Take Safe Charge of Batteries

Safety Talk

How This Affects You: *Nearly 6,000 people every year suffer serious eye injuries from working around batteries. Don't be one of them.*

When being serviced or replaced, automotive lead-acid batteries can cause burns. These batteries contain sulfuric acid; one droplet of this corrosive chemical can seriously damage eyes or skin.

Lead-acid batteries also produce flammable hydrogen gas while being charged. This gas can expand and seep out of vent caps. Any spark could ignite the hydrogen and the battery could explode.

Jump-starting the battery

- Turn off all electrical equipment, including the engine. Connecting the jumper battery while a load is being drawn could cause a spark.
- Check the battery fluid level. If the plates are exposed, add water until they are covered.
- Make sure both batteries are of the same voltage.
- Make sure vent caps are in place to prevent electrolyte splash.
- Connect one end of the positive (red) cable to the positive (+) terminal of the good battery. Then attach the other end of that cable to the positive terminal of the dead battery.
  Connect the negative (black) cable to the negative (–) terminal of the good battery. Then connect the other end of that cable to a metal part of the other vehicle's engine block (a nut, for example). **Note: Do not mistakenly connect this cable to the negative terminal of the dead battery.**

Start the engine of the good battery and let it run for a minute or two. Then start the other vehicle. Remove the cables in the reverse order that you connected them.

Replacing the battery

- Disconnect the cable from the negative side of the battery. Then disconnect from the positive terminal.
- If you see a hold-down clamp or frame used to hold the battery in place, remove it.
- To lift the battery out, it's wise to use a battery strap, available from an auto parts store.
- If the battery tray is corroded or damaged, replace it.

- Install the new battery and hold-down clamp.
- Re-attach the positive cable, then the negative cable to their proper terminals. For each, place the cable end over the terminal and then tighten the bolt until the end of the cable is secure. Use a wrench, not pliers, and don’t over-tighten the bolt.

Remember, don’t let your work with batteries be an explosive situation.