# **Hybrid Vehicle Battery Testing**

## **Purpose**

Simulate actual use and abuse conditions and potential failures

## **Expertise**

- Serving the automotive and battery industries for over 25 years
- A2LA Accredited Laboratory

#### **MGA Fabrication Center**

- Develop customized test equipment
- Test fixture design and manufacturing

#### **Protective Test Cells**

- MGA designed and built specifically for safely conducting battery testing
- Ventilation system to expel hazardous gases and smoke from test cells
- Lexan panels for viewing tests

## **Testing Standards**

- SAE, ASTM, ISO
- FreedomCAR (Cooperative Automotive Research)
- OEM and Supplier Specific Standards

#### **Mechanical Abuse Tests**

- Including:
  - Crush
  - Nail Penetration
  - Immersion
  - Impact

- Shock
- Drop
- Acceleration
- Connector Strength

#### Electrical Performance/ Characteristics Tests

- Including:
  - Short Circuit
  - Overcharge
  - Forced Discharge
  - Functional Evaluation

# **Environmental/Durability Tests**

- Including:
  - Hot/Cold Thermal Cycling
  - High Frequency Vibration
  - Thermal Shock
  - Salt Spray
- Multi Axis Simulation Table (MAST)
- Rain Simulation
- Extreme Heat
- Dust









