



# *Proximity Wedge™ Reader*

## Overview

The Proximity Wedge Reader, or the Wedge, provides a fast, easy, error-free method of inputting badge IDs. Simply connect the Wedge between the PC and the PC keyboard. Present a Proximity Perfect or ProxLite™ badge to the top of the Wedge. The badge ID is read from the badge and automatically input to the PC as if the badge ID had been typed on the keyboard. This eliminates the chance of typing errors.

The Wedge is compatible with CASI-RUSCO products (such as **Portrait Perfect™** and **SAM™**) and many non-CASI-RUSCO products. Since the Wedge is transparent to both the PC and the PC keyboard, no configuration on the PC is necessary.

## Installing the Proximity Wedge Reader

The following items are supplied with the Wedge:

- Cable for Keyboard to Wedge (P/2-VP)
- Cable for PC to Wedge (P/2-VP)
- Cable for Keyboard to Wedge (PC-AT)
- Cable for PC to Wedge (PC-AT)
- Power Supply (DOMESTIC INSTALLATIONS ONLY)
- Power Plug (INTERNATIONAL INSTALLATIONS ONLY)

Since domestic and international installations differ slightly, please refer to the appropriate section that follows for more information.

## Special Considerations

When installing a Wedge on a new computer that may be equipped with Advanced Power Management functions:

1. Shut down the computer.
2. Disconnect from power source.

## NOTE



Since there is ALWAYS a small voltage present for (optional) keyboard control of the computer, shutting down the computer alone may NOT be enough to prepare the Wedge for configuration. On some computers, it may be necessary to completely UNPLUG the power to the computer for at least 10 seconds to ensure that there is no voltage present on the keyboard connectors during the installation and reset time on the Wedge.

3. Wait for 10 seconds.
4. Restore connections and power.

The Wedge is now in a ready state to either display or change the configuration.

## Domestic Installations

An installation is considered domestic if the power source is 120VAC 50/60Hz.

Follow these steps and refer to Figure 1 to install the Wedge.

1. Unplug the keyboard connector from the PC.
2. Plug the appropriate cable into the keyboard cable connector you just unplugged from the PC.
3. Plug that cable assembly into the back of the Wedge in the connector labeled **Keyboard**.
4. Plug one end of the appropriate cable into the back of the PC and the other end into the connector labeled **CPU**.
5. Connect the provided power supply into the back of the Wedge.

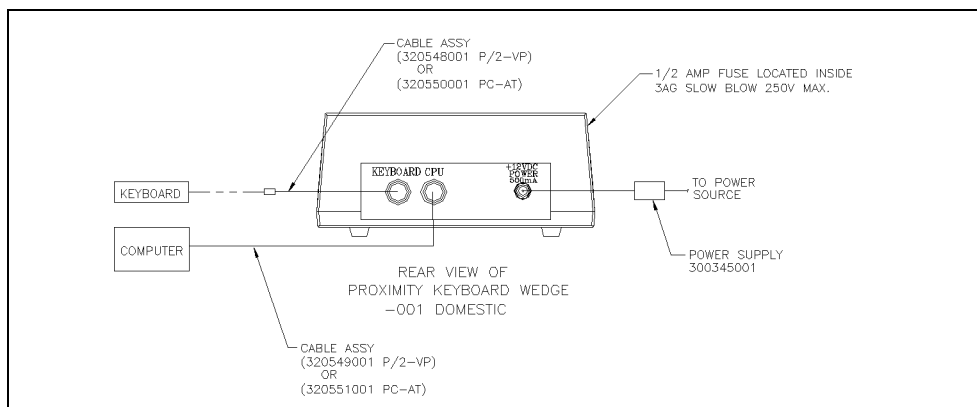


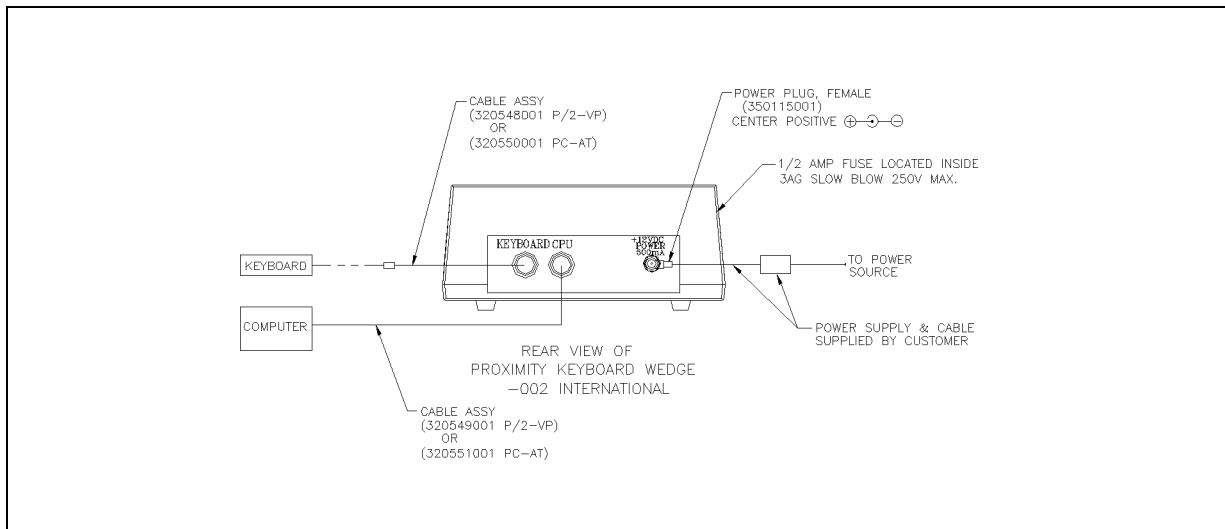
Figure 1: Connecting the Proximity Wedge Reader in a Domestic Installation

## International Installations

An installation is considered international if the power source is anything other than 120VAC 50/60Hz.

Follow these steps and refer to Figure 2 to install the Wedge.

1. Unplug the keyboard connector from the PC.
2. Plug the appropriate cable into the keyboard cable connector you just unplugged from the PC.
3. Plug that cable assembly into the back of the Wedge in the connector labeled **Keyboard**.
4. Plug one end of the appropriate cable into the back of the PC and the other end into the connector labeled **CPU**.
5. The Wedge is supplied with a power connector. A suitable, locally approved power supply with an output rated at +12VDC, 500mA should be attached to this connector.



**Figure 2: Connecting the Proximity Wedge Reader in an International Installation**

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# Programming the Proximity Wedge Reader

The Proximity Wedge Reader is preprogrammed at the factory, with a configuration number of 100000, and should work right “out-of-the-box.” This preprogramming allows for no carriage return following the badge number. If a carriage return is desired following the badge number, then program the unit with a configuration number of 100100.

## How to Program if Firmware is 580304001C or Later

### NOTE



The Proximity Wedge Reader can only be programmed immediately following a *Power On Reset*, that is, immediately after the PC is turned on. Once a badge is read, the programming feature is disabled.

+ To enter a new configuration, use the numbers on the upper row of the keyboard.

On initial powerup, the configuration can be changed by entering the letter **q** and the new six-digit configuration. After the first badge read, the configuration cannot be changed unless the unit is powered down and up again.


If your computer runs Windows™, program the Wedge using Notepad. If your computer does not run Windows, or if pressing the letter **q** brings up a pull-down menu which makes it impossible to change the programming, then the Wedge must be programmed using DOS.

### Using Notepad or DOS

Follow the steps below to program the Wedge:

1. Determine the new six-digit configuration number using the tables starting on page 7. Write this new configuration number here:  
\_\_\_\_\_.
2. Attach the Wedge to a personal computer that runs Windows Version 3.0 or later.
3. Start Notepad or start DOS and go to the DOS prompt.
4. Hold down the letter **q** until at least ten letters are displayed. This will put the Wedge in the configuration mode.

**Result:** The configuration mode will be displayed as a group of six digits. (Default configuration is 000000.)

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5. As soon as the current configuration is displayed, use the numbers on the upper row of the keyboard to enter the new configuration and then press the  key.

**Result:** If the Wedge accepts the new configuration, Notepad will display the new configuration. The Wedge is now ready to read badges using the new configuration.

6. If the configuration number was not repeated, return to step 4 and go through the procedure again.

## How to Program if Firmware is Earlier Than 580304001C

+ To enter a new configuration, use the numbers on the upper row of the keyboard.

If your computer runs Windows, start with the section “Using Notepad”. If your computer does not run Windows, or pressing the letter **q** brings up a pull-down menu which makes it impossible to change the programming, then the Wedge must be programmed using DOS.

### Using Notepad

Follow the steps below to program the Wedge using Notepad:

1. Determine the new six-digit configuration number using the tables in “Available Configurations” starting on page 7. Write this new configuration number here: \_\_\_\_\_

2. Attach the Wedge to an IBM<sup>TM</sup> PC that runs Windows Version 3.0 or later.

3. Start Notepad.

4. Get a badge. It does not need to be a valid badge.

5. Present the badge to the reader.


**Result:** If a six-digit number displays, then this is the current configuration. Go to step 7.

If a badge number displays, continue with the next step.

6. Hold down the letter **q** until the letter displays on the screen about four or five times.


#### NOTE



If holding down  brings up a pull-down menu, you will need to program the Wedge using DOS. Go to “Using DOS” on page 6.

**Result:** If no number displays, repeat step 5.

Otherwise, a six-digit number displays. This is the current configuration.

7. Use the numbers on the upper row of the keyboard to enter the new configuration and then press the  key.

**Result:** If the new configuration number **was** accepted, it will be repeated on the screen. The Wedge is now be ready to read badges using the new configuration.

If the configuration number **was not** repeated, return to step 5 and go through the procedure again.

## Using DOS

+ To enter a new configuration, use the numbers on the upper row of the keyboard.

Follow the steps below to program the Wedge using DOS:

1. Determine the new six-digit configuration number using the tables in “Available Configurations” starting on page 7. Write this new configuration number here: \_\_\_\_\_
2. Attach the Wedge to an IBM PC that runs DOS 3.0 or higher.
3. Go to a DOS prompt.
4. Swipe or insert the badge into the reader.


**Result:** If a six-digit number displays, then this is the current configuration. Go to step 6.

If a badge number displays, continue with next step.

### NOTE




After either the six-digit number or the badge number, DOS may display the message “Bad command or file name.” Ignore this message.

5. After swiping or inserting the badge into the reader and after the badge number is displayed on the screen, hold down  until it displays on the screen about four or five times. If the Enter function is enabled for the Wedge, then the message “Bad command or file name” will be displayed; ignore this message.

**Result:** If no number displays, repeat step 4.

Otherwise, a six-digit number displays. This is the current configuration.

6. Use the numbers on the upper row of the keyboard to enter the new configuration and then press the  key.

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## Available Configurations

Refer to the tables below to determine the value of each number in the six-digit configuration.

**Table 1: Digit One**

Digit One	Reader Type
0	CASI-RUSCO Wiegand (Models 100 and 610) CASI-RUSCO Proximity (Models 9XX) in Wiegand Mode HID Wiegand Readers
1	CASI-RUSCO F/2F Magstripe (Model 110 and Proximity)
2	CASI-RUSCO Strobed Magstripe (Model 10)
3 - 9	Reserved

### NOTE



There is an internal jumper that must be set depending on the reader type. Normally, this jumper is preset at the factory. In cases where the jumper must be reset, the following information is provided:

1. Reader Model 100, 610, 8XX (Wiegand mode), and HID with Wiegand output: Jumper at J9
2. Reader Model 110, 10, 8XX (F/2F mode), and Proximity: Jumper at J8

**Table 2: Digit Two**

<b>Digit Two</b>	<b>Badge Type</b>
0	Default to standard badges for reader type (Refer to Table 3 for the Wiegand formats supported.)
1	32-bit Model 610 for UPS
2	Wiegand Wide Pulse (Model 610, 8XX and 9XX series)
3	10 digit Proximity
4	HID 37-bit single number/HID 32-bit CASI-RUSCO format - 1515 prefix/HID 34-bit
5	HID 35-bit 10-digit output/HID 32-bit CASI-RUSCO format - no prefix
6	HID 35-bit 11-digit output
7-9	Reserved

**Table 3: Wiegand Formats Supported**

<b>Number of bits</b>	<b>Format ID</b>	<b>Number of Output Digits</b>	<b>Notes</b>
26	2600	10	2 leading 0s, 3 Site Code, 5 Badge Number
28	2800	10	2 leading 0s, 3 Site Code, 5 Badge Number
28	2801	10	2 leading 0s, 3 Site Code, 5 Badge Number
28	2802	10	2 leading 0s, 3 Site Code, 5 Badge Number
28	2804	10	2 leading 0s, 3 Site Code, 5 Badge Number
31	3100	10	5 Site Code, 5 Badge Number
32	3201	10	1 leading 0, 4 Site Code, 5 Badge Number
34	3400	10	5 Site Code, 5 Badge Number
34	HID	10	5 Site Code, 5 Badge Number
35	HID	10	4 Site Code, 6 Badge Number If Digit 2 in Table 2, set to 5
35	HID	11	4 Site Code, 7 Badge Number If Digit 2 in Table 2, set to 6



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**Table 3: Wiegand Formats Supported (Continued)**

Number of bits	Format ID	Number of Output Digits	Notes
36	3600	10	5 Site Code, 5 Badge Number
36	36xx	10	GM-Hughes, 5 Site Code, 5 Badge Number
37	3700	13	5 Site Code, 8 Badge Number
37	3713	13	5 Site Code, 8 Badge Number
40	4001	12	6 Site Code, 6 Badge Number
40	40xx	up to 12	Durado ANSI magstripe

**For 28-bit badges:** The processing will test for the 2801, 2802, 2803 and the 2804 formats before defaulting to the 2800 format.

**For F/2F or strobed magstripe formats:** The actual number of digits sent by the reader will be displayed.

**Table 4: Digit Three**

Digit Three	Computer Type
0	Standard IBM PC
1	IBM PS/2 Model 30 or Model 70
2	IBM PS/2 Model 60
3	IBM 3471 Terminal
4	IBM 3151 Terminal
5	IBM 3153 Terminal

**Table 5: Digit Four**

Digit Four	Data Output Options
0	Without carriage return (Enter) Standard IBM PC
1	With carriage return (Enter) Standard IBM PC
2	IBM 3471 Terminal
3	IBM 3151/3153 Terminal
4-9	Reserved

**Table 6: Digits Five and Six**

Digits Five and Six	Customer Code Options
00	Default
01-99	Reserved

## Using the Proximity Wedge Reader



1. Start the desired PC application, such as **Portrait Perfect** or **SAM**.
2. Go to the badge input screen by following the instructions in your application's manual.
3. Position the screen cursor in the field where the badge ID is required.
4. Present the badge to the Wedge.

**Result:** The Wedge will beep to indicate that the badge ID has been read, and the ID will appear in the desired field on the PC screen.

### NOTE



If the badge is left on the Wedge, the ID will be sent to the PC every 2 seconds.

5. Since the Wedge may not output a field termination character, such as  or , the appropriate character should be entered manually on the keyboard.

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