



Kofax ID Card Reader User Guide

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Version 2.0

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Introduction

Purpose

This user guide provides information on the Kofax ID card reader (formerly the Equitrac ID and Copitrak ID card readers), intended for imaging professionals involved in the deployment of Kofax' Business Connect, ControlSuite, Copitrak, Equitrac, and SafeCom products.

Kofax ID card reader

The Kofax ID card reader is a USB connected external RFID card reader that allows users to authenticate themselves to Kofax products using their contactless ID card, badge, tag, or key fob. They are often referred to in the field as the Gen 2 USB readers, the newest being the Gen 2 BC readers.

Kofax Business Connect compatibility

The Kofax ID Multi-Card BC and iClass Seos + Multi-Card BC readers support authentication and job release with the Business Connect mobile app.

Included items

Each Kofax ID card reader ships with the following:

- card reader with integrated 6 foot / 1.8 m USB cable
- black 30 cm USB A socket to USB mini-B plug adapter
- two self-adhesive Velcro fasteners for mounting the reader to a terminal or MFP
- two cable ties to secure loose cabling

Note: Original Kofax ID card readers with boxed part numbers ending in -202 did not include the USB mini-B plug adapter.

Hardware versions

The Kofax ID card reader comes in several versions:

- **Mifare**
Built with an NXP chipset, the Mifare reader supports a wide variety of 13.56 MHz contactless smartcard technologies based on ISO14443 and ISO15693 standards.
- **HID/Indala**
The HID/Indala reader supports a wide variety of 125 kHz RFID cards.
- **Legic**
Built with a LEGIC chipset, the Legic reader supports a variety of 13.56 MHz contactless smartcard technologies based on ISO14443 and ISO15693 standards. It can retrieve encrypted data from LEGIC Prime and Advant secure credentials.
- **iClass and Legic**
Built with the latest LEGIC chipset, the iClass and Legic reader supports a wide variety of 13.56 MHz contactless smartcard technologies based on ISO14443 and ISO15693 standards. It can retrieve encrypted data from iCLASS (not including iCLASS SE or Seos), LEGIC Prime, and LEGIC Advant secure credentials.
- **Multi-Card, Multi-Card BC ***
Built with an NXP chipset, the Multi-Card reader supports a wide variety of 125 kHz RFID and 13.56 MHz contactless smartcard technologies based on ISO14443 and ISO15693 standards.
- **iClass Seos + Multi-Card, iClass Seos + Multi-Card BC ***
Built with an NXP chipset, the iClass Seos + Multi-Card reader supports a wide variety of 125 kHz RFID and 13.56 MHz contactless smartcard technologies based on ISO14443 and ISO15693 standards. It contains an iCLASS SE Processor to decrypt the Physical Access Card System (PACS) data from iCLASS, iCLASS SE, and iCLASS Seos secure credentials.

* The BC suffix indicates the addition of a low energy radio for Business Connect support.

Hardware part numbers

Each version is identified by a unique hardware part number:

Version	Reader Part Number	Boxed Part Number
Mifare	Y591-E141-202	Y10B-E141-202 Y10B-E141-212
HID/Indala	Y591-E125-202	Y10B-E125-202 Y10B-E125-212
Legic	Y591-ELG2-202	Y10B-ELG2-202 Y10B-ELG2-212
iClass and Legic	Y591-ELGI-202	Y10B-ELGI-212
Multi-Card	Y591-EMUL-202	Y10B-EMUL-202 Y10B-EMUL-212
Multi-Card BC	Y591-BMUL-202	Y10B-BMUL-212
iClass Seos + Multi-Card	Y591-EMSI-202	Y10B-EMSI-202 Y10B-EMSI-212
iClass Seos + Multi-Card BC	Y591-BMSI-202	Y10B-BMSI-212

Boxed part numbers ending in -212 include the black 30 cm USB mini-B adapter cable, replacing the original -202 parts which did not.

The Legic reader has been replaced by the iClass and Legic reader, while the Multi-Card, and iClass Seos + Multi-Card readers have been replaced by the Business Connect compatible Multi-Card BC and iClass Seos + Multi-Card BC readers.

Default configurations

The Kofax ID card reader ships with various configurations:

Version	Keyboard Emulation	Beeper	Returns
Mifare HID/Indala Multi-Card	Disabled	Silent	Unique ID (UID) or Card Serial Number (CSN) from all hardware supported card types
Legic	Disabled	Silent	Unique ID (UID) from LEGIC Prime and Advant cards Other card types and formats ignored
iClass and Legic	Disabled	Silent	Card Number from the Physical Access Control System (PACS) data in iCLASS cards formatted as: <ul style="list-style-type: none"> • 26-bit Wiegand / H10301 • 37-bit H10302 • Corporate 1000 35-bit • Corporate 1000 48-bit Unique ID (UID) from LEGIC Prime and Advant cards Other card types and formats ignored
iClass Seos + Multi-Card	Disabled	Silent	Card Number from the Physical Access Control System (PACS) data in iCLASS, iCLASS SE, or iCLASS Seos cards formatted as: <ul style="list-style-type: none"> • 26-bit Wiegand / H10301 • 37-bit H10302 • Corporate 1000 35-bit • Corporate 1000 48-bit Other card types and formats ignored
Multi-Card BC	Disabled	Enabled	Unique ID (UID) or Card Serial Number (CSN) from all hardware supported card types
iClass Seos + Multi-Card BC	Disabled	Enabled	Card Number from the Physical Access Control System (PACS) data in iCLASS, iCLASS SE, or iCLASS Seos cards formatted as: <ul style="list-style-type: none"> • 26-bit Wiegand / H10301 • 37-bit H10302 • Corporate 1000 35-bit • Corporate 1000 48-bit Other card types and formats ignored

Readers are configurable to enable keyboard emulation, sound the beeper, accept only certain card types, or modify the output format. Consult the “Configuration” section for details.

Important: Keyboard emulation must be enabled before connection to Copitrak terminals and MFP clients.

Usage

Presenting cards

Cards should be placed and held within approximately 1/4 inch (6 mm) of the Kofax ID card reader until success is indicated by the LED or beeper.

Moving or 'swiping' the card across the reader like a traditional magnetic stripe card can disrupt the RFID link and should be avoided.

Presenting Android devices

The Kofax Business Connect application, when combined with Kofax Equitrac or Kofax Output Manager, uses Near Field Communication (NFC) on Android mobile devices for print release and authentication. The device should be presented to the reader with its NFC coil squarely centered over the reader module or housing. The location of this coil varies but is often on the back of the mobile device centered across its width, in either the top half of the device or directly in the middle.

Presenting Apple devices

The Kofax Business Connect application, when combined with Kofax Equitrac or Kofax Output Manager, uses the Low Energy radio on Apple devices for print release and authentication. The mobile device should be presented with its low energy radio antenna centered over the face of the reader and as close to it as possible. This antenna is at the top left corner of an iPhone, and to the right of the Home button on the bottom edge of an iPad.

Due to the range of the radio signal, the Business Connect app can 'see' all readers in a radius of approximately 30 feet (10 m). The app monitors the Received Signal Strength Indication (RSSI) from each reader to determine when a specific reader is close enough to trigger authentication. This takes a second or so to complete after the device has been presented.

If consistent authentication problems occur with specific mobiles, the RSSI threshold can be tuned in the Admin Tools page of the Business Connect server. This setting applies to all instances of the Business Connect mobile app logged in to that server. The more negative the threshold, the more easily the app authenticates with readers which are farther away.

Important: The RSSI threshold should only be adjusted by 1 or 2 dB at a time. Lowering it too far reduces security, as the mobile app may not discriminate between readers on printers located side by side or on opposite sides of a wall. This can result in the inadvertent release of print jobs to the wrong location.

Beeper

Kofax ID card readers contain a beeper which can sound whenever data is received from a presented card or mobile device. Non-BC readers were shipped with this beeper disabled for backwards compatibility with the first generation of Equitrac readers, while the Multi-Card BC and iClass Seos + Multi-Card BC readers ship with the beeper enabled.

The Reader Maintainer software is used to enable or disable the beeper, but its volume is not adjustable. Refer to the section “Setting the operating mode” for details.

Note: Some MFPs sound the reader’s beeper regardless of the reader configuration.

LED indicator

The LED in the Kofax ID card reader is green when it has power, blinking off and back to green when data is read from the presented card or mobile device. Readers configured in MX Compatible mode use a red LED instead of green.

Note: Some MFPs control the color and flash rate of the LED to reflect their login state and system status, regardless of the mode setting.

Configuration

Kofax ID card readers are configurable to:

- select an operating mode compatible with the target use case
- restrict operation to certain card technologies
- enable keyboard emulation as required by some MFP clients and terminals
- adapt the reader to specific customer card system requirements
- update the firmware to support new card types and features

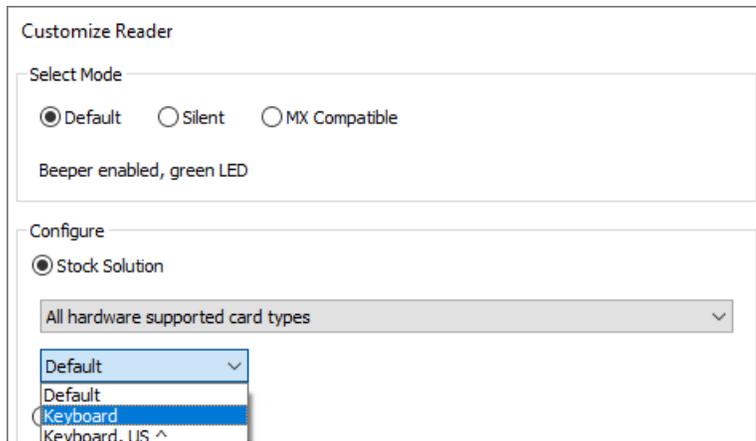
Readers are configured with the Reader Maintainer software, available at delivery.kofax.com.

Setting the operating mode

Kofax ID card readers ship from the factory with a green LED, and card data output in decimal form (octal for HID Prox cards). For compatibility with other readers in a mixed fleet however, Kofax ID card readers are configurable in various modes.

The Reader Maintainer (RM) software configures the operating mode:

1. Launch the RM software.
2. Connect the reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Customize Reader.
5. Select the desired Mode:



Mode	LED	Beeper	Data Format
Default	Green	Enabled	Decimal, octal for HID Prox cards
Silent	Green	Disabled	Decimal, octal for HID Prox cards
MX Compatible	Red	Enabled	Compatible with Kofax MX card readers for SafeCom

Note: Silent mode is compatible with first generation Equitrac USB card readers.

Important: Be sure to select keyboard emulation (as shown above) when using readers with Copitrac clients and terminals.

6. Click Update Reader, then Yes, and wait for the progress bar to complete.
7. If configuring multiple readers, disconnect the initial reader, connect the next one, and repeat from step 6.
8. When finished, close the dialog.

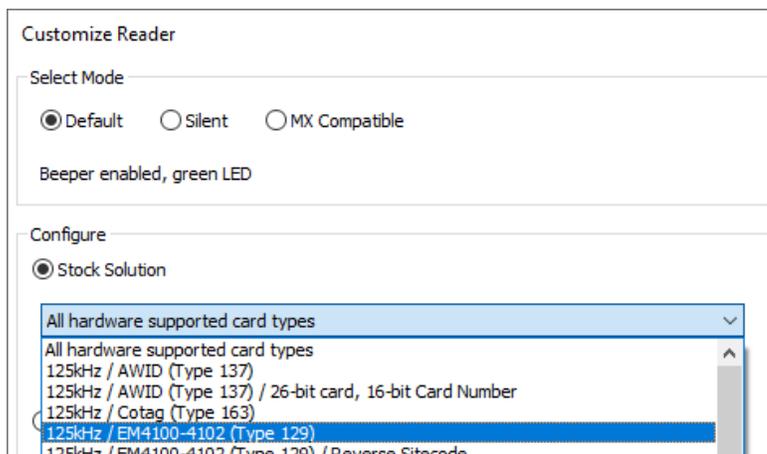
Note: The Customize Reader dialog always opens to the last mode selected.

Restricting operation to certain card types

Kofax ID card readers allow a user to authenticate by presenting their RFID badge or key fob. Some users carry these in a wallet or purse along with other RFID-enabled credentials for banking, credit, or customer loyalty. Restricting readers to work only with the desired card type avoids invalid logins or “swipe to logout” workflows triggered by other credentials.

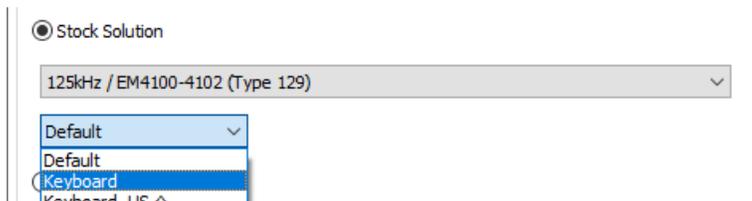
Use the Reader Maintainer (RM) software to restrict a reader to the desired card type:

1. Launch the RM software.
2. Connect the reader to the PC or laptop running the RM.
3. If the reader’s serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Customize Reader.
5. Select a Stock Solution compatible with the desired card type:



Note: To determine your card type, refer to the “Reading card types” section.

6. Select a keyboard emulation option if required:



Important: All Copitrak MFP clients and terminals require keyboard emulation.

7. Click Update Reader, then Yes, and wait for the progress bar to complete.
8. If configuring multiple readers, disconnect the initial reader, connect the next one, and repeat from step 7.
9. When finished, close the dialog.

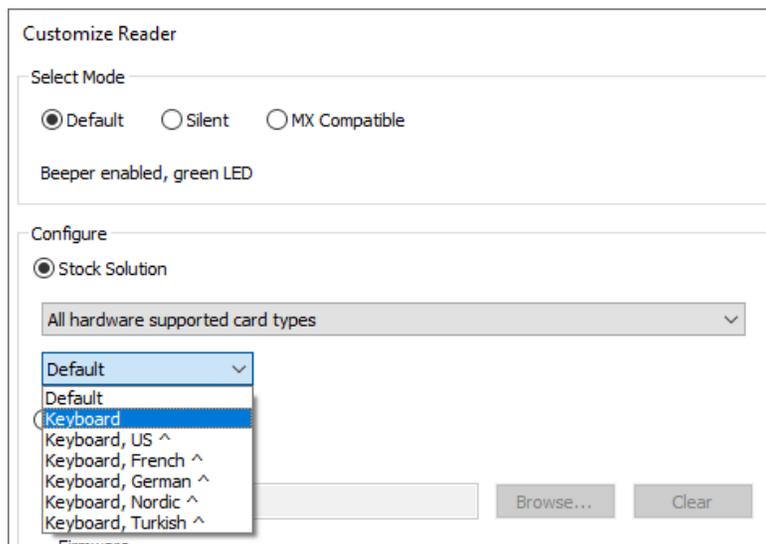
Note: The updated reader can be tested with the Read Card Number function.

Enabling keyboard emulation

Certain MFP clients and all Copitrak terminals require Kofax ID card readers to emulate a USB keyboard, with some clients also needing a ^ character ahead of the card data to differentiate it from regular keyboard input. This is complicated by the various international keyboard layouts placing the ^ symbol on different keys.

Use the Reader Maintainer (RM) software to enable keyboard emulation:

1. Launch the RM software.
2. Connect the reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Customize Reader.
5. Select the desired Mode and Stock Solution.
6. Select a keyboard emulation option from the drop list:



Note: The “Keyboard emulation” section describes the available options.

7. Click Update Reader, then Yes, and wait for the progress bar to complete.
8. If configuring multiple readers, disconnect the initial reader, connect the next one, and repeat from step 7.
9. When finished, close the dialog and exit the software.

Note: Some MFPs must be set up with the reader's USB Vendor and Product ID (VID and PID) to enable support. Once configured by the latest Reader Maintainer software, Kofax ID card reader uses VID 5037 (hexadecimal 13AD) and PID 40106 (hexadecimal 9CAA) while in keyboard emulation.

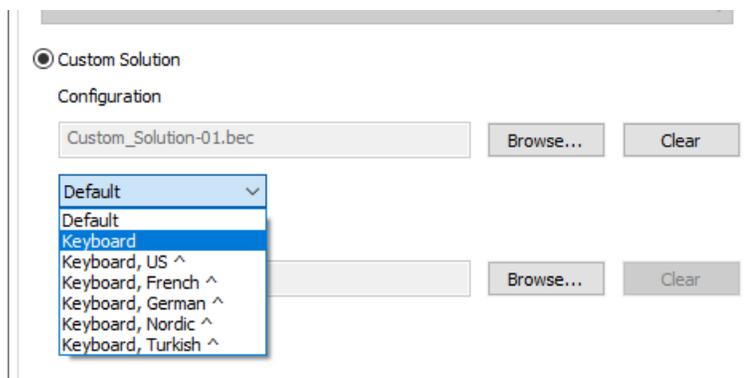
Loading a custom configuration file

It may be necessary to customize a Kofax ID card reader to:

- accept a specific combination of card types
- access an authenticated or encrypted card system
- read data from specific card memory locations
- trim card data prior to output
- output data in formats matching a pre-existing user database

Customizations are created by Kofax Support and distributed as .bec files. These files are loaded with the Reader Maintainer (RM) software:

1. Launch the RM software.
2. Connect the reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Customize Reader.
5. Click the Custom Solution button.
6. Click Browse... then navigate to and Open the desired .bec file.
7. Select a keyboard emulation option, if required:



Note: The “Keyboard emulation” section describes the available options.

8. If alternate firmware is provided, the .bf2 file is also selected at this time.
9. Click Update Reader, then Yes, and wait for the progress bar to complete.
10. If configuring multiple readers, disconnect the initial reader, connect the next one, and repeat from step 9.
11. When finished, close the dialog.

Note: The updated reader can be tested with the Read Card Number function.

Updating reader firmware

Kofax ID card readers may require updated firmware to support new card types or customization features. Reader firmware is distributed as .bf2 files.

Use the Reader Maintainer (RM) software to update the firmware:

1. Launch the RM software.
2. Connect a reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Customize Reader.
5. Click the Custom Solution button.
6. Click Browse... then navigate to and Open the desired .bf2 file.
7. If the new firmware is part of a customization, the associated .bec file and a keyboard emulation option are also selected at this time.

Note: The "Keyboard emulation" section describes the available options.

8. Click Update Reader, then Yes, and wait for the progress bar to complete.
9. If updating multiple readers, disconnect the initial reader, connect the next one, and repeat from step 8.
10. When finished, close the dialog.

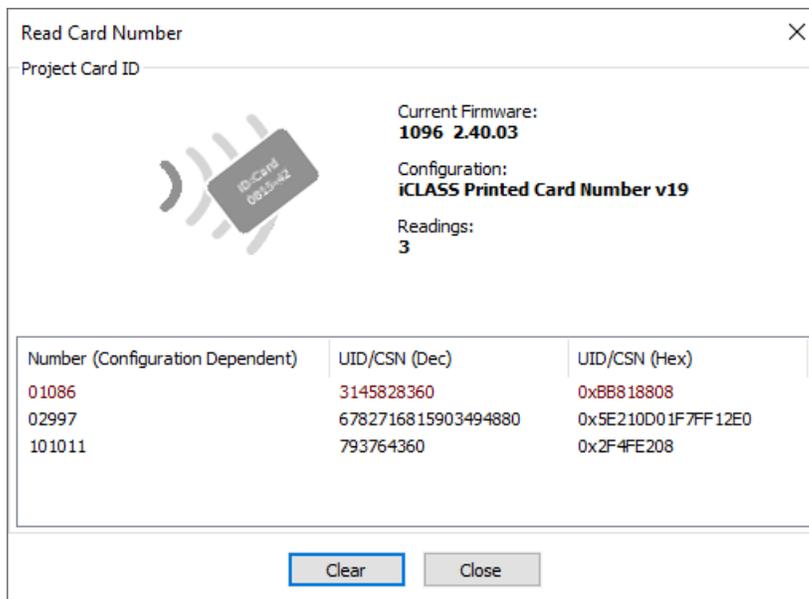
Note: The updated reader can be tested with the Read Card Number function.

Card Testing

Reading card numbers

The Reader Maintainer (RM) software shows the output from a Kofax ID card reader:

1. Launch the RM software.
2. Connect the reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. Click Read Card Number.
5. Present cards to the reader one at a time, the most recent data highlights in red:



The value in the Number column is the reader output. It's dependent on the reader configuration controlling the card type(s) to read, the data fetched for each type, and the output data format.

A Unique ID (UID) or Card Serial Number (CSN) is also displayed but can be different than the output in the Number column, particularly when working with encrypted cards.

Note: Refer to the topic "Card not detected by reader" in the Troubleshooting section if no data appears when a card is presented.

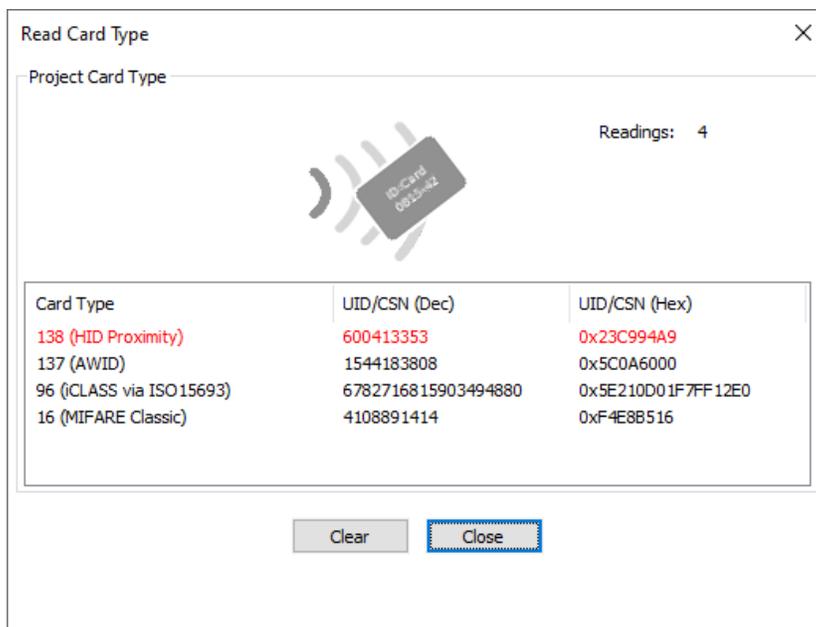
6. When finished, close the dialog.

Note: The Read Card Number function shows the *output* from a card, the Read Card Type function shows the *type* of card you have.

Reading card types

The Reader Maintainer (RM) software is used to read the card type:

1. Launch the RM software.
2. Connect a reader to the PC or laptop running the RM.
3. If the reader's serial number and other details do not appear in the main window, ensure that it is the only reader connected to the computer.
4. If the main window lists a configuration other than All Types, use the Customize Reader function to load the Stock Solution "All hardware supported card types".
5. Click Read Card Type.
6. Present cards to the reader one at a time, the most recent card appears in red:



Note: See "Restricting operation to certain card types" for details on using the Card Type information displayed.

7. When finished, close the dialog.

Note: The Read Card Type function shows the *type* of card you have, the Read Card Number function shows the configuration-dependent *output* from that card.

Troubleshooting

Card not detected by reader

Condition

The reader LED is lit, but there is no response (beeper, LED, or MFP client action) when a card is presented.

Cause 1

The reader is loaded with an incompatible configuration.

Remedy 1

Use the Reader Maintainer (RM) software's Customize Reader function to load the Stock Solution "All hardware supported card types", then test using the RM's Read Card Number function.

Cause 2

The card uses random UIDs instead of a fixed UID value. Random UIDs prevent the association of cards to specific users, so are suppressed by the reader to avoid nuisance workflows.

Remedy 2

Use the Reader Maintainer software's Read Card Type function to identify the card. If a Card Type and UID appear, then withdraw the card and present it again. If a different UID appears then the card is randomizing its UID, and some other data must be retrieved for authentication.

Contact Kofax Support to obtain a solution for your card type.

Cause 3

The card is incompatible with the reader hardware.

Remedy 3

It may be possible to develop a custom solution for the target card system. Contact Kofax Support for assistance.

Reader responds to card, MFP does not respond

Condition

The reader beeps or its LED blinks in response to card presentations but there is no response from the MFP client.

Cause 1

The MFP client requires the reader to operate in keyboard emulation mode.

Remedy 1

Refer to the section “Enabling keyboard emulation” for further instructions.

Cause 2

Some MFP clients work only with specific USB ports.

Remedy 2

Consult the client documentation to ensure the reader is connected to the proper USB port.

Reader not responding, LED off**Condition**

There is no response to card presentations and the reader LED is off.

Cause

The reader has no power.

Remedy

Connect the reader to another MFP, PC, or laptop. If the LED lights, then there was an issue with the USB port on the original MFP. It may be disabled, or the MFP was in deep sleep. Consult the MFP documentation to resolve the issue.

Reader LED is the wrong color**Condition 1**

The reader LED is not the expected color.

Cause 1

LED color is typically controlled by the reader configuration. When configured in Default or Silent mode the LED is green, when configured in MX Compatible mode the LED is red.

Remedy 1

Configure the reader in the desired mode. Refer to “Setting the operating mode” for details.

Condition 2

The reader is configured in the proper mode, but the LED is still the wrong color.

Cause 2

Some MFP clients control LED color to indicate login state or system status. Connect the reader to a PC or laptop and observe the LED, if the expected color appears then the client was controlling the LED.

Remedy 2

Consult the client documentation for LED color details and configuration options.

Customize reader operation fails

Condition

An error message appears after clicking Update Reader in the Reader Maintainer.

Cause

The reader's USB Product ID changes while loading firmware or transitioning in and out of keyboard emulation mode. Windows loads a new driver the first time this happens for a given reader, if that takes too long due to background operations such as whole disk encryption or heuristic anti-virus scanning, the Update Reader operation fails.

Remedy

Disconnect and reconnect the card reader, wait for its information to appear in the main window, then click Update Reader again.

Reader disappears following reset or 'reconnection not possible' message

Condition

The reader is invisible to the Reader Maintainer (RM) software after performing the disconnect and reconnect cycle advised by the RM.

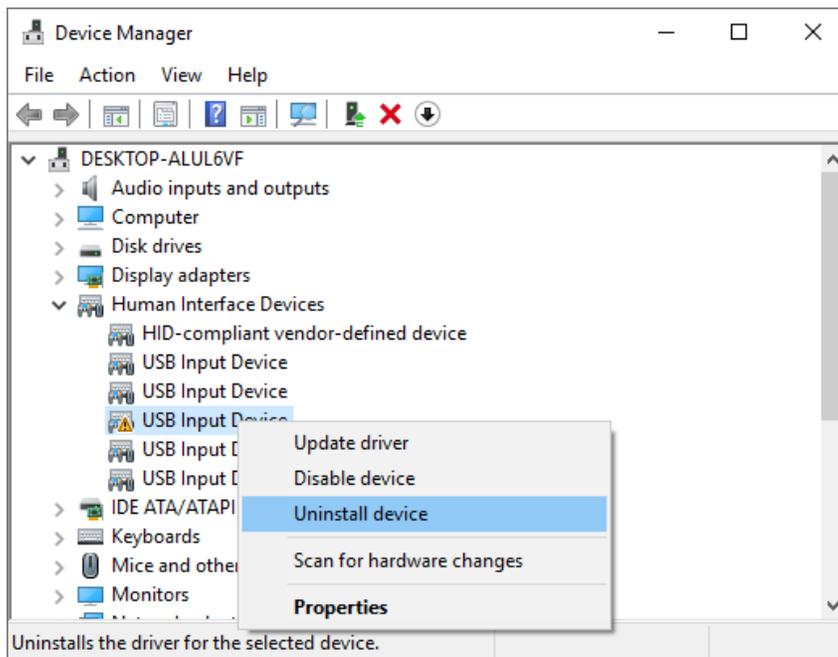
Cause

There is a mismatch between the reader's current configuration and the driver that was originally loaded for it by Windows.

Remedy

Force Windows to re-install the reader drivers:

1. Press the <Windows> and <Pause/Break> keys simultaneously to open the System properties.
2. Select Device Manager from the Related Settings list.
3. Locate the USB Input Device with a yellow warning triangle, right-click it, then select Uninstall device:



4. Disconnect and reconnect the card reader. Windows automatically installs the correct drivers, and the Reader Maintainer can detect it again.

Technical Reference

Low frequency (125/134 kHz) card support

Card System	Mifare	HID/Indala	Legic	iClass and Legic	Multi-Card Multi-Card BC	iClass Seos + Multi-Card iClass Seos + Multi-Card BC
AWID	n/a	Yes	n/a	n/a	Yes	Yes, 1
Cardax		No, 3			No, 3	
Cotag		No			No	
Deister		Yes			Yes, 1	
EM 4100/4102		Yes			Yes, 1	
EM 4205/4305		Yes			Yes, 1	
EM 4450/4550, 4469/4569		Yes			Yes, 1	
FDX-B		No, 3			No, 3	
G-Prox		Yes			Yes, 1	
HID Indala ASP		Yes			Yes, 1	
HID Indala ASP+		Yes, 2			Yes, 1, 2	
HID Prox		Yes			Yes, 1	
Hitag 1/2 (256, 2048)		Yes			Yes, 1	
Hitag S		Yes			Yes, 1	
Honeywell Nexwatch Quadrakey		Yes			Yes, 1	
IDTECH		No			No	
ioProx		Yes			Yes, 1	
Keri		Yes			Yes, 1	
Miro		Yes			Yes, 1	
Pyramid / Farpointe Data		Yes			Yes, 1	

Card System	Mifare	HID/Indala	Legic	iClass and Legic	Multi-Card Multi-Card BC	iClass Seos + Multi-Card iClass Seos + Multi-Card BC
Q5	n/a	No, 3	n/a	n/a	No, 3	No, 3
Radio Key / SecuraKey		Yes			Yes, 1	
Sokymat Unique		Yes			Yes, 1	
T5567/T5557		No, 3			No, 3	
Tiris		No, 3			No, 3	
Titan		No, 3			No, 3	
Zodiac		No, 3			No, 3	

1. Disabled by default. Configure the reader using the “All hardware supported types” or desired single card type Stock Solution to enable support.
2. Raw data stream or hash value only. The reader output can be used for auto-registration or added to the user database as an alternate PIN by the system administrator. There is no direct relationship to any number printed on the card or stored in the access control system database.
3. Support possible but not compatible as shipped. Contact your Kofax Sales Representative.

High frequency (13.56 MHz) card support

Card System	Mifare	HID/Indala	Legic	iClass and Legic	Multi-Card Multi-Card BC	iClass Seos + Multi-Card iClass Seos + Multi-Card BC
Calypso	Yes	n/a	Yes, 1	Yes, 1	Yes	Yes, 1
CEPAS	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
EM 40334035	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
HID iCLASS	Yes, 2, 4		Yes, 1, 2, 4	Yes	Yes, 2, 4	Yes
HID iCLASS SE	Yes, 2, 4		Yes, 1, 2, 4	Yes, 1, 2, 4	Yes, 2, 4	Yes
HID iCLASS Seos	Yes, 2, 3, 4		Yes, 1, 2, 3, 4	Yes, 1, 2, 3, 4	Yes, 2, 3, 4	Yes
Infineon my-d vicinity	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
LEGIC Advant	Yes, 2, 4		Yes	Yes	Yes, 2, 4	Yes, 1, 2, 4

Card System	Mifare	HID/Indala	Legic	iClass and Legic	Multi-Card Multi-Card BC	iClass Seos + Multi-Card iClass Seos + Multi-Card BC
LEGIC Prime	No	n/a	Yes	Yes	No	No
Mifare Classic	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Mifare DESfire, -EV1, -EV2 (2, 4, 8K)	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Mifare Plus (-S, -X, L1, L2, L3)	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Mifare Ultralight, -C	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Moneo	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
NFC Forum Tag 1-4	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
NXP iCode	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
NXP SmartMX, ProX	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Pay Pass	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Pico Pass	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
SLE44R35	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
SLE66Rxx (my-d move)	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Sony FeliCa	Yes, 4		Yes, 1, 4	Yes, 1, 4	Yes, 4	Yes, 1, 5
SRI4K, SRIX4K	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
SRI512, SRT512	Yes		Yes, 1	Yes, 1	Yes	Yes, 1
Tag-it ISO	Yes	Yes, 1	Yes, 1	Yes	Yes, 1	

1. Disabled by default. Configure the reader using the “All hardware supported types” or desired single card type Stock Solution to enable support.
2. Unique ID (UID) only. The reader output can be used for auto-registration or added to the user database as an alternate PIN by the system administrator. There is no direct relationship to any number printed on the card or stored in the access control system database.
3. iCLASS Seos UIDs are returned only from Seos cards ordered with UID randomization turned off, as randomized UIDs cannot be used for user identification.
4. Access to encrypted data not possible.
5. Access to encrypted data requires installation of a third-party Secure Access Module (SAM).

USB interface specifications

Parameter	Mifare	HID/Indala	Legic	iClass and Legic	Multi-Card	Multi-Card BC	iClass Seos + Multi-Card	iClass Seos + Multi-Card BC
Data rate	USB 2.0 Full Speed (USB 1.1 compatible)							
Protocol	USB HID, USB HID Keyboard (when keyboard emulation enabled)							
Vendor ID (hex)	13AD							
Product ID (hex)	9CA5 (default), 9CAA (when keyboard emulation enabled by the latest Reader Maintainer software)							
Input voltage	4.7 to 5.5 VDC							
Reported maximum current	300 mA	300 mA	300 mA	300 mA	300 mA	300 mA	300 mA	300 mA
Maximum operating current	165 mA	80 mA	200 mA	200 mA	185 mA	191 mA	210 mA	216 mA
Typical operating current	140 mA	55 mA	110 mA	110 mA	100 mA	106 mA	100 mA	106 mA

Keyboard emulations

While many MFP clients natively support Kofax ID card readers, some require it to emulate a keyboard by returning data as if it were typed one digit at a time. Certain older clients also require a ^ character ahead of the keyboard data, a process complicated by the various international keyboard layouts placing the ^ symbol on different keys.

The Reader Maintainer’s Customize Reader function presents mode-dependent keyboard emulation options:

Mode			Keyboard Emulation
Default	Silent	MX Compatible	
Default	Silent	MX Default	Disabled
Keyboard	Silent Keyboard	MX Keyboard	Returns card data as keystrokes
Keyboard, US ^	Silent Keyboard, US ^		Returns card data as keystrokes with leading ^ character (Shift + 6 key)
Keyboard, French ^	Silent Keyboard, French ^		Returns card data as shifted number strokes with leading ^ character (French ^ key)
Keyboard, German ^	Silent Keyboard, German ^		Returns card data as keystrokes with leading ^ character (German ^ key)
Keyboard, Nordic ^	Silent Keyboard, Nordic ^		Returns card data as keystrokes with leading ^ character (Shift + " key)
Keyboard, Turkish ^	Silent Keyboard, Turkish ^		Returns card data as keystrokes with leading ^ character (Shift + 3 key)

Note: All keyboard emulations send <Enter> as the final keystroke.

Note: When selecting a ^ option, the language chosen must match the MFP’s input language setting.