

gym assistantTM

GateKeeper: Barcode Scanner Setup

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I. Introduction

Gym Assistant is designed to allow members to check-in without requiring intervention from the front-desk staff, which we call “**unattended check-in.**”

- A member can scan his own card without affecting what is happening on the front-desk computer screen.
- A tone will indicate the member’s status (either **OK** or **Not OK**), and the member’s visit (either an “**allowed**” entry or a “**denied**” entry) will be recorded automatically.

A. Why Use a Serial Interface Barcode Scanner?

Most barcode scanners have a USB or keyboard interface, and they act like a **keyboard device** – when a barcode is scanned, it appears as if the barcode number was typed on the keyboard and the “**Enter**” key was hit. This is great if the cursor is sitting in a field that is waiting for someone to type in a number and the “**Enter**” button is hit, but it just does not work if the **User** is trying to use other programs on the computer. For example, if you are writing a Word document and a member scans his card the numbers will appear in the Word document.

- With a **Serial Interface** (RS232) scanner; however, an application can listen for input from the scanner and handle that input in the background, independent of what’s happening onscreen. The Serial (RS232) port is old technology, but that old technology is the best and only way to handle barcode scans in the background.
- Most new computers do not include built-in serial ports, so you will probably need to add one or **more USB/Serial Adapters**. A USB/Serial adapter allows you to connect any Serial device to a USB port. You can purchase USB/Serial Adapters direct from www.GymAssistant.com.
Note: Access Control applications require a slightly different adapter, so contact Gym Assistant if you have any questions. Some higher-end USB barcode scanners have a built-in USB/Serial adapter that must be properly configured before use. Please refer to your barcode scanner’s User’s Guide for more information.

B. Adding a Serial Port to your computer

Most new computer do not include built-in serial ports, so you will probably need to add one. A serial port can be added using a USB-Serial Port adapter or installing PCI Serial card. (See the **Serial Ports Troubleshooting** document for details)

C. GateKeeper and Member Check-In

GateKeeper is an add-on application (included with Gym Assistant) that works with Gym Assistant to handle barcode scans and background check-ins.

- When GateKeeper receives a barcode number from the scanner it searches the Gym Assistant membership data to find a match and then handles the check-in automatically.
- If Gym Assistant is displaying the main View Member Info window then that member’s information automatically appears to display the member’s check-in status.
- With GateKeeper you can monitor up to 8 scanners (called “access points”) independently.
- You can specify when the entrance is enabled, what members are allowed entry, and what actions to take when a card is scanned.
- In addition to barcode scanners, GateKeeper can also interface with numeric keypads, proximity card scanners, magnetic stripe (credit card) scanners and fingerprint scanners.

II. Connecting the Barcode Scanner Device

A. Metrologic/Honeywell – Fusion Laser Scanner



1. Connect the L-shaped plug of the power supply into the power jack on the barcode scanner cable.
2. Connect the power supply into an AC outlet.
Note: The outlet should be near the equipment and easily accessible.
3. The scanner should emit a short beep to indicate a successful power-up, and the **GREEN** LED on top of the scanner should illuminate for 1-2 seconds.
4. When an object passes in front of the scanner, both the laser and **GREEN** LED should turn on.
5. When you scan a barcode, the scanner should emit a short beep and the **RED** LED on top of the scanner should flash.
6. Now connect the scanner Serial port to your USB/Serial Adapter or built-in Serial port on your computer.

B. ZBA Scanner – CCD Scanner

Note: Discard the ZBA Driver CD that came with your scanner. You will not need the drivers with GateKeeper.

1. Connect the plug of the power supply into the power jack on the barcode scanner cable.



2. Connect the power supply into an AC outlet.
Note: The outlet should be near the equipment and easily accessible.
3. The scanner should emit a long beep to indicate a successful power-up, and the **GREEN** LED on top of the scanner should illuminate for **1 second** and then turn off.
4. The **RED** scan light should be on constantly.
5. When you scan a barcode, the scanner should emit a short beep and the LED on top of the scanner should flash **RED** briefly.
6. Now connect the scanner Serial port to your USB/Serial Adapter or built-in Serial port on your computer.

C. IDTech Omni Slot Scanner

1. Connect the plug of the power supply into the power jack on the barcode read cable.



2. Connect the power supply into an AC outlet.
Note: The outlet should be near the equipment and easily accessible.
3. The barcode scanner should emit a long beep to indicate a successful power-up.
4. The **GREEN** LED on top of the scanner and the **RED** light inside the scanner slot should remain **ON**.
5. Quickly swipe a barcode through the scanner.
6. The barcode scanner should emit a short high-pitched beep to indicate a successful scan.

If you do not get a beep, then check that:

- the barcode is facing the correct direction in the slot.
 - the barcode is about ¼ - ½ inch above the bottom of the card.
 - the barcode is level with the bottom of the card or keytag.
7. Now connect the scanner Serial port to your USB/Serial Adapter or built-in Serial port on your computer.

D. Genovation Serial Numeric Keypad



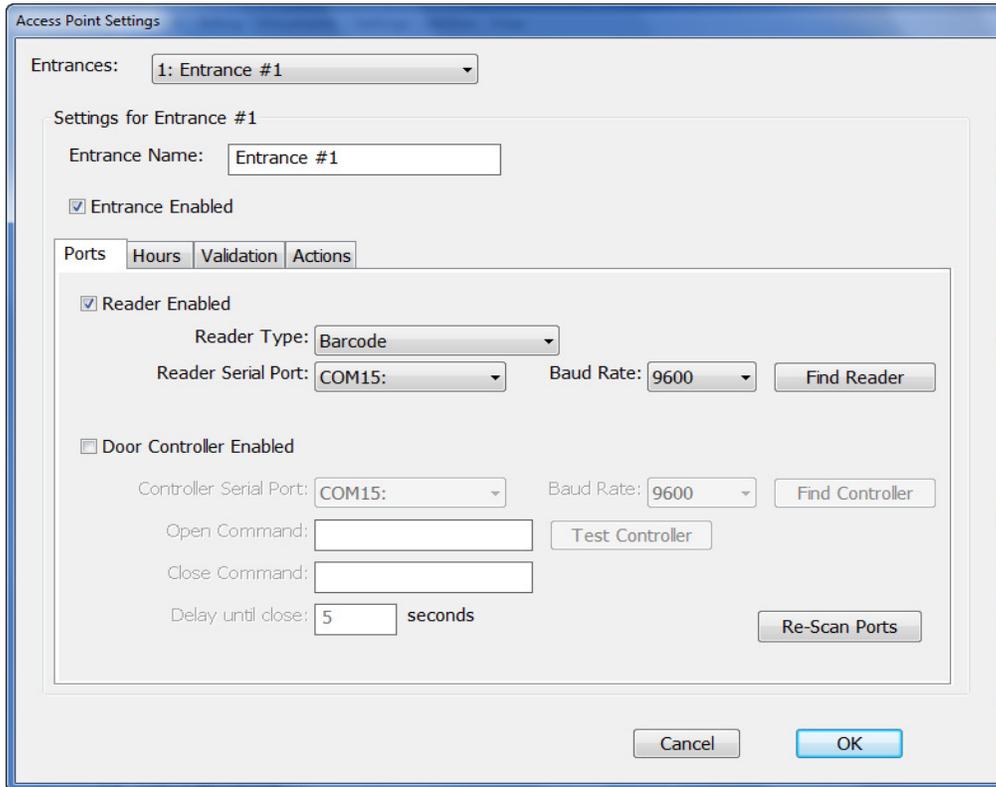
Note: Discard the Genovation Product Drivers CD that came with your keypad. You will not need the drivers with GateKeeper.

1. Connect the keypad serial connector to your USB/Serial Adapter or built-in Serial port on your computer.
2. The blue light will not illuminate until you click the "**Find Scanner**" button in the next step.

III. Configuring Settings in GateKeeper 2.0.2

Port Settings

1. Start **GateKeeper 2.0.2**.
2. Select "**Ports**" from the "**Settings**" menu.



3. Check the **Entrance Enabled** box.
4. Check the **Scanner Enabled** checkbox.
5. Set the **Scanner Type** to **Barcode**.



Note: If you are connecting to a **Genovation Numeric Keypad** then set the **Scanner Type** to **Genovation Keypad**.

6. Set the barcode scanner **Baud Rate** to **9600**.



Note: If you are connecting to a **Genovation Numeric Keypad** then set the **Baud Rate** to **1200**.

7. Click the "**Find Scanner**" button and then scan a card through the scanner (or hit a key on the keypad).
 - a. If the scanner is found, then the port will be set automatically.
 - b. If the scanner is **NOT** found then click the "**Cancel**" button and refer to the "**Serial Port Troubleshooting**" document.

A. Limiting Entrance Active Hours

The “**Hours**” tab allows you to set the time, which this access point is active.

Note 1: In general, the “**Hours**” tab only pertains to access control

Note 2: When an access point is **INACTIVE** the scanner will still beep when it reads a barcode, but no member visit will be recorded.

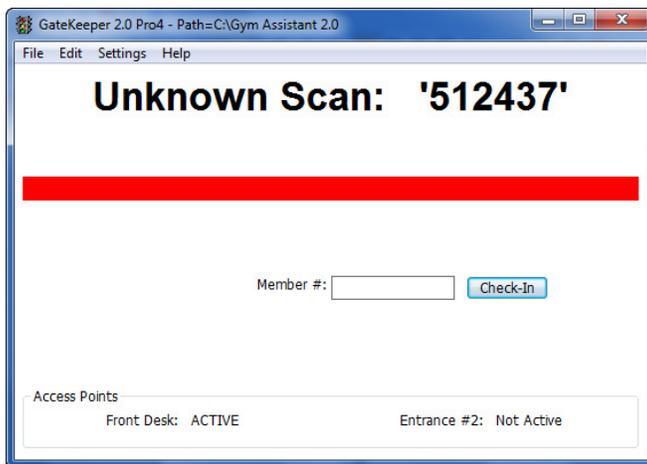
The screenshot shows a software window with four tabs: 'Ports', 'Hours', 'Validation', and 'Actions'. The 'Hours' tab is selected. Below the tabs, there is a section titled 'Limit Hours of Entry' with a checked checkbox. Under this section, there are three rows for 'Weekdays', 'Saturday', and 'Sunday'. Each row has two time input fields separated by 'to'. For Weekdays, the times are 04:00A and 10:00P. For Saturday and Sunday, the times are 06:00A and 08:00P. Below these fields is a button labeled 'Display Open/Close Hours'.

1. Click the “**Hours**” tab.
2. Check the “**Limit Hours of Entry**” box and set the time periods during which you want the door to respond to card scans.
 - a. You can specify up to 2 time periods each day.
For example, a club may allow access from **5am-10am** and then again from **10pm-1am**.
 - b. You can specify a time period that extends into the following day.
For example, weekday access from **8pm-2am** will allow access until 2am Saturday.
3. Click the “**OK**” button.
4. Click the “**Open Gate**” button to test that the door unlocks.
5. Clicking the “**Display Open/Close Hours**” will show exactly when the entrance is active/de-active during all hours for the upcoming week.

Note: This button is a good way to confirm that you have set the hours of entry correctly.

IV. Testing the Barcode Scanner

1. Scan any card with the scanner (the card does not have to be attached a member record).
2. If the card is not attached to a member record then the message “**Unknown Scan: 'XXXX'**” should appear. This indicates that GateKeeper has detected the card scan.



3. If the card is attached to a member record then the member's info should appear. This indicates that **GateKeeper** has matched the barcode to a member's record.

Note: If either “**Unknown Scan: 'XXXX'**” or a member record shows up after the scan, your scanner is setup and working properly.

V. Appendix A: Barcode Scanner Troubleshooting

A. Before You Begin

Please consider the following:

- There are many steps that must happen between a member scanning a card and Gym Assistant recording a visit.
- Each step in this chain of events represents a possible mode of failure.
- In diagnosing barcode problems it is very important to first identify where in the sequence the failure is happening.
- Never assume where the problem is occurring. Always verify.
- Never troubleshoot one step in the sequence unless you have confirmed that the previous step is functioning correctly. For example, it won't do any good troubleshooting port settings if the scanner isn't powered up or if the scanner does not beep when a barcode is read.

B. Confirm the Barcode Scanner is Functioning

1. Is the scanner powered?

- a. Scanner should beep when it is powered up.
- b. Light on top of scanner should be **ON**.

Resolution:

- Check that the power cord is attached to the scanner serial cable and plugged into main power.

2. Does the scanner beep when you scan a card?

- a. A beep indicates a successful card scan (that the scanner was able to read the barcode).
- b. Is scanner light on? The scanner light is the **RED** laser or **CCD** that shines on the card.

Fusion Barcode Scanner:

- The Fusion scanner must be in the stand (with yellow LED lit) for hands-free scanning.
- If the Fusion is not in the stand then press the scan button on top of the scanner to scan a barcode manually.

ZBA Barcode Scanner:

- If there is no beep then the scanner may need to be configured. Press the yellow scan trigger to scan a barcode manually. (See "Configuring ZBA Scanner" below.)

ID-Tech Slot Barcode Scanner:

- Try turning the card around so the barcode faces in the other direction.
- Try sliding the card in both directions.
- Try different barcodes.

C. Metrologic/Honeywell Serial Laser Barcode Scanner

In some cases, the **Metrologic/Honeywell** serial laser barcode scanner may need to be reconfigured to work properly with **GateKeeper** or **Pro-Shop**. The scanner configuration can be changed by scanning special codes found in the Metrologic “**Single-Line Configuration Guide**.”

1. In the “**Single-Line Configuration Guide**” locate the section titled **RS-232**.
2. Set the following values by scanning the code corresponding to each setting:

Parity:	No Parity
Baud Rate:	9600
Data/Stop Bits:	8 Data Bits, 1 Stop Bit
Hardware Handshaking:	Disable RTS/CTS
Software Handshaking:	Disable XON/XOFF Handshaking

3. If you are using the **Metrologic/Honeywell** serial scanner with **Pro-Shop**, then you may need to configure the scanner to properly format shortened **UPC** bar codes (found on some items).
 - In the **Single-Line Configuration Guide** locate the section titled **Code Formatting: UPC/EAN Formatting**.
 - Scan the code corresponding to the **Expand UPC-E to 12 Digits** setting.

VI. Appendix B: Typical Error Conditions

<p>A. Error Message “Error Opening COM: Port”</p>	<p><u>This error may be caused by a number of factors:</u></p> <ol style="list-style-type: none"> 1. A port previously chosen may no longer exist – for example, a USB/Serial adapter previously used may be unplugged or plugged into a different port. Choose Ports from the Settings menu and choose an available port. 2. A port that exists may be in use by another application. <ol style="list-style-type: none"> a. If you have a device that connects through the serial port, then the device may have software that occupies a serial port. b. Try restarting your computer. c. Look in the icon tray at the lower-right corner of your screen for a program that may be trying to connect to a serial port.
<p>B. Barcode Button does not appear in Gym Assistant</p>	<ol style="list-style-type: none"> 1. In Gym Assistant, select Barcodes from the Settings menu. 2. Confirm that Enable Barcode Features is checked. 3. Confirm that Enable GateKeeper Features is checked.
<p>C. “Display GateKeeper Check-Ins checkbox” does not appear in Gym Assistant</p>	<ol style="list-style-type: none"> 1. In Gym Assistant, select Barcodes from the Settings menu. 2. Confirm that Enable Barcode Features is checked. 3. Confirm that Enable GateKeeper Features is checked.
<p>D. Gym Assistant Not Displaying Check-Ins from GateKeeper</p>	<ol style="list-style-type: none"> 1. In the Member Browse screen, confirm that the Display GateKeeper Checkins box is checked. 2. The Show Alerts box should be unchecked.
<p>E. Gym Assistant Not Sending all UPC (product) codes to ProShop</p>	<p>There are 2 main versions of the UPC code found on retail products. The standard UPC code (called UPC-A) contains 12 digits. A short UPC code (called UPC-E) contains only 8 digits. The UPC-E code actually represents a full 12-digit UPC code with some digits set as zero.</p> <p>Most barcode scanners can be configured to automatically expand a UPC-E barcode to the 12-digit UPC-A code.</p> <p>GateKeeper will automatically pass any scanned UPC codes to ProShop. If you scan a UPC code, then GateKeeper should flash a brief message "Sending UPC to ProShop". If instead it reports "Unknown Scan XXX" (where XXX is the 8-digit UPC code) then you must configure your barcode scanner correctly.</p> <p>For ZBA Scanner:</p> <ol style="list-style-type: none"> 1. In GateKeeper enter the command "*ZBA Config*" (without quotes, but with asterisks before/after) in the Member # field and click Check-In. 2. The scanner should beep a few times and GateKeeper should report that the configuration was successful. <p>For MetroLogic/Honeywell Scanner:</p> <ol style="list-style-type: none"> 3. Locate the “Single Line Configuration Guide” that came with your scanner. 4. Scan the code for "Expand UPC-E to 12 digits."