Battery Resistance Tester

IBAR Series

- Handheld and lightweight device
- Battery resistance measurement range: 0 - 5 Ω
- Voltage measurement range: ± 60 V
- Measurements on offline batteries (batteries disconnected from the charger and the load)
- Evaluation of battery's state of health by quick internal resistance measurements and battery trending
- Autorange mode for automatic detection of resistance range
- Detailed test results analysis using DV-B Win software

Description

The Battery Resistance Tester IBAR is an ideal tool for periodic inspections, maintenance, troubleshooting and performance testing of individual stationary batteries used in critical battery applications.

Measurements are performed on fully offline batteries, which are disconnected from both the load and the charger.

IBAR determines the health of stationary batteries by performing measurements of internal resistance and voltage as well as intercell connection resistance values.

Measurements obtained by IBAR, along with cell temperature and specific gravity data can provide detailed analysis and evaluation of overall health of batteries. Readings are taken within two seconds, using the included pin probes.

IBAR allows the user to quickly and easily define upper and lower measurement thresholds or tolerance ranges.

During the testing process, measured values are automatically compared to the predefined threshold limits producing a PASS, FAIL or WARNING indication. All the test data is automatically stored in the devices' internal memory for further analysis. DV-B Win software allows the user to quickly and easily import data in order to compare results and perform detailed trending analysis, and generate reports in different formats, such as .pdf, .doc, and .rtf.

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Application

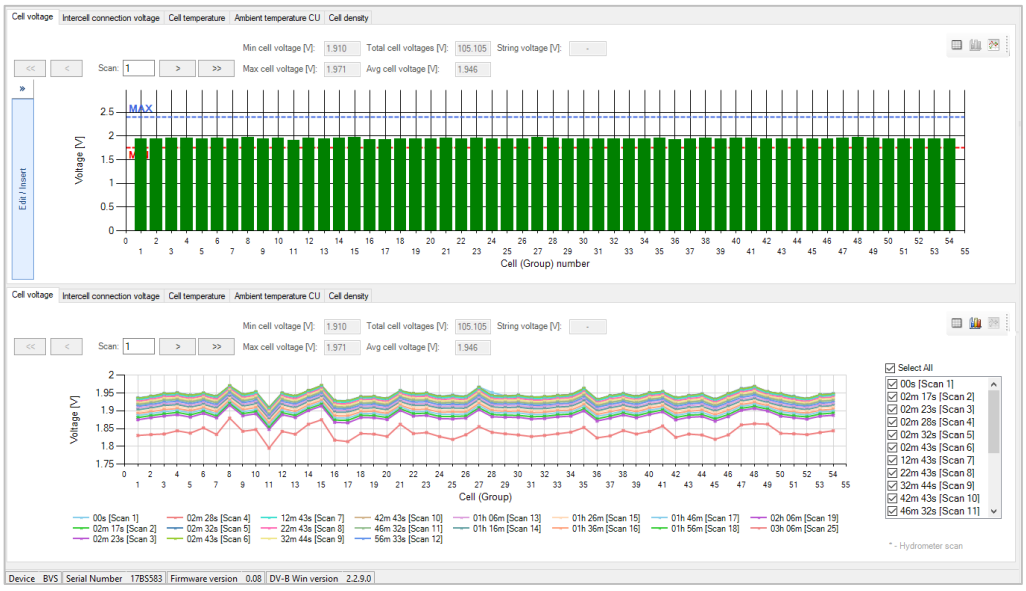
The list of the instrument's application includes:

- Quick verification of stationary lead acid batteries' state of health and battery trending analysis
- Simultaneous measurement of battery internal resistance and voltage (U+R mode)*
- Measurement of intercell connection resistance for verification of battery intercell connections*

DV-B Win Software

Using the DV-B Win software application set, all results can be presented in multiple forms, such as table forms and scan and/or line graphs, for an easier cell trending and results analysis.
In order to perform detailed comparisons and analysis of measured data, user defined limits for battery internal resistance and voltage, as well as cell temperature, are displayed in the scan graph view along with measured results.
An alarm notification is provided by DV-Win, when detecting cells with resistance, voltage or temperature levels out of pre-defined limits.

A test report of collected data can be generated and user customized for a comprehensive assessment of battery's state of health.
Numerical and graphical results may be exported from DV-B Win in selectable formats such as Excel spreadsheet, PDF, Word or Rich Text Format. Additionally, importing other types of data formats (.jpeg, .png, .doc) into standardized DV-B Win report is provided as well.



DV-B Win application functions – Scan view and Line graphs for individual cells

* Measurements are performed on offline batteries (disconnected from the charger and the load).

Technical Data

Mains Power Supply

Battery

- Type 2 Cells – 2900 mAh Li-Ion
- Voltage 7,4 V
- Charge time 6 hours

AC Adapter

- Input voltage: 90 to 264 V AC, 50/60 Hz
- Output voltage 12 V DC
- Output current 1 A

Resistance measurement

Range	Test current	Accuracy
<5mΩ (1 uΩ res.)	150 mA	±1,0%rdg ± 0,1%FS
5mΩ -50 mΩ (10 uΩ res.)	150 mA	±0,8%rdg ± 0,1%FS
50 mΩ -500 mΩ (100 uΩ res.)	15 mA	±0,8%rdg ± 0,1%FS
500 mΩ - 5 Ω (1 mΩ res.)	1,5 mA	±0,8%rdg ± 0,1%FS

Voltage measurement

Range	Resolution	Accuracy
±6 V	1 mV	±0,1% rdg.± 0,1%FS
±60 V	10 mV	±0,1% rdg.± 0,1%FS

Display

- Type: FSTN-LCD 2.8 in
- Format: 128 x 64 Dots
- Outline dimension:
- 70.0(W)x50.0(H)x5.8(T)mm
- Active Area: 63.95 (W) x 31,65 (H) mm

Communication

- USB: Device to PC

Memory

- Internal flash memory: 64 Mbit

Real time clock

- Precision: ±5 seconds per month
- Calendar: 100 year with leap year detection
- Time retention: 10+ years (battery removed)

Environment conditions

- Temperature:
  -10 °C to +45 °C / 14 °F to +113 °F
- Maximum relative humidity 95 % for
  Temperatures up to 31 °C, decreasing
  Linearly to 40 % relative humidity at 55 °C

Dimensions and Weight

- Dimensions (L x W x D):
  223 mm x 98 mm x 46 mm
  8.77 in x 3.85 in x 1.81 in
- Weight: 0,5 kg / 1.1 lbs

Warranty

- Three years

Applicable Standards

- Installation/overvoltage: category II
- Pollution: degree 2
- Safety: LVD 2014/35/EU (CE Confirm)
  EN 61010-1:2010
- EMC: Directive 2014/30/EU (CE Confirm)
  Standard EN 61326-1:2013
- CAN/CSA-C22.2 No. 61010-1, 2nd edition,
  Including Amendment

All specifications herein are valid at ambient temperature of + 25 °C and recommended accessories.
Specifications are subject to change without notice.

Accessories

IBAR Test lead set

Zero Calibration Board

Order Info

Instrument with included accessories	Article No
Battery Resistance Tester IBAR	**IBARXX-NN-00**
DV-B Win software including mini USB cable	
Plastic transport case and carrying belts	
Power supply adapter	

Recommended	Article No
IBAR Test lead set	**TLS1Z5-0Z5-0**
Zero Calibration Board	**ZER-CALBD-00**

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