

FUZE DATA ENTRY KIT

STANDARD OPERATING PROCEDURE FOR OPERATOR/SUPERVISOR

This document is proprietary information of Bharat Electronics Limited, Pune (India). Reproduction, utilization or disclosure to third parties in any form whatsoever is not allowed without written consent

Prepared & Published by

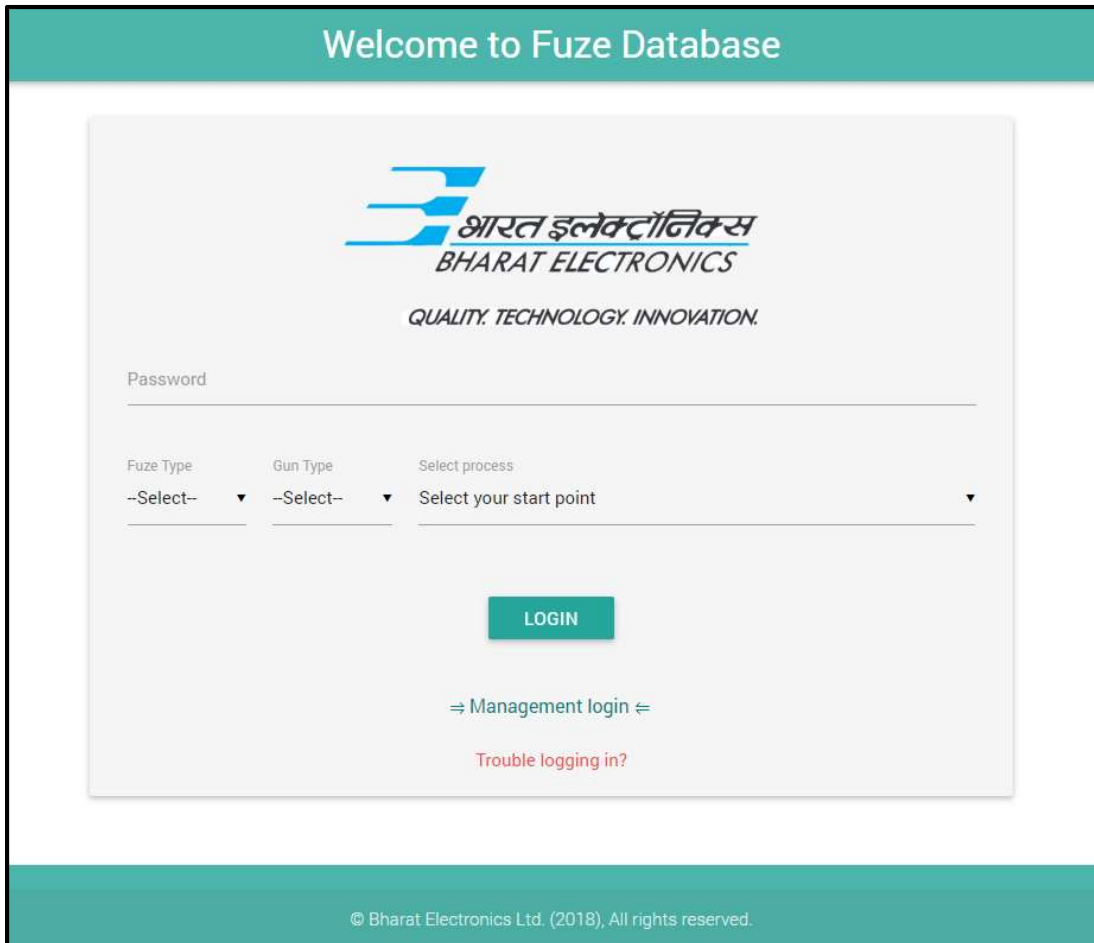


INDEX

1. Start.....	03
2. Login.....	04
3. Menu.....	05
3.1. Search.....	06
3.2. Rejection.....	07
4. Test Result Sheet – Manual Setup.....	08
5. Upload Test Result – ATE.....	09
6. Link Fuze record with Battery.....	10
7. Link Fuze record with Barcode.....	11
8. Create/Edit Lot.....	12
9. Material Management.....	13
10. Exit.....	14

1. START

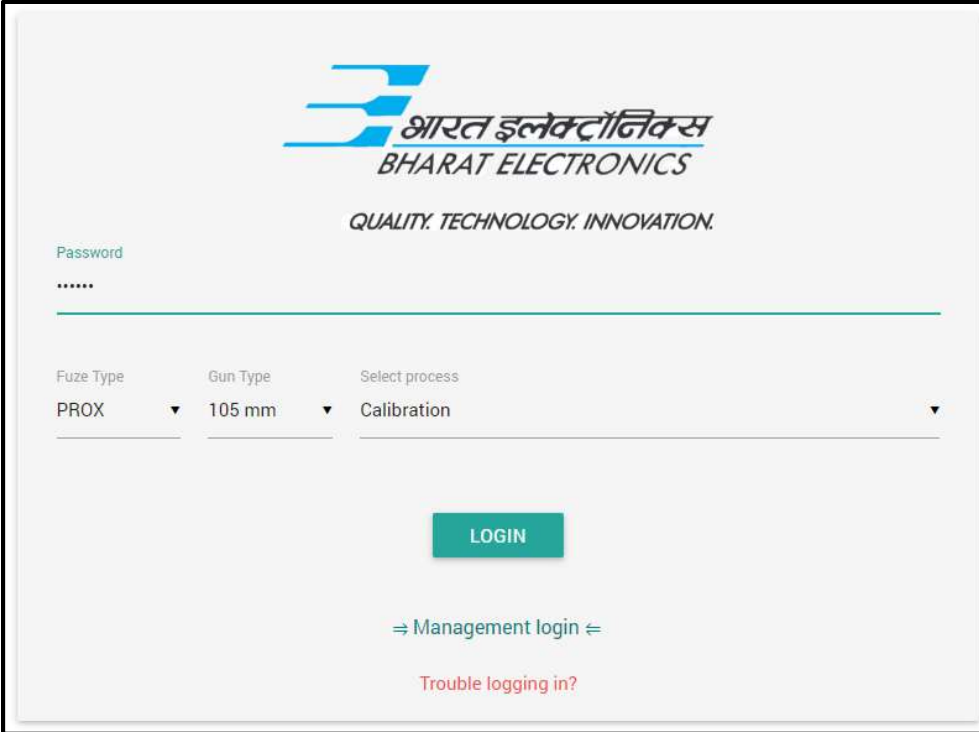
- a. Connect the Fuze Data Entry Kit / ATE to the wireless SSID (Wi-Fi network) Named as “ProximityFuze”.
- b. Enter the following URL in the address bar of the browser and press enter button.
http://ip_to_fuze_database
- c. The home screen will appear as follow.
- d. Press F11 to enable distraction free full screen mode. (Optional)



The screenshot shows the 'Welcome to Fuze Database' interface. At the top is a teal header with the text 'Welcome to Fuze Database'. Below this is a white login form. The form features the Bharat Electronics logo and tagline 'QUALITY. TECHNOLOGY. INNOVATION.' at the top. Below the logo is a 'Password' input field. Underneath the password field are three dropdown menus: 'Fuze Type' (with '--Select--' as the current selection), 'Gun Type' (with '--Select--' as the current selection), and 'Select process' (with 'Select your start point' as the current selection). A teal 'LOGIN' button is positioned below these dropdowns. Below the login button is a link that says '⇒ Management login ⇐'. At the bottom of the form is a red link that says 'Trouble logging in?'. The entire form is set against a light gray background. At the very bottom of the page, there is a teal footer with the text '© Bharat Electronics Ltd. (2018), All rights reserved.'

Figure 1 - Home Page

2. LOGIN



The login interface for Bharat Electronics features the company logo and tagline 'QUALITY. TECHNOLOGY. INNOVATION.' at the top. Below this is a 'Password' field with a masked input (*****). Underneath the password field are three dropdown menus: 'Fuze Type' (set to PROX), 'Gun Type' (set to 105 mm), and 'Select process' (set to Calibration). A green 'LOGIN' button is positioned below these fields. At the bottom, there is a link '⇒ Management login ⇐' and a red link 'Trouble logging in?'.

Figure 2 – Login

- a.** Enter the password provided for operator/supervisor in the password box. Please keep in mind that password is case sensitive.
(Default: fuzedb)
- b.** Select the fuze type accordingly.
- c.** Select the gun type i.e. fuze diameter. (105mm or 155mm)
- d.** Select the process which is assigned to you. Make sure you select correct process as the screen you will see after login is different for all processes.
- e.** Press “Login” button to login.
- f.** If you see the error message displaying “Wrong Password”, Please go back and enter correct password.
- g.** For any other problems, Click on the “Trouble logging in?” URL at the bottom for more information.

3. MENU

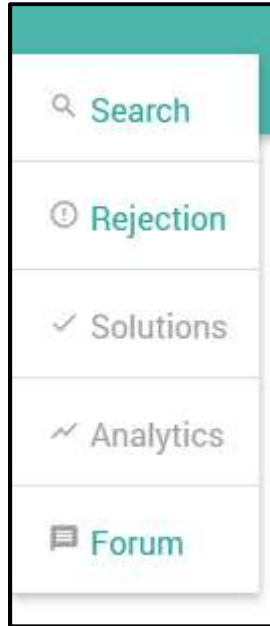


Figure 3 - Menu

- a. The “Menu” button is available at the top left corner. It provides additional functionality.
- b. **Search:** This feature opens a search pop-up. You can filter the search with any parameters available in any process.
- c. **Rejection:** This feature provides facility to add UUT (Unit under test) to the rejection or re-accept the rejected UUT after modification/rework.
- d. **Solutions:** This feature lists all the reasons for rejection and solutions for each of them as per applied filter.
- e. **Analytics:** This feature provides a tool to create pictorial representation (Graphs) of various production activities.
- f. **Forum:** This feature opens a general discussion/suggestion page. If you have any improvement suggestion related to this software, feel free to share your feedback.

3.1. SEARCH

Search the record

Search by

PCB Number ▼

Search In

After PU ▼

What to search?

3194

SEARCH

S.N.	PCB NO.	TYPE	MAIN LOT	KIT LOT	ACTION	
1	3194	PROX	3	20	VIEW DETAILS	PRINT

CANCEL

Figure 4 – Search

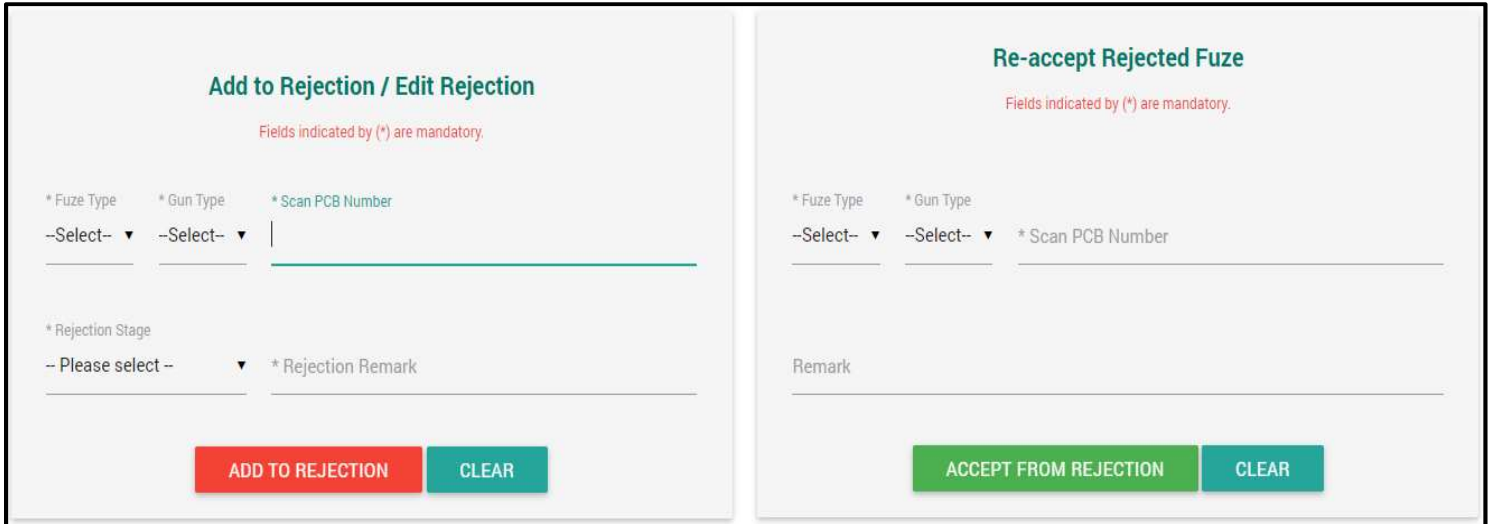
INPUT:

- a. Search By: Select the parameter by which you want to perform a search operation. (E.g. PCB No, RF No, Operator Name, Date)
- b. Search In: Select the process in which you want to search for the result.
- c. Query: Enter the alphanumeric value that you want to search in the selected parameters & press “Search” button or hit enter key.

OUTPUT:

- a. Result Table: The result table will appear after pressing the search button.
- b. View Details: This feature provides a detail view of searched parameter entered by operator. The results can be modified if necessary (This feature requires permission to edit the existing records).
- c. Print: This feature provides entire history of UUT. Data is displayed in tabular format as per pre-defined structure.

3.2. REJECTION:



Add to Rejection / Edit Rejection

Fields indicated by (*) are mandatory.

* Fuze Type * Gun Type * Scan PCB Number

--Select-- --Select-- |

* Rejection Stage

-- Please select -- * Rejection Remark

ADD TO REJECTION **CLEAR**

Re-accept Rejected Fuze

Fields indicated by (*) are mandatory.

* Fuze Type * Gun Type * Scan PCB Number

--Select-- --Select--

Remark

ACCEPT FROM REJECTION **CLEAR**

Figure 5 - Rejection

- **REJECTING A UUT:**

- Select the “Fuze Type” & “Gun Type”.
- Scan the PCB Number of rejected UUT (or type it manually).
- Select the stage at which the UUT is rejected.
- Enter the reason for rejection. Keep the description short & concise. Mention abnormal values if necessary.
- Click on “Add to Rejection” button.

Note: Fields marked with (*) are mandatory i.e. you can't keep them blank.

- **ACCEPTING A UUT:**

- Select the “Fuze Type” & “Gun Type”.
- Scan PCB Number of the UUT.
- Enter the description of rework/modification performed on the UUT.
- Click on the “Accept from Rejection” button.

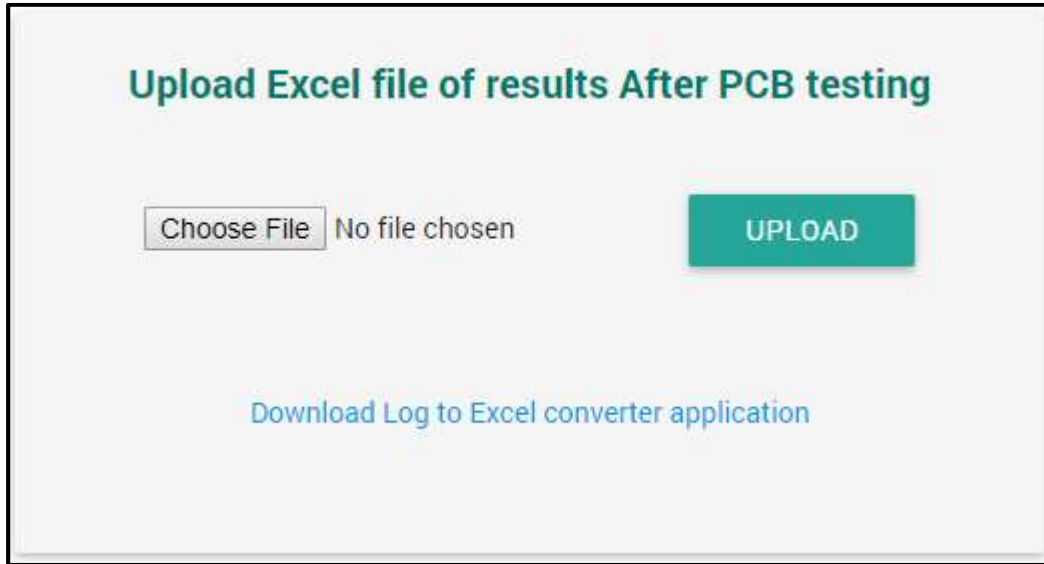
4. TEST RESULT SHEET – MANUAL SETUPS

PCB Number	:	3P1216001129	Supply Current (I)	:	7.2	Supply Voltage (VEE)	:	4.3
------------	---	--------------	--------------------	---	-----	----------------------	---	-----

Figure 6 - Test result sheet

- Above figure shows a partial view of test result sheet for the manual setup.
- Scan the PCB Number with barcode scanner or enter manually the given field.
- Enter measured values in respective field.
- After selecting the next field, the value entered in previous field will be validated against the PTP parameters.
 - ✓ If the field is underlined with a Green color then the measured value is in the expected range (Passed).
 - ✓ If it turns Red, the measured value is not in the range (Failed).
- If any of the value is not in expected range i.e. failed, Please Reject the UUT from **Menu→Rejection** with a valid description.
- Finally, click on the “Submit” button at the bottom or press enter key to submit the test result. Use “Clear” button to clear all fields & refresh the table if required.

5. UPLOAD TEST RESULT – ATE

The screenshot shows a web interface for uploading test results. At the top, it says "Upload Excel file of results After PCB testing". Below this, there is a "Choose File" button, followed by the text "No file chosen". To the right of this is a green "UPLOAD" button. At the bottom, there is a blue hyperlink that says "Download Log to Excel converter application".

Upload Excel file of results After PCB testing

Choose File No file chosen

UPLOAD

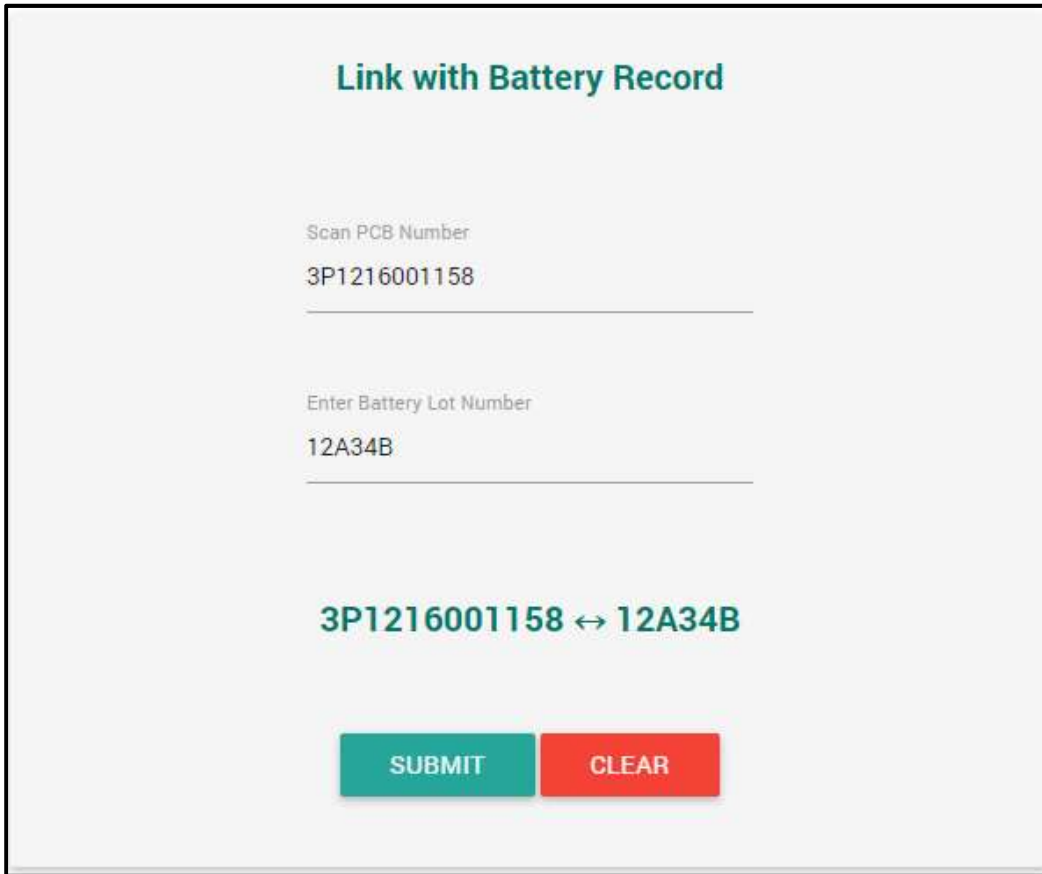
[Download Log to Excel converter application](#)

Figure 7 - Upload test results from ATE

- a. Open LogToExcel.exe on the ATE and convert the required reports into the single excel file using the software. If it's not available, Download it from the given hyperlink.
- b. Click on the "Choose File" button. A file picker dialog will appear. Please select the excel file that is created and click "OK".
- c. Click on the "Upload" button.
- d. If the excel file contains more records, please be patient till the file is uploading. Don't exit the browser while upload is in progress.
- e. After a successful upload, the success message along with all the data in a tabular form will be displayed.

Note: Uploading the result with same PCB number again will overwrite the existing record.

6. LINK FUZE RECORD WITH BATTERY



Link with Battery Record

Scan PCB Number
3P1216001158

Enter Battery Lot Number
12A34B

3P1216001158 ↔ 12A34B

SUBMIT **CLEAR**

Figure 8 - Link PCB No. & Battery Lot

- Above window links the PCB Number with the Battery lot number which is assembled in the fuze.
- Enter the Battery lot number in the given field.
- Scan the PCB No. barcode or enter manually.
- Click on “Submit” button or press enter key to link the record.
- Results will be displayed in green colored text.

Note: If the same PCB number is linked with different battery lot number again then the new record will be overwritten by deleting the old record.

7. LINK FUZE RECORD WITH BARCODE

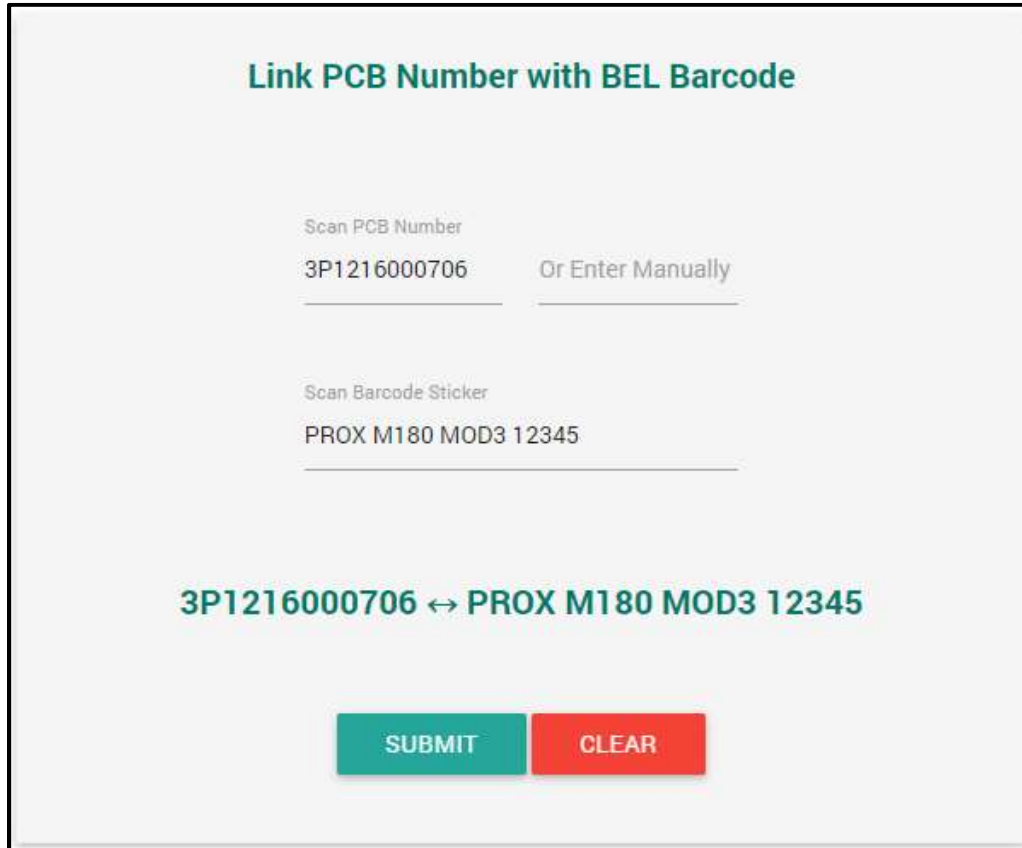


Figure 9 - Linking with Barcode

- a. Above window links the PCB Number with the final barcode to maintain trackability.
- b. First scan a PCB number or enter manually.
- c. Then scan the newly printed barcode sticker.
- d. This automatically links the PCB No. & Barcode No. & the result will be displayed in green colored text.
- e. If PCB number is entered manually, click on the “Submit” button to link record.

Note: If the same PCB number is linked with different barcode number again then the new record will be overwritten by deleting the old record.

8. CREAT A NEW LOT / EDIT LOT

Lot-wise Entry

Enter Main Lot Number
 3

Enter Kit Lot Number
 10

VIEW LOT

Scan PCB Number

Or Enter manually

ADD MANUALLY

5/60 Records found in this Kit Lot
Note: Entries with Red colour are rejected in testing.

Fuze Type	Main Lot	Kit Lot	PCB Number	Kit Lot size	Action
105 PROX	3	10	3P1216000706	30	<div style="background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">DELETE</div>
105 PROX	3	10	3P1216001130	30	<div style="background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">DELETE</div>
105 PROX	3	10	3P1216001129	30	<div style="background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">DELETE</div>
105 PROX	3	10	3P1216001196	30	<div style="background-color: red; color: white; padding: 2px 5px; border-radius: 3px;">DELETE</div>

Figure 10 - Lot entry window

- a. Supervisor can create a new lot or edit the existing lot.
- b. To create a new lot, Enter the main lot & kit lot number and then click on “View Lot” button. This will display the list of fuzes in respective lot.
- c. To add new fuze, scan a PCB number & the new entry will be automatically added. You can also type the PCB number manually and press “Add manually” button to add the fuze to the lot.
- d. The existing fuze can be removed from the lot by pressing “Delete” button from respective lot.
- e. A row is displayed in Red color indicates that the fuze is rejected the test at some stage.

9. MATERIAL MANAGEMENT

Shopfloor Material Management

Add Material

ADD

List of Material

Material	Quantity
Base	700 ↕
Epoxy	5
Hardner	5

UPDATE

Figure 11 - Material Management

- a.** Shopfloor Material Management is designed to be used by supervisors to create entry of material available on the assembly line. This record will be shared with BEL executives.
- b.** Supervisor can add new material & its quantity.
- c.** Supervisor can also edit the available quantity of existing material by clicking on the quantity described in the table & changing the new value. Finally, press the “Update” button to save the changes.

10. EXITING

- a.** To exit the software cleanly without data losses, make sure you have already clicked on the “Submit” button of your working window.
- b.** Now click on the “Logout” button on the right top corner of the screen.
- c.** You will be navigated back to login page after logging out.
- d.** Close the browser.
- e.** Shutdown the Fuze Data Entry Kit / ATE safely.

NOTE: Never unplug the Fuze Data Entry Kit or ATE without shutting down. This may cause fatal damage to the equipment which is unrecoverable.