Instructor Notes: *Jump-starting disabled vehicles is common for most towing companies and while they are profitable they can also be very dangerous if not performed properly. Take this opportunity to discuss battery safety with your drivers to prevent unnecessary injuries to your staff and needless damage to your customers' vehicles.*

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Battery Basics and Jump-Start Safety

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With winter just around the corner, most towing companies – especially those in "snow states" – are getting geared up for snow, ice and unprepared motorists. Although it is good for business, some motorists don't prepare for cold weather and ignore their car's battery until it's too late.

Move It or Work It

Safe jump-starting starts with a safe work area. If the disabled vehicle is in the roadway or on the shoulder of a busy highway, it may be safer to relocate the vehicle to a nearby parking lot or something similar. If the situation dictates you park behind the vehicle (and have a jumper pack), putting at least 1-1/2 truck lengths between you and the disabled vehicle for a buffer space. If your call is a jump/possible tow, it may warrant parking in front of the disabled vehicle to avoid moving there later. In all cases, *do not* allow the vehicles to touch when jump-starting.

Inspect First

Before automatically assuming that a jump-start will solve your customer's dilemma, spend a minute looking into the signs and symptoms of the problem. Is the vehicle's transmission in "park" or is there a Neutral Safety Switch problem? Can the problem be solved by simply tightening a loose battery cable clamp? If the cable clamps are corroded, can you remove them, clean them and reinstall them? What is the condition of the battery? If it's damaged, cracked, frozen or bulging, *do not* attempt to jump the battery.

Personal Protection

Protect yourself and your customer. Have your customer stand a safe distance from the engine compartment while you are working. Wear proper hand and eye protection when working on or near a battery. Battery acid, or electrolyte, can burn the skin and seriously injure your eyes. If electrolyte is splashed into your eye, immediately flush the area for at least 15 minutes with water (preferable) or any drinkable liquid (e.g., Gatorade, milk or similar) and seek medical treatment.

Avoid electrical shock; don't rest tools on top of a battery and don't wear rings, watches or metal bracelets that can accidentally contact battery posts. Never smoke or use an open flame near a battery. Vented hydrogen gases generated from within the battery will explode violently if ignited. Other personal protection safety concerns;

- Avoid leaning over the battery when jumping.
- When attaching the cables, look away as much as possible and/or shield your face.
- Be cautious of moving parts in the engine compartment such as fans, pulleys or belts.
- Do not connect the black, negative (-) clamp to the dead battery. Instead, attach that clamp to an unpainted metal part of the engine to avoid a spark near the battery.

Use the Right Equipment

Make sure your jumper cables are the proper gauge to do the job safely and that you inspect the cables, jumper outlets and/or jumper pack regularly. Rust and corrosion on clamps can cause an arc or spark even when used correctly. Ensure there are no exposed wires on the cables. Basic electrical tape may not adequately insulate the wires and protect you from a shock.

Know What You Are Dealing With

In some instances, the vehicle's battery may not be easily accessible (i.e., it could be located in a fender panel, or in the trunk). In these cases, most manufacturers will have an alternate connection point for jumping the vehicle. There are some auto manufacturers that do not recommend jump-starting and actually advise the removal of the battery to replace it or even to recharge it. If you're not sure, refer to the vehicle owner's manual.

Customer Service Follow-Up

It usually takes about 20 minutes for a car to recharge its own battery after it has been jump-started but keep in mind that most batteries are only rated to last four to six years. If the engine dies shortly after it has been jumped, or as soon as the jumper cables are disconnected, it usually means that your customer may have other problems such as a bad alternator or voltage regulator and may need to be towed.

This article is a part of TowSafe, a safety program designed for towing operators. For more information contact April at 407-706-6796.