabatteries.com

Important Features of Your OPTIMA Battery

- Microprocessor-controlled battery management system (BMS) monitors
    - Over Discharge/Under Voltage
    - Overcharge /Over Voltage
    - Short Circuit Protection
    - Over/Under Temperature
    - Over Current
    - Charging/Balancing
- On-Battery Controls
    - Display battery charge status and fault/error conditions
    - Control sleep/storage, active and OPTIMA CPR™ modes
- High cranking performance, your battery will crank at least three (3) times for five (5) seconds at rated cranking power
- Exceptional cold weather performance – Meets cranking specification at temps as low as 0°F (-18°C) with strong cranking performance as low as -22°F (-30°C)
- Quad terminals – Allow for easier connectionsBluetooth app, IOS and Android
-
- Direct fit for listed auto and truck applications
- Advantages compared to lead acid batteries
    - Lighter weight
    - More cycle life
    - Longer storage life
    - More starting power
    - Non-spillable
    - Stable voltage delivery throughout usable range

Battery LEDs and Controls



As shown in the table below, OPTIMA Lithium batteries are designed to automatically shut down under various excessive conditions to prevent damage to the battery and connected equipment. This will generally result in total loss of electrical power to equipment from the battery. In most applications this will only result in not being able to start the vehicle without first holding the on-battery button.

NOTICE	You must take precautions to ensure that sudden loss of electrical power from the battery does not result in hazardous system behavior of your vehicle.

LED Indication	Meaning	Shutdown Limit/ Condition	Reactivation Condition	Additional Note
Green constant	Fully Charged	n/a	n/a	Battery is fully charged via connected charger or currently active vehicle charging system.
Green - 5 seconds repeating	>80% charge	n/a	n/a	Battery is near fully charged or vehicle charging system is charging battery.
Amber - 5 seconds repeating	35% < Charge ⩽ 80%	n/a	n/a	Battery needs to be charged or vehicle charging system is not charging battery.
Red - 15 seconds repeating	5% < Charge < 35%	n/a	n/a	Charge Battery – urgent
No LED	Over Discharged	V < 8V	V > 10V	Charge Battery. ***Voltage under 6V will permanently disable all functions.***
	Currently in Sleep/Storage Mode	n/a	Hold button 3 seconds to enter Battery Active Mode or Sleep/Storage Mode	
Green - 3x rapidly after holding button 3 seconds	Entering Active Mode	n/a		Immediately after entering/communicating Active Mode, LEDs will communicate battery charge % as noted above.
Amber & green - 3x rapidly, after holding button 3 seconds	Entering Sleep/Storage Mode	n/a		No further LED illumination after the battery has entered Sleep/Storage Mode.
Amber/Green alternating	Charger Connected and Charging	n/a	n/a	Charger connected, currently charging battery.
Amber - 1 sec on/off	Charger Connected, Charging Error	n/a	See Note	Charger connected, charging error. Disconnect charger, wait 30 seconds, try again. Recurring errors indicate incompatible or defective charger.
Red - 1 slow, 1 fast	Multiple Errors	See Note	See Note	See over temperature and over voltage notes. If charging, may be caused by using an improper charger or a charger with unsuitable temperature compensation - confirm charger compatibility and/or allow battery to cool down (hot temps) or warm up (cold temp).
Red - 1 slow, 2 fast	Over Voltage	Input V > 15.6 V	V < 13.8V *	Disconnect charger or stop engine. Check charger voltage (see Section “charging”) or vehicle charging system voltage regulation (see section “check your vehicle charging system”).
Red - 1 slow, 3 fast	Over Current (Discharging)	I > cranking rating	I <= rating *. Wait 3 seconds. Hold button 3 seconds	Confirm battery is adequately sized for application, current/amps requirement exceeds battery rating. See section “Technical Specifications.”
	Over Current Charging, via Battery Terminals	I > charging rating		Confirm battery is adequately sized for application, charging system output exceeds battery capability. See section “technical specifications”
	Over Current Charging, via POWERLINK (if equipped)	I > 3.5A	I <= 3.5A Hold button 3 seconds	Incompatible charger/charge mode, exceeds current limits for charging via POWERLINK. Check the charger.
	Short Circuit	I > 1.3X cranking rating	Correct electrical short circuit Hold button 3 sec	Take care in connecting cables to battery, ensure wiring to battery is not damaged.
Red - 1 slow, 4 fast	Over Temperature - Discharge	T > 167°F (75°C)	T < 149°F (65°C)	Excessive ambient temperature and/or multiple starting attempts have overheated battery, allow to cool down. See "Installation" section.
	Over Temperature - Charge			Excessive ambient temperature has overheated battery, allow to cool down. See "Installation" section.
Red - 1 slow, 5 fast	Under Temperature - Discharge	T < -40°F (-40°C)	T > -22°F (-30°C)	Extreme cold, allow battery to warm up or move battery to warmer location.
	Under Temperature - Charge	T < -22°F (-30°C)	T > -4°F (-20°C)	Extreme cold, allow battery to warm up or move battery to warmer location.
Red - Constant	Self-Test Failure	see note	see note	Internal self-test error. Contact OPTIMA support.

Technical Specifications

	QH6
Capacity (Ah)	45
Operating/Discharge Temperature Limits	-40°F to 167°F (-40°C to 75°C)
Charging Temperature Limits	-22°F to 167°F (-30°C to 75°C)
Recommended Storage Temperature	32°F to 86°F (0°C to 30°C)
Min/Max Storage Temperature	-20°F to 158°F (-29°C to 70°C)
Recommended Storage Voltage	13.08V to 13.18V (30% to 50% SOC)
Charging Voltage	14.4V
Voltage at 100% Charge	13.94V
Charging Current – Max, 1 min (A)	400A
Charging Current - Max continuous via terminals (A)	225A
Starting Current - Max (A), 5 seconds @ 0F (-18C)	880
Length - inch (mm)	10.94 (278)
Width- inch (mm)	6.89 (175)
Height- inch (mm)	7.48 (190)
Weight lb (kg)	21.1 (9.6)
Battery Terminals	Max 18 ft-lb (25 NM) Threaded terminal M8 x 1.25 hardware

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Unpacking Your Battery

When you unpack your new battery, you should inspect it to make sure that it was not damaged during shipping. Make sure the battery case is not cracked, damaged or misshapen in anyway, paying particular attention to the corners of the battery. There should not be anything leaking from the battery. If you see signs of damage or have reason to believe the battery has been dropped, do not use it. Contact OPTIMA customer service at 888-8OPTIMA or info@optimabatteries.com

When received, your battery will usually be in “sleep/storage” mode, to minimize discharge in transit and distribution. Before use, the battery must be activated by holding the on-battery button for three (3) seconds. A flashing on-battery LED means that the battery has been activated.

Before Installing Your Battery

	Wear goggles or safety glasses as well as gloves at all times when working on or near batteries and any automotive equipment.

	Read User Manuals. This message refers not only to this User Manual, but also your vehicle and battery charger User Manuals.

Check your vehicle charging system

A qualified technician must test your vehicle charging system before installation. Testing should be done with the engine running, both with the current battery connected and disconnected, throughout the engine's RPM range. During this test the output voltage from the vehicle charging system must never exceed 15V, with 14.4V being a typical/expected measurement. OEM-style solid state voltage regulators are strongly recommended for older vehicles (generally, pre-1995). Damage due to a defective or malfunctioning charging system is not covered by warranty.

	A failed or defective charging system can cause your battery to be dangerously overcharged. Failure to check and maintain your charging system can result in fire, explosion or damage to property.

When batteries are replaced in vehicles that were originally equipped with dual batteries (common in diesel pick-up trucks), both batteries should be replaced at the same time with new batteries of the same size, type and technology.

In vehicles that have dual alternators (an option in some pick-up trucks), OPTIMA QH6 should only be used where dual batteries can be installed. If your vehicle has dual alternators, but does not have the capability to install dual batteries, please contact OPTIMA customer service for support.

Charging Your Battery

	OPTIMA Chargers with lithium charging profiles were designed to function as a system with OPTIMA lithium batteries to ensure maximum safety, service life, performance, functionality and convenience.

⚠WARNING	Do not use lead acid chargers/charge profiles. Lead acid chargers/charge profiles are not designed for charging lithium batteries and could result in subpar performance, reduced battery life, fire or property damage.

Do not use:

- Lead acid battery charging profiles.
- Chargers/charge profiles for flooded/SLI batteries, AGM or gel batteries.
- Chargers/profiles with a desulfation/antisulfation/reconditioning mode or function. Although this can be useful for lead acid and AGM batteries, it may cause a lithium battery to be overcharged.

If after activating your battery the LED indicates low state of charge (red flashing), you must charge the battery before use. Use only chargers or profiles for 12V lithium iron phosphate (aka LFP or LiFePO4) batteries.

Maximum charging current:

Via POWERLINK (if equipped) - 3.5 amps

Via battery terminals – see technical specifications

Time to fully charge via battery terminals:

2-amp charger (for example, OPTIMA Digital 200+)	23 hours
4-amp charger (for example, OPTIMA Digital 400+)	11.5 hours
12-amp charger (for example, OPTIMA Digital 1200+)	4 hours

Charge only at temperatures as noted in section “Battery LEDS and Controls”. The battery will only accept charging within this temperature range. Never charge a battery that is frozen.

⚠CAUTION	Stop charging and contact support if at any time the battery emits odors, gases or smoke, gets hot or swells/deforms.

The battery normally will automatically wake from sleep/storage mode if an OPTIMA lithium enabled charger is used, but it may be necessary to manually “wake” the battery using the on-battery button. Chargers from other manufacturers may also require that one manually “wake” the battery using the on-battery button.

NOTICE	Lithium batteries do not have a “memory effect.” Fully discharging before initial charging or periodically discharging is not necessary and could reduce overall life.

Installing Your Battery

1. **Remove old battery**, disconnecting the ground terminal first.
2. **Install the battery**, check to make sure the height matches the old battery, that there isn't side-to-side or front-to-back movement, and that the top of the battery has adequate clearance when fully installed.
3. **If equipped, temporarily place the POWERLINK cable** out of the way, so that it will not interfere with the battery cable connections.
4. **Reconnect battery cables.** For negative grounded vehicles (most common), connect the positive cable first. For positive grounded vehicles (uncommon) connect the negative cable first. Do not exceed 18 ft-lb(25 NM) when tightening the terminals. Do not over-torque the battery terminals; damage could result. Replace included covers on unused terminals. Anti-corrosion spray is recommended for the terminals, especially in damp or salty environments.
5. **Reinstall the battery hold-down.** The battery must be securely mounted with a proper hold-down. The battery should never be secured only by the connections at the terminals.
6. **If equipped, route the POWERLINK cable** on the vehicle, so that the indicator is visible and convenient for making connections to your OPTIMA lithium enabled charger. Ensure that the POWERLINK and cable are away from excessive sources of heat, will not be pinched or damaged when the vehicle is in use and do not interfere with operation of the vehicle or controls.

⚠WARNING	The battery should be installed so that it is not exposed to excessive heat (above 140°F/60°C) such as next to an exhaust manifold/components.

Lithium batteries weigh substantially less than the lead acid batteries they replace. Some vehicles and equipment may be designed to utilize the original battery weight to achieve the manufacturer's intended weight distribution.

⚠WARNING	Users and installers must understand the possible consequences of changing the weight distribution, balance or stability of the vehicle or equipment and assume all responsibility and liability for damages, injury or accidents that may result.

Do not connect more than 2 batteries in parallel (max 2P). Exceeding series/parallel connections may cause permanent damage to the battery or reduced service life.

⚠WARNING	Parallel connections should only be done with batteries of the same size, type/technology and age or reduced service life and performance will result. Parallel connections must be made with the batteries at equal levels of charge or sparks or explosion could occur. All connections must have appropriate circuit protection via fuses, circuit breakers or similar current protection devices. Do not connect in series

Battery Vent Hose

When the battery installed in a sealed location such as the trunk or passenger compartment, vehicles will have a small hose which connects to the battery, intended to vent any gasses that may escape from the battery outside the vehicle. OPTIMA QH6 has a vent port intended to perform a similar function, but a hose with a larger inner diameter (3/8") must be used. Chemical resistant hose of this size is available at a moderate price at auto part stores. The hose used should be the same length and routed the same as the OE hose. The battery hose connector for attaching the hose to the battery is available free of charge from OPTIMA customer service at 888-8OPTIMA / info@optimabatteries.com.

Using Your Battery

Engine Starting and Current Rating

When fully charged your battery is able to perform at least 3 engine cranking events at the rated current (amps) that are a maximum of five (5) seconds long at temperatures as low as 0°F (-18°C), with a "cooldown" time of three (3) seconds between each attempt. If your vehicle does not start after these three (3) attempts, there may be an issue other than the battery preventing the vehicle from starting.

Using at High Temperatures

At higher temperatures, the length of engine cranking events available may be less than five (5) seconds and the "cooldown" time needed between attempts may be longer than three (3) seconds. Charging and use of the battery is disabled if the internal temperature exceeds thresholds. Storage and use at excessive temperatures can reduce battery life. Install the battery away from excessive heat sources such as exhaust manifold/components., or shield from heat.

Using at Cold Temperatures

Please note that as with all batteries, cold temperatures will result in reduced performance. When temperatures are below 32°F (0°C), applying a load to the battery will cause the internal temperature to increase slightly and can improve cold-weather performance. Successive starting attempts may have more power than the initial attempt for this reason. Turning on the headlights for up to five (5) minutes will often increase internal temperature enough to be beneficial. Cold-weather performance is best when the battery is fully charged. The BMS will deactivate charging as noted in section "Battery LEDs and Controls". "Wind chill" or "feels like" temperature is not applicable to batteries, the temperature as measured with a thermometer should be used.

OPTIMA CPR™ (built-in jump start feature)

If your battery is accidentally discharged, OPTIMA CPR will internally disconnect the battery from the vehicle and hold in reserve enough power to start the engine under normal conditions/temperatures. If you find that your vehicle is “dead” when you turn on the key, it may be because OPTIMA CPR has been activated.

The battery may be reactivated in any of the following ways:

1. Connect to the battery using the OPTIMA lithium Bluetooth app, which will automatically activate the battery
2. Press the button on the battery for 3 seconds to manually activate the battery
3. Hold the on-battery button for three (3) seconds.

The green LED on the battery will flash 3x to indicate the battery is activated.

NOTICE	After the jump start feature has been activated, it is best to connect a charger to fully charge the battery as soon as possible. The vehicle electrical charging system is not intended to be used to charge a discharged battery; using it for this purpose will usually reduce the life of your vehicle’s charging system components.

Battery Management System

In most cases the battery management system (BMS) is “self-healing”, meaning that when the condition which caused the error to occur is removed, the battery will automatically return to a normal functional state. There is no need to perform any reactivation or recovery procedures to use the battery again. For example, if there is an “over temperature” error, allowing the battery to cool down to an acceptable operating temperature will correct the error state and allow use without further input.

After an over voltage, over current or short circuit, you may need to press the on-battery button to return the battery to a normal functional state.

Energy Storage Capacity

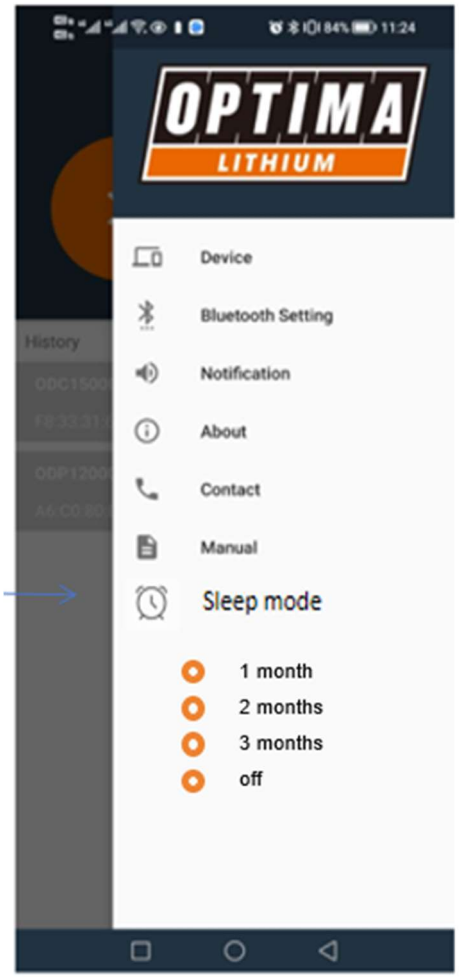
Although OPTIMA lithium batteries usually have more power density (engine starting power) than the lead acid batteries they replace, it is important to keep in mind that the energy storage capacity is approximately 2/3 the original battery. This means that the runtime for accessories when your engine isn’t running may be shorter.

Maintaining Your Battery

The most important maintenance for your battery is to keep it charged. Unlike some lithium batteries, OPTIMA's HYPERCORE LITHIUM™ does not have significantly reduced life if kept fully charged.
If your vehicle doesn't have excessive key-off loads and is used a few hours a month, this will usually be sufficient to keep your battery charged on its own.

Automatic sleep mode

By default if the battery is not used or charged for 3 months, the battery will automatically enter sleep mode to minimize risk of overdischarge during periods of non-use. The time for this to occur can be changed to 1, 2 or 3 months, or disabled via the OPTIMA Bluetooth app.
If automatic sleep mode is activated, it will be necessary to manually reactivate the battery from automatic sleep mode by pressing the button on the battery. Please keep this in mind when the battery is installed where vehicle entry or access to the battery may be difficult when the vehicle is unpowered, for example if a physical key can not be used to enter the vehicle or directly access the battery location. For these vehicles it is strongly recommended to use a maintenance charger during extended periods of non-use of the vehicle.



To STORE Your Battery

To maximize storage time and life:

- Put the battery into "Sleep/Storage" mode by holding the on-battery button for three (3) seconds, or
- Disconnect the battery to eliminate any vehicle system impact, or

- Use an appropriate charger or maintainer, such as OPTIMA's lithium-enabled chargers
- If none of the above are viable options, disable constantly powered devices or systems such as alarms

Depending on storage temperature and initial charge, OPTIMA QH6 lithium battery can be stored up to twenty-four (24) months without charging, and up to three (3) years if put into sleep/storage mode.

If stored while not connected to a charger/maintainer, check your battery at least every three (3) months to ensure the voltage is at or above 13 volts. If your battery is discharged below 6 volts, the cells will be damaged and the BMS will permanently disable the battery. Abusive over discharge is not covered under the warranty.

Cleaning

You should inspect and clean your battery monthly or more often if necessary.

- You may use a damp cloth to clean your battery.
- Do not expose to harsh cleaners, solvents or corrosive liquids.
- Minimize contact with water, do not submerge or use a pressure washer.

When cleaning your battery you should look for signs of damage. If the cover or container are cracked, melted or otherwise damaged, discontinue use and replace the battery.

Shipping the Battery

Special procedures, package labeling and documentation are required for shipping lithium batteries. These requirements vary regionally and by battery application, type and size/capacity. Please contact your carrier for complete instructions and information on the shipping requirements and documentation required.

It is recommended to ship the battery between 20% and 30% charged.

OPTIMA Lithium Bluetooth App

The OPTIMA Lithium Bluetooth app is necessary to take advantage of the enhanced functionality it provides. The OPTIMA Lithium Bluetooth app can be downloaded for free from the Apple app store and Google Play store by searching for "OPTIMA LITHIUM BLUETOOTH".

To connect a battery, confirm only the battery you want to pair with is active. Within the app, add the selected battery to the system. If you have multiple batteries in the application, continue activating and adding one battery at a time. Where multiple batteries are installed, an individual battery can be checked by clicking the '+' icon on the Basic Info page. Up to 4 batteries may be added, but the information for only 1 battery at a time can be displayed.

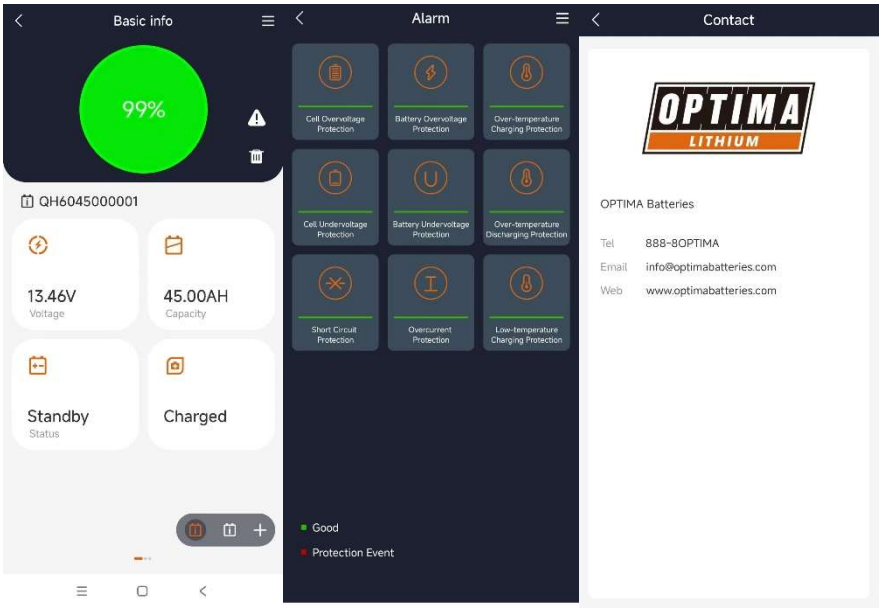


Figure #2

Troubleshooting

New Battery

When received, your battery will not be fully charged and will usually be in "Sleep/Storage" mode, to minimize discharge in transit and distribution.

The battery can be activated by holding the on-battery button for three (3) seconds. A green LED flashing 3 times on the battery means that the battery has been activated.

Fully charge the battery before use, especially if the LED on the battery flashes red after activation.

"Dead" battery

If your battery becomes deeply discharged, OPTIMA CPR will stop supplying power to the vehicle and hold in reserve enough power to start the engine under normal conditions/temperatures. If you find that your vehicle is "dead" when you turn on the key, it may be because this feature has been activated.

To reactivate the battery, hold the on-battery button for three (3) seconds. When reconnected the LED will flash green 3x to indicate activation. See section “OPTIMA CPR”

When the jump start feature (OPTIMA CPR) has been activated, it is best to connect a charger to fully charge the battery as soon as possible. The vehicle electrical charging system is not intended to be used to charge a discharged battery. Using the vehicle’s electrical charging system for this purpose may damage or reduce the life of your vehicle’s charging system components. Please see section “Charging” for more information.

Cold-Weather Alert

Please note that as with all batteries, cold temperatures will result in reduced performance. When temperatures are below 32°F/0°C, applying a load to the battery will cause the internal temperature to increase slightly and can improve performance. Successive starting attempts may have more power than the initial attempt for this reason. Turning on the headlights for up to five (5) minutes will often increase internal temperature enough to be beneficial. Cold-weather performance is best when the battery is fully charged. The BMS will deactivate charging and l power output functions as noted in section “Battery LEDS and Controls”

Battery is Unexpectedly Discharged

Over discharge or unexpected battery discharge is the number one complaint for seasonal-use vehicles. If the battery is discharging at a high rate, it likely is due to power drawn from the vehicle even when the key is off, by things such as alarms, vehicle control modules or aftermarket accessories. Please use the on-battery LEDs or OPTIMA Bluetooth app, which are intended to provide a convenient means to communicate if the battery needs to be charged.

Not Charging

When using an OPTIMA lithium-enabled charger, charging will normally automatically activate the battery from sleep/storage mode. If the battery does not automatically activate from charging, activate the battery by holding the on-battery button for three (3) seconds. The LED on the battery will rapidly flash green 3 times to indicate activation.

Gassing/smell/bowing/bulging

If at any time the battery emits gases, fluids, flames, smoke, unusual smells, or the sides bulge, discontinue use or charging immediately. If this happens during charging, please confirm that an appropriate lithium charging profile and charger was used, see section “Charge Your Battery.” If this happens during use of the vehicle, stop immediately and confirm that the charging system’s voltage regulation is functioning properly.

Warranty and Warranty Restrictions

Product Registration: Please register your purchase at www.optimabatteries.com, at the “Register Battery” link.

Every OPTIMA® Lithium battery we make has safeguards. However, please be aware that if you leave the battery in a deeply discharged state for an extended period, the battery could stop working permanently due to over-discharge. Over-discharge is not a defect covered by warranty; it is product abuse.

OPTIMA® Lithium Technical and Warranty Support

- In the event you need technical or warranty support, please call OPTIMA® Batteries customer service at 1-888-867-8462 between 9 a.m.-5 p.m. (CST) Monday through Friday, or via email at info@optimabatteries.com
- All batteries returned to OPTIMA® must first be authorized by OPTIMA®. Units returned without an RMA# may be misplaced or delayed.

LIMITED WARRANTY - OPTIMA® (the “Manufacturer”) warrants this battery (the “product”) for five years from the date of original purchase at retail against defects in material or workmanship that may occur under normal use and care.

If the product is not free from defects in material or workmanship, the Manufacturer’s obligation under this warranty is solely to repair or replace your product with a new or reconditioned product, at the option of the Manufacturer. It is your obligation to send the product, along with a copy of the original purchase receipt, postage prepaid to the Manufacturer, in order for repair or replacement to occur. Hand-written receipts will not be accepted. This limited warranty is not transferable to subsequent purchasers.

THIS LIMITED WARRANTY IS VOID IF THE PRODUCT OR INCLUDED ACCESSORIES ARE MISUSED, ABUSED, SUBJECTED TO CARELESS HANDLING, OPENED, REPAIRED, ALTERED, MODIFIED, OR IF THIS PRODUCT IS RESOLD THROUGH AN UNAUTHORIZED RETAILER OR THIRD-PARTY. FOR EXAMPLE:

- Changes to internal resistance or capacity due to aging, cycling or normal wear/use
- Batteries used in deep cycling, electric vehicles (such as electric bikes, go-karts, forklifts, golf carts, ride-on toys), “total loss” or other motive power applications or systems
- Incidental or other damage due to defective or inadequate vehicle/system voltage regulation, wiring errors such as arcing, short circuit, etc. or electrical issues caused by the vehicle
- Cosmetic damage
- Damage occurring during shipping or mishandling. Shipping damage is the responsibility of the shipping company and should be addressed through them (UPS, FedEx, etc.)
- Physical damage arising from drop, impact, puncture, cracks, or heat/melting from an external heat source
- Exceeding temperature, voltage or current specifications or series/parallel connections outlined in User Manual

- Corrosion or environmental damage such as exposure to liquids or corrosive environments, fire, chemicals, fuel, salt water, dirt or debris. This includes exposure or damage resulting from improper maintenance or cleaning of the battery.
- Batteries used with a battery charger or charging profile that does not meet specifications outlined in User Manual. Do not use battery chargers, maintainers or charging profiles for lead acid batteries.
- Improper installation such as loose, over-torqued or incorrect terminal connections; improper or inadequate cable gauge; improperly securing the battery; incorrectly installing fitment spacers; exposure to excessive heat or inadequate air flow; improper use or installation via POWERLINK plug or connectors.
- Leaving the battery in a deeply discharged state (below 8 volts) for an extended period resulting in over-discharge.

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