AUTO MECHANICS TOOLBOX TALK

BATTERIES



Batteries are everywhere, including every car and truck. It is easy to forget how dangerous they can be, because we are around them all the time. Lead-acid batteries contain dangerous chemicals like hydrogenoxygen gases and sulphuric acid. If they are not properly cared for, stored, or installed, batteries can pose a huge risk to workers and bystanders.



SAFETY **TIPS**

You're Worth It

- 1. Use proper eye protection when working with batteries.
- 2. Sulphuric acid is very corrosive. When working on a battery:
 - Wear CSA approved safety glasses or goggles;
 - A face shield to protect your face and eyes;
 - Plastic gloves to protect your hands; and,
 - A plastic apron to protect your body.
- 3. Remove rings and other metal jewelry such as a wristwatch or ID bracelet. Items like thesecan cause the battery to short-circuit, which can cause burns, or other injuries.
- 4. Make sure the work area is well ventilated.

- 5. Never lean over a battery while boosting, testing or charging it.
- 6. Flames or sparks could cause a battery to explode. Keep all ignition sources away from the battery.
- 7. Batteries are heavy—use good lifting technique when moving them.
- 8. Use insulated tools (tools with plastic handles) to avoid burns and shocks.
- 9. Do not start to work on a battery without proper training. Before working with a battery, know your nearest eye washing and first aid stations.

EXAMPLES OF **HAZARDS**

- Chemical burns from sulphuric acid
- Explosion from hydrogen-oxygen gases
- Electrical shocks and burns
- Lifting injuries

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- To start charging a battery, connect the **leads** first, and then turn the charger on.
- To finish charging a battery, turn the charger off, and then disconnect the leads.
- While charging a battery, carefully watch the temperature; stop charging if the battery gets really hot.
- Always disconnect the ground cable first.
- Never attempt to charge or jump-start a frozen battery.
- Never attempt to charge or jump-start a maintenance-free battery if the charge indicator shows low electrolyte (clear or yellow).
- If you come in contact with battery acid, immediately flush the affected area with water, seek first aid, and call a physician.

Leads: Leads are commonly called "jumper cables" and are used to connect a battery to a power source. They have a red (positive) cable, and a black (negative) cable. These cables should not be crossed.

Ground Cable are part of the lead cables. The ground cable is the black cable, which is attached to the negative battery terminal.

Did you know?

Batteries can freeze at different temperatures. A battery working at 100% efficiency will freeze around -24 degrees Celsius, but if the battery is not functioning properly, it might begin freezing at 0 degrees Celsius, the same temperature as water!

Corrosive substances will cause metals, stone and other materials to gradually deteriorate. An example of corrosion is rust.

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