

Battery Marvel User Manual

Version 1.0

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Battery Marvel, LLC



Thank you for purchasing Battery Marvel! It has been constructed of the highest quality automotive-grade components to provide years of trouble-free service. It will give you years of added confidence in your vehicle and its battery. Please carefully read this manual and keep it for future reference. This manual is also available online in Adobe® PDF format at our website:

<http://www.batterymarvel.com/support.htm>

We hope you appreciate this amazing device and tell all your friends about it.

Sincerely,
*The Battery Marvel
Development Team*

Installation

Battery Marvel is designed to be installed under the hood of most vehicles, either on or near the battery. If you are not already familiar, please refer to the owner's manual of your vehicle to review the location of the battery and how to gain access to it. Be sure the vehicle is off. Be sure to remove any metal jewelry that might contact the vehicle or battery.

Tools needed

- Small adjustable wrench and pliers
- Moistened paper towel or cloth to clean mounting location

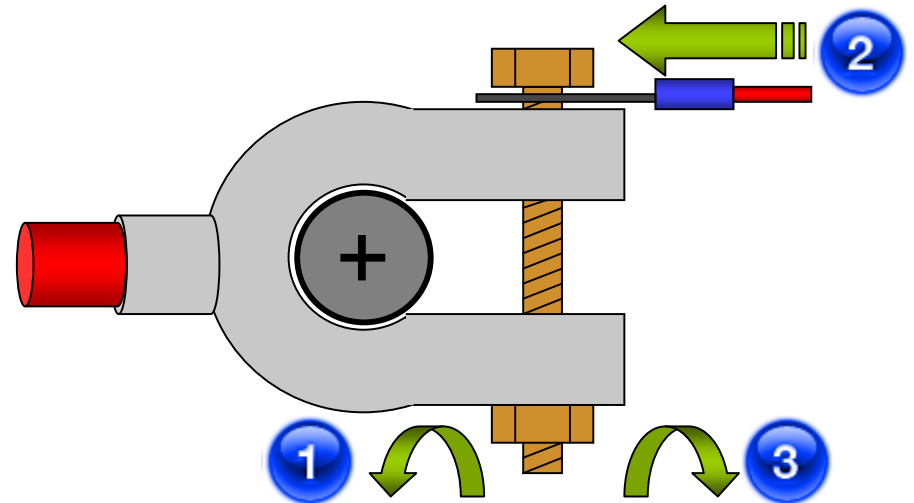
Locate the **positive (red, +)** and **negative (black, -)** battery terminals.

Step 1 - Loosen the nut on the positive battery clamp using the adjustable wrench (see diagram below). You may need to hold the bolt from turning with the pliers.

Step 2 - Without removing the bolt or clamp from the battery post, slip the spade of the red Battery Marvel wire under the head of the bolt.

Step 3 - Retighten the nut carefully. Don't over-tighten.

Step 4 - Repeat for the **negative** battery terminal and **black** Battery Marvel wire.



As soon as both wires are connected, you will hear a 30-second "tick-tock" countdown, followed by a few seconds of (**caution: very loud!**) audible alert. This is so you will be familiar with what an alert sounds like. If you do not hear the tick tock, you may have reversed the red and black. Don't

worry; just correct the error and Battery Marvel will start up without damage.

The Battery Marvel wires are long enough to allow some flexibility of mounting location. Find a place where Battery Marvel faces outward into an open space and you can easily see the indicator LED on top of the device. Avoid the top of the battery since acoustic sound insulation on the underside of the hood can absorb sound from Battery Marvel. Carefully clean and dry any dirt or grime from the chosen location using a paper towel. Peel off the cover of the mounting Velcro® tape on the back of the Battery Marvel case and press firmly in place. Ensure that the Battery Marvel wires lay down smoothly and will not be pinched or damaged by the hood or any other moving parts.

For motorcycles and other vehicles, the installation process is the same. Just be sure you can see the indicator LED from the mounting location and that the sound isn't blocked. A video of the installation process is also available on the Battery Marvel website.

Operation

Battery Marvel uses a multi-color indicator LED (green/yellow/red) to show the condition of your battery at a glance. If any problems are detected, you will hear a loud audible alert. Please take a moment to review the following so you will be able to understand what is wrong if Battery Marvel ever alerts you. We suggest you keep this manual in your vehicle for future reference.

Normal: (no sound)



Solid green – Battery is charging. Charging system and battery are normal and healthy.



Blinking green – Battery is not being charged right now, but it is fully charged and healthy.

Abnormal: (audible alert)



Blinking yellow – Remaining battery charge is low. You should charge your battery or start vehicle soon to avoid a dead battery.



Solid red – Charging system malfunction. Your vehicle's charging system should be checked by a mechanic as soon as possible.



Blinking red – Your battery charge is very low. You should have your battery tested (and possibly replaced) as soon as possible.

Day to day, Battery Marvel is monitoring your battery for proper performance. Very little attention is required. The most common alert, a blinking red LED after starting the vehicle, indicates that the battery has a significant loss of cranking power and that failure may be imminent. If you have an older battery, you may want to start the vehicle periodically with the hood open to be sure the LED is solid green after starting. Once an alert is issued, Battery Marvel will continue to alert at intervals to remind you to investigate the problem. If the reminder becomes annoying, you can always disconnect Battery Marvel until you have the battery or electrical system checked, but please do not delay!

Although Battery Marvel can predict most battery failures, no device can predict all failures. Fortunately, sudden unpredictable catastrophic failures are quite rare. We are confident that if you follow the instructions above, Battery Marvel will prevent you from being stranded with a dead battery - or we'll replace Battery Marvel for free (see warranty below).

Quick Reference

1. Green is good.
2. A blinking red after cranking the vehicle - battery may need replacement. Have battery tested as soon as possible.
3. Any alerts when the vehicle is on (except #2 above) are bad, seek repair immediately.
4. Any alerts when the vehicle is off means the battery is running down from lack of use or some electrical drain such as headlights left on.

Limited Lifetime Warranty

If you ever experience a problem with your Battery Marvel due to a defect in materials or workmanship, or it fails to warn you of a dead battery, just send it back to us and we'll replace it for free (excludes damage from abuse & neglect).



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