

## ANSWER KEY TO CHALLENGE SHEET

### LIGHTING SYSTEMS CHALLENGE 3

**Customer's Concern:** My gas gauge is dead. Even when I fill the gas tank it still reads empty.

**Customer Vehicle:** Toyota Highlander.

#### Possible Causes of This Challenge:

1. Grounded fuel tank sending unit.
2. Grounded wiring harness from fuel tank to fuel gauge.
3. Defective instrument panel fuel gauge assembly.

#### Safety First Practices to Follow:

1. Wear safety glasses at all times.
2. Disconnect battery power when removing instrument panel.
3. Use appropriate fuel recovery system to empty fuel tank before removing tank sending unit.
4. Do not create any sparks when working around gasoline.
5. Use proper procedure when using a lift or a jack and jack stand.

#### Tools and Equipment Required:

1. Vehicle service information.
2. Hand tools.
3. Digital multimeter.
4. Instrument testing variable.