OPERATING PROCEDURE

FOR

KAVACH 4.0 HANDHELD

RFID READER

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DOCUMENT DATA SHEET

Title of Document	File Name	Pages	Figures
Operating procedure for Kavach 4.0 Handheld RFID reader	Operating procedure for Kavach 4.0 Handheld RFID reader .docx	13	10

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Abstract

This document details Operating procedure for Kavach 4.0 Handheld RFID reader of Train Collision Avoidance System (TCAS)

DOCUMENT CONTROL SHEET

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CHANGE HISTORY

#	Name of the Document	Date	Reason for changes	Version No.
1	Operating procedure for Kavach 4.0 Handheld RFID reader	10/05/2023	Initial Document	1.0

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LIST OF FIGURES

1 PURPOSE:

The purpose of this document is to give comprehensive guidelines and set of procedures to be adopted for carrying out the Operating procedure for Kavach 4.0 Handheld RFID reader.

2 SCOPE:

The instructions are prepared to cover all the activities involved in Operating procedure for Kavach 4.0 Handheld RFID reader.

3 RESPONSIBILITY AND AUTHORITY:

Installation & Commission in-charge shall be the responsible for implementation and maintain the operating procedure.

4 TOOLS & EQUIPMENT REQUIRED:

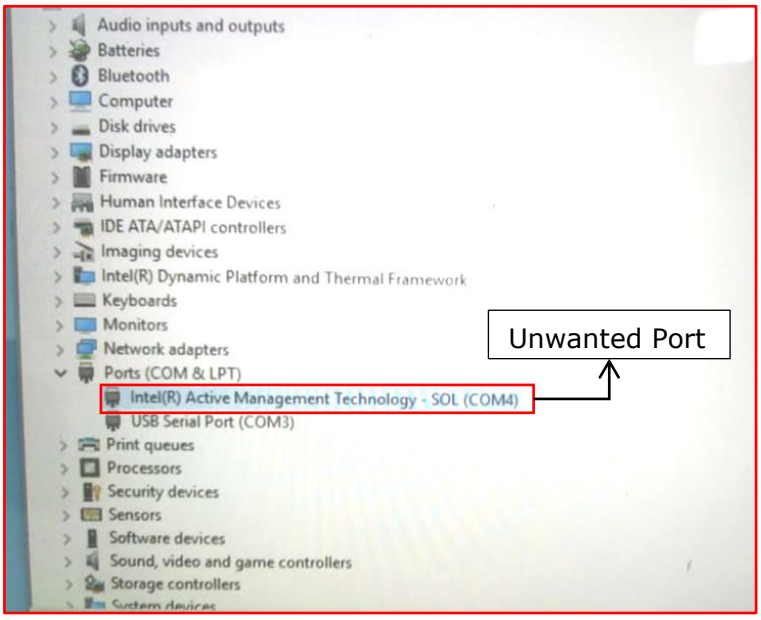
1. RFID Handheld Reader - 1No
2. Dropbox application installed in Handheld Reader

5 PRE-REQUISITES:

1. WiFi connection not required while reading the Tag Id.
2. Enable WiFi only for accessing new and updated database files in Dropbox application.
3. Disable WiFi after accessing the database files in Dropbox application.

Note : When WiFi is enabled , multiple unwanted ports/drivers are detected/installed in the Device manager as shown in below image.

Ensure to **Uninstall** the unwanted ports/drivers from the list except USB Serial Port.



6 PROCEDURE:

1. Click on **Power button** of TAB to turn on the device and enter the login password .
2. Click on **Notification icon** as shown in below image.

3. Now,select **TAB mode** and the screen displays as shown in below image.

4. Double click on **Dropbox** to open the window as shown in above image.
5. Click on **TagProgrammer** as shown in below image.

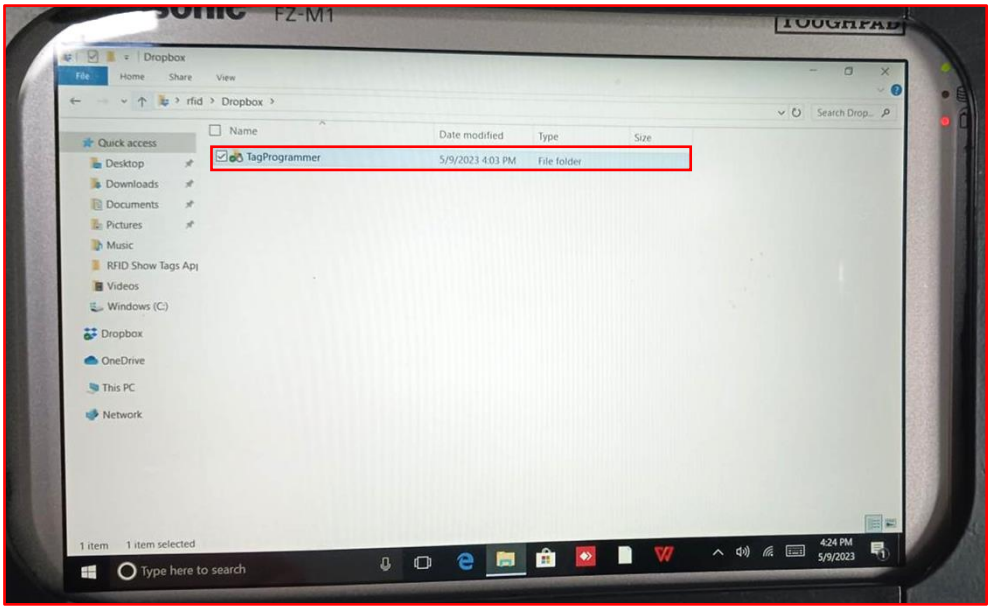


Figure 1 : Tag Programmer folder

6. Now, open the **TagProgrammer_507_IandC** application as shown in below image.

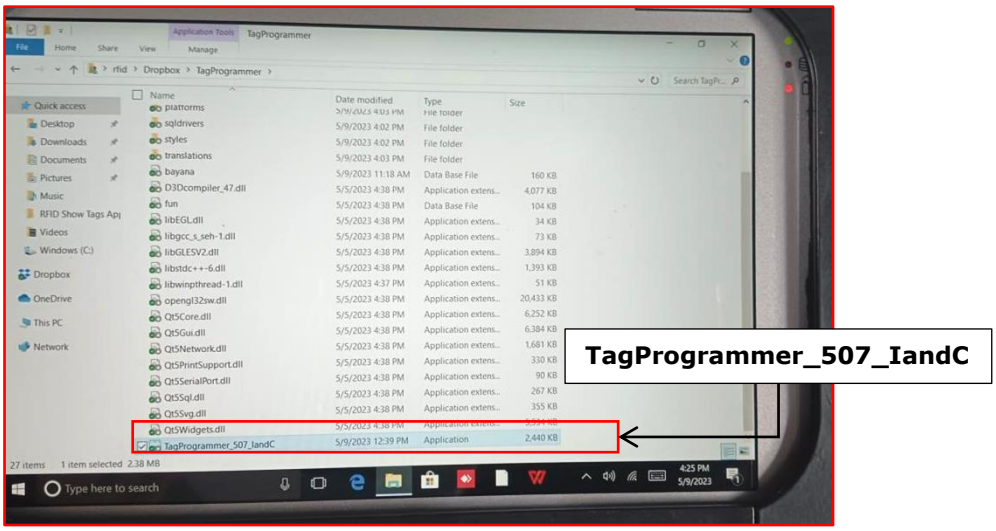


Figure 2 : TagProgrammer_507_IandC application

7. Below is the image after opening the application.

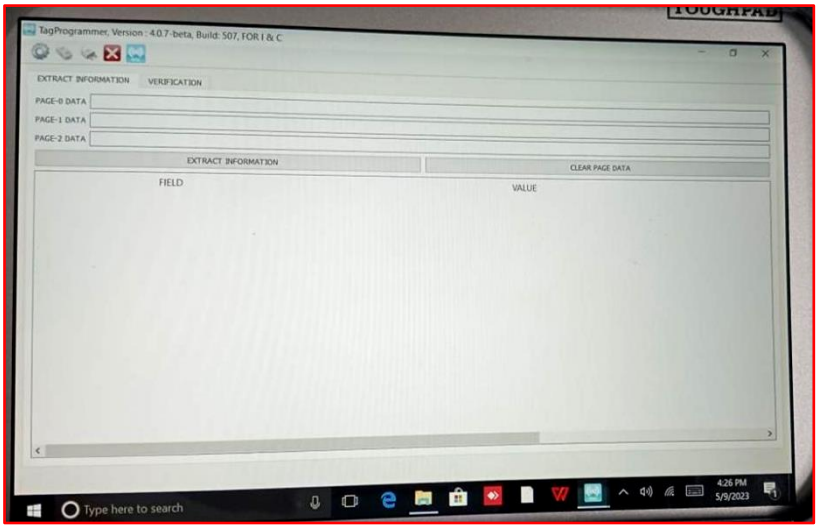


Figure 3 : Extract Information window

6.1 To read the Tag data:

6.1.1 Now, click on **Setting icon** located at Top Left corner of the application window.

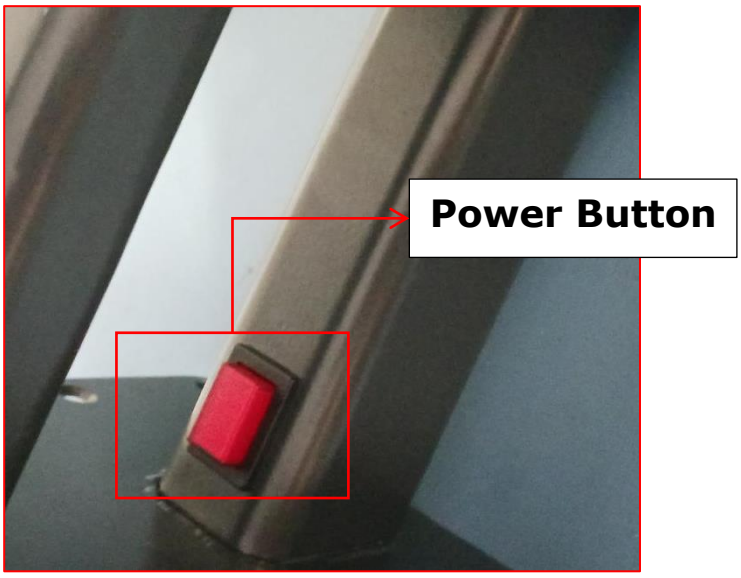
6.1.2 Serial Settings dialog box appears on screen.

6.1.3 While pressing the **Power button** of the reader continuously, Set the

i. Port Name : COMX (based on PC port used)

ii. Baud Rate : 9600

iii. Stop Bits : 1 and click on **Apply** as shown in below image.



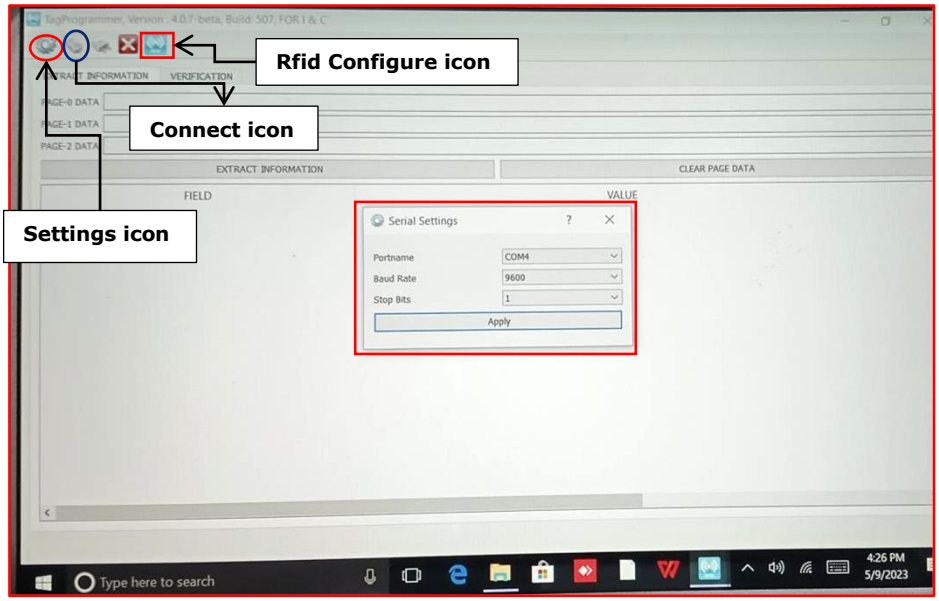


Figure 4 : COM Port Selection

6.1.4 Click on **Connect icon** as shown in above image.

6.1.5 Now, click on **Rfid Configure icon** for configuration as shown in above image.

6.1.6 After connecting the port, **'RFID configured for programming'** message is displayed on bottom left corner as shown in below image.

Note : Make sure the Power button is pressed continuously.

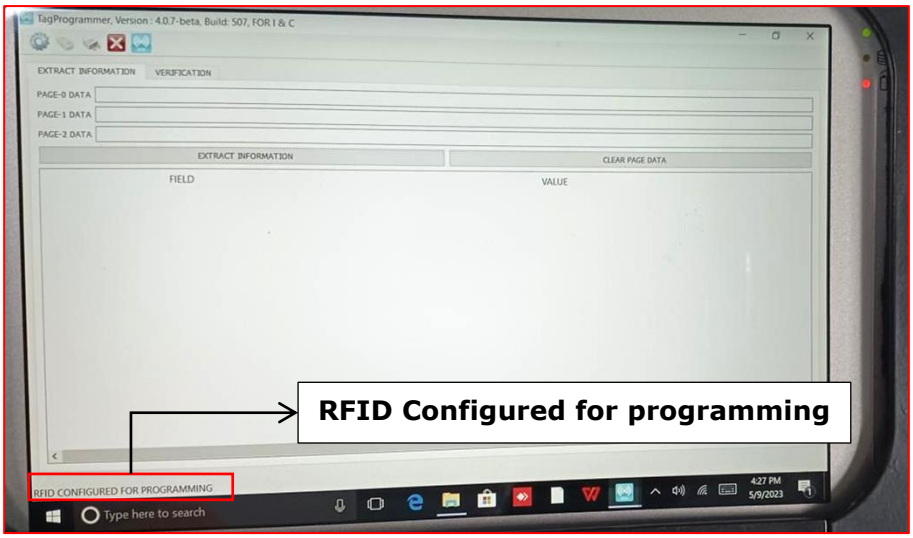


Figure 5 : Configuration enabled message

6.1.7 Place the Handheld reader at an angle of **45 degrees** and at a height of **150mm** from RFID tag to read the tag data.

6.1.8 While pressing the **Power button** of the reader continuously, read the Tag data.

6.1.9 Tag data is displayed on screen as shown in below image.

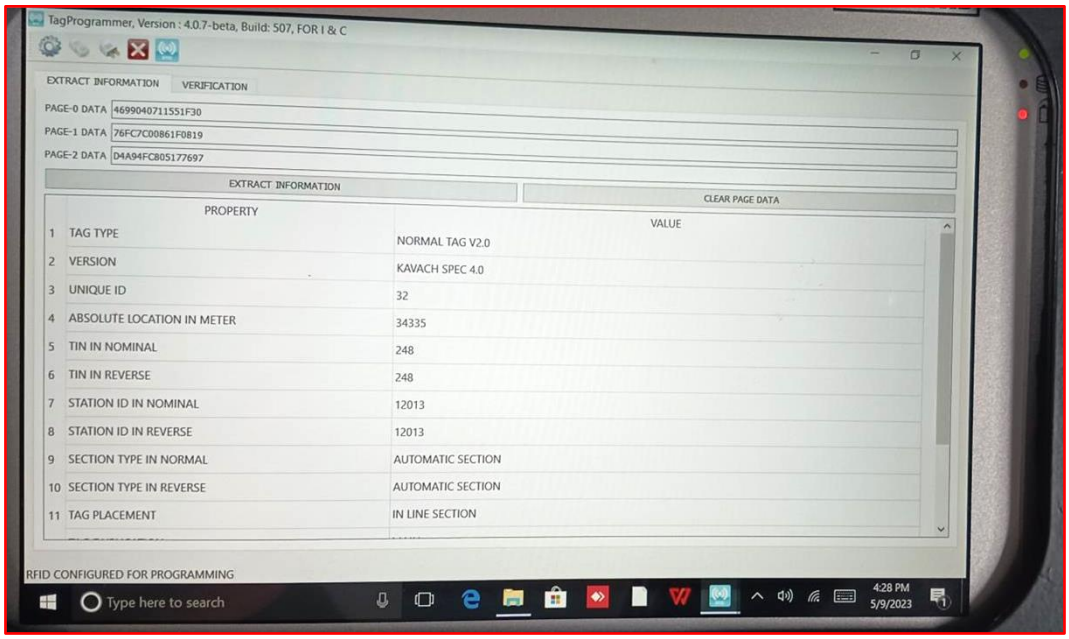


Figure 6 : RFID Tag data

6.1.10 Now, the RFID Tag data is read.

6.2 To verify the Tag data with respective Tag database:

6.2.1 Click on **Verification** tab.The window is opened as shown in below image.

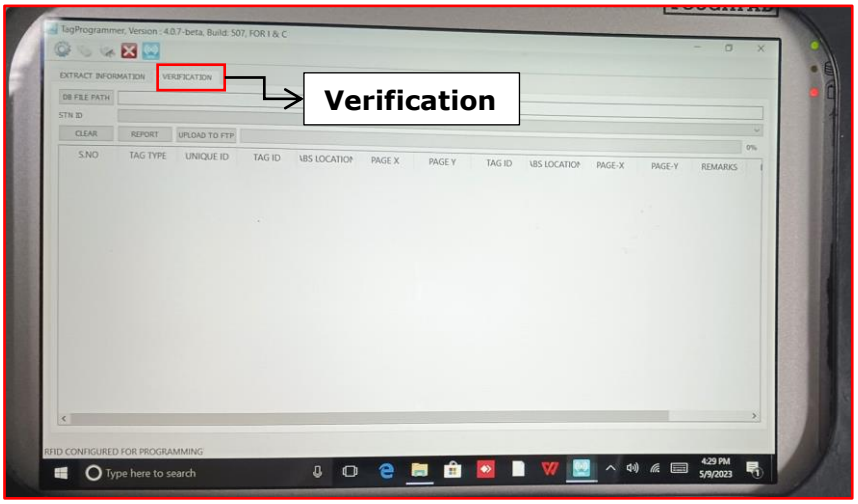
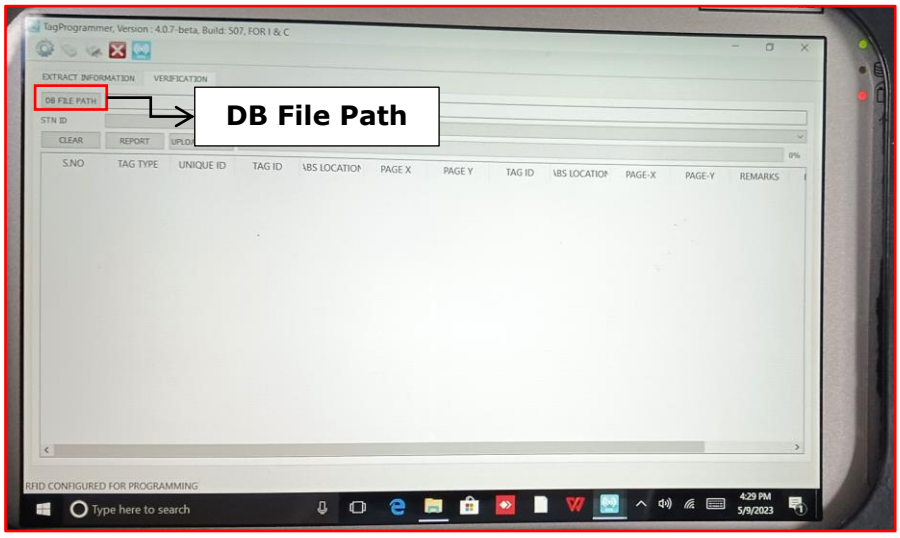


Figure 7 : Verification window

6.2.2 If COM Port gets disconnected , repeat the above steps from 6.1.1 to 6.1.6.

6.2.3 Click on **DB File Path** to browse the tag database files as shown in below image.

Note: Ensure the **DB File Path** has the new and updated database files.



6.2.4 Click **TagProgrammer --> Database --> Respective Station files (XXX).**

6.2.5 Click on **Open** as shown in below image.

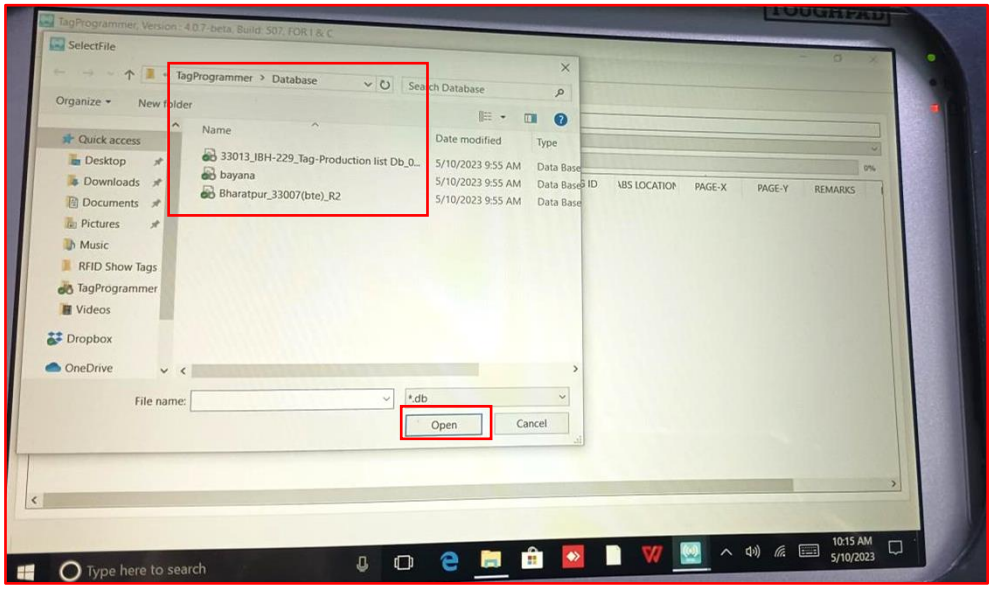


Figure 8 : DB File path

6.2.6 File Path is displayed on window.

6.2.7 Place the Handheld reader at an angle of **45 degrees** and at a height of **150mm** from RFID tag to read the tag data.

6.2.8 While pressing the **Power button** of the reader continuously, read the Tag data.

6.2.9 If the **Tag data matches with the database file**, the tag information is displayed on screen without any pop-up as shown in below image.

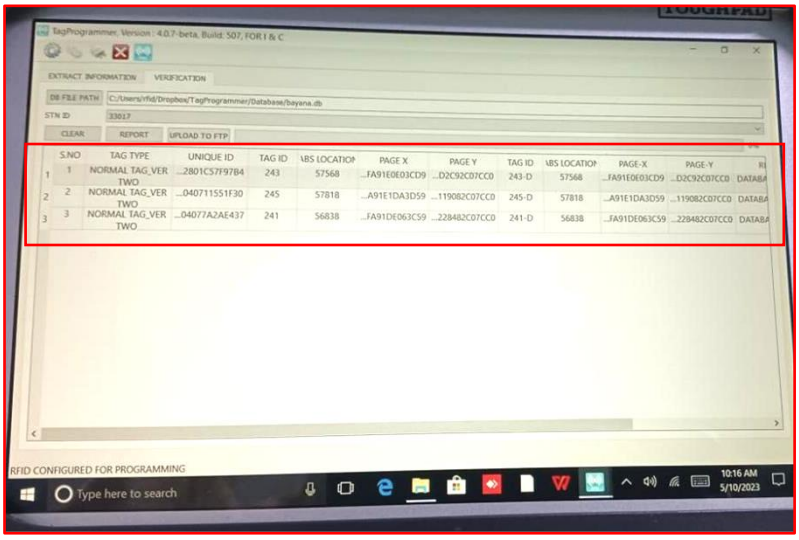


Figure 9 : Tag data log on window

6.2.10 If the **Tag data does not match with the database file**, a pop-up appears on screen as shown in below image.

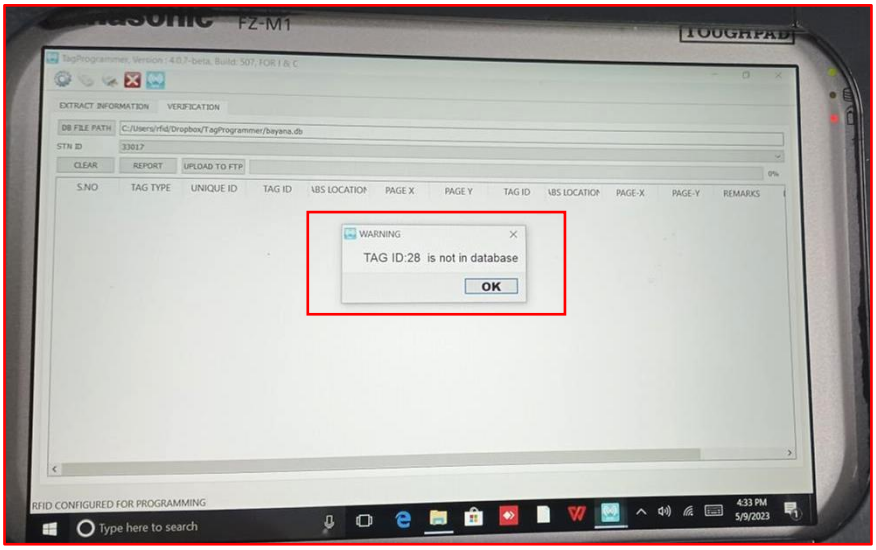


Figure 10 : Tag ID not in database

6.2.11 Now, release the power button and close the application.