



Universal Keyboard Wedge

Overview

This document provides instructions for any Universal Keyboard Wedge with a Date Code of H00120 or higher. (The Date Code can be found on the label adhered to the bottom of the unit.) For previous versions of the Wedge, use document part number 460296001.

The Universal Keyboard Wedge is an enrollment reader that provides a fast, easy, error-free method of entering badge IDs into your access control software.

To use the Wedge, connect a Wiegand, Barium Ferrite, or Magnetic Stripe reader to the Wedge. Swipe or insert a badge into the reader. 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 products and many non-CASI products. Since the Wedge is transparent to both the PC and the PC keyboard, no configuration on the PC is necessary.

For a successful installation and configuration of the Wedge, follow the steps below:

1. Unpack your Universal Keyboard Wedge kit and verify that you received all items.
2. Connect the reader to the Wedge.
3. Connect the Wedge to the computer.
4. Program the Wedge.
5. Use the Wedge.

These steps will be explained in detail in the sections that follow.

Inventory

When you receive the Wedge, unpack the system and verify the following items were supplied:

- Universal Keyboard Wedge
- Cables for Keyboard to Wedge (Quantity: 2)
- Cables for PC to Wedge (Quantity: 2)

NOTE



Refer to your CASI Product Catalog for part numbers and ordering information.

You will also need:

- an IBM[®] compatible computer running Microsoft[®] Windows[®] 3.x, Windows 95, or Windows 98
- a Wiegand, Barium Ferrite, Proximity, or Magnetic Stripe reader to use as an enrollment reader

Verify the Wedge Jumper Position

Each wedge/reader configuration requires the wedge jumper to be located at either J8 or J9.

➤ **To check the wedge jumper position and change, if necessary:**

1. Go to the next section and locate the correct reader drawing. The necessary jumper location will be listed on the drawing.
2. Refer to the drawing below for details on checking the wedge jumper position and changing the jumper, if necessary.

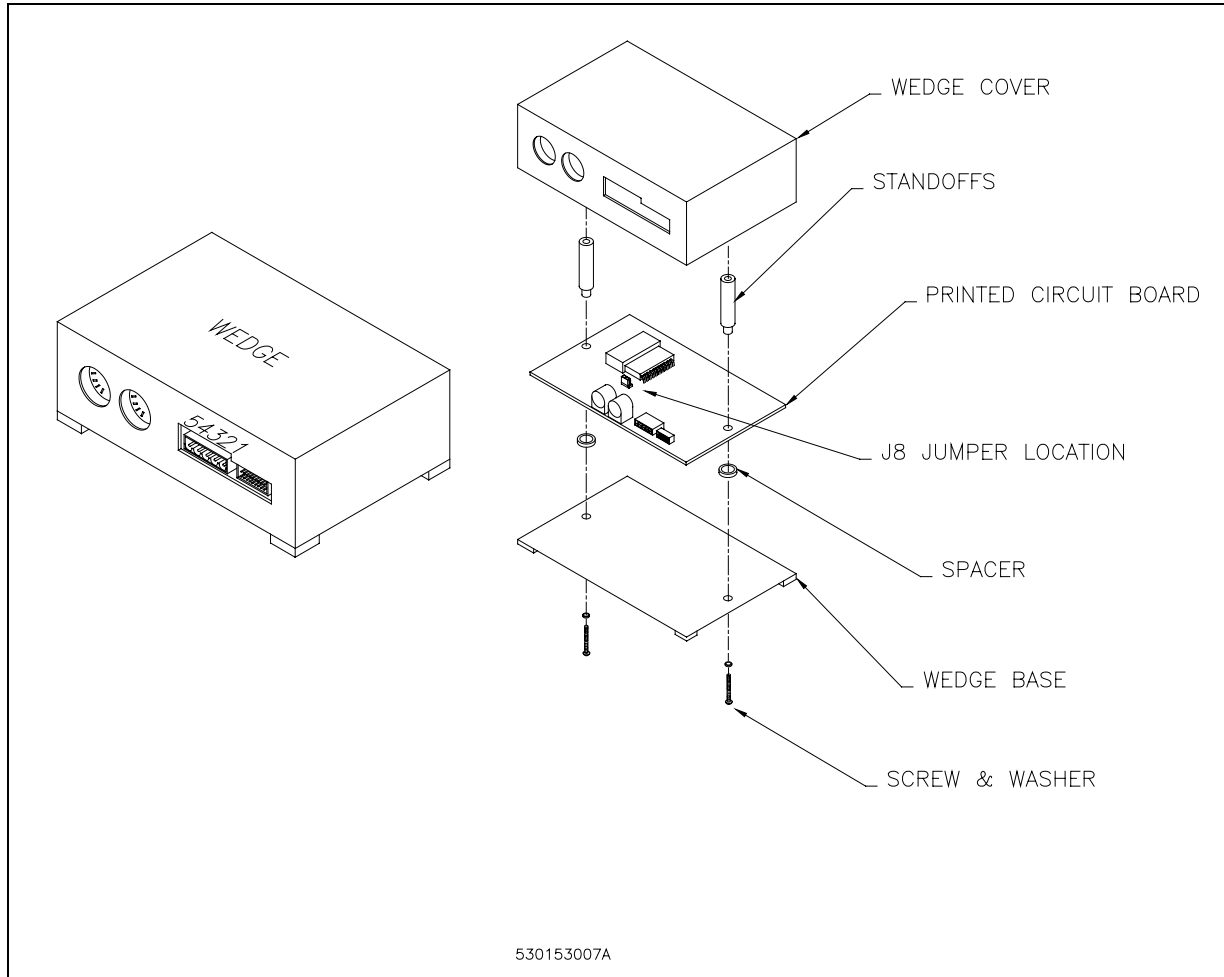


Figure 1: Exploded View of Wedge

Connect the Wedge to the Reader

This section provides information on connecting the Wedge to the reader. The following readers are detailed:

- HID™ reader (see page 5)
- Wiegand reader (see page 6)
- Model 10 Magnetic Stripe reader (see page 7)
- Model 110 Magnetic Stripe reader (see page 8)
- Model 430 Magnetic Stripe reader (see page 9)
- Model 610 Barium Ferrite reader (see page 10)
- Model 8XX reader (see page 11)
- Model 94x/97x Proximity reader (see page 13)
- Model 1000/1010 Dual Tech reader (see page 14)

HID Reader

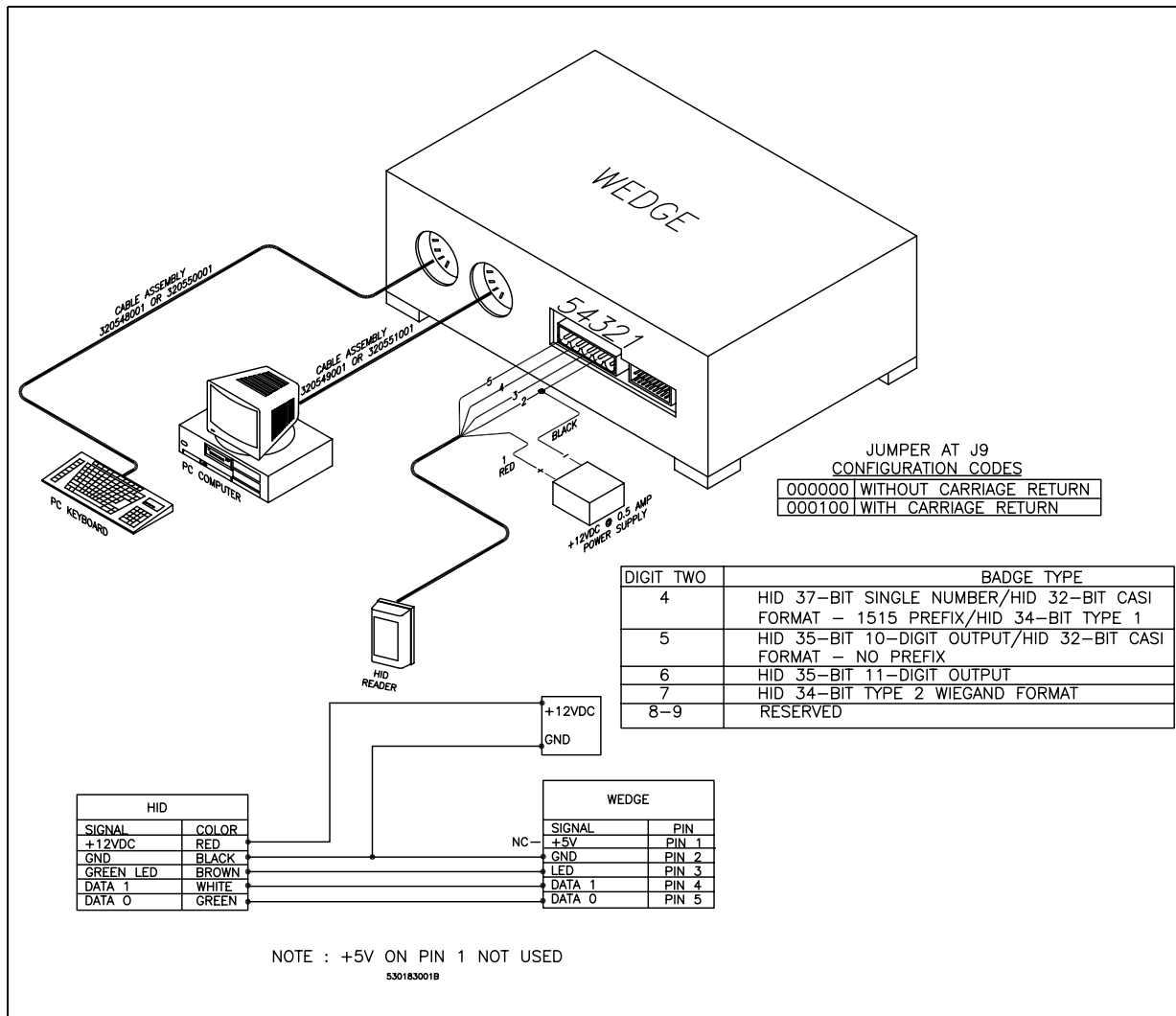


Figure 2: Connecting the Universal Keyboard Wedge and HID Reader

Wiegand Reader

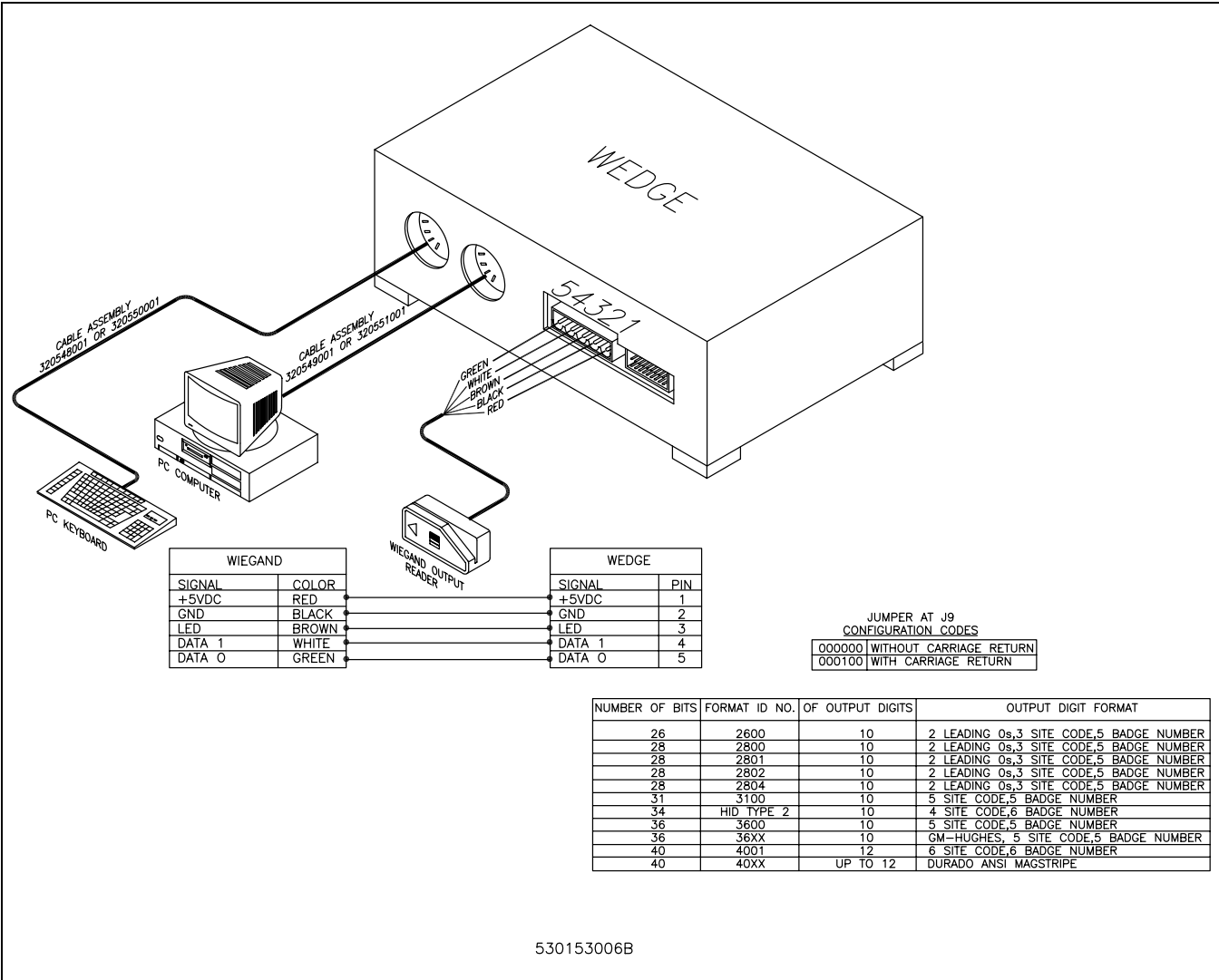


Figure 3: Connecting the Universal Keyboard Wedge and a Wiegand Reader

Model 10 Magnetic Stripe Reader

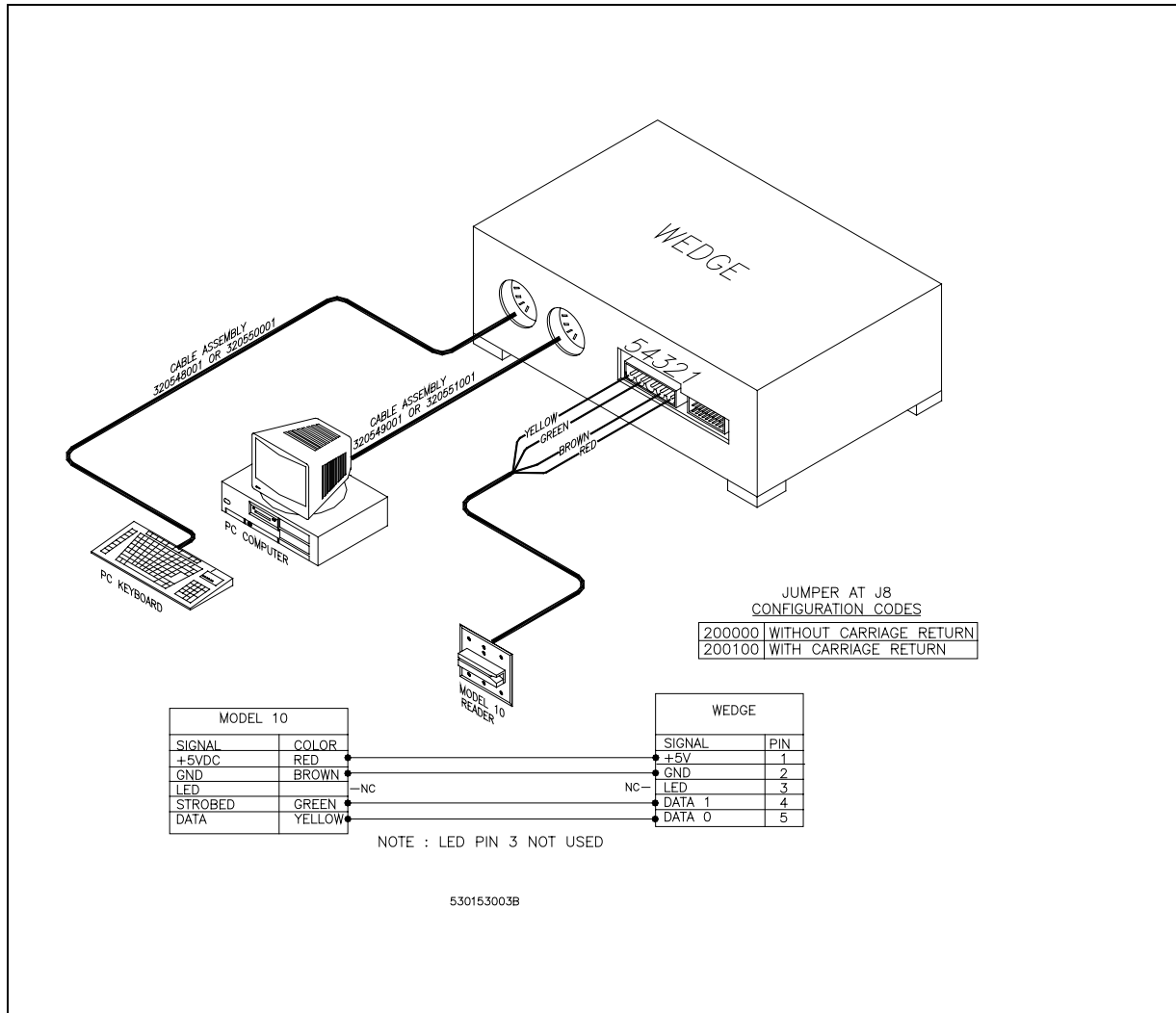


Figure 4: Connecting the Universal Keyboard Wedge and a Model 10 Magnetic Stripe Reader

Model 110 Magnetic Stripe Reader

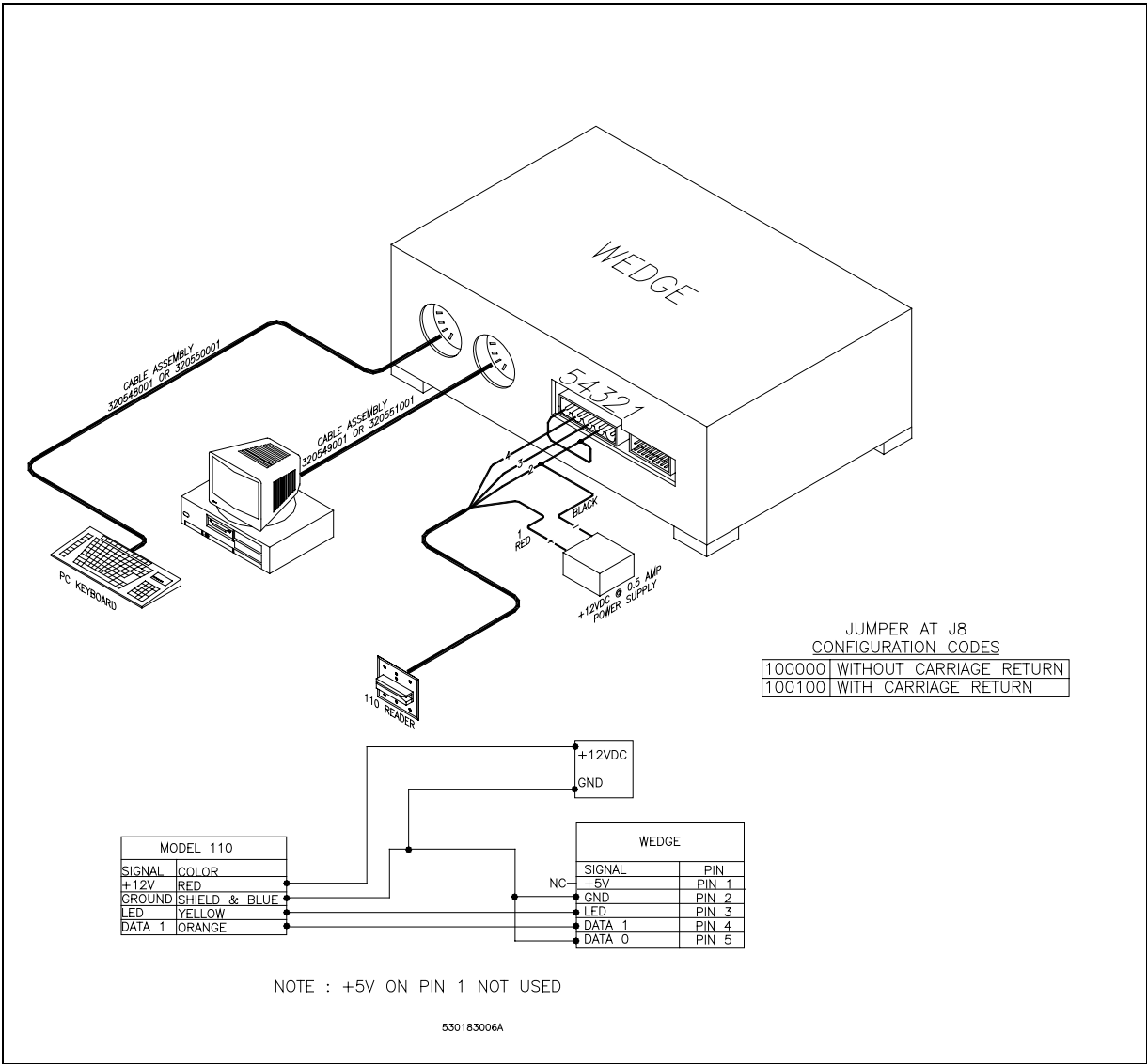


Figure 5: Connecting the Universal Keyboard Wedge and a Model 110 Magnetic Stripe Reader

Model 430 Magnetic Stripe Reader

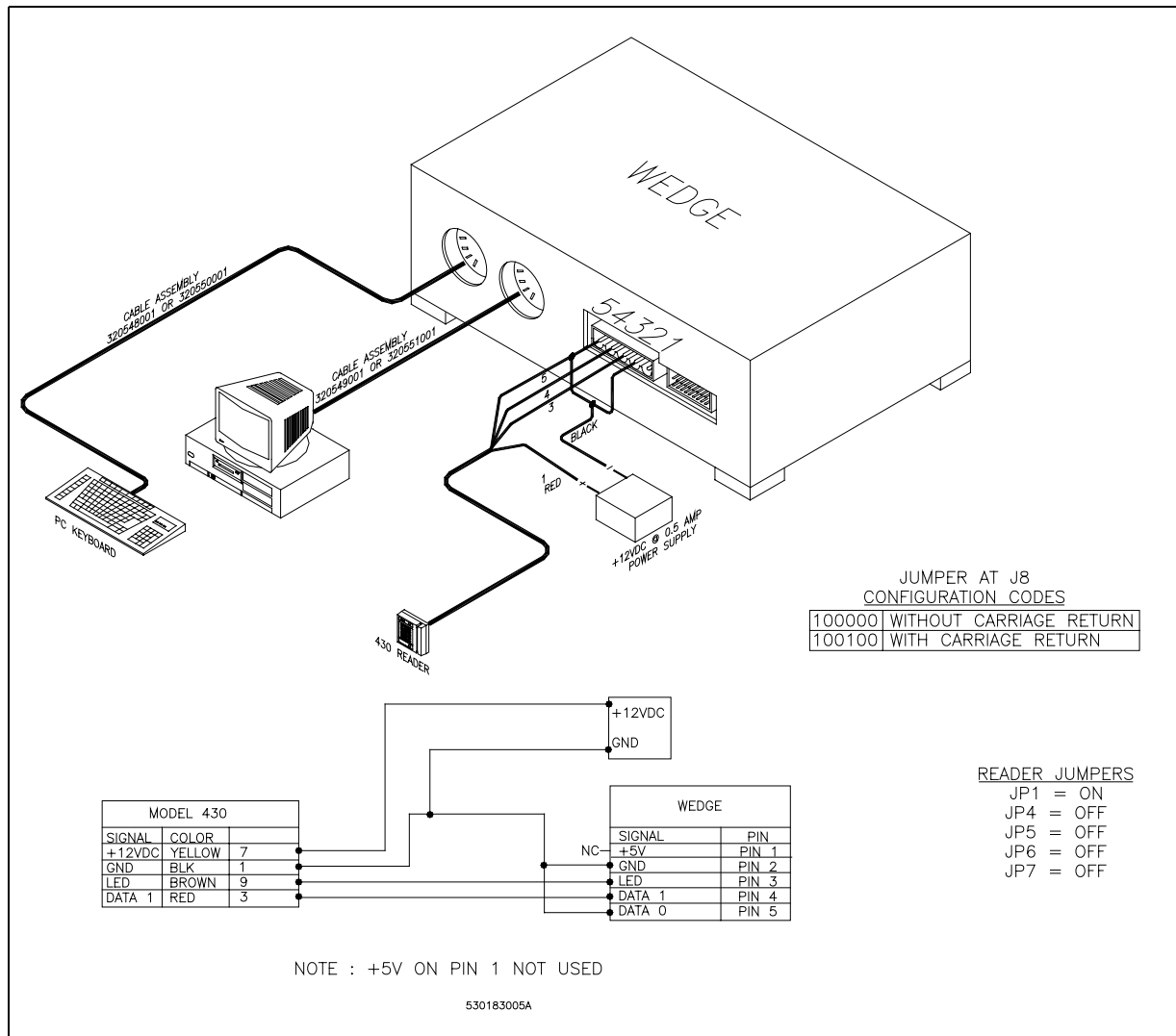


Figure 6: Connecting the Universal Keyboard Wedge and a Model 430 Magnetic Stripe Reader

Model 610 Barium Ferrite Reader

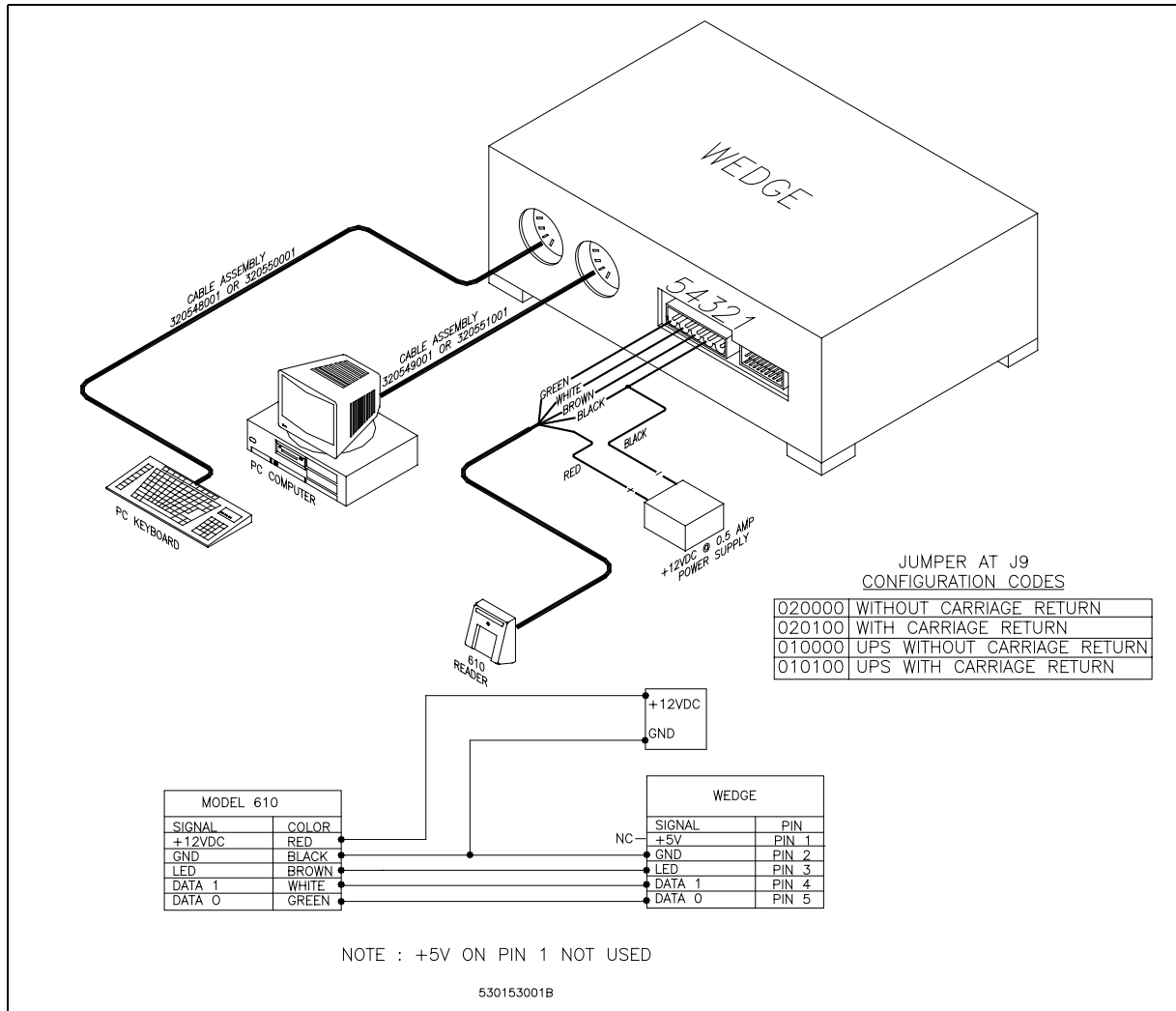


Figure 7: Connecting the Universal Keyboard Wedge and a Model 610 Barium Ferrite Reader

Model 8XX Reader

The Universal Keyboard Wedge supports the Model 8XX reader in two modes:

- 40-bit Wiegand (below)
- Unsupervised F/2F (see page 12)

Model 8XX - 40-bit Wiegand Mode

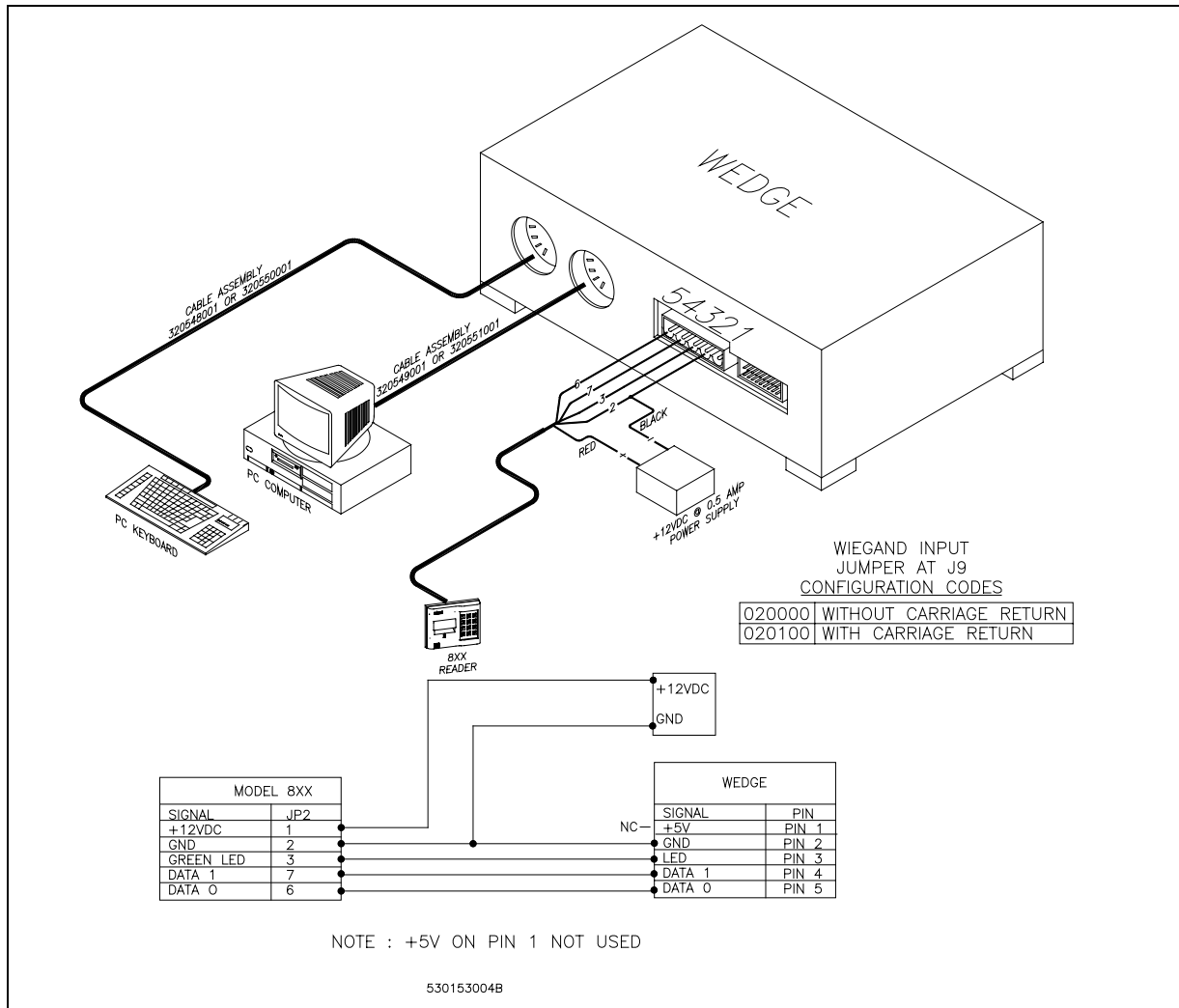


Figure 8: Connecting the Universal Keyboard Wedge and Model 8XX Reader in 40-bit Wiegand Mode

Model 8XX - Unsupervised F/2F Mode

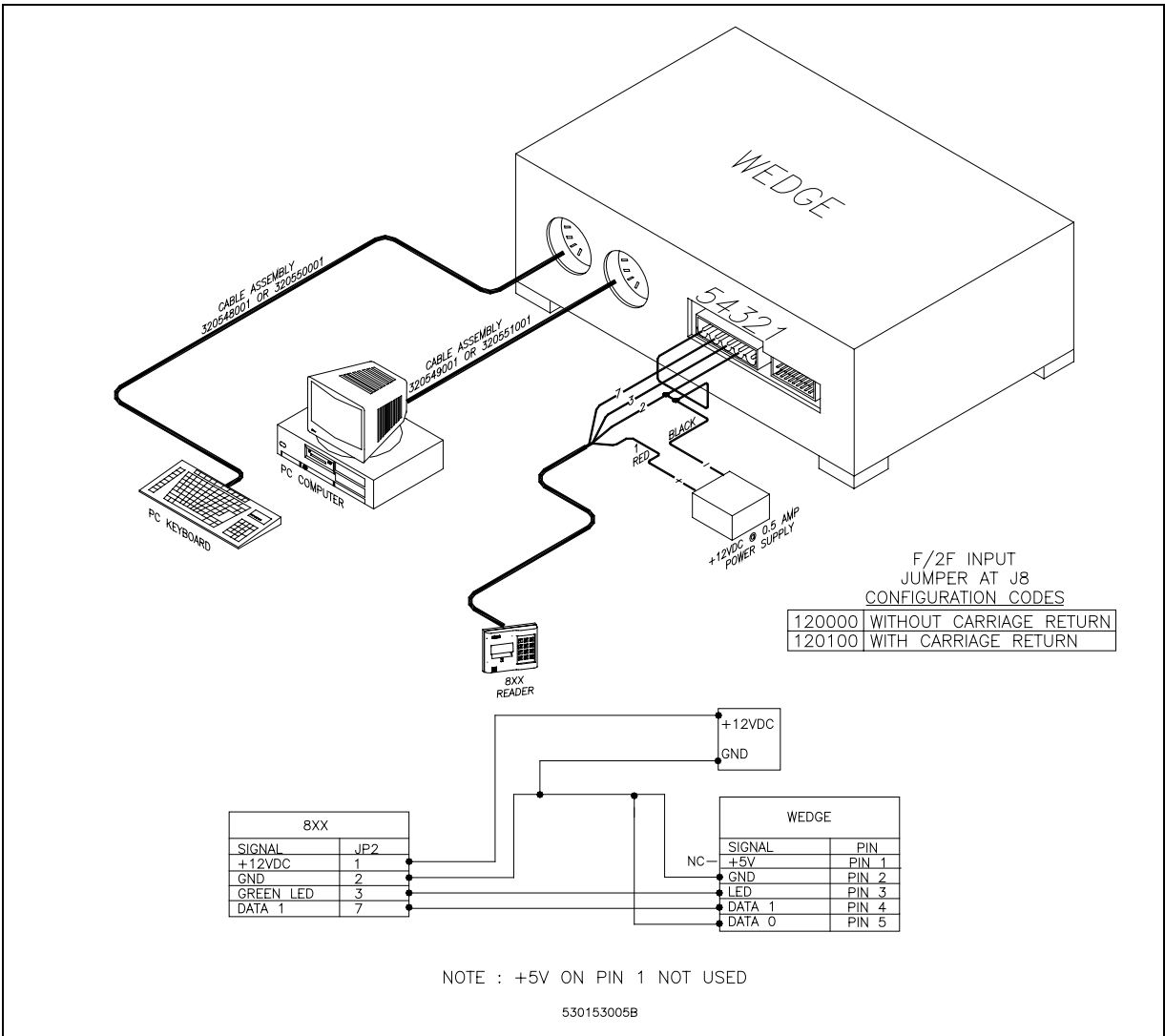


Figure 9: Connecting the Universal Keyboard Wedge and Model 8XX Reader in Unsupervised F/2F Mode

Model 94x/97x Reader - Unsupervised F/2F Mode

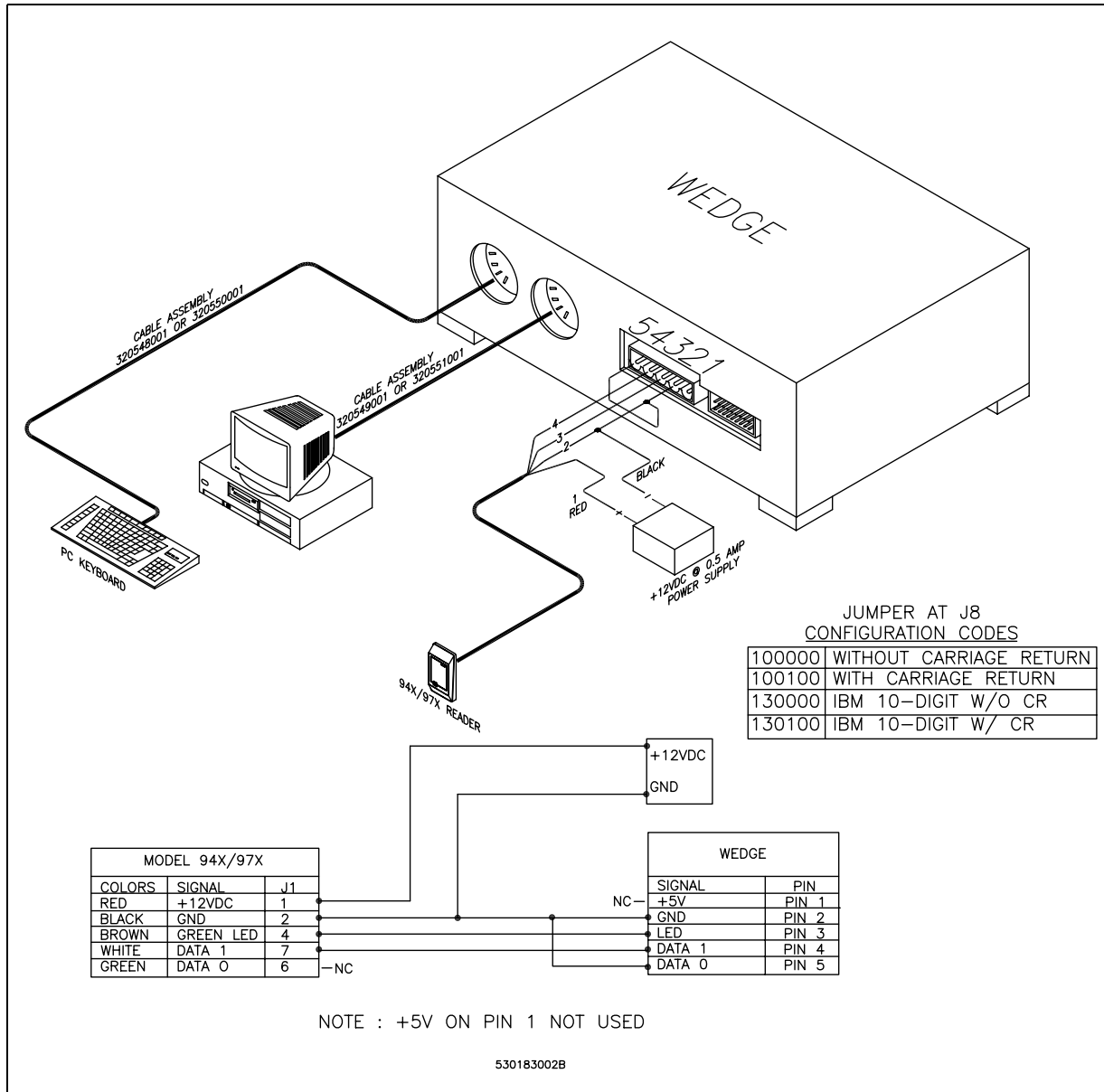


Figure 10: Connecting the Universal Keyboard Wedge and the Model 94x/97x Reader in Unsupervised F/2F Mode

Model 1000/1010 Reader

Set up the reader per the table below.

Table 1: Unsupervised Mode

Brand	JP1	JP4	JP5	BID Result
IBM 10-digit	On	On	On	10 digit
Unsupervised Generic	On	Off	On	12 digit

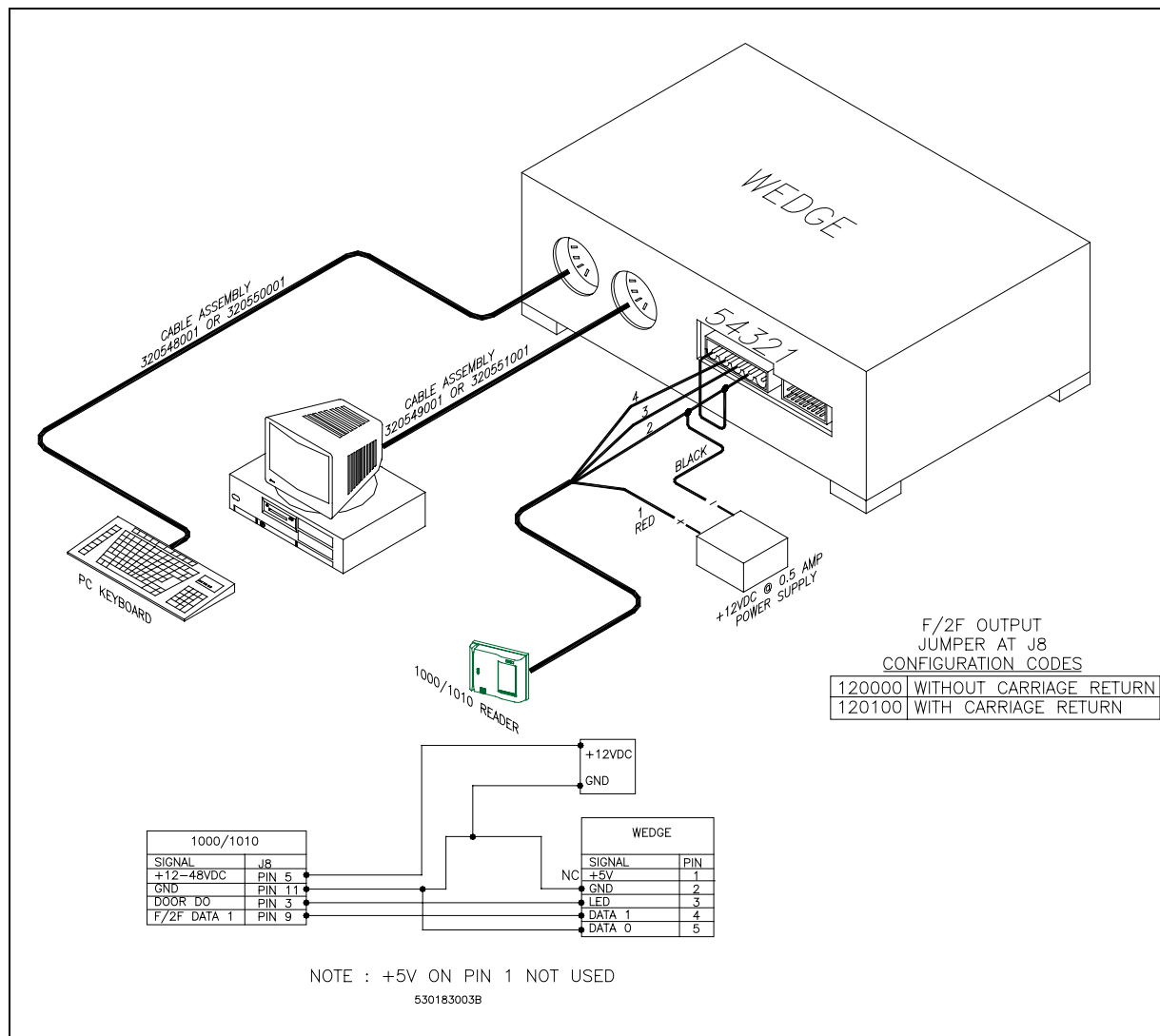


Figure 11: Connecting the Universal Keyboard Wedge and the Model 1000/1010 Reader

Connect the Wedge to the Computer

➤ Connecting the Wedge to the computer:

1. Power down the computer.
2. Unplug the power to the computer and wait at least 10 seconds.
3. Connect the Wedge to the computer using the appropriate cable included with the Wedge. (Refer to the figures in the section “Connect the Wedge to the Reader” on page 4.)
4. Plug in the reader power supply.
5. Plug in the power to the computer.
6. Power up the computer.

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

Programming the Universal Keyboard Wedge

CAUTION DO NOT read a badge with the Wedge until you have verified and/or corrected the six-digit program number. After the first attempted badge read, the wedge will lock out all further programming attempts until step 1 and step 2 on page 15 are completed.



During the initial powering on of the Wedge, 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 off and on again.

► **To program the Wedge using Notepad or WordPad:**

1. Before you begin, you will need to know the configuration code to be entered into the Wedge. These are listed on the drawings starting on page 4.
2. Attach the Wedge to a personal computer that runs Windows 3.x, Windows 95, or Windows 98.
3. Start Notepad or WordPad.

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.)

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 **Enter** key.

Result: If the Wedge accepts the new configuration, Notepad or WordPad 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.

Using the Wedge

CAUTION DO NOT move the mouse while reading a badge with the Wedge. Some computers block the keyboard when the mouse moves.



➤ **How to use the Universal Keyboard Wedge:**

1. Open the badge input screen following the instructions in your application's manual and position the screen cursor in the field where the badge ID is required.
2. Swipe, insert or present the badge.

Result: The badge ID will appear in the desired field on the PC screen.

Troubleshooting

Configuration Mode

Table 2: Configuration Issues

If ...	Try ...
Wedge will not go into configuration mode: (the six-digit configuration number is not displayed when the letter q key is held down.)	<ol style="list-style-type: none">1. Verify that the cables from the PC and the keyboard are plugged into the correct connectors on the back of the wedge. If they are incorrectly connected, then power down the PC and connect them correctly.2. Shut down and re-power the PC to which the wedge is attached.3. Go to “Programming the Universal Keyboard Wedge” on page 16 and try reprogramming the wedge.
Wedge still does not go into configuration mode:	Allow more time for the PC to finish its boot up sequence in step 2 above.
Wedge does not respond after 3 tries:	Try the Wedge on a different PC. Some PCs may prove to be incompatible with the wedge. In some cases, a wedge may not be programmable on a particular PC but may function correctly when reading badges.
Wedge does not respond on a different PC:	It is possible that either a cable or the wedge is defective.

Badge Reading

Table 3: Badge Reading Issues

If ...	Try ...
After the first attempted badge read, the wedge locked out all further program tries:	The incorrect six-digit configuration number was entered. Power down the PC and reprogram the wedge.
The badges read but DO NOT give the correct number:	Verify the six-digit configuration number. You may need to try another code.
The badges DO NOT read:	<ol style="list-style-type: none">1. Verify that the power supply is correctly wired to the reader and the wedge.2. Use a voltmeter to verify that the reader is powered with the correct power supply voltage.3. Verify that the badges read on the attached reader (or some other reader of the same type).4. If steps 1 through 3 are OK, then the reader may need to be replaced.

Technical Reference

The section provides detailed configuration code information.

Table 4: Digit One

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

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

Table 5: Digit Two

Digit Two	Badge Type
0	Standard Wiegand badges (Refer to Table 9 for the Wiegand formats supported.)
1	32-bit Model 610 for UPS
2	Wiegand Wide Pulse (Model 610, 8XX and 9XX series) or Model 1000/1010
3	10 digit Proximity
4	HID 37-bit single number/HID 32-bit CASI format - 1515 prefix/HID 34-bit Type 1
5	HID 35-bit 10-digit output/HID 32-bit CASI format - no prefix
6	HID 35-bit 11-digit output
7	HID 34-bit Type 2 Wiegand format
8-9	Reserved

Table 6: Digit Three

Digit Three	Computer Type
0	IBM PC compatible
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 7: Digit Four

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

Table 8: Digits Five and Six

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

The following table lists the Wiegand formats supported by the Universal Keyboard Wedge.

Table 9: Wiegand Formats Supported

Number of bits	Format ID	Number of Output Digits	Output Digit Format
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 (Type 1)	10	5 Site Code, 5 Badge Number
34	HID (Type 2)	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
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

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