

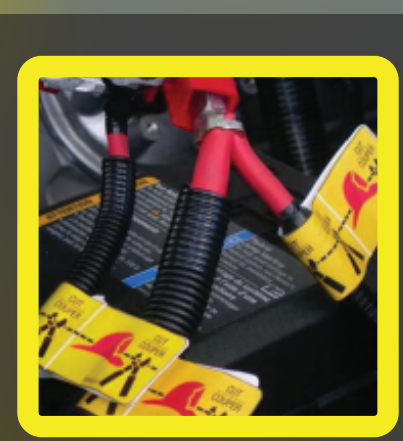


# First Responder

## Electric Vehicle Safety

CAUTION ⚠ CAUTION ⚠

### Identifying & Disabling Electric Vehicles



**Identify:** First Responders may identify an electric vehicle (EV) pinpointing the vehicle make and model, or quick indicators, such as an underside plastic shielding cover, a lack of tail-pipe and other exhaust system components. Knowing the type of electric vehicle is key to know locations of electrical components and how to disable.



**Immobilize:** First Responders should immobilize EVs via removing air from the tires, or utilizing Lift Airbag Equipment for rescue. As an EV may appear to be shut-down due to the lack of operating noise, First Responders should use caution and make sure EVs are turned off and stabilized with a wheel chocks.



**Disconnect:** First Responders, if safely possible, should turn ignition off as well as disable the secondary battery and high voltage system by following the Shutdown and First Response Action Procedure defined by the vehicle-specific user manual. If the EV has a proximity key, First Responders should remove it to a distance of 16 feet. Finally, First Responders should wait at least ten minutes for complete discharge of the high voltage capacitor before proceeding with first response action.

CAUTION ⚡ CAUTION ⚡ CAUTION

### Electric Vehicle Fires



First Responders should always utilize full Personal Protective Equipment and self-contained breathing apparatus during fire operations.

First Responders should always take a defensive approach when handling an EV fire.



First Responders may effectively and safely control the fire around the battery pack from a defensive position while allowing the battery to burn itself as the sealed battery pack is nearly impossible to extinguish.

First Responders should treat a charging EV that catches fire as an energized electrical fire and shut down the electrical circuit supplying the charge.

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### Submerged Electrical Vehicle

Damage level of submerged vehicle may not be apparent. Handling a submerged vehicle without appropriate PPE will result in serious injury or death from shock.

The power switch of the submerged vehicle must be turned off first, if possible. Then the vehicle must be completely out of the water and drained to avoid electrical shock.

Make sure to drain the vehicle completely of water before removing the service plug. To avoid shock never touch high voltage components, harnesses, or charging plug.

CAUTION ⚠ CAUTION ⚠ CAUTION



Sources: EV Emergency Field Guide by NFPA, U.S. Department of Energy's Clean Cities program, [www.energy.gov](http://www.energy.gov)  
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