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# GEM-PX Proximity Reader Installation Instructions

WI1269B 10/04

## GENERAL DESCRIPTION

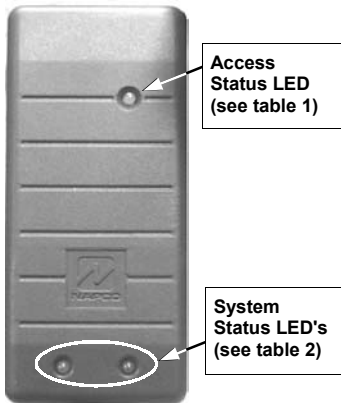
The GEM-PX is a NAPCO proprietary proximity card reader which combines with the GEM-PXCV cover to provide complete system status using indicator LED's. The GEM-PX reader can only be used with GEM 36-bit proprietary proximity cards. The GEM-PX reader consists of the proximity reader module, which is fully encapsulated in weather resistant potting and the snap on GEM-PXCV cover which houses additional LED's. The multicolored LED on the GEM-PX provides standard visual feedback as to *access condition* (door "locked" or "unlocked"), and the additional LED's in the GEM-PXCV cover provide feedback as to *system condition* (system "armed" or "disarmed"). Together, the GEM-PX and GEM-PXCV is an indoor/outdoor proximity card reader providing potted electronics, low power consumption and durability all in a small, easy to install package.

## SPECIFICATIONS

12V Nominal, 50mA standby current.

### LED Indications

The GEM-PX reader contains a multicolored LED which provides visual feedback as to access condition when access cards are presented to the reader. Table 1 below displays the LED indications and their meanings.



The GEM-PXCV provides two LED's to indicate system condition, as displayed in Table 2 below:

**Stealth Mode** is used to hide the ACM's Armed and Status LEDs. When **Stealth Mode** is enabled, the GEM-PXCV

**Table 1: Access Status LED (Top)**

LED INDICATION	ACCESS CONDITION
Steady Red	Door Locked
Steady Green	Door Unlocked
Momentary Green	Card Read--Door Remains Locked
Alternating Green & Red	(Downloading PCD-Windows Program to ACM)

**Table 2: System Status LED's (Bottom)**

LED INDICATION	SYSTEM CONDITION
Steady Red	System Armed
Red LED is off	System Disarmed
Blinking Red	System in Alarm
Steady Green	System Ready to Arm
Green LED is off	System Not Ready to Arm

system status LEDs are normally off but are turned on for 1 minute by any of the following events:

- Press a request to exit button
- Press a request to arm button
- Present a valid ARM/DISARM or ARM card to the reader

When Stealth Mode is disabled ("normal operation"), the LED's are always enabled and mimic the Keypad Status LEDs for the following functions only: *Armed, Disarmed, Ready to Arm, Not-Ready to Arm and Alarm*. **Note:** When the system is in alarm, Stealth Mode is disabled. "Access Only" cards do not affect the status of Stealth Mode.

## MOUNTING THE GEM-PX

**Table 3: Proximity Card Reader Connections**

GEM-ACM1D Terminal Number	GEM-ACM1D Terminal Description	HID Model 6005B (Prox Point Plus ) Wires
17 (+)	Reader Power	Red (+ DC)
18 (-)	Reader Power	Black (- Ground) & (Shielded Ground)
19	Reader Data 1	White (Data 1)
20	Reader Data 0	Green (Data 0)
21 (-)	Red LED	Brown (Red LED)
22 (-)	Red & Green LED	Orange (Green LED)
23 (-)	Reader Sounder	Yellow (Beeper)
(Not Used)	(Not Used)	Blue (Hold)
(Not Used)	(Not Used)	Violet (Card Present)

\* Tamper Connection not available on HID 6005B  
Be sure to place jumper JP1 in correct configuration for 5 volt of 12 volt reader operation.

**Table 4: GEM-PX Wire Connections**

GEM-PX Wires	GEM-ACM1D Terminal Description	GEM-ACM1D Terminal Number	GEM-2D Terminal Number
Red	Reader Power	17 (+)	35 (+)
Orange	Active Low Red Armed LED	30	48
Green	Status Green LED	31	49

Before mounting the card reader, always plan ahead and determine the route all wires will follow before drilling into wall mounting surfaces. For more information regarding various system designs, refer to WI1121 for complete installation instructions. Install the GEM-PX as follows:

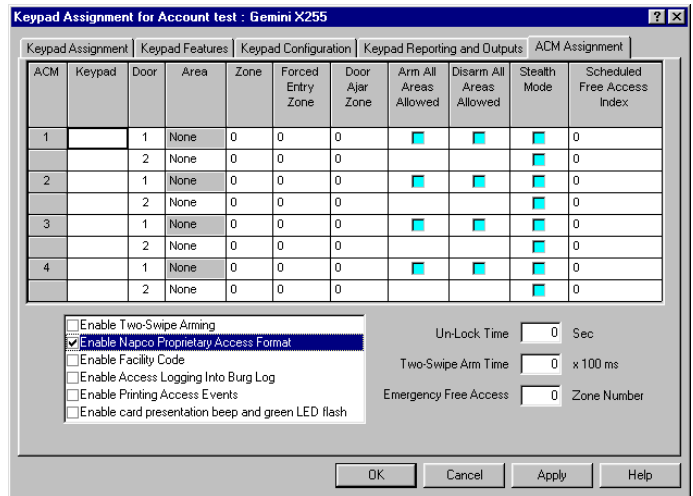
1. **Determine mounting location.** Using the template (Figure 1) and a pencil, lightly mark the location of the two mounting holes and the two wire feed holes.
2. **Route the Reader Wires.** The minimum number of wires required to activate the reader are displayed in Table 3. Determine which wires will be needed and plan how these wires will be accessed from behind the mounting location.
3. **Install dry wall mounting hardware.** Use hardware such as molly bolts, toggle bolts or other anchoring devices. Drill the smallest hole needed for the device. **Warning:** Use caution when drilling holes--there may be high voltage wiring in wall.
4. **Drill wire feed holes.** Minimum size for the top feed hole

(A) is 1/2", but can be made larger if necessary. **Note:** Do not exceed a diameter that can be concealed by the GEM-PXCV reader cover. The diameter of the bottom feed hole (B) should not exceed 1/2" and should be made as small as possible. **Note:** Use care to ensure that the bottom feed hole (B) does not damage the structural integrity of the bottom mounting hole anchoring device.

5. **Route the reader wires** from behind the mounting location through the top wire feed hole (A).
6. **Insert the 3 LED System Status wires** into the bottom wire feed hole (B) and then out of the top wire feed hole (A).
7. **Connect the reader wires** as displayed in Table 3. Connect the GEM-PX wires as displayed in table 4, below.
8. **Note:** Do not apply power until all wiring is complete.
9. **Push all wires back into wall.** Use care not to damage the wiring or the mounting surface.
10. **Mount the reader base** using two #4 mounting screws (supplied).
11. **Install cover.** Place the GEM-PXCV proximity reader cover over the reader base and snap on to secure.

## PROGRAMMING THE PANEL

In PCD-Windows Quickloader Download software, you must enable the ACM1D to use the NAPCO proprietary proximity card format. In the **Keypad Assignment Screen**, click the **ACM Assignment** tab (see image below). Check **Enable Napco Proprietary Access Format** to enable. Click **OK** to save.



The 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. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate the equipment.

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NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

**Warning:** Despite frequent testing, and due to, but not limited to, any or all of the following: criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

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