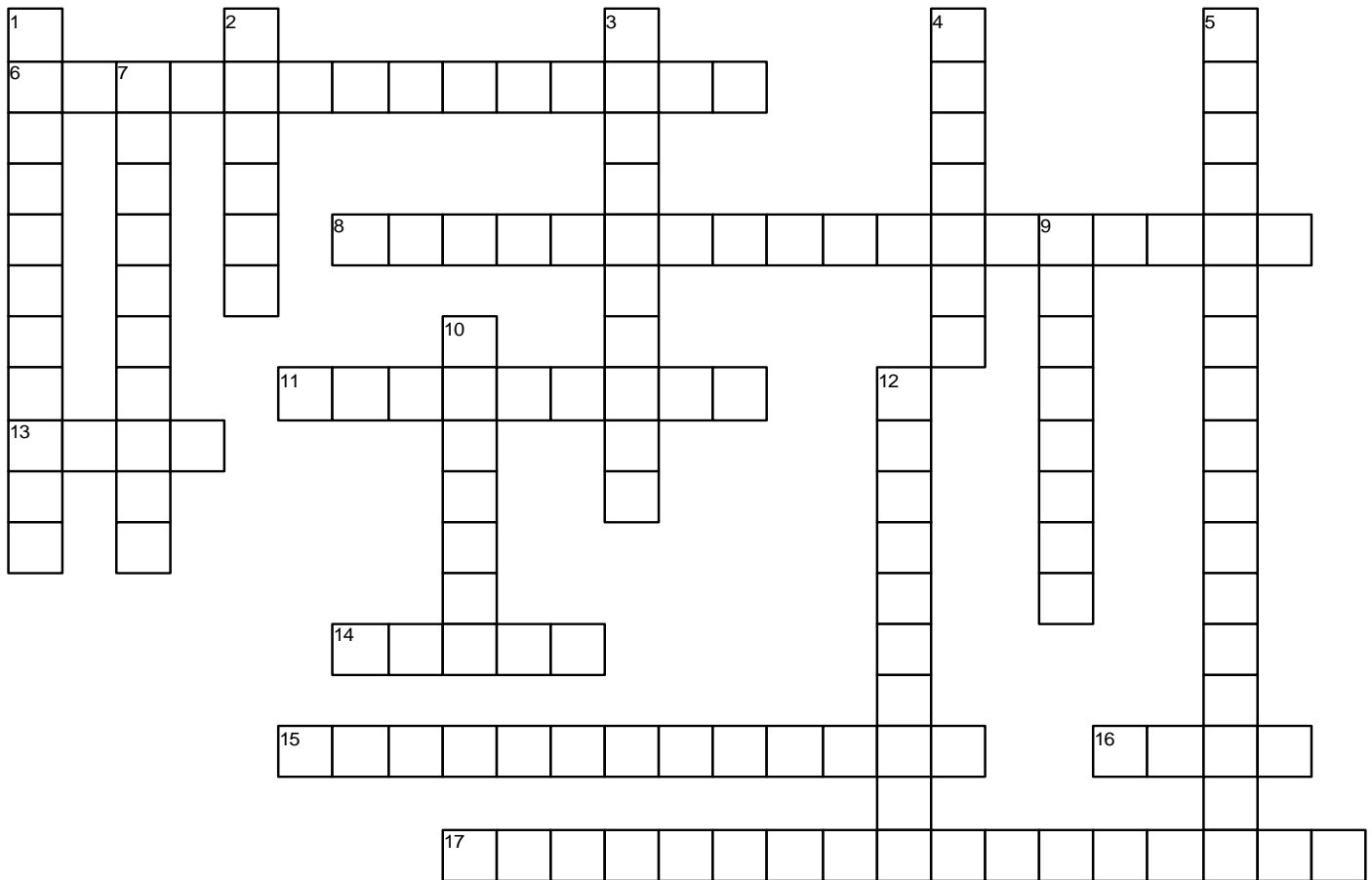


# Hybrid and Electric Vehicle Safety

## Chapter 1



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### ACROSS

- 6 Some manufactures recommend the use of \_\_\_\_\_ or shoes to protect against exposure to high voltage.
- 8 The \_\_\_\_\_ and Health Administration (OSHA) requirements specify that the HV gloves get inspected every six months by a qualified glove inspection laboratory.
- 11 A local \_\_\_\_\_ is a LV circuit that uses separate switches and contacts to detect when there has been an open in LV circuits or components that are associated with the HV system.
- 13 Abbreviation for acoustic vehicle alerting system.
- 14 Catagory \_\_\_\_\_ is the minimum-rated meter that should be used for hybrid and electric vehicles.
- 15 The \_\_\_\_\_ Electrotechnical Commission has several categories of voltage standards for meter and meter leads. These categories are ratings for over voltage protection and are rated CAT I, CAT II, CAT III, and CAT IV.
- 16 Abbreviation for American Society for Testing and Materials.
- 17 ANSI is the abbreviation for American \_\_\_\_\_ Institute.

### DOWN

- 1 Electric and hybrid electric vehicles use \_\_\_\_\_-\_\_\_\_\_ (HV) circuits that if touched with an unprotected hand could cause serious burns or even death.
- 2 Use ONLY a \_\_\_\_\_ fire extinguisher rated for electrical fires.
- 3 The HV system uses \_\_\_\_\_ or heavy-duty relays to detect opens in the HV circuits.
- 4 Remove all \_\_\_\_\_, rings, watches, and bracelets before working on the vehicle.
- 5 A category three (CAT III) certified \_\_\_\_\_ is required for Hybrid and electric vehicles that are equipped with electrical systems whose voltages can exceed 600 volts DC.
- 7 The \_\_\_\_\_ relays (SMRs) or contactors disconnect power from the cables the moment the ignition is turned off.
- 9 Some manufacturers recommend \_\_\_\_\_ clothing or long sleeve, 100% cotton clothing that is tucked into the gloves when working on HV components.
- 10 Use an outer \_\_\_\_\_ glove to protect the HV rubber gloves.
- 12 Some manufactures recommend that a 10-foot insulated \_\_\_\_\_ pole be available outside the safety zone to be used to pull a technician away from the vehicle.