



KCA TOOL BOX TALK: Battery Safety

Batteries are all over our jobsites and most often not thought about except for when they need changed and/or recharged. Batteries come in all shapes and sizes with all kinds of voltages. ALL batteries can be dangerous if they are overcharged, damaged, or shorted, however large batteries such as the ones in vehicles and equipment are usually the most dangerous on the jobsite.

Signatures

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____
- 14. _____
- 15. _____
- 16. _____
- 17. _____
- 18. _____

Safety Tips for Jump Starting a Vehicle with a Dead Battery

- Wear PPE to protect yourself in case of an explosion and to prevent acid burns on your skin or in your eyes (use gloves, goggles, and long sleeves).
- A lead-acid, wet-cell battery generates hydrogen and oxygen when being charged (all it takes is a lit cigarette, or a spark from static electricity or a booster cable, to cause an explosion).
- Remove jewelry before working with batteries (you do not want to get shocked or burned because a ring or bracelet touches a terminal).
- Never jump start a frozen battery.
- Never lean over a battery when jump starting it.
- You must have an eye wash station within reasonable distance when charging or jumping a battery with open terminals.

Steps for Jump Starting a Vehicle with a Dead Battery

Move the vehicle with a good battery close to the one with the dead batter and turn OFF the engine. Get the jumper cables. Know that the RED clamps go on the POSITIVE terminals and the BLACK clamps go on the NEGATIVE terminals.

- To eliminate any sparks near the dead battery, follow this connecting sequence:
1. **Attach a RED clamp to the POSITIVE terminal on the GOOD battery.**
 2. **Attach the other RED clamp to the POSTIVE terminal on the DEAD battery.**
 3. **Attach a BLACK clamp to the NEGATIVE terminal on the GOOD battery.**
 4. **Attach the remaining BLACK clamp to a CLEAN, UNPAINTED METAL PART in the ENGINE COMPARTMENT of the DEAD vehicle.**

After connecting all the cables properly, start the functioning vehicle and let it run for a moment. Clear everyone away from the engine compartments and try to start the dead vehicle. After it starts, **DISCONNECT THE CABLES IN THE REVERSE ORDER!** Charge the dead battery by allowing the vehicle to run for 15 to 30 minutes.

Disposing of Batteries

- All batteries contain hazardous chemicals and most contain heavy metals which can contaminate water supplies.
- Never throw the dead batteries in the dumpster.
- Almost all batteries should be recycled.