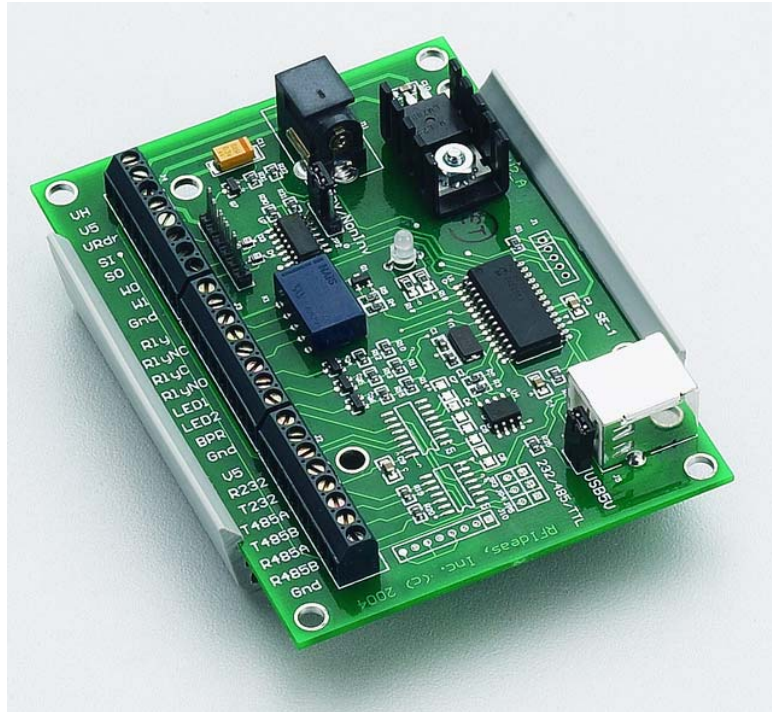


Gym Assistant Access Control Setup

Weigand Proximity Converter

June 2006

Note: Please read this entire document before beginning your installation.



1. Introduction

The Weigand/RS232 Converter interfaces between any HID proximity card reader and a 9-pin serial port. The Converter also includes a relay that can be used to trigger an electronic lock. Note that the relay does not actually power the lock, it merely closes a circuit to allow current to flow to the lock.

Note: The Proximity Card interface requires Gym Assistant 2.0. If you do not have version 2.0, please contact Bio-Logic.

2. Locating the hardware

The **Proximity Card Reader** can be mounted anywhere outside near the door to be controlled. It does not need to be mounted on the door frame itself since you can specify the amount of time that the door is unlocked after the member swipes his/her card.

We recommend placing the **Weigand Converter/Door Controller** near the computer (for example, mounted under the counter at the front desk). This will allow you to most easily diagnose any problems you may have.

3. Test the system before installing

We strongly recommend that you connect all of the hardware on the desktop or counter and test the system before installing. This will allow you to work out any technical glitches much more easily than after you have run wires and mounted the hardware outside.

4. Connect the Proximity Reader to the Converter

You will find the wiring configuration for your reader in the documents that came with the reader. Be sure to keep these documents in a safe place as you may need them at some point in the future. Below is the standard wiring for most HID proximity card readers.

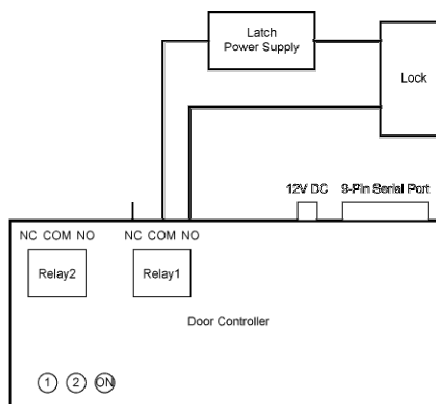
Reader Wire Color	Description	Converter Terminal
Red	+DC (5-16VDC)	V5
Black	ground	Gnd
Green	Data 0 (data)	W0
White	Data 1 (clock)	W1
Drain	shield ground	
Orange	green LED	LED1
Brown	red LED	LED2
Yellow	beeper	BPR
Blue	hold	(not used)
Violet	card present	(not used)

You will find the wiring configuration for your reader in the documents that came with the reader. Be sure to keep these documents in a safe place as you may need them at some point in the future. Below is the standard wiring for most HID proximity card readers.

5. Connect the Door Lock to the Converter Relay

The door lock circuit requires the lock itself and its own power supply. The function of the converter relay is to either open or close a circuit when activated. The converter does not supply power to the lock.

Most mechanical electric locks (or strikes) will unlock when power is applied. This type of c



Normally-Open wiring circuit

6. Connect the Door Controller to your computer

Plug the flat connector into the connector strip labelled “J10” on the door controller. The J10 connector strip is located near the **Gnd** end of the terminal strip, and it has a white outline around all the pins with an additional white box around the pin on one end. The **brown** wire on the serial cable should be connected to the pin with the surrounding white box.

If your computer has a round keyboard port, then you can power the door controller with the keyboard port on your computer.

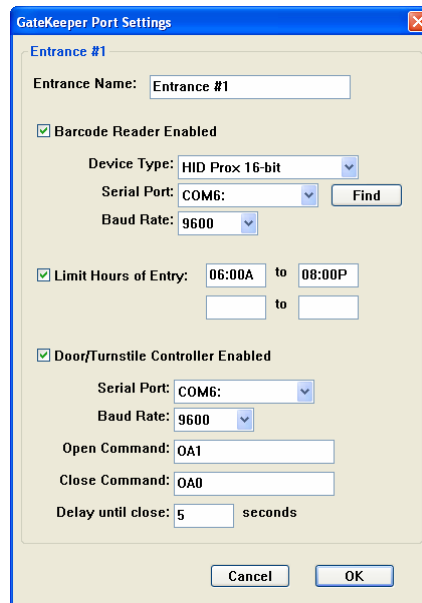
- Unplug your keyboard from the computer.
- Plug the round door controller connector into the keyboard port. The led on the door controller should turn red.
- Plug your keyboard into the end of the round door controller connector.

If your computer does not have a round keyboard port, then you can power the door controller with the 12V power adapter. Plug the adapter into the round socket on the door controller. The led on the door controller should turn red.

Connect the 9-pin serial to any available serial port on your computer. If you do not have any serial ports available, please see [Adding serial ports to your computer](#) below.

7. Configure Settings in GateKeeper

- Start the GateKeeper 2.0 application.
- Select **Ports** from the **Settings** menu. (see below)
- If you are operating two entrances (one for the front-desk and another for the entrance door), then you should see two entrances in the window. Set the controlled entrance as Entrance #1. If you need two entrances but see only one entrance, then please contact Bio-Logic for the code to activate the second entrance.
- Check the Barcode Reader Enabled box
 - Set the Device Type to HID Prox 16-bit
 - Set the **Serial Port** to the correct port and the **Baud Rate** to 9600.
- Check the **Door/Turnstile Controller Enabled** box.
- Set the **Serial Port** to the correct port and the **Baud Rate** to 9600.
- Set the **Open Command** to "OA1" (Letter 'O' + A + One, without quotes)
- Set the **Close Command** to "OA0" (Letter 'O' + A + Zero, without quotes)
- Set the **Delay until close** to the desired number of seconds
- If you want to limit the hours during which the entrance is active, then check the **Limit Hours of Entry** checkbox and set the desired hours.
- Click OK



Version 2.0 Port Settings

8. Test the Door Controller

In GateKeeper, click the **Open Gate** button. You should hear and Relay#1 should close. After the prescribed time you should hear another click and Relay#1 should open.

If nothing happens, then select **Ports** from the **Settings** menu. Then change the **Serial Port** selected under the **Door/Turnstile Controller Enabled** item and try again.

9. Confirm the Electronic Lock Operation

Most electromechanical locks and door strikes are unlocked by closing a circuit and applying a voltage to the lock. This is called a “Normally-Open” circuit. Most magnetic locks are held locked by maintaining a voltage to the magnet, and then unlocked when that voltage is interrupted. This is called a “Normally-Closed” circuit. The Door Controller can operate as either a normally-open or normally-closed relay.

Whether normally-closed or normally-open, the door lock circuit requires a separate power supply to provide voltage to the lock. To test a normally-open lock circuit, simply touch the two leads from the lock together and the lock should open.

10. Other Topics

Adding serial ports to your computer

You may need to add one or more serial ports to your computer. You can purchase and install a serial interface (RS-232) card into your computer to provide 2-4 additional serial ports. If you are unsure about installing hardware into your computer, then we recommend that you have a local computer shop install these cards for you.

You can easily add ports yourself, however, by purchasing one or more USB-to-Serial adapters. These adapters plug into a USB port and provide a connector to plug in a serial cable. Make sure that you install the software that came with the adapter before plugging the adapter into your computer.

Windows Energy Settings

It is very important that you change your Windows energy settings to ensure that the entrance remains operating for long periods.

- Open the Control Panel (from the Start button).
- If the label Pick a Category appears, click on Performance and Maintenance.
- Open the Power Options icon.
- Set System Standby to Never.
- Click the Hibernate tab.
- Uncheck the Enable Hibernation checkbox.
- Click OK.
- Close the Control Panel.

Backup power supply

You should purchase a battery backup (also called an Uninterruptible Power Supply or “UPS”) and power your computer through it. We recommend that you do not connect any devices other than your computer to the UPS in order to maximize the amount of time that the computer will run in the event of a power outage. Note that connecting your video monitor to the UPS will severely reduce the available battery time.

Computer BIOS Settings

We recommend that you enlist the help of a computer-savvy person to access your computer’s low-level BIOS settings and set the configuration that will cause the computer to automatically

restart in the event of a power failure. The BIOS settings can usually be accessed by pressing the DELETE or F2 key when your computer first powers on.

Securing the Computer and your club

We recommend that you secure your computer in some way to prevent members from accessing your data or operating the computer. Consider one or more of the following methods to protect your equipment while you are away:

- Keep the computer CPU locked in a cabinet under the desk.
- Unplug the keyboard, mouse and monitor. Lock the keyboard and mouse in a secure place.
- Locate the CPU in a locked room and run a set of long cables (keyboard, mouse, video, speakers) to the front desk for daytime operation.
- Set a password on your system and set your screensaver to require the password.
- Install a video surveillance system to monitor activity at the facility while you are away.

If you have any questions about security, please call Bio-Logic.

Remote Access

Remote access solutions allow you to connect to your computer remotely, which is a very good thing to have when you get a phone call at 5am from a disgruntled member who can't get into the club. GoToMyPC.com and LogMeIn.com both offer excellent solutions for remote access.