## Spectro Modular **Battery Rapid-Tester**

- More than testing CCA: The Resistance Test alone does not provide reliable battery state-of-health readings as CCA tends to stay high while the capacity can drop below usable levels.
- Measured in Reserve capacity or Ah: capacity fade depicts growing rock content reducing energy storage.



## PARAMETER

3-48V

Capacity 27.5-125Ah

**CCA** 300 - 1250 **Test Time** 15 Sec

## CONNECTIVITY



The battery test results of the CM-48 are shown on a host with printing capability.



Cadex Cloud:

Cloud connectivity enables analytics to study unique field battery characteristis.



## **BATTERY TESTING SPECIFICATIONS**

- Application: A compact, non-invasive, wireless battery diagnostic tool equipped with cloud support and multi-model electrochemical impedance spectroscopy (EIS) for precise battery health assessment. Designed for automotive warranty and aftermarket services, it consolidates with third-party workshop diagnostic software maintenance systems via API. Features multiple test modes suitable for fleet pre-delivery inspections, dealer warranties, and aftermarket services.
- Model: Spectro Modular, Product SKU#: 11-500-0200-00

- Market: Automotive starter batteries:
   12V lead acid; flooded (EFB) and AGM (Gel)
   12–48V lithium-ion; model-specific profiling required
   Operation: Rechargeable internal battery, good for 250 tests and up to 12h continuous use
- Capacity: Classified; pass/fail threshold (set to 40%)
- CCA: In Amps, %, Pass/Fail (set to 50% SAE). Cranking units for: CA;EN:IEC;DIN;BCI;MCA

- State-of-Charge in percent - Built-in battery profiling - Stores up to 1000 test results

- Voltage: Shown in 3-digit readout
- Temperature: Degree Celsius and Degree Fahrenheit; selectable
- Messages:
   Good Battery

  - Good Battery Recharge
     Good battery Recharge
     Poor SoC ( %)
     Replace Battery (Poor RC)
     Replace Battery (Poor RC+CCA)
     Replace Battery (High Resistance Detected)
     Charge and Re-test
  - Charge and Re-test
  - Surface Charge Detected Re-test after self-discharge
- EIS Scan: Excitation range: 16–2,048Hz
- Test Time: Under 30 seconds

Dimensions: **Package** Depth 7.16"; 182mm Width 3.78"; 96mm Height 1.85"; 47mm 12"; 30.5 mm 13"; 33mm 4.6"; 11.4mm 3.2 lb.; 1.46 kg Weight 0.94 lb; 430 g

- **Port**: USB-C, also used for charging with 110–240VAC, 50–60Hz AC power supply DB15 with 1 meter test cable (39,7")
- Battery: internal Li-ion battery; 21700, 5Ah

- Connectivity:
   Wi-Fi 802.11 b/g/n (up to 150Mbps at 2.4GHz)
   BLE V4.2 (FCC, ISED, CE mark and Bluetooth QDID)
   Cadex Link (Operating Application)
   Compliant with OEM & Aftermarket 3rd party workshop diagnostic/maintenance Software systems over API
- Environment:

  - Environment.

    Temperature: -10°C to +45°C (14°F–113°F) Humidity: 10–80%

     Short-Term (up to 30 days) at -20°C to +30°C (-4° to 86°F)

    Humidity: Non-condensing

     Long-Term (1-3 months +) at -20°C to +25°C(-4° to 77°F)

    Humidity: Non-condensing
- Approval: Tested and approved to comply with CSA/UL/CE standards. RoHS. REACH, RED,WEEE, ISTA 3A, IP52 and FCC Type A compliant
- Warranty: Cadex warrants the device against defective Capacity: 27.5–125Ah; Reserve Capacity (RC) 55–250 min.
   CCA: 300–1250 CCA (SAE Standard) materials and workmanship for a period of two (2) years from the original purchase date
  The cable and clamp carries a one (1) year warranty.

  - Internal Battery Operating Time:
     Minimum of 250 continuous test cycle between charge
     Up to 12 hours of continuous testing between charge
  - Capacity (State Of Health):
     Good (40% ~100%)
     Poor (0%~40%)

  - Cold Cranking Amps (CCA):
     Good (50%~100%)
     Poor (0%~50%)
  - CCA Standards: CCA (SAE), CA, EN, IEC, DIN, BCI, MCA
  - Test Result Message:

  - Good Battery Recharge
     Replace Battery (Poor RC)
     Replace Battery (Poor RC+CCA)
     Replace Battery (Poor RC+CCA)
     Replace Battery (High Resistance Detected)
     Charge and Re-test
     Be test after self discharge (Surface Charge

  - Re-test after self-discharge (Surface Charge Detected)

**ANALYZERS CHARGERS TESTERS BATTERY PACKS CUSTOM SOLUTIONS**