

LVC-40 Specifications

Cell Diagnostic Tool for EV Battery Repair

The LVC-40 uses the latest battery analysis technology for remanufacturing and repair of electric vehicle (EV) and hybrid electric (HEV) batteries. Building upon the proven EVc technology, this tool is designed to diagnose battery cells/modules from different EV and HEV models. Our intuitive software analyzes the testing results, indicates which cells need replacement, and determines which cells to combine for a balanced battery pack.

NuVant LVC technology provides:



Internal resistance



Watt-hour capacity



Amp-hour capacity



Nominal cell voltages



LVC-40 battery diagnostic unit with built-in computer and 40 connection ports allows you to recondition more batteries faster. It pays for itself in 3 months.

The turnkey system includes:

- Built-in computer
- Analysis software
- Diagnostic plans
- Forty battery connection cables

For EV and HEV batteries:

- Toyota Camry Hybrid
- Toyota Prius Hybrid
- Toyota Prius Prime
- Ford Fusion Hybrid
- Nissan Leaf
- Tesla Models
- More vehicles to come!

Load	
Max Load Voltage	+19 V
Max Charge Current	5 A per channel
Number of channels	40
Max Discharge Current	5 A per channel
Applied Current Accuracy	0.5% of Full scale resolution
Applied Current Resolution	0.3 mA

Potential Measurement	
Measured DC Potential Ranges	+20 V
Resolution	0.6 mV
Accuracy	0.08 or 0.03% of FSR

Current Interrupt (Serial Resistance Measurement)	
Minimum Sampling Interval	4 μ s
Serial Resistance Precision	0.5%
Measurement Logging time	1 second

Step Impedance Spectroscopy	
Maximum Current Amplitude	5 A
Minimum Sampling Interval	4 μ s
Minimum Pulse Width	40 μ s

Data Acquisition	
Acquisition Speed	500 kS/s aggregate Distributed over 1 to 30 channels
DAC Resolution	16 bits

Accessories	
Built-in PC	MS Windows
Cooling box	Accommodates up to 40 modules
Cables	40-cable set, 7 ft each

Physical dimensions and weight	
LVc-40: L x W x H: Weight	35" x 18" x 26": 180 lbs
Cooling box: L x W x H: Weight	38" x 15" x 6": 20 lbs
40 Cables	40 lbs

By combining our battery expertise with precision testing and electronics, A3Global has built a dependable, high-quality product for the next-generation of electric vehicles!

Key Benefits:

- The LVc-40 services various EV and plug-in hybrid vehicles (more in development)
- Connect up to 40 cells/modules at a time
- Two modes of function:
 - Operator – easily connect and run cell diagnostics
 - Manager – analyze diagnostic data and choose cells for balanced pack
- Front panel LCD display shows cell diagnostic progress



Won the "Green Good Design" award, presented by The European Centre for Architecture Art Design and Urban Studies and The Chicago Athenaeum: Museum of Architecture and Design.