



Configuration Guide

Elo Edge Connect™

RFID Reader (E673037)

Configuration Guide

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Revisions

Date	Description
01/20/2022	Initial release

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Prepping for Configuration

You will need to follow the steps below before attaching the device to your PC.

Requirements

1. EdgeConnect RFID Reader
2. Windows PC
 - Alternatively, you can use an I-Series AIO (Windows) or EloPOS Pack + Elo Monitor)
3. Female micro-USB to USB-A cable (if connecting EdgeConnect RFID Reader directly to a Windows PC
4. Access to the Internet

Download and Install Required Drivers and Apps

1. Download and install the following drivers and applications to the Windows PC (Note: disconnect EdgeConnect RFID Reader from PC before installation)
 - Download and install the OMNIKEY CCID Driver - <https://www.hidglobal.com/drivers/39910>
 - Download and install the OMNIKEY USB CDC EEM Driver - <https://www.hidglobal.com/drivers/34881>
 - Download and install the OMNIKEY Workbench App - <https://www.hidglobal.com/drivers/31950>

Connect EdgeConnect RFID Reader to Windows PC

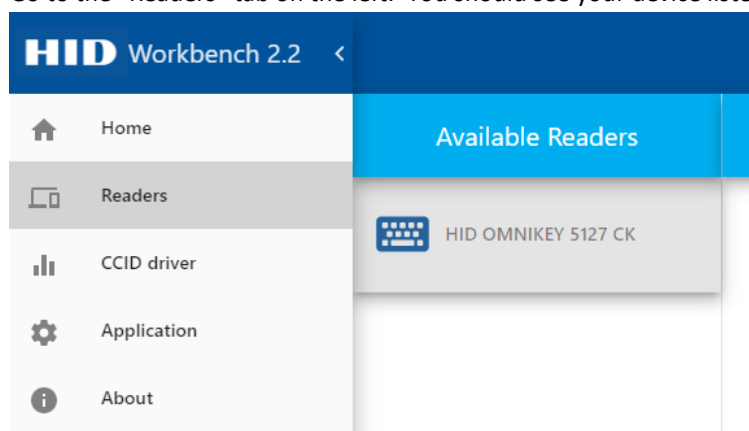
1. Connect the EdgeConnect RFID Reader to a Windows PC using one of these methods:
 - Connect the RFID Reader directly to a Windows PC using a female micro-USB to USB-A cable
 - Connect the RFID Reader to an I-Series (Windows) device
 - Connect the RFID Reader to an Elo monitor's EdgeConnect port and connect the Elo monitor to a Windows PC or EloPOS Pack (Windows)

Configuring the Reader

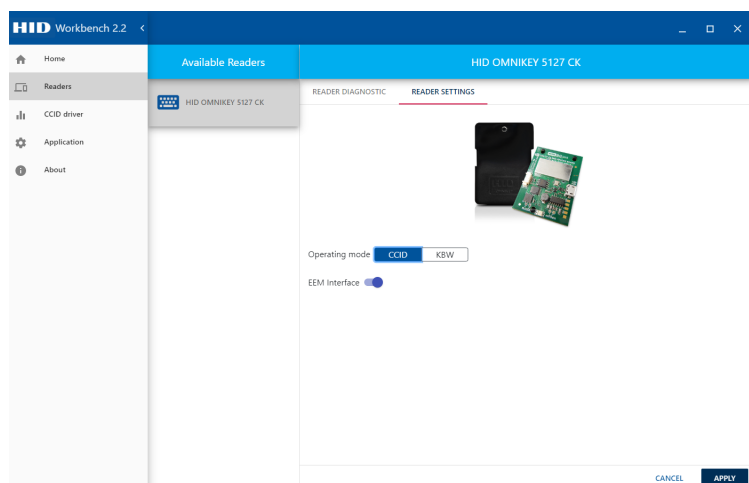
Follow the steps below to configure the reader.

Use the Workbench App to Switch from Keyboard to CCID Mode

1. Connect the EdgeConnect RFID Reader to a Windows PC using one of these methods:
 - Connect the RFID Reader directly to a Windows PC using a female micro-USB to USB-A cable
 - Connect the RFID Reader to an I-Series (Windows) device
 - Connect the RFID Reader to an Elo monitor's EdgeConnect port and connect the Elo monitor to a Windows PC or EloPOS Pack (Windows)
2. Open the HID/OMNIKEY Workbench Application
3. Go to the "Readers" tab on the left. You should see your device listed as an "Available Reader"



4. Click the device.
5. Go to the "Reader Settings" tab
6. Click "CCID" for the "Operating Mode"



7. Click Apply

Use the Configuration Web App to Configure the RFID Reader

1. Open your browser (Chrome works best).
2. Enter <http://192.168.63.99/> into your address bar and press enter.
3. Click the “Keyboard Wedge” tab.
4. Click the “Keyboard Wedge Enable” checkbox.

The screenshot shows the HID OMNIKEY 5x27 CK Reader Management web application. The top navigation bar includes tabs for General Overview, Keyboard Wedge (selected), Reader Information, Contactless Config, Host Interfaces, System Config, System Consoles, and About. The Keyboard Wedge sub-tabs are General Config, Card Data Selection, Input Data Manipulation, Out 1 Data Manipulation, and Out 2 Data Manipulation. The main configuration area for the Keyboard Wedge is visible, showing the 'Keyboard Wedge Enable' checkbox checked. Other settings include Output Type (Keyboard Wedge), Boot Interface (unchecked), Keyboard Layout (US), Hex Output Case (Lower), Inter-Keystroke Delay (20), Host Operating System (Windows), Card Out Event Keystrokes, Error Keystrokes, Allow prestrokes and poststrokes for errors (unchecked), Tech order after error (checked), and an option to Enable Keyboard Wedge Encryption with an associated Encryption Key field.

NOTE: On this screen, you can also enable encryption with an encryption key that only you/your software knows

5. Go to the “Card Data Selection” sub-tab under the “Keyboard Wedge” tab

The screenshot shows the HID OMNIKEY 5x27 CK Reader Management web application, specifically the Card Data Selection sub-tab under the Keyboard Wedge tab. The Card Type is set to 'Generic ISO14443A' and the 'Enable Generic ISO14443A' checkbox is checked. Below this, there is a table for configuring data fields:

Data Field	Enabled	Leading Byte	Reverse
CSN	☒		None
PAC S	☐		None

6. Choose the Card Type you would like to enable (for example, “Generic ISO14443A”)
7. Click the checkbox to enable.
8. Make sure the required data field is enabled (for example, “CSN”)

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9. If you have other custom requirements, enable them as necessary. In the example below, data must be a specific format, and only characters 9-25 are needed. To support this, enable a customization to that data field and set the offset to 9 and the length to 16 (works best with PACS data field because it's in bits not bytes).

The screenshot shows the HID OMNIKEY 5x27 CK Reader Management software interface. The top navigation bar includes tabs for General Overview, Keyboard Wedge, Reader Information, Contactless Config, Host Interfaces, System Config, System Consoles, and About. The 'Input Data Manipulation' tab is selected. Below the navigation bar, there are sections for Card Type (Generic ISO14443A), Enable Generic ISO14443A (checked), and a table for Data Field configuration. The table has columns for Data Field, Enabled, Leading Byte, and Reverse. The 'PACS' field is disabled. Below this, there is a table for custom data fields with columns for Data Field, Enabled, Reverse, Offset (Bytes), and Length (Bytes). The 'CSN Custom 1' field is enabled with an offset of 9 and a length of 16.

Data Field	Enabled	Leading Byte	Reverse
CSN	☒	None	None
PACS	☐	None	None

Data Field	Enabled	Reverse	Offset (Bytes)	Length (Bytes)
CSN Custom 1	☒	None	9	16
CSN Custom 2	☐	None	0	0

10. Next, go to the “Out 1 Data Manipulation” sub-tab

The screenshot shows the HID OMNIKEY 5x27 CK Reader Management software interface with the 'Out 1 Data Manipulation' sub-tab selected. The top navigation bar is the same. Below the navigation bar, there are sections for Card Type (Generic ISO14443A), Hex Output Case (Lower), and a table for Datafield configuration. The table has columns for Datafield, String Format, String Filtering, and String Truncating. The 'CSN' field is configured with String Format set to HEX, String Filtering set to Leading, and String Truncating set to Cut off. The 'PACS' field is also configured with String Format set to HEX, String Filtering set to Leading, and String Truncating set to Cut off. Below this, there is a table for custom data fields with columns for Datafield, String Format, String Filtering, and String Truncating. The 'Custom CSN 1' field is configured with String Format set to HEX, String Filtering set to Leading, and String Truncating set to Cut off. The 'Custom CSN 2' field is also configured with String Format set to HEX, String Filtering set to Leading, and String Truncating set to Cut off.

Datafield	String Format	String Filtering	String Truncating
CSN	HEX	☐ Char 0 Direction Leading	☐ Type Cut off Offset 0 Length 0
PACS	HEX	☐ Char 0 Direction Leading	☐ Type Cut off Offset 0 Length 0

Datafield	String Format	String Filtering	String Truncating
Custom CSN 1	HEX	☐ Char 0 Direction Leading	☐ Type Cut off Offset 0 Length 0
Custom CSN 2	HEX	☐ Char 0 Direction Leading	☐ Type Cut off Offset 0 Length 0

- This is where you can set the data format using “String Format”
 - You can also filter out leading and/or trailing zeros (Note: if you are doing both, you’ll need to use a custom option in the second section).
11. Next, go to the “Out 2 Data Manipulation” sub-tab
- This is where you can turn the buzzer off (on by default)
 - You can add padding to your string here (before and/or after and just like the filtering, you will need to use a custom option in the second section if you need both)
 - You can also add Enter after the read with “[ENTER]”

12. Next, go to the “System Config” tab

The screenshot shows the HID OMNIKEY 5x27 CK Reader Management web interface. The top navigation bar includes tabs for General Overview, Keyboard Wedge, Reader Information, Contactless Config, Host Interfaces, System Config (selected), System Consoles, and About. The main content area has several file upload buttons: Update Firmware, Upload Config, Encrypt Firmware, Load Key Layout, and Update BLE Firmware, each followed by a text box indicating 'No file chosen'. There is also an Export Config button. On the right side, there are three buttons: Apply Changes, Restore Default, and Reboot System. At the bottom, there are two text input fields for Signing Key and Verification Key.

13. Click “Apply Changes”
14. Click “Reboot System”

Upload Configuration File to Configuration RFID Reader

1. If applying this same configuration to multiple RFID readers, click the “Export Config” button (on the System Config tab) to export all configuration settings to an external configuration (.cfg) file.
2. For the next RFID Reader:
 - Use the Workbench App to switch from Keyboard to CCID Mode
 - Use the Configuration Web App (System Config tab) to upload the configuration file and Apply Changes



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Learn more about Elo at EloTouch.com.

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