



I.M.S INDUSTRIAL
MEASUREMENT
SYSTEMS LTD.

P.O. BOX 6305 Haifa, Israel 3106201

Tel.: 972-4-811-0877

Fax: 972-4-811-0875

email: sales1@ims.co.il

http: //www.ims.co.il

LCIC-BAT - Quick Start

13-Sep-2020

Package's applications

The LCIC-BAT package includes the following applications.

As most details don't need explanation, only the non-obvious ones are described below.

LCIC-BAT-SET-RS485-ADDRESS

Use this app in order to select board's RS485 address.

There might be up to 64 boards, addressed 0 → 63

(represented in the combo box in hex: 00 → 3F).

Select the desired address by the combo box and click 'Save'.

LCIC-BAT-CALIBRATION

Use this app in order to calibrate your load cell.

There are 4 steps in the calibration app.

Step 1

Just shows current calibration's details, and current weight & a/d readings:

The screenshot displays the 'LCIC-BAT-CALIBRATION-V2.03, Card version LCIC-BAT-BS V011.17' application window. The interface is divided into several sections:

- Current Reading (Calibration point(s) = 1):** Shows a large digital scale reading of **0.000 kg** in green. To the right, it indicates **Stability = 99.993 %** (100% = Best Stability) and a temperature of **24.3 °C**. Below this, the **A / D** reading is shown as **-235** in red.
- Current Board Calibration:** A list of calibration parameters:
 - Calibration Name: LCB-200027
 - Calibration Date: September 3, 2019
 - Calibration Time: 12:50
 - Calibration Counter: 1
 - Maximum Load Cell Capacity: 40.000 kg
 - Maximum Applied Capacity: 30.000 kg
 - Display Resolution: 0.001 kg
- Communication type:** Set to **COM22**.
- Baud Rate / RS485 address:** Baud rate is **9600** and RS485 address is **00**.
- Instructions:** A prompt says "Click 'Next' to start a new calibration procedure".
- Progress:** It indicates "Step 1 of 4 (Show Data)".
- Navigation:** Two buttons, **Next** and **Exit**, are located at the bottom right.

Step 2

In this step you may redefine your parameters if needed, then proceed to next step:

LCIC-BAT-CALIBRATION-V2.03, Card version LCIC-BAT-BS V011.17

Parameters (Calibration point(s) = 1)

Name

Unit..... ▾

Maximum Load Cell Capacity kg

Maximum Applied Capacity kg

Display Resolution..... ▾ kg

Calibration Temperature °C

Zero correction per 10 °C kg

Calibration Table

Click 'Next' to confirm these parameters.

Step 2 of 4 (Parameters)

Step 3

In this step you define the zero level plus 1 to 10 calibration point(s).
(One calibration point is obligatory, more points are optional in order to support a non-linear load cell.)

In this example zero level plus one calibration point was used:

The screenshot shows the 'LCIC-BAT-CALIBRATION-V2.03' software window. The top section displays 'Current Reading (Calibration point(s) = 1)' with a stability of 99.990% and a temperature of 25.6 °C. A large digital display shows the value '1873569'. The main area is titled 'Step 3 of 4 - calibration points' and contains two calibration points: Point #0 (A/D, kg) with value 0267412 and weight 0, and Point #1 (A/D, kg) with value 1873546 and weight 30.000. Both points have 'Ready' buttons. A 'Maximum Applied Capacity' of 30.000 kg is also shown. At the bottom, there are buttons for 'Add new point', 'Remove last point', 'Undo', 'Next', 'Skip', and a 'Hysteresis Table' button. A note at the bottom says: 'Next' to finish. 'Hysteresis Table' for Hysteresis.

Click **Next** to proceed to the next step.

Step 4

LCIC-BAT-CALIBRATION-V2.03, Card version LCIC-BAT-BS V011.17

Current Reading (Calibration point(s) = 1)

Weight **29.999** kg 25.6 °C

A / D **1873487**

Parameters (Calibration point(s) = 1)

Name

Unit.....

Maximum Load Cell Capacity kg

Maximum Applied Capacity kg

Display Resolution..... kg

Calibration Temperature °C

Zero correction per 10 °C kg

Locking Management

Click 'Save to Board' to validate the new calibration, overwriting the previous one

Step 4 of 4 (Save or Quit)

In this step you decide whether to **confirm** the new calibration, or **retain** the existing one:

The 'Weight' box is **Preview**, that is, the calibration application (**not** the board!) shows what weight the board **would** generate with the current load cell output in case you confirm the new calibration.

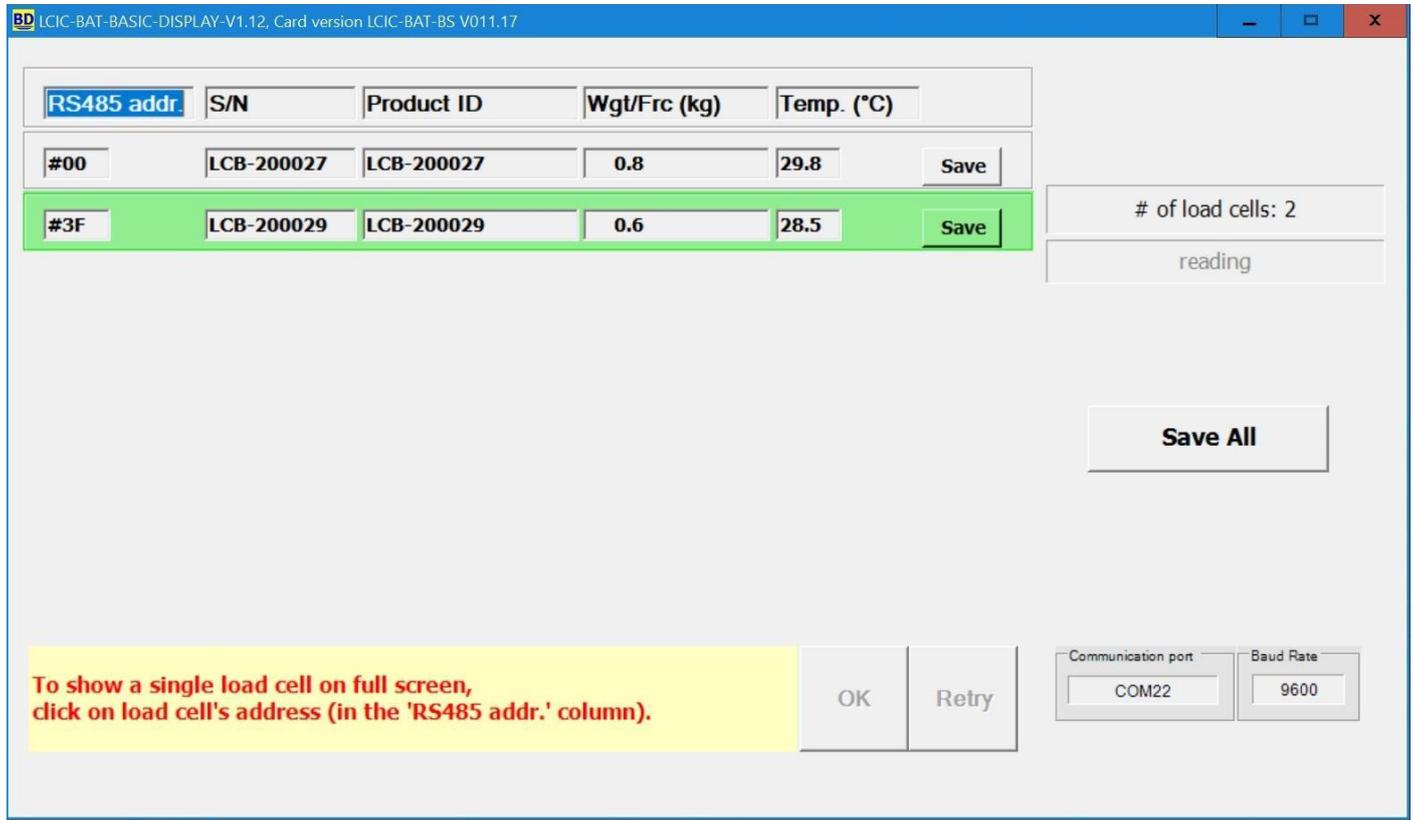
Optional locking: In this step you have the option to **lock** the calibration – click the 'Locking Management' button:

- * After you clicked 'Save to Board' saving the new calibration, do not exit the app, so you may lock the new calibration.
- * You may use the calibration app in order to just lock an existing calibration:
Run the calibration app, go directly to step 4 by Next, Next, Skip, then click the 'Locking Management' button.

LCIC-BAT-BASIC-DISPLAY

Use this app in order to watch your board's readings.

Example:



RS485 addr.	S/N	Product ID	Wgt/Frc (kg)	Temp. (°C)	
#00	LCB-200027	LCB-200027	0.8	29.8	Save
#3F	LCB-200029	LCB-200029	0.6	28.5	Save

of load cells: 2
reading

Save All

To show a single load cell on full screen, click on load cell's address (in the 'RS485 addr.' column).

OK Retry

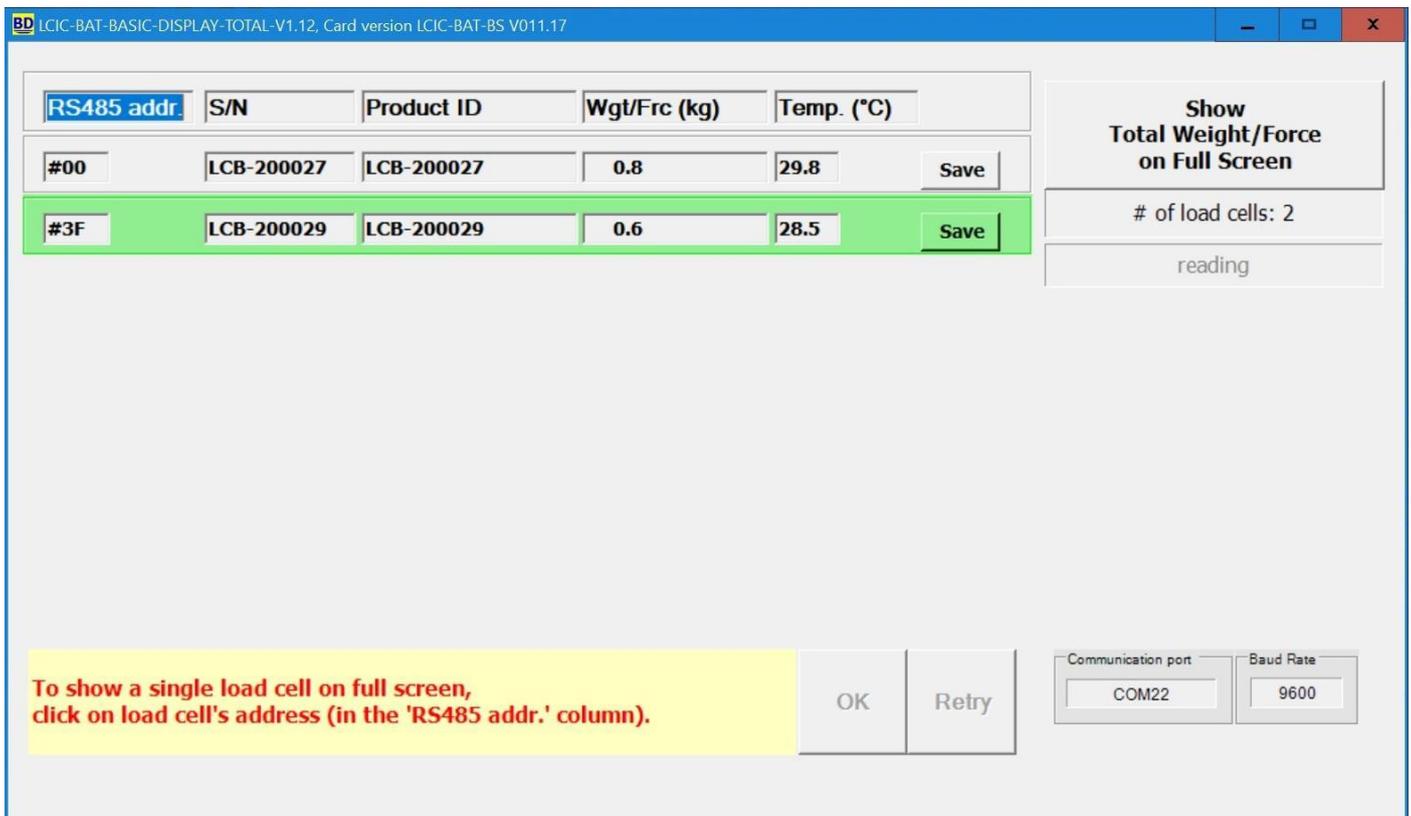
Communication port: COM22 Baud Rate: 9600

Notes:

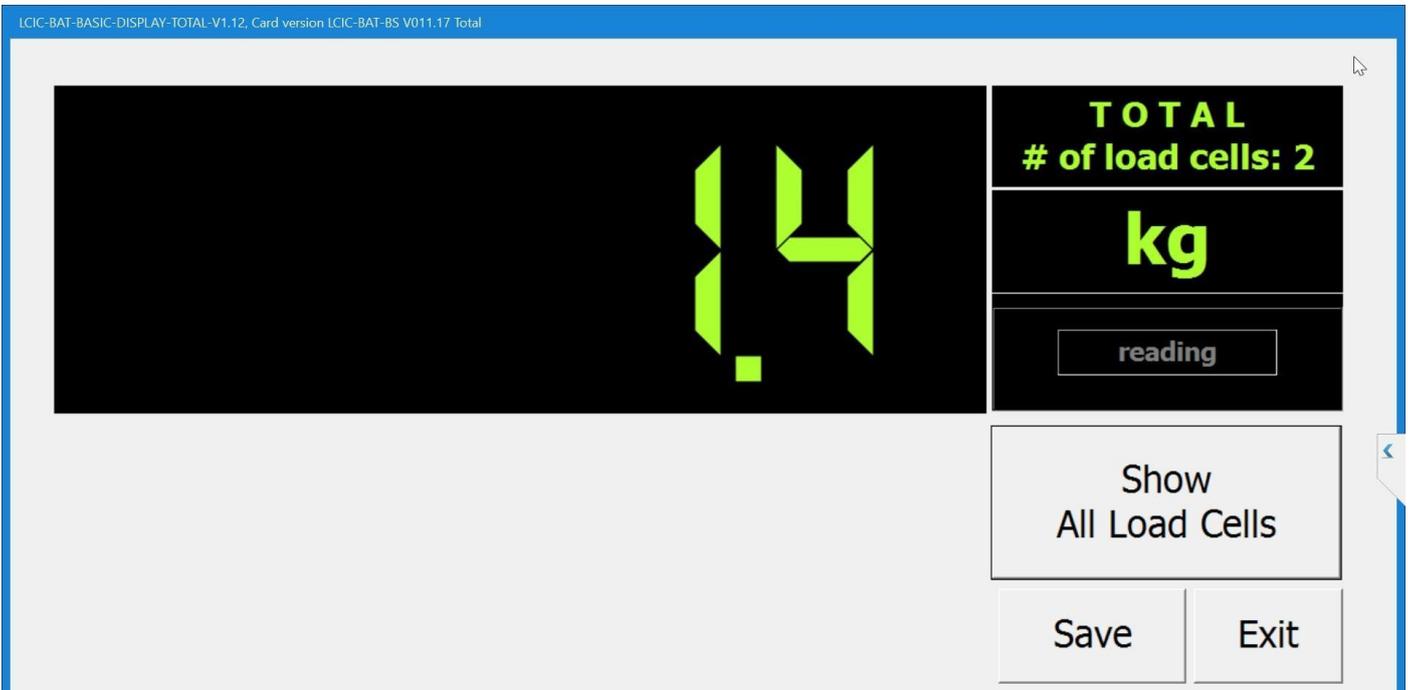
1. At any time you may get a 'snapshot' of the current weight & temperature of a specific board – just click 'Save' in the board you selected. Each 'Save' produces a small 'txt' file (in ANSI & UTF-8 encodings) and an Excel file, located in 'C:\IMS\LCIC-BAT-BASIC-DISPLAY-DATA'.
2. Use the 'Save All' button in order to get at once a 'snapshot' of all load cells.

3. There is also the LCIC-BAT-BASIC-DISPLAY-**TOTAL** application, in which you may get the **total** of all load cells connected to the same port:

Run LCIC-BAT-BASIC-DISPLAY-**TOTAL** application, getting this screen:



Click the 'Show Total Weight/Force on Full Screen' button (which appears instead of the 'Save All' button of the LCIC-BAT-BASIC-DISPLAY application) to get the 'TOTAL' screen:



- * Click 'Show All Load Cells' to return to the previous screen.
- * Click 'Save' to save a 'snapshot' of all load cells (including their total).

Data Logger Applications (option)

There are two applications for boards that support the **data logger** option:

- * LCIC-BAT-DL-SETTINGS

This app lets you set the logging definitions.

- * LCIC-BAT-DL-COLLECT

This app lets you collect the data logged in your board(s).

These applications are described in 'LCIC-BAT - Data Logger.pdf'.

LCIC-BAT V002 Connection Diagram

LCIC-BAT V002 Connection Diagram

