



## TEST EQUIPMENT RENTAL SERVICES

When you rent Test Equipment from TDC, we want you to know that you will have a dedicated personal service from start to finish. Our Customer Service team is here to support you throughout your rental period.

TDC are independent specialists promoting all high quality manufacturers and instrument types. Equipment can be delivered Next Day or Same Day to suit your requirements.

When you are finished, simply contact us to arrange your equipment collection or alternatively you can despatch it back to us – we make it easy.

## RENTING FROM TDC JUST MAKES SENSE

By using TDC Test Equipment Rental Solutions, you benefit from our extensive rental inventory that is second to none. We constantly refresh our equipment range with branded equipment manufacturers such as Megger, FLUKE, Chauvin Arnoux, OMICRON, FLIR, b2 HVA, Agilent Technologies, Dranetz BMI, Fujikura, JDSU, Ametek Jofra, GE DRUCK, RAE Systems, TSI Airflow, Rohde & Schwarz, NORBAR, PANAMETRICS, Tektronix and many more.

You can utilise our rental equipment to suit your own requirements, from one week to as many months as you need. You only pay for what you use down to the day. Renting with TDC is straightforward and easy. Our expert Sales and Applications Engineers will find the best solution to suit your application.

Delivery & Collection is arranged by us - we make it hassle free and easy.

## TDC 6 POINT RENTAL GUARANTEE - OUR REPUTATION MATTERS



### 1 SAME DAY DISPATCH

Many of our customers operate to very strict deadlines. Providing the order is placed and confirmed before 3pm, your equipment will be despatched the same day.



### 2 QUALITY

All Equipment is checked prior to dispatch to ensure it is servicable and in safe working order. Certification checks are standard.



### 3 SUPPORT

We will provide you with enough information to make an informed choice of the correct equipment required for your application.



### 4 PRICE

We offer a simple price match promise. We'll match any genuine competitor quote.



### 5 CUSTOMER SERVICE

We can promise that throughout your rental period, we will do our utmost to provide you with the best customer service. All information we provide is in good faith and free of charge. We will provide a quote for any consultancy or professional advice that may be required.



### 6 REPUTATION

We know we are only as good as our last job. We don't just want regular customers - we want to build loyal customers.



For all enquiries, please contact: Gordon Thow (Test Equipment Rental Manager)

t: +44 (0)1224 710077 | e: [gordon.thow@tdcaberdeen.co.uk](mailto:gordon.thow@tdcaberdeen.co.uk) | w: [www.TDCaberdeen.co.uk](http://www.TDCaberdeen.co.uk)

a: TDC Aberdeen Ltd | Bankhead Industrial Estate | Bankhead Avenue | Bucksburn | Aberdeen | AB21 9ET



**TEST EQUIPMENT RENTAL SERVICES**

## **IBAR Battery Resistance Tester Series**

**Datasheet**

# Battery Resistance Tester

## IBAR Series

- Handheld and lightweight device
- Battery resistance measurement range: 0 - 5  $\Omega$
- Voltage measurement range:  $\pm 60$  V
- Quickly records and stores internal resistance, float voltage, and inter-cell connection resistance.
- Auto range mode for automatic detection of resistance range.
- Support tool during capacity test for cell voltage measurement.
- Detailed test results analysis using DV-B Win software




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### Description

The Battery Resistance Tester IBAR is an ideal tool for periodic inspections, maintenance, troubleshooting and performance testing of individual stationary batteries up to 4000 Ah used in critical battery applications. 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.



## 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 inter-cell connections
- Serve as a support tool for cell voltage measurement during the capacity testing

## DV-B Win Software

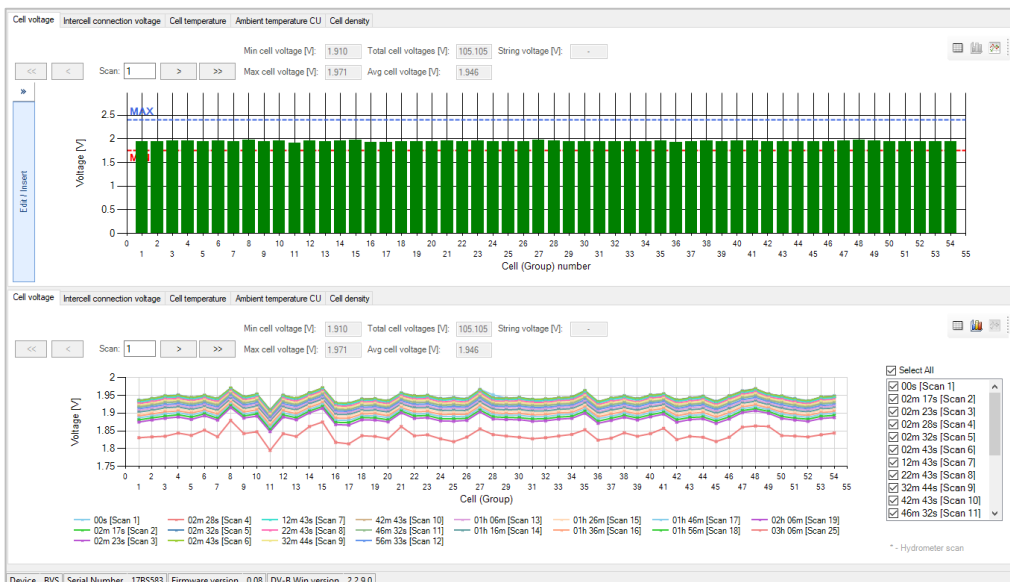
Using the DV-B Win software application set, all results can be presented in multiple forms, such as table forms and scan and/or line graphs, for an easier cell trending and results analysis.

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*

## 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 3 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
- EMC: Directive 2014/30/EU (CE Confirm)  
Standard EN 61326-1:2006
- CAN/CSA-C22.2 No. 61010-1, 2<sup>nd</sup> 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	<b>IBARXX-NN-00</b>
DV-B Win software including USB cable	
Transport bag and carrying belts	
Power supply adapter	

Recommended	Article No
IBAR Test lead set	<b>TLS1Z5-0Z5-0</b>
Zero Calibration Board	<b>ZER-CALBD-00</b>

**IBEKO Power AB**  
 Stockholmsvägen 18  
 181 50 Lidingö, Sweden

**Contact**  
 Phone: +46 70 0925 000  
 E-mail: [sales@dv-power.com](mailto:sales@dv-power.com)



AC/DC Motors & Generators



Electrical Engineering



Mechanical Engineering



Condition Monitoring



Precision Machining



Marine Electronics



Elec & Mech Product Supply



Calibration and Rental Services



Quality Coatings



Transformers



Control Panels



Compressors



Auxiliary Power Systems

To differentiate our organisation in order to achieve continuous, sustainable growth, TDC endeavours to fully understand and exceed the expectations of our customers, and to work proactively to deliver **Engineering Excellence.**



t: +44 (0)1224 710077 | e: [info@tdcaberdeen.co.uk](mailto:info@tdcaberdeen.co.uk) | w: [www.TDCaberdeen.co.uk](http://www.TDCaberdeen.co.uk)

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