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# Edge

## EdgeReader® and EdgePlus®

Models: EH400, EHR40, EHRP40, EH400-K  
ER40C, ERP40C

### INSTALLATION GUIDE

82000-920, Rev A.1  
December 10, 2009

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Edge is the next evolution in access control hardware solutions. A true IP solution that meets the demands of open architecture, IP-centric environments, Edge provides fully distributed intelligence and decision making right to the door, leveraging the IT infrastructure to the maximum extent possible. Wire the Edge device to Hi-O interface modules to provide connectivity to electronic door components and access control readers.

Hi-O involves devices with built-in intelligence and a CANbus that links all the devices together. Hi-O CANbus data traffic can be password protected and encrypted, or both. Each Hi-O device (such as the push plate, electric strike, card reader, door operator) is connected to the CANbus by a single, four-wire cable. Two of the wires supply power and the other two are used for data communication.

## Specifications

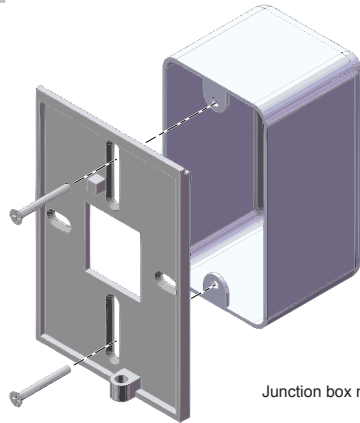
CONNECTION	PARAMETER	CONDITIONS	VALUE	OPERATING TEMPERATURE	CABLE LENGTH
PoE Power (input)	Voltage - Nominal	-	48 VDC	32° - 122°F (0° - 50° C)	<b>Hi-O CAN Bus</b> = 30 ft (9 m) - 22 AWG • 0.65mm • 0.33mm <sup>2</sup> = 75 ft (23 m) - 18 AWG • 1.02mm • 0.82mm <sup>2</sup> <b>RJ45</b> = 328 ft (100 m) - Category 5 K
	Current - Normal Standby Condition (NSC)	CAN PWR - not loaded	75 mA		
	Current - Maximum	CAN PWR - max load	275 mA		
+DC (input)	Voltage	-	12 VDC - 24 VDC		
	Current - Normal Standby Condition (NSC)	12 VDC CAN PWR disconnected	190 mA		
	Current - Normal Standby Condition (NSC)	24 VDC CAN PWR disconnected	110 mA		
	Current - Maximum	12 VDC	2.2 A		
	Current - Maximum	24 VDC	2.1 A		
CAN PWR (output)	Voltage - Nominal	PoE	24 VDC		
	Current - Maximum	PoE	300 mA		
	Voltage - Nominal	+ DC	+ DC		
	Current - Maximum	+ DC	2 Amp - AUX limited		

# EdgeReader and EdgePlus

EH400, EHR40, EHRP40, EH400-K

82000-920 A.1

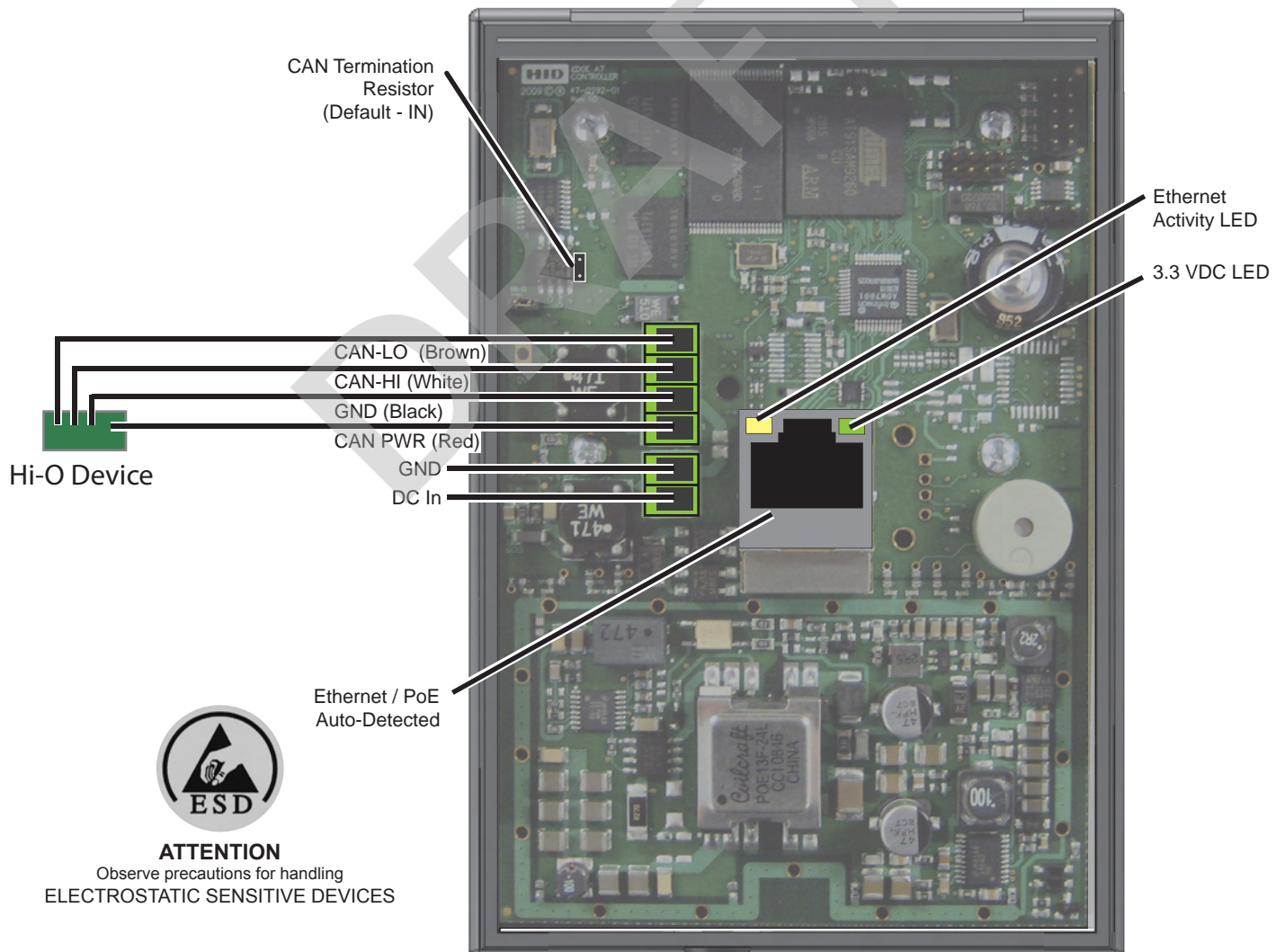
## Mounting



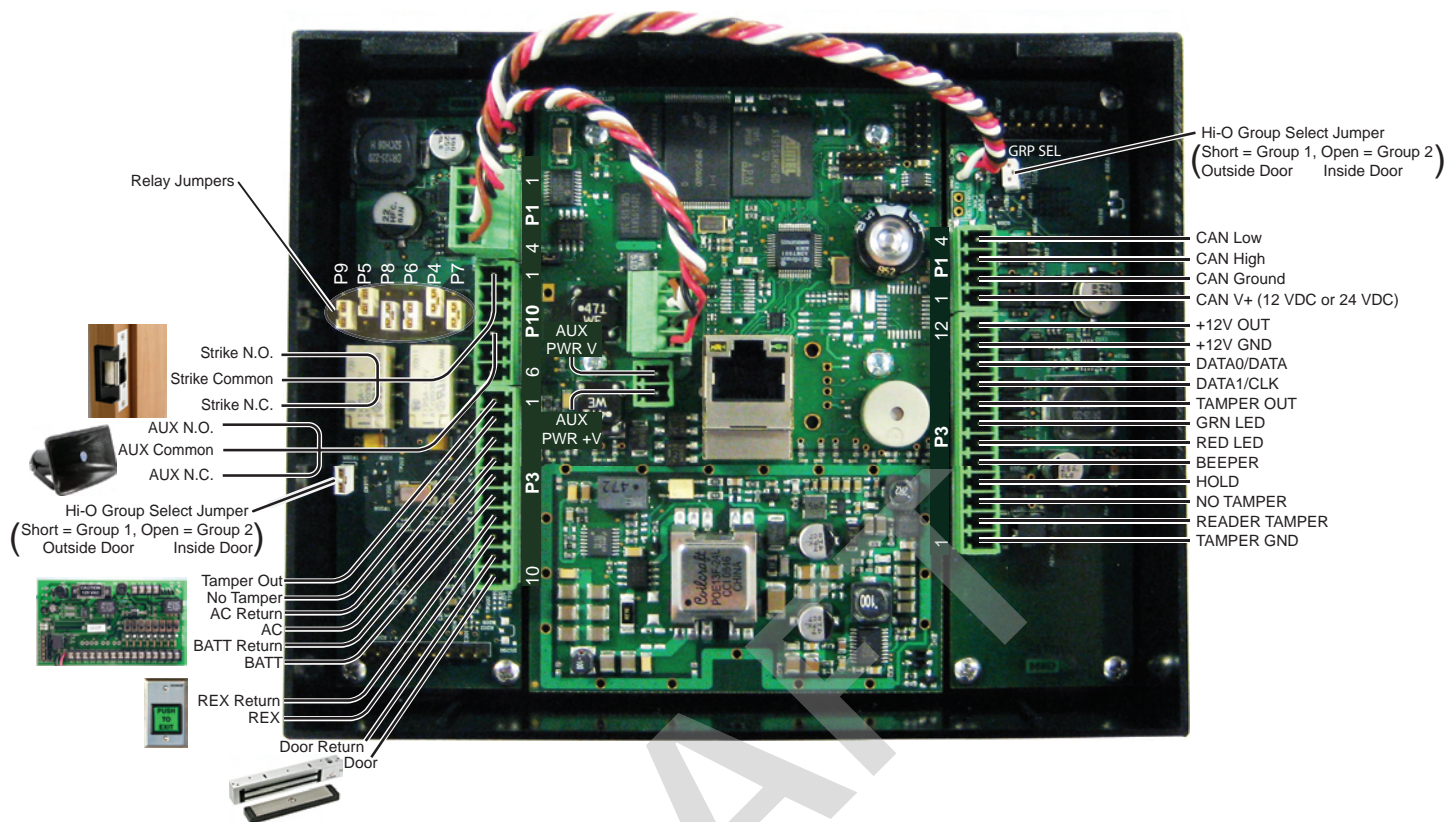
Junction box not included.

## Wiring

### EdgeReader and EdgePlus



## EdgePlus - EH400-K



## Install Edge to Backplate



## Contact

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Contact Edge through one of the following methods:

### Direct Connect

If Edge will be connected to a network using static IP addressing or if the Discovery GUI is not installed on the PC, use this method.

**Note:** The computer must be running Windows 2000 or XP and be configured for DHCP.

1. Disconnect the computer from the network and directly connect Edge to the computer with an Ethernet cable.
2. Click **Start > Run**. Enter `ipconfig /renew` ↵
3. Access a web browser and enter **169.254.242.121** into the **Address field** ↵

### OPIN Discovery/Update Application

Use the **OPIN Discovery / Update Application** on a computer to locate, connect and update Edge.

**System Requirements:** Java 6.0 or later. Go to [www.java.com](http://www.java.com) to download.

**Operating Systems:** Windows XP and Fedora 8.

Find the OPIN Discovery / Update Application at [www.ShareMethods.com](http://www.ShareMethods.com) > **OPIN** > **Firmware** > **2.3.x**. Save the files to your local harddrive.

The Edge must be connected to the network, and power applied, before the device is discovered.

1. With a computer connected to the same network as Edge, double-click `opin-update.jar`. The OPIN Discovery / Update Application opens and the **Controller Table** populates.  
**Note:** If the **Controller Table** does not populate, go to **Edit > Broadcast Address**. The default broadcast address is 255.255.255.255. Some network switches may block this transmission. If this is the case, change the subnet to match the network, for example 10.7.255.255. Click **Save**.
2. Select the desired device from the list.
3. From **Path to Update Package** frame, browse to the firmware location on the computer.
4. Click **Install**. Firmware is installed.  
**EH400** - Provides additional functionality to not only Install firmware, but to **Changeover**, and **Rollback** firmware updates. Once firmware is installed, click **Changeover** to switch to the updated firmware. Click **Rollback** to switch back to the previous firmware version.
5. View the **Status Log** for each status while performing **Discovery** and **Update** functions.

## Configure

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The web browser will prompt for login information. From the **Login** screen enter **admin**, leaving the **Password** field empty. Follow the instructions on the web browser screen to configure Edge.

## Hi-O Interface Modules

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Hi-O interface modules are used to interface the Edge device (EdgeReader or EdgePlus) with door electronic components. Components include access control readers, strike, magnetic lock, request to exit, door position switch, and auxillary devices.

For Hi-O interface module wiring, see their prospective Installation Guides.

Go to [www.hidglobal.com](http://www.hidglobal.com) > [Knowledge Center](#) > [Resources](#) > [Document Library](#). Search the document type as a **Installation Guide**.

Model	Description	Part Number
EDM-M	EdgeModule Door	<a href="#">82342</a>
EIM-M	EdgeModule Input	<a href="#">82340</a>
EWM-M	EdgeModule Wiegand	<a href="#">82360</a>
EDWM-M	EdgeModule Door & Wiegand	<a href="#">82363AM</a>
ELM	EdgeModule Lock	<a href="#">82301</a>
EVM	EdgeModule Voltage	<a href="#">82365</a>



# Regulatory

## UL

Connect only to a Listed Access Control / Burglary power-limited power supply, or Listed Access Control / Burglary PoE (Power-over-Ethernet) adapter. All National and local electrical codes apply. Install in accordance with NFPA70 (NEC), Local Codes, and authorities having jurisdiction. Furthermore, install within a Listed electrical box. All interconnected devices must be Listed.

Host-based security, Ethernet / Host Communication, has not been evaluated by UL. Ethernet port has been evaluated for supplemental use only.

The following have been evaluated as standalone products: EdgePlus model E400Cxxx and edgeReader model ERP40Cxxx.

EdgePlus was evaluated for use with all Listed HID Global Wiegand models: iCLASS, Indala Prox, HID Prox, bioCLASS, SmartID, SmartTRANS, and Mag Stripe series (with and without keypad), up to 128-bit formats. EdgePlus was evaluated for use with all HID Global Hi-O iCLASS readers.

EdgePlus and EdgeReader are UL Listed for installation in the unprotected area, as well as within the protected area.

## FCC / CANADA RADIO CERTIFICATION

For ER40/ESR40 and ERW400 models: Reader portion (iCLASS R40 and RW400 models) certified separately.

These devices comply 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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Le fonctionnement est soumis aux deux conditions suivantes : (1) Ce dispositif ne peut pas causer de perturbations nuisibles et (2) ce dispositif doit accepter toute perturbation quelconque qu'il reçoit, y compris des

For all models (controller portion): FCC Class A ● Canada Class A ● CE Mark – Europe (EU) ● C-Tick – Australia and New Zealand ● VCCI – Japan

Class A Digital Devices - FCC Compliance Statement: This equipment has been tested and found to comply with the limits for a Class A digital device,

pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment

is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in

accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is

likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. For regulatory compliance, all

connection wires must be bundled together.

## CE MARKING

HID Global hereby declares that these proximity readers are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

The controller portion is in compliance with the essential requirements and other relevant provision of Directive 2004/108/EC.

## JAPAN MIC

この装置は認証済みです。

## TAIWAN DGT/NCC

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信；

According to «Administrative Regulations on Low Power Radio Waves Radiated Devices» Without permission granted by the DGT, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act. The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.



**ACCESS** experience.

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84000-920 Rev A.1

Patent Pending

Check reader label for current regulatory approvals.

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