

Don't Replace That Battery Just Yet!

Often the battery is blamed when power failure occurs. However, with up to half of all batteries being discarded that still have life left in them, this initial conclusion isn't always right and is just a symptom of the real underlying problem. While there is always the possibility for failure to occur with the battery or other components in the charging system, frequently the issue can be traced to the battery cables, ranging from something as simple as a loose connection to something as severe as corrosion in the electrical system.

The routine maintenance tips and best practices suggested below aim to help avoid downtime and keep battery cables connected and corrosion free.

- Battery cable should be stripped back to the proper length to fit inside the battery terminal. If stripped too short, the crimp will be weak, or won't hold. If stripped too long the copper wiring will be left exposed to corrosion.
- During the process of removing the jacketing, be sure not to cut past the jacketing into copper wiring. If the copper wiring is cut into, the diameter of the internal wiring will be decreased, which creates a weak crimp with the terminal/lug.
- Be sure the crimping die on the crimping tool is fixed to the correct setting and that a full crimp is made. An incomplete crimp will most likely not hold, and if it does hold, it may create a weak connection.
- Not all battery posts are located in the same position. In addition to using the correct gauge terminal, be sure to use the right type of terminal to make a solid connection to the battery posts.
- Be sure to use heat shrink tubing for additional protection after crimping the lug/terminal to the cable.
- Bulk battery cable, and even battery jumpers, should be

stored in a dry environment that is moisture free to avoid corrosion.

- Perform routine maintenance on the vehicle's battery and be sure to spray posts/terminals with anti-corrosive protective spray or use dielectric grease. Corrosion build up on the posts can lead to corrosion on the jumper cable lugs/terminals, which can pass through to the copper wiring in the cable. (Corrosion has most likely already entered the cable if it is stiff when bent near the terminal. Jumper cables should be replaced.)
- Never pierce the jacketing and always inspect the jacketing for signs of damage. An opening in the jacketing is merely a backdoor for moisture and contaminants to enter the charging system.
- Use battery cable with see-through jacketing which allows for visual inspection of corrosion before it becomes a problem.



Phillips CLEAR-VU™ see-through battery cable

TIPS

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- When corrosion spreads through the electrical system undetected, it can cause premature charging system failure and unnecessary replacement of batteries, starters, and alternators.
- Custom battery jumper cables that have been built improperly can create a weak crimp, leading to a bad connection.
- Routine battery maintenance, as well as best practices for building custom jumpers, will help keep battery cables connected and corrosion free, saving time and money invested on unnecessary repairs.

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