MAGTEK®
SECURITY FROM THE INSIDE

Quick Installation Guide
Setup and Installation

DynaProx Products Overview

DynaProx and DynaProx BCR [DynaProx products] deliver the next generation in contactless EMV and near field communication (NFC) technology for original equipment manufacturers (OEM), merchants, banks, and other developers looking to build a secure payment solution.

The Purpose of this document

The purpose of this document is to provide a brief overview for the installation and operation of DynaProx products.

Environmental	Conditions
DynaProx Temperature	Operating and Storage -30°C to +85°C(-22°F to 185°F)
DynaProx BCR Temperature	Operating -20°C to +55°C (-4°F to 131°F) Storage -30°C to +70°C (-22°F to 158°F)
Storage and Operating Humidity	5% to 90% non-condensing
Ratings	IP66 and IK08

Major Components

Barcode reader lens and barcode reader indicator LED apply only to DynaProx BCR models.
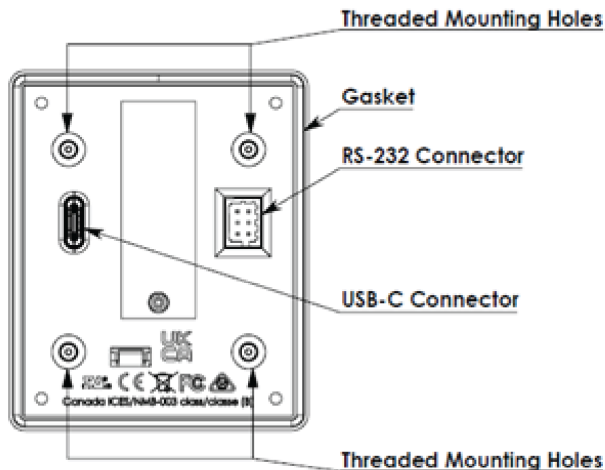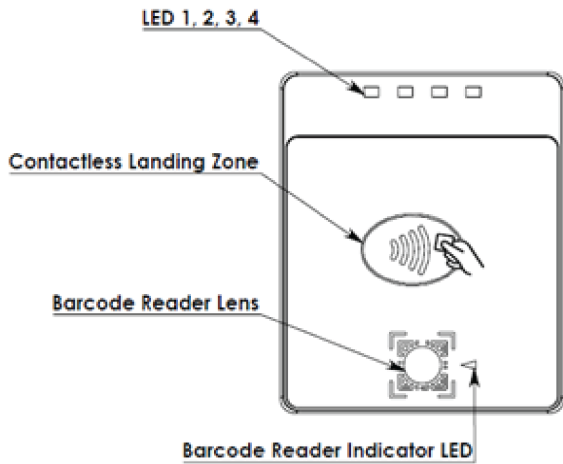
Power

DynaProx products implement active tamper detection, which use a small amount of electricity even when the device is completely powered off. When un-powered, the device powers its active tamper detection circuitry. When properly powered through its USB port or RS-232 port, the device powers on automatically. Device does not support USB suspend mode. To power off the device, disconnect the device from USB power or RS-232 Power. If all LEDs are off, the device is Off.

Commands

DynaProx products are designed to be connected to a host, which is a piece of general-purpose electronic equipment which can send commands and data to, and receive data from, the device. Host types include PC and Mac computers/laptops, tablets, and smartphones. Generally, the host must have software installed that communicates with the device and is capable of processing transactions.

How to connect to Host

Steps for connecting DynaProx products to a host via the available physical connection types.

Connect Using USB-C

To connect DynaProx products to a USB host using the USB-C port, a poor quality cable, or cable longer than 12ft in length, can result in unexpected reader resets.

- Connect the USB-C end of the cable to DynaProx.
- Connect the other end of the USB cable to the host's USB port.
- Power through USB automatically powers on the device.

Connect Using RS-232

RS232 interface provides a UART interface at RS-232 signal levels. No flow control is provided. The RS-232 cable is customer dependent. A sample cable can be provided that has the mating connector for DynaProx and color-coded wires. See MagTek part number: 1000008345. The chassis ground connection is a custom cable depending on the customer's requirement.

Mounting Device

DynaProx products are designed to provide flexible mounting options:

- Mount to custom mounting brackets or mount in an enclosure as part of a larger solution design.
- Mount to the optional stand for countertop use.

Build and test prototypes with actual devices before finalizing the solution design. The screw hole placement on the bottom of DynaProx products are designed to accommodate screw size M4 x 0.7mm and a maximum screw depth of 0.315 inches (8mm) into the device. The recommended torque range for installing the screws is 20 to 22 in-lbs. (2.3 to 2.5 N-m). Ensure gasket is seated to maintain an IP66 rating. Panel cutouts for the USB and RS-232 connectors are needed. Make sure there is adequate clearance for cardholders to tap or users to present a barcode.
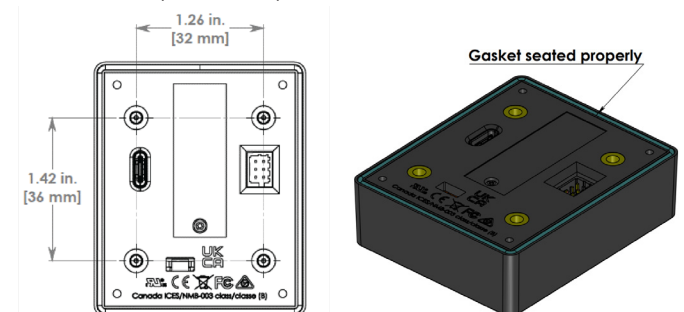
Use and Compliance

Accepting Payments

The steps for starting a transaction and reading a contactless payment device are different depending on the device's configuration and on the design of the host software.

NOTE: If the cardholder is using an electronic payment device, such as a smartphone, make sure the payment device has NFC turned On and has a payment app configured to process transactions. Because each smartphone model may have its NFC antenna placed differently, the ideal tap position may vary by make and model. For example, Samsung users may need to center the phone on the contactless landing zone, while Apple users may need to tap the top of the phone on the contactless landing zone.

How to Tap Contactless Cards / Devices

To tap a contactless card or smartphone, follow these steps:
- Check LED status is set to ready. Briefly hold the card, smartphone, or other contactless payment device over the contactless landing zone
- Wait for LED status to show it is processing.
- The device beeps once. The device ends the transaction and reports the transaction status to the host.

How to Scan Barcodes (DynaProx BCR models ONLY)

Make sure you are using a DynaProx BCR that includes a barcode reader. If the barcode being scanned is not on a self-illuminated source such as a smartphone, make sure there is enough ambient light for the camera to read the barcode. In low light conditions, the barcode reader will only be able to read self-illuminated sources.
- Wait for the device, the host, or the operator to prompt for a barcode read: The device lights the barcode reader indicator LED next to the barcode reader lens.
- Hold the barcode in front of the barcode reader camera: use the light from the barcode reader indicator LED to align the barcode within the barcode reader's field of view, which extends 16 degrees above / below and 21 degrees to the left / right of a line perpendicular to the barcode reader lens. Hold the barcode as close as 1 inch from the lens. For smaller barcodes, the device will read immediately. If it does not, gradually pull back to up to 14 inches from the lens until the device reports a successful read. Larger barcodes must be far enough away from the device that the whole barcode is within the camera's field of view; if a large barcode is too close, the barcode reader can only see a zoomed in portion of the barcode. Do not tilt the barcode more than 60 degrees from parallel to the device's face.
- Wait for the device or the host to report the barcode has been read successfully: The device beeps once and turns off the barcode reader indicator LED.

Auditory Feedback

The device sounds one short beep after it has successfully read a contactless tap and the cardholder can safely remove the card or device from the contactless landing zone. The device provides an internal setting the host can use to adjust the global system volume.

LEDs

DynaProx products provide four mono LEDs, numbered LED1 through LED4, which report the device's current operating status. The meaning of each LED depends on the device's operating mode. A blinking LED generally means the device is actively doing something to change the state that the LED is indicating and solid indicates a persistent state that would require an operator or cardholder to take action to change. See Installation and Operation Manual (PN D998200490) for full details.

Compliance

FCC INFORMATION
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
Caution: Changes or modifications not expressly approved by MagTek could void the user's authority to operate this equipment.

CANADIAN DECLARATION OF CONFORMITY
This digital apparatus does not exceed the Class B limits for radio noise from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.
Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe B prescrites dans le Réglement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conformé à la norme NMB-003 du Canada.

INNOVATION, SCIENCE AND ECONOMIC DEVELOPMENT CANADA (ISED)
This device complies with ISED Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device.
Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) L'appareil ne doit pas produire de brouillage, et (2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CE STANDARDS
Testing for compliance with CE requirements was performed by an independent laboratory. The unit under test was found compliant with standards established for Class B devices.

EU STATEMENT
Hereby, MagTek Inc. declares that the radio equipment types Wideband Transmission System (802.11 wireless and Bluetooth Low Energy), and Non-Specific Short Range Device (contactless) are in compliance with Directive 2014/53/EU. The full text of the EU declarations of conformity is available at the following internet address:
https://www.magtek.com/Content/DocumentationFiles/D998200505.pdf

UKCA STANDARDS
Hereby, MagTek Inc. declares that the radio equipment types Wideband Transmission System (Wireless LAN and Bluetooth Low Energy), and Non-Specific Short Range Device (contactless) are in compliance with Radio Equipment Regulations 2017 Directive S.I.2017:1206. The full text of the UKCA declarations of conformity is available at the following Internet addresses:
- https://www.magtek.com/Content/DocumentationFiles/D998200506.pdf

AUSTRALIA / NEW ZEALAND STATEMENT
Testing for compliance with AS/NZS standards was performed by a registered and accredited laboratory. The unit under test was found compliant with standards established under AS/NZS CISPR 32 (2013), AS/NZS 4268 Table 1, Row 59 DTS 2400-2483MHz SRD (802.11), and AS/NZS 4268 (2017) Table 1, Row 43 13.553-13.567MHz (contactless reader).
UL/CSA/IEC
This product is recognized for UL/CSA/IEC 62368-1, 2nd edition

ROHS STATEMENT
When ordered as RoHS compliant, this product meets the Electrical and Electronic Equipment (EEE) Reduction of Hazardous Substances (RoHS) Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU. The marking is clearly recognizable, either as written words like "Pb-free," "lead-free," or as another clear symbol (Ⓟⓑ).

PCI STATEMENT
PCI Security Standards Council, LLC ("PCI SSC") has approved this PTS POI device (SCR class) to be compliant with the PCI PTS POI Security Requirements v6.1.
When granted, PCI SSC approval is provided by PCI SSC to ensure certain security and operational characteristics important to the achievement of PCI SSC's goals, but PCI SSC approval does not under any circumstances include any endorsement or warranty regarding the functionality, quality or performance of any particular product or service. PCI SSC does not warrant any products or services provided by third parties. PCI SSC approval does not under any circumstances include or imply any product warranties from PCI SSC, including, without limitation, any implied warranties of merchantability, fitness for purpose, or non-infringement, all of which are expressly disclaimed by PCI SSC. All rights and remedies regarding products and services which have received PCI SSC approval shall be provided by the party providing such products or services, and not by PCI SSC.