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## Fuel Cell Standards

### XVII. Cathode Subsystem

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## XVII.c Mass Airflow Sensor (MAF)

### Overview:

Classroom and lab review of the

- Primary functions of the fuel cell system mass air flow sensor
- Theory of their basic operation and mechanization
- Review of sensor schematic representation both mechanical and electrical
- Faults associated with MAF
- Methodologies on testing MAF sensors off vehicle
- MAF wiring harness

### Description:

The mass flow sensor in a fuel cell vehicle performs in a similar fashion to those used in internal combustion vehicles but with higher flow rates

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### Outcome (Goal):

Student will be able to explain the functions and operating parameters of the MAF.

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### Objectives:

Students shall be able to:

1. Identify a defective sensor using vehicle data and hand-held meters
  2. Locate, inspect and replace the sensor
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Tasks:

Students will

1. Explain the function and operating principles of mass flow sensors
  2. Use vehicle pass through communication to collect data on a mass flow sensor's operation
  3. Locate, remove and replace a mass air flow sensor using OEM instructions
  4. Identify MAF harness pinouts
  5. Bench test a mass air flow sensor
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