

# IS-IBC1<sup>®</sup> and LF-Sizer<sup>™</sup> 32-Bit Battery Check and Replacement Procedure

Battery Part Number TL-5186 (Tadiran)

## 1. Introduction

The industrial lithium battery resides on board the top (piggy backed) board of the main IBC and LF Sizer Controller. Tadiran manufactures this battery and it is available from a variety of internet sources around the world. It is also available from DR Joseph. (DRJ Part# 220001)



**WARNING! If the battery voltage is low AND system power is removed, ALL application programming will likely be lost!**

If the application is lost, the RUN LED will not illuminate. See **Section 6** of this document for the location of the RUN LED.

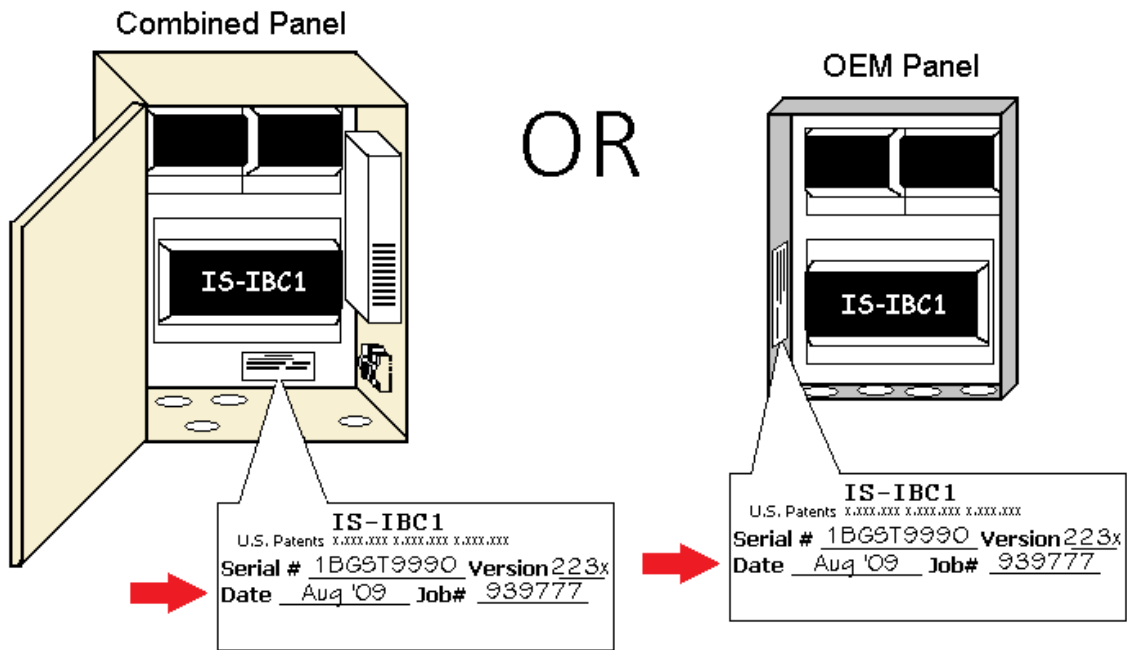
If at all possible, keep the power applied until a new battery can be purchased and installed. DR Joseph can restore a lost program remotely if there is a reliable modem or internet connection. If this is not available, the controller will need to be sent back to our factory for software reload. Please schedule all battery changes during the hours of 8 am to 4 pm, Monday through Friday, Central Standard Time (same time as Chicago, IL). This way we will be available to help you should you lose the application.

In addition to the system application being lost, unique system parameters will be lost as well. However, there are preventative measures that can be taken in this regard. These unique parameters, or recipes, can be saved (uploaded) then restored (downloaded) after the application has been restored. Please see the document called Saving Recipes for details about this.

## 2. Checking the Date of System Manufacture

The battery will *typically* last up to 10 years with a minimum life of 3 years. Actual battery life is inversely proportional to the amount of time the power is turned off. This document is specific to customers with DR Joseph Generation 2 IBC system(s), manufactured between 2003 and 2009, or LF Sizer system(s) manufactured between 2006 and 2009. See below for location of the serial number label on IBC systems. A similar label can be found inside LF Sizer systems. The system Manufacture Date is located on this label.

If you anticipate that power will be removed from the system for even a short period of time (e.g., major line maintenance or if production is temporarily halted for the line) it is recommended that the system Manufacture Date is checked. The older the system, the more important it will be to check the battery. See the pages following for further instructions.



### 3. Using the HMI Device to Read the Battery

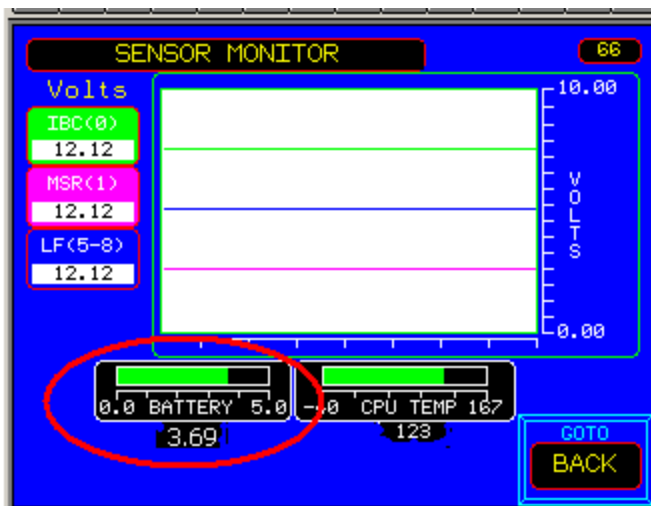
If your system is equipped with an HMI device, there will be a fault indication when the battery voltage is low, typically below 3.2VDC

- Via the Touchscreen – **02 Low Battery Voltage**
- Via the EZViewer – **01 Low Battery YN**


In addition, there are three ways to check the battery for the correct voltage *prior* to any warning indication:

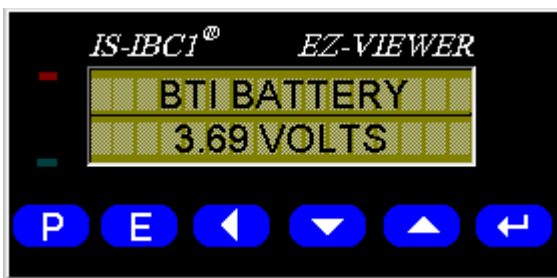
#### Touch Screen

- Press the **TRENDS** button
- Press the **SENSORS** button. The screen will be labeled **SENSOR MONITOR**
- The **BATTERY** should indicate approximately 3.68VDC



#### EZ Viewer

- Press the Up Arrow 3 times
- Press the Enter button 
- Press the Up Arrow
- The **BTI BATTERY** voltage should indicate approximately 3.68 VDC



## 4. Locating and Replacing the Battery



Figure 1

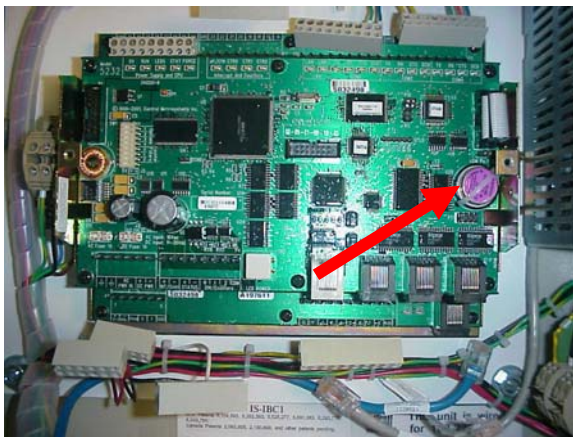


Figure 2

**Remember that once system power is removed, and the battery is also removed, all system programs and parameters will likely be lost!**

**Therefore it is imperative that system power remain ON for this procedure. Because of this, it is equally imperative that the following steps are performed VERY CAREFULLY!**

- ❑ Remove the 2 small black screws on opposite sides of the controller cover to remove the cover. See Figure 1.
- ❑ The battery will be on the far right. See Figure 2.
- ❑ \*Cut the tie wrap holding the battery in place\*
- ❑ Lift the battery up and away from the board – It is not soldered.
- ❑ Align and insert the new battery in the vacated socket.
- ❑ Replace the cover using the 2 removed screws.

\*NOTE: The tie wrap is used to secure the battery during transport. If the battery is being replaced at the customer site, there is no need to replace the tie wrap. It is only there to prevent the battery from dislodging during transport.

## 5. Confirming the Voltage

After the battery has been replaced, it is important to revisit Section 3 of this document where you will observe the battery voltage using one of the HMI devices.

**The BATTERY should now indicate between 3.6 and 3.7 volts; Nominal is 3.697 volts**

## 6. Application Running – RUN LED

See the location for the RUN LED below. It should be flashing very quickly. If it is not lit, the CPU program has been lost.

