

## QUICK START GUIDE FOR IBEX-SERIES

### V1.1

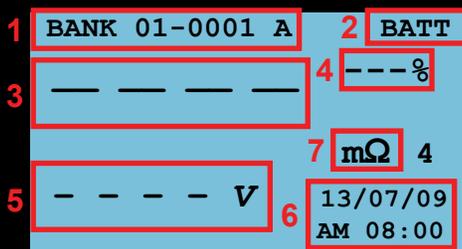
Quick start directions have been designed to provide the user a brief understanding of the product and how to operate it using the most basic functions. It is recommended that you read the entire product manual to fully understand how the IBEX-Series works.

**For Sales & Support Please Contact  
1-877-805-3377 (EEPS)**

[www.eepowersolutions.com](http://www.eepowersolutions.com)

## MEASUREMENT SCREEN

- When powered on, the IBEX defaults to the *Measurement Screen*
- All tested data appears on this screen until the test leads are removed from the battery



Measurement Screen

- Refers to BANK / CELL position, adjust with arrow keys
- Internal battery level
- Resistance measurement value
- Alarm % value
- Voltage measurement value
- Date & time OR temp. measurement value only when temp. probe is connected
- Measurement unit (resistance or conductance)

## ADJUST BANK MEMORY SIZE

- Bank size refers to the number of cells per number of banks stored in the IBEX memory and **must be configured properly prior to testing** as any adjustments will delete the memory
- Determine the battery bank with the most cells that will be tested (ex. 64 cells)
- Press **MENU** and navigate to *BATT INFO* and press **ENT**
- Select the *BANK CHANGE* submenu
- Displayed is the number of banks per number of cells (ex. BANK 28 \* CELL 64)
- This indicates that there are 28 banks of 64 cells each stored on the IBEX
- Using the Left/Right arrow buttons, adjust the bank count so that the cell count is at least as high as the largest bank being tested (ex. testing 64 cells, set the IBEX to CELL 64)
- Press **ENT** to confirm

## ALARM SETTING

- The IBEX determines battery health by comparing the tested values to set parameters (alarms) per battery being tested
- Press **MENU** and navigate to *ALARM SET* and press **ENT**
- ALARM NOW VIEW* displays the active alarm currently set
- Select *OPEN FILE* to select and edit an alarm (IBEX Ultra will have 4 groups of 20 alarms, other models will have 4 total alarms)
- Press **ENT** on an alarm to edit its parameters

	ALARM_SET	A	BATT
1	01.VGS2V_0200		
2	IMPE_REF	3.300mOhm	
3	IMPE_FAIL	150	%
4	IMPE_OVER	130	%
5	VOLT_OVER	02.40	V
6	VOLT_UNDR	01.80	V
7	TEMP_OVER	131	F

Alarm Set Screen

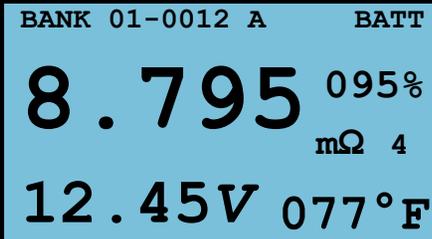
- Alarm Name** (press **ENT** to change)
  - Impedance Reference:** Value representing the standard internal resistance\*
  - Impedance Fail:** Fail % of impedance reference value, generally set to 150%
  - Impedance Over:** Warning % of impedance reference value, generally set to 120-130%
  - Over Voltage:** Upper cell voltage limit
  - Under Voltage:** Lower cell voltage limit
  - Over Temperature:** Temperature limit
- Press the **SAVE** button to save all changes and make the alarm active (pressing **SAVE** on any alarm will make it active)
  - \*Standard resistance values are not always listed on battery spec sheets. Determine this value by either testing the string and using the average OR testing a known good battery of the same make and using the tested value as the reference.

## CALIBRATING THE IBEX

- Calibration should be performed if using the IBEX for the first time or after the unit has been sitting for an extended period of time
- Always calibrate with the same test leads that will be used for battery testing
- Connect the test leads to the top of the IBEX and set the unit on a flat surface
- Power on the IBEX and press the **Cal/del** button
- Press the **ENT** button when prompted
- Holding the test leads in hand, ensure that the small arrow at the end of each lead is facing you
- Press the leads together firmly and the unit will begin calibration
- When complete the unit will display the adjusted value
- If the IBEX displays "CALIB ERROR" retry ensuring the cables are not aggressively bent and that the test leads are held as still as possible during the calibration

## BATTERY TESTING

- Connect the test leads to the top of the IBEX
- Power on the unit and secure the IBEX with the neckstrap or place on a flat surface
- Hold the test leads in hand making sure not to aggressively bend the cables
- Press or clip the negative test lead to the negative post, then the positive lead to the positive post
- Hold the test leads in place until the measured values are displayed on screen



The screenshot shows the IBEX display with the following information:

- BANK 01-0012 A BATT
- 8.795 095% (Resistance)
- mΩ 4
- 12.45V 077°F (Voltage and Temperature)

### Measured Values

- If the battery health is PASS there will be a short beep, if the health is WARN there will be two short beeps, if the health is FAIL there will be one long beep
- When the test leads are removed, the measured results will save and the next cell can be tested
- Always be sure to test each battery post in the same spot for consistent results
- At any point during testing, press the Left Arrow button to backtrack to the previous cell and retest to overwrite the data
- When finished, press the up arrow button to move to the next bank
- The active alarm will need to be changed if testing batteries with different parameters or if testing intercell-connections

## INTERCELL-CONNECTION TESTING

- Inter-cell connections (straps) are always tested in a separate bank from battery data
- After testing the battery string, press the Up

- Arrow on the IBEX to move to the next bank
- Test each intercell-connection in the string
- At any point during testing, press the Left Arrow button to backtrack to the previous connection and retest to overwrite the data

## VIEWING TESTED DATA

- It is recommended to review test data on the IBEX after measurement of the battery string
- Press the **MENU** button and open the *REPORT* submenu
- Select *DATA VIEW* to list all of the battery banks on the IBEX
- Press **ENT** to open a battery bank, press **Cal/del** to erase all data in the selected bank
- Press **ENT** three times to display a grid of all the cells in the battery bank
- Cells that are in Warning status will be underlined and cells in Fail status will be highlighted
- Press **ENT** on any cell to view the measured data
- To retest any cell, open the cell to view the data, then press **MENU** to revert back to the Measurement Screen where the cell can be retested

## TRANSFERRING DATA TO PC

- The IBEX 1000, Pro, & Ultra kits come standard with Exmons battery management software
- To transfer measurement data into Exmons, connect the IBEX to the PC using the provided USB cable
- If using Windows XP, install the driver located on the USB drive
- If using Windows 7 or 8 the driver will install automatically (driver on USB if needed)
- Install the included version of Exmons from the Eagle Eye USB drive
- Directions for installing the software are located with the USB drive

- With the software installed, test data can be downloaded from the IBEX
- For instructions on how to setup and use Exmons, refer to the included manual

## TROUBLESHOOTING

**PROBLEM:** When testing a battery, the red “FAIL” light is illuminated

**SOLUTION:** This is not an error, the light indicates that the tested battery does not meet the set alarm parameters. See the *ALARM SETTING* section of this guide

**PROBLEM:** The IBEX powers on but it does not test or calibrate

**SOLUTION:** One or both fuses on the back of the IBEX are blown. Remove the poly-vinyl cover to reveal the fuse cover. The 0.5A fuse goes on the left and the 1.5A fuse on the right. This is indicated on the fuse cover

**PROBLEM:** When measuring a battery, the resistance value is displayed as “O.F.”

**SOLUTION:** The tested battery’s internal resistance is over the limit that the IBEX can measure

## USEFUL TIPS

- Use extra caution when testing inside UPS cabinets as high voltage can severely damage the IBEX
- Press test leads onto battery posts firmly for the most accurate measurement results
- If using the temperature lead, hold in the same hand as the negative lead and make contact with the negative post while simultaneously testing voltage & resistance
- Press the Left Arrow button to retest a previously tested cell