MAGTEK®
SECURITY FROM THE INSIDE

mDynamo Weatherized

Insert Secure Card Reader Authenticator
Installation and Operation Manual

May 2024

Document Number:
D998200657-100

REGISTERED TO ISO 9001:2015

MagTek I 1710 Apollo Court I Seal Beach, CA 90740 I Phone: (562) 546-6400 I Technical Support: (562) 546-6800
www.magtek.com

Table 0-1 - Revisions

Rev Number	Date	Notes
100	May 15, 2024	Initial Release

Table of Contents

1 Introduction

mDynamo Weatherized Insert Secure Card Reader Authenticators are assembled using the mDynamo EMV Contact Reader platform. This platform includes a Micro USB connector, an RS-232 port as an alternative to USB, and an auxiliary SPI port (**refer to Figure 1-2 - mDynamo Weatherized Major Components (Back View**).

mDynamo Weatherized offers a cost-effective solution that enhances the functionality of unattended kiosks, vending machines, parking garages, car wash establishments, ATMs, and fuel pumps. mDynamo Weatherized is specifically designed for outdoor use, boasting a maximum operating temperature of 85°C (185°F) and an IP55 ingress protection rating.

1.1 Key Features

mDynamo Weatherized is easy to install and configure, and has key features that include:

- USB interface allows for easy-to-use plug-n-play connectivity.
- RS-232 Compatibility.
- Weatherized for outdoor use.
- Ingress Protection: Certified to IP55.
- Operating Temperatures from -30°C (-22°F) up to 85°C (185° F).

1.2 Built for Easier Integration

mDynamo Weatherized is backed by a range of software development kits (SDKs), application programming interfaces (APIs), and Magensa Web Services, streamlining integration for enhanced security and ease of use. Magensa provides essential developer tools, browser, and middleware applications, as well as remote services for configuration and key injection, facilitating smoother integration and faster time-to-market for your solution. Combined with MagTek hardware, Magensa Services offer a robust and economical solution to help meet your PCI requirements.

1.3 The Next Generation of Security

mDynamo Weatherized features the latest iteration of the MagneSafe Security Architecture (MSA). Since its inception in 2006 as the industry's first secure card reader authenticator for electronic transactions, MSA has undergone significant evolution. MSA is a digital identification and authentication architecture designed to protect personal data, surpassing PCI regulations. It employs robust encryption, secure tokenization, counterfeit detection, tamper recognition, data integrity and relevance checks, and dynamic digital transaction signatures. These features validate and secure the entire transaction and its components. The mDynamo Weatherized EMV chip reader is certified for EMV L1 and L2 compliance. Key security and certification features include:

- EMV L1 and L2
- Data Protection Triple DEA Encryption
- DUKPT Key Management
- MagneSafe Security Architecture
- Unique, Non-Changeable Device Serial Number
- MagnePrint® Card Authentication

1.4 mDynamo Weatherized Major Components

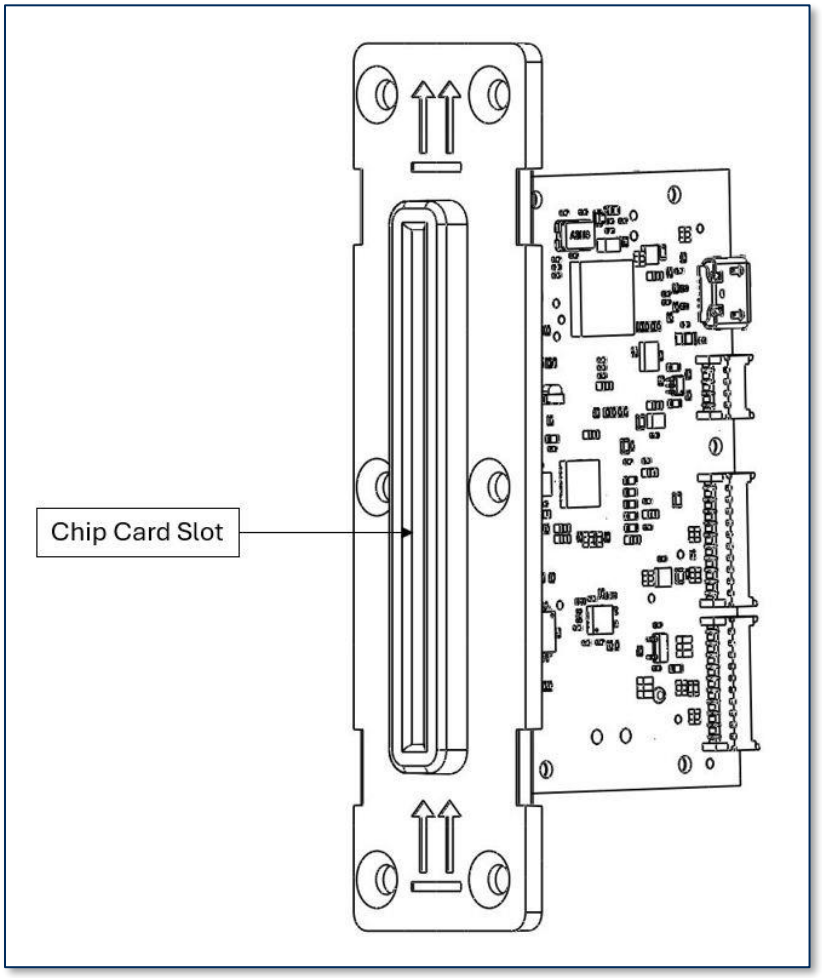

Figure 1-1 - mDynamo Weatherized Major Components (Front View)

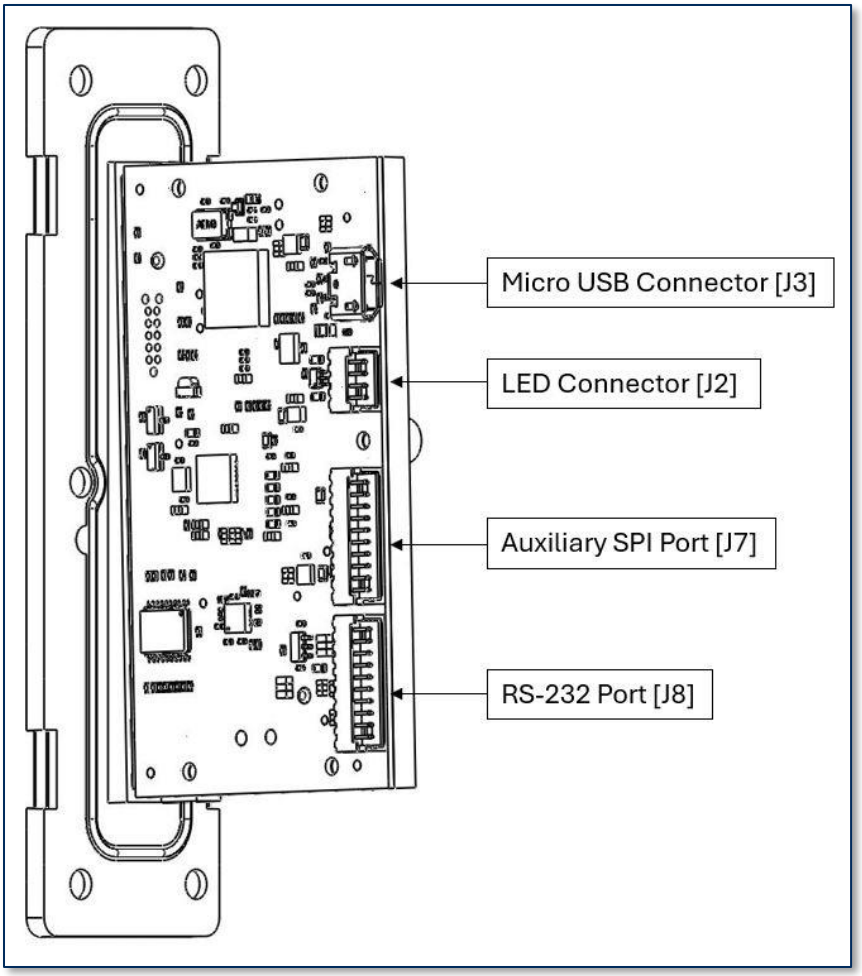

Figure 1-2 - mDynamo Weatherized Major Components (Back View)

1.5 Terminology

In this document, mDynamo Weatherized is referred to as the **device**. It is 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 computers/laptops, tablets, and smartphones. Generally, the host must have **software** installed that communicates with the device and is capable of processing transactions. During a transaction, the host and its software interact with the **operator**, such as a cashier or bank teller, while the device interacts with the **cardholder**.

1.6 Solution Planning

A smooth deployment of a solution that integrates mDynamo Weatherized requires some up-front planning and decision-making:

- Determine the overall **functional requirements** and desired **user experience** of the solution mDynamo Weatherized will be integrated into.
- Determine what **documentation** and **training** will be required from solution design through testing and field deployment.
- Determine what type of **host** mDynamo Weatherized will connect to. When planning, include any additional support or devices required by the host and its connection, such as physical locations, mounting, and power connections.

- Determine which accessories you will need for the device. **Table 1-1** provides a list of available accessories.
- Determine what **software** will be installed on the host and how it will be configured. Software can include operating system, transaction processing software, security software, and so on. Include any additional support required by the software, such as network connections.
- Determine how mDynamo Weatherized should be **configured**, and specify that when you order devices. MagTek or your reseller can advise. For deep detail about configuration options and how they affect device behavior, see ***D998200151 mDynamo Programmer's Manual (COMMANDS)***.
- Determine how the solution design will integrate mDynamo Weatherized electrically (see section **2 Electrical Integration** for details).
- Determine how the solution design will integrate mDynamo Weatherized mechanically (see section **3 Mechanical Integration** for details).
- Determine how the solution will be **tested** and, if appropriate, how it will be **certified**.
- Develop an **installation procedure**. Installing technicians will need solution-specific materials. In addition, technicians may be supported by incorporating a Maintenance Mode into the host software for configuration, updates, and diagnostic tests.
- Determine how the solution will be **maintained**. See section **5 Maintenance** for guidance on maintaining the mDynamo Weatherized portion of the solution.
- Determine how the solution will be **regularly inspected**. Proper inspection will require solution-specific training, instructions, and visual references for inspecting the entire solution for tampering, unauthorized added components such as eavesdropping or skimming devices, and so on.

Table 1-1 - Available Accessories

Part Number	Description
21079874	MDYNAMO INSERT, WEATHERIZED HIGH TEMP MAGTEK
21051548	CABLE, USB-A TO MICRO USB B 5.4MM PLUG, BLACK, 6FT
96700004	CLEANING CARD, DOUBLE SIDED

1.7 Handling

⚠ CAUTION

Proper handling of the device throughout delivery, assembly, shipping, installation, usage, and maintenance is very important. Not following the guidelines in this document could damage the device, render it inoperable, and/or violate the conditions of the warranty.

From device delivery through assembly, shipping, installation, usage, and maintenance, the device must not be exposed to conditions outside the ratings in **Appendix A Technical Specifications**.

If the device is exposed to cold temperatures, adjust it to warmer temperatures gradually to avoid condensation, which can interfere with the operation of the device or cause permanent damage.

Upon receiving the device, inspect it to make sure it originated from an authentic source and has not been tampered with.

Do not drop or shake the device.

The device should be always transported/stored inside an anti-static bag.

Before removing the device from the package, remove any static charge from your body by touching an earth-grounded metal surface.

Avoid touching the exposed pins on the connectors when handling the device.

For information about ongoing maintenance of the device, such as cleaning, see section **5 Maintenance**.

2 Electrical Integration

2.1 Overview

This section provides information and guidelines for designing the electrical aspects of a solution that incorporates mDynamo Weatherized. MagTek strongly recommends vetting and testing solution designs before finalizing and deploying them, to make sure the design meets all requirements (e.g., functional, legal, security, certification, safety, and so on). When designing a solution that incorporates mDynamo Weatherized, consider the following:

- Review section **1.4 mDynamo Weatherized Major Components** for an overall introduction to the device's physical features and what they are called.
- Review **Appendix A Technical Specifications** to make sure the device is suitable for the solution.
- Review safe handling practices in section **1.7 Handling** to make sure the logistical aspects of the solution design meet the device's handling requirements.
- Develop solution-specific installation procedures and training materials before distribution to installation technicians.
- Review section **5 Maintenance** and develop a maintenance procedure and schedule. When installed in the solution-specific enclosure, the device may require additional maintenance not covered in the general guidelines provided here.
- Review any additional requirements from other agencies, such as PCI certification requirements, building codes, and so on, which may introduce additional constraints to the solution design.

2.2 Connectors

mDynamo Weatherized provides the following connections (see **Figure 1-2**).

- A **USB Device port**, labeled **J3** on the printed circuit board, must be connected directly to a host's USB port, or connected to the host via a powered USB hub, to provide power to the device and bidirectional communication with the host. The device's USB connector is a Micro-USB B receptacle designed to mate with a standard Micro-USB B connector found on the peripheral end of commercially available cables. MagTek does not support connecting multiple mDynamo Weatherized devices simultaneously to the same host. Depending on usage, the device expects to draw up to 500mA at 5V from the USB port, and the solution design must ensure 500mA is available to the device at all times. The mDynamo controller board in mDynamo Weatherized draws a maximum of 300mA, and draws additional current to drive devices connected to the RS-232 port and the Auxiliary SPI port.
- An **Auxiliary SPI** port, labeled **J7** and **SPI** on the printed circuit board. It is a 10-pin 1.25mm pitch Molex Pico Blade header designed to mate with Molex PicoBlade connector ***51021-1000***. The dot on the printed circuit board indicates pin 1. Depending on usage, the auxiliary SPI port can provide up to 100mA @ 3.3V to power an external SPI device.
- An **RS-232 port** labeled **J8** and **RS-232** on the printed circuit board, can be used as an alternative to USB. The RS- 232 port can be directly connected to a host's fully powered RS-232 port to provide power to the device and bidirectional communication with the host. It is a 10-pin 1.25mm pitch Molex PicoBlade header designed to mate with Molex PicoBlade connector ***51021-1000***. The dot on the printed circuit board indicates pin 1.
- An **LED** connector, labeled **J2** and **LED** on the printed circuit board, which is connected to the LED integrated into the device's bezel. It is a 4-pin 1.25mm pitch Molex PicoBlade header designed to mate with Molex PicoBlade connector ***51021-0410***. The dot printed on the circuit board indicates pin 1. The connector provides 3.3V up to 24 mA. The device can be configured to drive **J2** to match

the General Status LED on mDynamo's controller board (see section **4.3 About the General Status LED**). However, custom software on the host may override the External LED behavior.

2.3 Shielding and Conditioning

MagTek recommends using shielded cables to provide noise immunity and to prevent radiated emissions. The device itself has been tested by an FCC lab for Class B radiated susceptibility and has no special shielding requirements. For details, see the FCC information provided at the beginning of this document.

MagTek also recommends that all communication cabling (i.e., USB) should be draped together where possible, and isolated from any unrelated earth ground cables and other wiring nearby that could potentially couple noise into the device.

The device has no special requirements for power conditioning or signal conditioning.

3 Mechanical Integration

3.1 Overview

This section provides information and guidelines for designing the mechanical aspects of a solution that incorporates mDynamo Weatherized. MagTek strongly recommends vetting and testing solution designs before finalizing and deploying them, to make sure the design meets all requirements (e.g., functional, legal, security, certification, safety, and so on).

When designing the mechanical portions of a solution that incorporates mDynamo Weatherized, consider the following:

- Review section **1.4 mDynamo Weatherized Major Components** for an overall introduction to the device's physical features and what they are called.
- Review **Appendix A Technical Specifications** to make sure the device is suitable for the solution.
- See section **3.2 Dimensions** for overall device dimensions.
- Determine device orientation. Options and constraints are provided in section **3.3 Orientation**.
- Design the solution enclosure front panel. Information about fitting the device into a panel cutout are in section **3.4 Panel Cutout**. When designing, make sure there is adequate clearance around the card insertion slot to insert a card, and make sure to consider any additional factors for other integrated devices, such as DynaWave (for details, see ***D998200265 DynaWave Installation and Operation Manual***).
- Determine how the device will be mounted. See section **3.5 Mounting** for details. Coordinate with the electrical design team to make sure the panel design, mounting hardware, and solution-specific installation instructions meet electrical requirements.
- Review safe handling practices in section **1.7 Handling** to make sure the logistical aspects of the solution design meet the device's handling requirements.
- Develop solution-specific installation procedures and training materials before distribution to installation technicians.
- Review section **5 Maintenance** and develop a maintenance procedure and schedule. When installed in the solution-specific enclosure, the device may require additional maintenance not covered in the general guidelines provided here.
- Review any additional requirements from other agencies, such as PCI certification requirements, building codes, and so on, which may introduce additional constraints to the solution design.

3.2 Dimensions

Overall dimensions of the device are shown in **Figure 3-1**. Upon request, MagTek can provide a 3D model of the device's envelope to assist with the mechanical portion of solution design. MagTek strongly recommends building and testing prototypes with actual devices before finalizing the solution design.

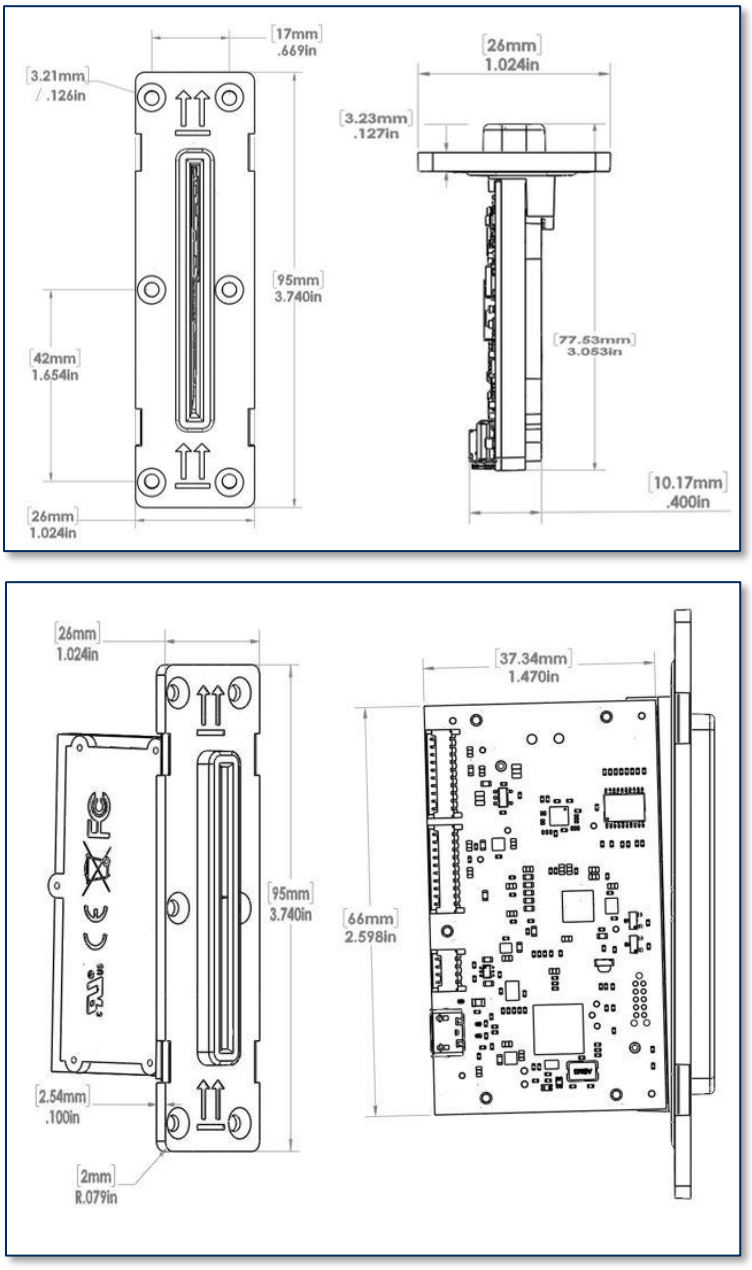

Figure 3-1 - mDynamo Weatherized Mechanical Dimensions in Inches [mm]

3.3 Orientation

The device supports both vertical and horizontal card insertion orientations (refer to **Figure 3-2** and **Figure 3-3**). It is critical to observe the direction of the arrows on the front face of the device: when mounted vertically, the arrows should point up, and when mounted horizontally, they should point left. Designed for outdoor use and exposure to moisture, the device is weatherized. When mounted as recommended, mDynamo's angled design encourages any accumulated moisture to drain away from the device.

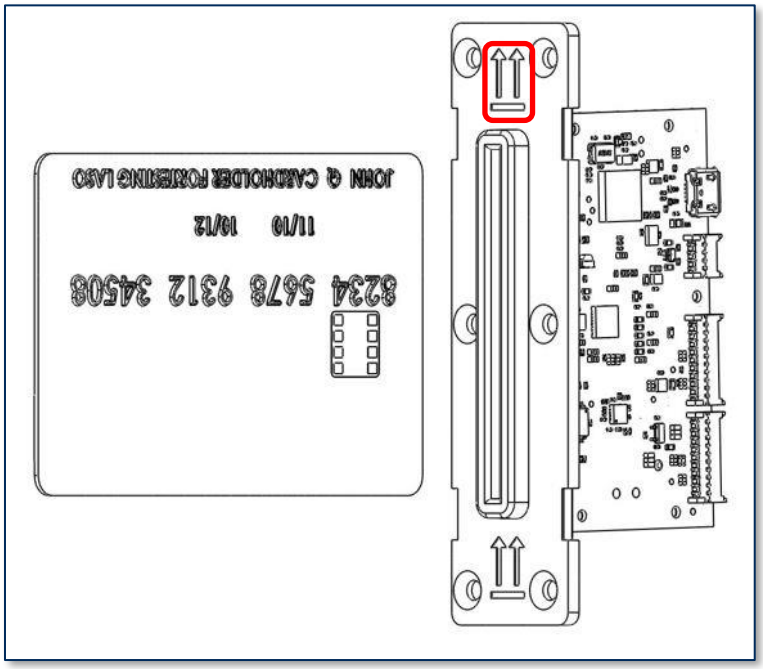

Figure 3-2 - mDynamo Weatherized Recommended Vertical Mounting Orientation

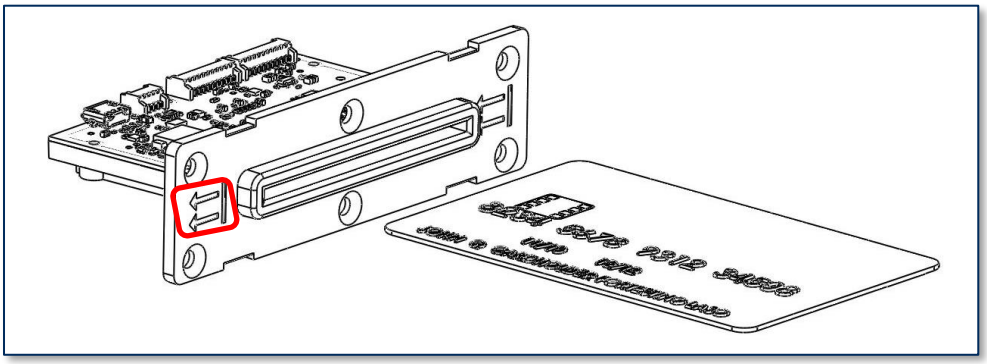

Figure 3-3 - mDynamo Weatherized Recommended Horizontal Mounting Orientation

The device should be installed such that cardholders have a full, unobstructed view of the housing around the card insertion slot opening ("entry zone") prior to insertion. This is to allow cardholders to easily detect suspicious objects in or around the card slot entry, such as bugs / skimmers / tapping mechanisms, and their wires or antennas. Installation height and pitch are factors in meeting this requirement.

3.4 Panel Cutout

The device is designed to be integrated into a solution design that includes an enclosure to secure the device and protect it from the elements. This section provides guidelines for creating a cutout in the enclosure's front panel that accommodates the device.

Overall guidance for enclosure design:

- The enclosure panel must be flat and rigid to produce a solid seal with the preinstalled gasket and to provide security against tampering.
- The solution's enclosure must include a cutout that is sized to expose the device's bezel.
- The enclosure must protect the device from unauthorized tampering.
- The enclosure must protect the device from the elements.

Reference dimensions for the cutout in the solution enclosure, including the location of all screw holes or threaded studs, are shown in **Figure 3-4**.

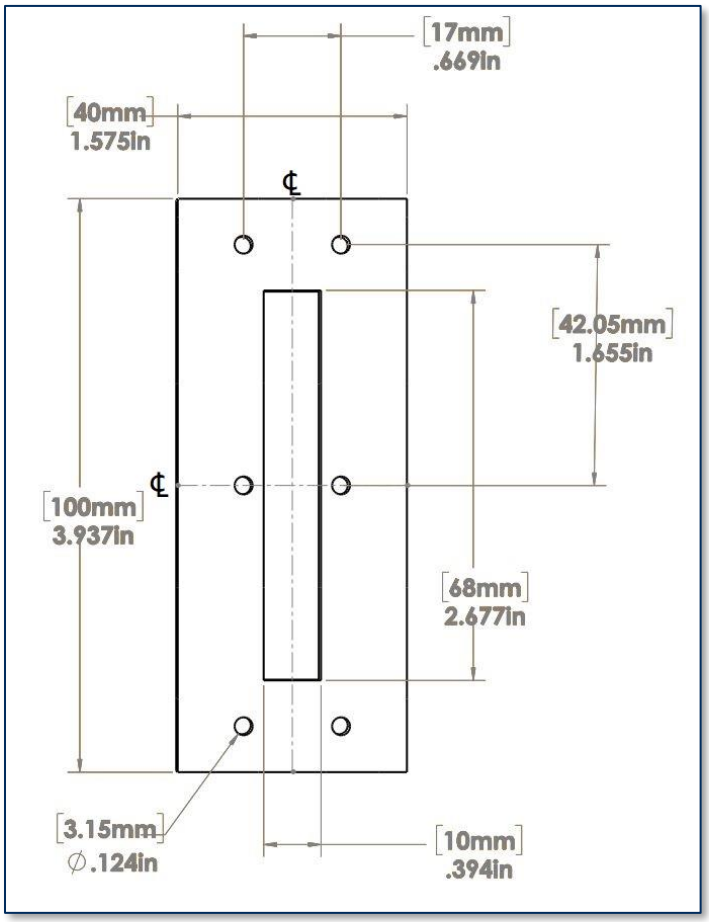

Figure 3-4 - mDynamo Weatherized Panel Cutout Dimensions in [mm] inches.

3.5 Mounting

MagTek includes a gasket that comes pre-installed on the device. The solution's mounting hardware and torque specifications must apply adequate force to create a water-tight seal between the enclosure and the gasket. MagTek recommends using **M3** screws torqued to 6 in-lb. (0.68 Nm). This may vary depending on the materials used to construct the solution enclosure.

The device is designed to be mounted from the front of the enclosure with **M3** screws (see **Figure 3-5** and **Figure 3-6**).

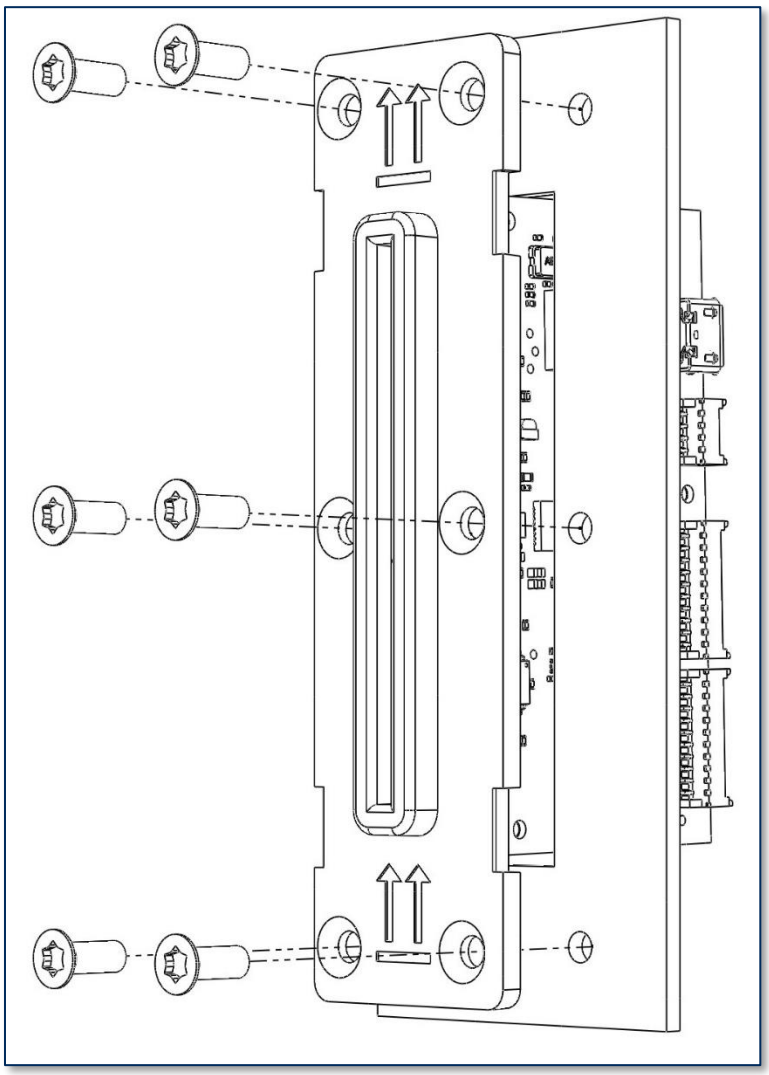

Figure 3-5 - mDynamo Weatherized Mounting: Front View

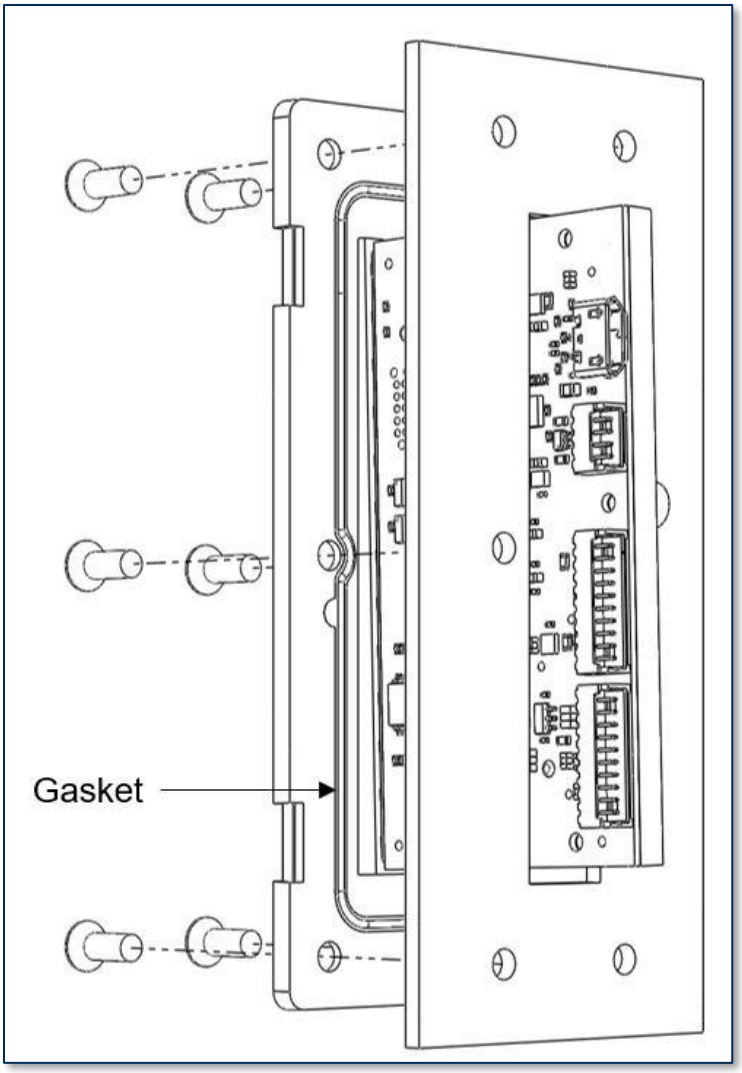

Figure 3-6 - mDynamo Weatherized Mounting: Back View

4 Operation

4.1 Inserting a Card

mDynamo Weatherized is designed to be mounted in either a Vertical or Horizontal configuration as described in **3.3 Orientation**. mDynamo's chip card slot is **unidirectional**, **embossed cards will not fit in the slot if inserted with the incorrect orientation**. The following illustrations will demonstrate proper card insertion.

When mounted horizontally, insert the card with its lettering and contact chip facing up, as shown in **Figure 4-1 - Horizontal Card Insertion Orientation**. This ensures proper contact with the chip reader. A card inserted with the incorrect orientation will not contact the chip reader and will not be read by the device.

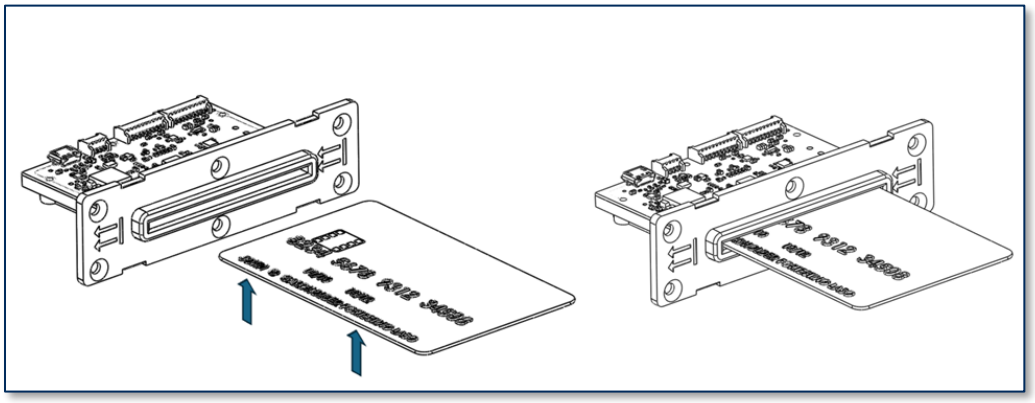

Figure 4-1 - Horizontal Card Insertion Orientation

When mounted vertically, insert the card with its lettering and contact chip facing the right side of the reader as shown in **Figure 4-2 - Vertical Card Insertion Orientation**. This ensures proper contact with the chip reader. A card inserted with the incorrect orientation will not contact the chip reader and will not be read by the device.

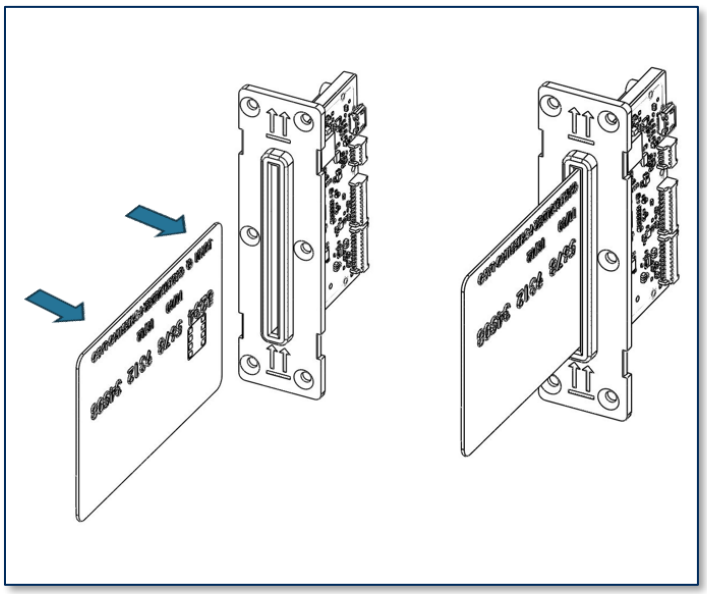

Figure 4-2 - Vertical Card Insertion Orientation

4.2 Card Reading / Transactions

Transactions begin when the host software initiates them. If a cardholder inserts a contact chip card, the device detects the chip and attempts to communicate with the card. The host software may choose to use the notifications from the device as events to trigger additional guidance (such as audible, visual, or tactile feedback) to the cardholder. For example, for chip cards, the host software may direct cardholders to leave the card inserted until the transaction is complete, then prompt the cardholder remove the card when the transaction is complete.

Before and during transactions, an operator may control or monitor the device using the host software and/or the General Status LED, which is a red/green LED that can be host controlled.

Programmers of host software should see section **6 Developing Host Software** for cross-references to programming tools and documentation for communicating with the device.

4.3 About the General Status LED

The device's General Status LED can be used to provide feedback to operators and cardholders about the internal state of the device. Custom software on the host the device is connected to may completely customize / override external LED behavior.

Table 4-1 shows how to interpret the colors and flashing patterns of the General Status LED if the host is not overriding the J2 behavior.

Table 4-1 – General Status LED Meaning

Color	Flashing Pattern		Meaning
Off	Off		The device is not receiving adequate power from the host via the USB port.
Green	Steady On		The device is ready to read a card.
Red	Steady On		An operator is updating the firmware. On completion, the device will reset, and the LED will turn off briefly.

5 Maintenance

5.1 Mechanical Maintenance

⚠ CAUTION

To avoid damaging the chip card contact pins, only clean them with approved cleaning cards. DO NOT use liquid cleaning products or insert any other objects into the device.

Periodic cleaning of mDynamo's exterior may be required. To clean the outside of the device, wipe down the device with a soft, damp cloth and then wipe with a dry cloth.

Solution training should direct assemblers, operators, and maintenance personnel to use a clean, dry cloth to clean the device. Do not use chemicals or solvents.

MagTek's double-sided cleaning card ***96700004*** is designed to clean the contact pins inside all chip card contact readers. Keeping the contact pins clean is essential to the device's functioning. MagTek recommends inserting a cleaning card at least once per week to avoid card misreads.

5.2 Updates to Firmware, Documentation, Security Guidance

In addition to the security guidance in the product manuals, MagTek may provide updates to this document, as well as supplemental security guidance or notices regarding vulnerabilities, at www.magtek.com. MagTek advises checking the product's home page periodically for the most up-to-date information.

MagTek may also contact customers when it is necessary to update firmware to address critical product bugs or security vulnerabilities. For details about obtaining and updating the device's firmware, contact MagTek Support Services or your reseller.

6 Developing Host Software

This section provides high-level information about communicating with the device in various software development frameworks, and provide pointers to available SDKs, which include sample code. All product documentation and SDKs are available for download by searching for the product name on www.magtek.com and navigating to the **Support** tab.

When developing host software, it is important to note that mDynamo Weatherized is a combination of two devices integrated into a common enclosure:

- mDynamo Weatherized uses a primary control unit and chip card reader based on MagTek's OEM solution platform, **mDynamo**. When the host communicates with the device through the USB port, it is communicating directly with mDynamo.

MagTek produces software development kits (SDKs) with API libraries that provide higher-level functions wrapped around **USB HID** communication protocols. These libraries simplify the development of custom host software that interfaces with mDynamo Weatherized. See:

- ***99510109 SOFTWARE, SDK, ADYNAMO, BULLET, DYNAMAG, DYNAMAX, DYNAWAVE, EDYNAMO, IDYNAMO 6, MDYNAMO, TDYNAMO, UDYNAMO (ANDROID)***
- ***99510132 SOFTWARE, SDK, ADYNAMO, DYNAMAG, DYNAMAX, DYNAWAVE, EDYNAMO, IDYNAMO 6, MDYNAMO, TDYNAMO, UDYNAMO (WINDOWS .NET)***
- ***99510133 SOFTWARE, SDK, DYNAMAG, DYNAMAX, DYNAWAVE, EDYNAMO, IDYNAMO 6, MDYNAMO, TDYNAMO (WINDOWS C++ / JAVA)***

In addition to MagTek's SDKs, custom software on any operating system can communicate directly with the device using the operating system's native USB libraries and protocols. For details, see ***D998200151 mDynamo Programmer's Manual (COMMANDS).***

For more information about developing custom applications that integrate with mDynamo Weatherized, see the MagTek web site or contact your reseller or MagTek Support Services.

Appendix A Technical Specifications

mDynamo Weatherized Technical Specifications	
Reference Standards and Certifications	
Identification Cards and Financial Transaction Cards (ISO 7810, ISO 7811, ISO 7812, ISO 7813) Identification Cards Integrated Circuits with Contacts (ISO/IEC 7816-1, 2, 3, & 4) EMV ICC Specifications for Payment Systems Version 4.3, L1 Contact and L2 Contact Encryption: TDEA (3DES)-CBC using DUKPT FCC Title 47 Part 15 Class B CE Level B EMC CE Safety UR/CUR UL Recognized MasterCard TQM California Proposition 65 (California) IPC-A-610 Class II Assembly EU Directive Waste Electrical and Electronic Equipment (WEEE) EU Directive Restriction of Hazardous Substances (RoHS) Universal Serial Bus Specifications 1.1, 2.0	
Physical Characteristics	
Dimensions (L x W x H):	3.740 in. L x 1.845 in. W x 1.024 in. H (95 mm x 46.86 mm x 26 mm)
Weight	1.22 oz. (35g)
Supported Mounting Options:	Solution-specific enclosure with card slot, screws, and inserts.
Ingress Protection	IP55
Card Read Characteristics	
EMV Contact Reader:	EMVCo L1 and L2 Contact Reader
User Interface Characteristics	
Status Indicators:	General Status LED (Red/Green)
Display Type:	Not Applicable
Display Size (viewable area):	Not Applicable
Display Resolution:	Not Applicable
Keypad:	Not Applicable
Security Characteristics	
Certifications:	Not Applicable
Tamper Protection:	Not Applicable
Code Protection:	Signed firmware. Any attempt to install unsigned firmware on the device renders it unusable.

mDynamo Weatherized Technical Specifications	
Eavesdrop Protection:	Not Applicable
Electrical Characteristics	
Power Inputs:	USB or RS-232
Power Outputs:	400mA @ 5.0V maximum available on RS-232 port 100mA @ 3.3V maximum available on Auxiliary SPI port
Battery Type:	Not Applicable
Battery Capacity:	Not Applicable
Battery Charge Time:	Not Applicable
Battery Time, Standby:	Not Applicable
Battery Time, Transactions:	Not Applicable
Voltage Requirements:	5 VDC from USB port
Current Draw:	300mA from USB port when not driving auxiliary devices 500mA from USB port maximum
Data Storage:	Not Applicable
Communication Characteristics	
Wired Connection Types:	Micro-USB B, compatible with USB 1.1, USB 2.0 Vendor-defined USB Human Interface Device (HID) data format RS-232 port as an alternative to USB
Wireless Connection Types:	Not Applicable
Wireless Range:	Not Applicable
Wireless Frequency:	Not Applicable
Software Characteristics	
Tested Operating System(s):	Windows 10
Environmental Resistance	
Ingress Protection:	Not Applicable
Operating Temperature:	-22°F to 185°F (-30°C to 85°C)
Operating Relative Humidity:	5% to 90% non-condensing
Storage Temperature:	-22°F to 185°F (-30°C to 85°C)
Storage Relative Humidity:	5% to 90% non-condensing
Vibration Resistance:	Not Applicable
Shock Resistance:	Not Applicable

mDynamo Weatherized Technical Specifications	
Vapor Resistance:	Not Applicable
Reliability	
Shelf Life:	Not Applicable
ICC Read Head Life:	500,000 card insertions
Battery Shelf Life:	Not Applicable
Battery Cycle Life:	Not Applicable

Appendix B Warranty, Standards, and Certifications

LIMITED WARRANTY

MagTek warrants that the products sold pursuant to this Agreement will perform in accordance with MagTek's published specifications. This warranty shall be provided only for a period of one year from the date of the shipment of the product from MagTek (the "Warranty Period"). This warranty shall apply only to the "Buyer" (the original purchaser, unless that entity resells the product as authorized by MagTek, in which event this warranty shall apply only to the first repurchaser).

During the Warranty Period, should this product fail to conform to MagTek's specifications, MagTek will, at its option, repair or replace this product at no additional charge except as set forth below. Repair parts and replacement products will be furnished on an exchange basis and will be either reconditioned or new. All replaced parts and products become the property of MagTek. This limited warranty does not include service to repair damage to the product resulting from accident, disaster, unreasonable use, misuse, abuse, negligence, or modification of the product not authorized by MagTek. MagTek reserves the right to examine the alleged defective goods to determine whether the warranty is applicable.

Without limiting the generality of the foregoing, MagTek specifically disclaims any liability or warranty for goods resold in other than MagTek's original packages, and for goods modified, altered, or treated without authorization by MagTek.

Service may be obtained by delivering the product during the warranty period to MagTek (1710 Apollo Court, Seal Beach, CA 90740). If this product is delivered by mail or by an equivalent shipping carrier, the customer agrees to insure the product or assume the risk of loss or damage in transit, to prepay shipping charges to the warranty service location, and to use the original shipping container or equivalent. MagTek will return the product, prepaid, via a three (3) day shipping service. A Return Material Authorization ("RMA") number must accompany all returns. Buyers may obtain an RMA number by contacting MagTek Support Services at (888) 624-8350.

EACH BUYER UNDERSTANDS THAT THIS MAGTEK PRODUCT IS OFFERED AS-IS. MAGTEK MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, AND MAGTEK DISCLAIMS ANY WARRANTY OF ANY OTHER KIND, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IF THIS PRODUCT DOES NOT CONFORM TO MAGTEK'S SPECIFICATIONS, THE SOLE REMEDY SHALL BE REPAIR OR REPLACEMENT AS PROVIDED ABOVE. MAGTEK'S LIABILITY, IF ANY, SHALL IN NO EVENT EXCEED THE TOTAL AMOUNT PAID TO MAGTEK UNDER THIS AGREEMENT. IN NO EVENT WILL MAGTEK BE LIABLE TO THE BUYER FOR ANY DAMAGES, INCLUDING ANY LOST PROFITS, LOST SAVINGS, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF, OR INABILITY TO USE, SUCH PRODUCT, EVEN IF MAGTEK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY.

LIMITATION ON LIABILITY

EXCEPT AS PROVIDED IN THE SECTIONS RELATING TO MAGTEK'S LIMITED WARRANTY, MAGTEK'S LIABILITY UNDER THIS AGREEMENT IS LIMITED TO THE CONTRACT PRICE OF THIS PRODUCT.

MAGTEK MAKES NO OTHER WARRANTIES WITH RESPECT TO THE PRODUCT, EXPRESSED OR IMPLIED, EXCEPT AS MAY BE STATED IN THIS AGREEMENT, AND MAGTEK DISCLAIMS ANY IMPLIED WARRANTY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

MAGTEK SHALL NOT BE LIABLE FOR CONTINGENT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES TO PERSONS OR PROPERTY. MAGTEK FURTHER LIMITS ITS LIABILITY OF ANY KIND WITH RESPECT TO THE PRODUCT, INCLUDING NEGLIGENCE ON ITS PART, TO THE CONTRACT PRICE FOR THE GOODS.

MAGTEK'S SOLE LIABILITY AND BUYER'S EXCLUSIVE REMEDIES ARE STATED IN THIS SECTION AND IN THE SECTION RELATING TO MAGTEK'S LIMITED WARRANTY.

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.

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.

UL/CSA/CUR/UR

This product is recognized per ***UL 60950-1, 2nd Edition, 2011-12-19*** (Information Technology Equipment - Safety - Part 1: General Requirements), ***CSA C22.2 No. 60950-1-07, 2nd Edition, 2011-12*** (Information Technology Equipment - Safety - Part 1: General Requirements).

ROHS STATEMENT

When ordered as RoHS compliant, this product meets the Electrical and Electronic Equipment (EEE) Reduction of Hazardous Substances (RoHS) European Directive 2002/95/EC. The marking is clearly recognizable, either as written words like "Pb-free," "lead-free," or as another clear symbol (Pb).