Troubleshooting Guidelines

General hardware troubleshooting

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About this guide

This guide uses the following easy to use format:

Desktop reader troubleshooting

1 → [Device image]

2 → A normally-working and powered desktop reader will briefly change LED color when a valid tag is swiped across it, a pop-up will show on the GymMaster page, and a new entry will show in the Visitors page.

3 → The desktop reader is connected to the GateKeeper via a USB hub

4 → • The GateKeeper is NOT designed to support USB hubs. Please disconnect the hub, and connect the desktop reader directly to one of the GateKeeper USB ports.

3 → When a valid tag is swiped over the desktop reader, no popup shows, but a new entry shows in the Visitors page when reloaded

4 → • User login preferences are preventing the popup from showing:
5 →   ○ Check user Account Details, *"Pop-up enabled when logged in"* should be ticked.

1: Device image
2: Description of device basic function and operation
3: Problem or issue description
4: Probable cause and solution
5: Supplemental information for solution

Desktop reader troubleshooting

A normally-working and powered desktop reader will briefly change LED color when a valid tag is swiped across it, a pop-up will show on the GymMaster page, and a new entry will show in the Visitors page.

The desktop reader is connected to the GateKeeper via a USB hub

- The GateKeeper is NOT designed to support USB hubs. Please disconnect the hub, and connect the desktop reader directly to one of the GateKeeper USB ports.

When a valid tag is swiped over the desktop reader, no popup shows, but a 'new card' entry shows in the Visitors page when reloaded

- User login preferences are preventing the popup from showing:
  - Check user Account Details, *"Pop-up enabled when logged in"* should be ticked.

The desktop reader is connected to the GateKeeper, the reader LED is lit up, the reader beeps, but nothing else happens when a valid tag is swiped

- The reader is plugged into the *wrong* USB port:
  - Check Settings -> Door Readers -> select the desktop reader in question -> choose the correct USB port (top left, bottom right, etc). Save when done.
  - If it is the only USB *device* connected, then choose 'Auto Detect'
  - Restart the reader software. Settings -> Door Reader -> select the desktop reader in question -> Restart Software button. Allow a minute for restart to complete
- The reader has power, but the GateKeeper is not *functioning* properly:
  - Check GateKeeper Error LED
  - Check GateKeeper Internet LED
  - Check GateKeeper web page status
- The GateKeeper is *incorrectly set up*:
  - Check Settings -> Door Reader -> select the reader in question
  - Check that your GateKeeper is correctly selected from the list of your GateKeepers
  - Contact GymMaster for more information

The desktop reader is connected to the GateKeeper, but the reader LED is not lit up

- The reader has no power:
  - Check that the USB cable from the reader is plugged securely in to both the GateKeeper and the reader unit. Unplug both ends of the cable and carefully plug back in. If the cable is loose, try swapping out the USB cable with another USB cable.
  - If LED lights show when tested in the USB port of a nearby PC, or in a different USB port of the GateKeeper, but not when plugged into the original USB port of the GateKeeper, the GateKeeper USB port may be faulty. Contact GymMaster.
- The GateKeeper has no power:
  - Check GateKeeper Power LED
- The reader is faulty:
  - Contact GymMaster if the first solutions does not work

There is a lengthy delay before any popup shows when swiping the desktop reader

- There is a network issue which is preventing the GateKeeper from communicating with the database
    - [Check the GateKeeper Database LED is lit](#)
    - [Check GateKeeper network port LEDS are lit up](#)
    - Check with your local IT services provider for any firewall or proxy in the router, or similar, which is hindering communications.
    - Contact GymMaster if the first solutions do not work

GateKeeper troubleshooting

The GateKeeper access control unit needs to be powered and connected to the Internet to work correctly. A power connection is supplied, and connects via wall power socket to the rear of the GateKeeper. A network cable is required to connect the GateKeeper to the Internet router/modem (cable not supplied). Door reader cables are connected to the Reader 1 and Reader 2 sockets at the rear of the GateKeeper. Desktop readers are connected by USB cable to one of the USB ports at the front of the GateKeeper.

The GateKeeper checks that there is a connection to the database approximately every 10 minutes, and checks that there is a connection to the Internet approximately every 2 minutes.

For a description of the GateKeeper panels, refer to 'GateKeeper Wiring Installation' instructions

GateKeeper Error LED is lit up

The Error light will be lit up if *any* error is discovered.
- The GateKeeper is expecting a *door* reader to be plugged in, but one is missing:
  - For each door reader, check that there is a reader plugged into each socket at the rear of the device

- If you have only one door reader, ensure that the Settings -> Door Readers page does not erroneously have two door readers listed associated with the GateKeeper
- The GateKeeper is expecting a *desktop* reader to be plugged in, but one is missing
  - Check that there is a desktop reader plugged into the USB socket at the front of the GateKeeper
  - If you do not have a desktop reader, or it is not connected to the GateKeeper, ensure that the Settings -> Door Readers page does not erroneously have a desktop reader listed as associated with that GateKeeper.
- The GateKeeper cannot communicate with the online database
  - [Check GateKeeper Database LED](#)
- Some other issue
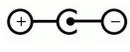 - Contact GymMaster

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GateKeeper Internet LED is not lit up

The GateKeeper will indicate normal Internet connection with a **green** LED.
- A cable issue is preventing the GateKeeper from connecting to the Internet:
  - Check that the network cables and router/switch are plugged in and powered.
  - Swap out the network cables with new or known-good ones.
  - Switch the cable to another network port on the router. In normal operation, the two LEDs around the network ports of the GateKeeper and router should be lit.
- A router issue is preventing the GateKeeper from connecting to the Internet:
  - Reboot your Internet router or modem. Verify Internet connectivity by refreshing a web page. If you cannot refresh a web page, there is some issue beyond GymMaster control. Contact your IT service provider.
- A network firewall or similar is preventing the GateKeeper from connecting to the Internet:
  - Check with your IT services provider. **The GateKeeper will need outgoing access for Ping, and ports 22, 80 and 443.** Test by temporarily switching off any firewalls in the network. If GateKeeper functionality is restored, then the problem is with a firewall within one of the devices in the network.

GateKeeper Power LED is not lit up

- The GateKeeper power supply is not functioning:
  - Check whether the power plug is switched on at the wall
  - Disconnect, then reconnect the power supply from the socket on the GateKeeper

- The plug may have incorrect polarity
  - The polarity of the plug can be changed by removing the tip and rotating it 180 degrees about its long axis. The arrow should indicate this symbol: ⊕─⊂─⊖
  - Check the power cable from the power supply to the GateKeeper unit. Swap out or change cables if possible
- A device on the card reader power cable is consuming too much power:
  - Ensure that the GateKeeper is supplying power **ONLY** to the card reader
- The GateKeeper is faulty:
  - [Check GateKeeper Error LED](#)
  - Contact GymMaster if none of the above solutions work

GateKeeper network port LEDS are not lit up

- The GateKeeper has no power:
  - [Check GateKeeper Power LED](#)
- The GateKeeper network *port* has some issue:
  - Check the network cable is plugged into the GateKeeper.
  - The network port has a green/amber LED at the top left corner, and an amber LED at the top right corner. The left LED shows whether the cable is correctly inserted. The right LED shows network activity. We would normally expect to see a solid left LED and a flickering right LED.
  - Reboot the Internet Router.
  - If no change, check with your IT services provider
- The GateKeeper network *cable* has some issue:
  - Check both ends of the network cable. Unplug the cable ends and plug back in.
  - Swap out the network cable with a different one, and plug directly from GateKeeper into the Internet Router, bypassing any network switches.

GateKeeper 'Ser1' Or 'Ser2' LEDs are not lit up

When a door reader is plugged into a socket at the back of the GateKeeper, the Ser1 or Ser2 LEDs will normally flicker. This indicates communications between the GateKeeper and the door readers. If you have only one door reader, then only one will show activity.

- Ser1 or Ser2 LEDs are not flickering:
  - [Check GateKeeper 'Reader 1' or 'Reader 2' LEDs](#)

GateKeeper 'Reader 1' or 'Reader 2' LEDs are not lit up

When a door reader is plugged into a socket at the back of the GateKeeper, the Reader 1 or Reader 2 LEDs should be lit up.

- The GateKeeper is unable to communicate with the reader:
  - Usually be due to Incorrect wiring. Recheck wiring according to the 'GateKeeper Wiring Installation'
  - The wires have become loose. Check the wires at the connector screws. Re-seat if needed.
- A faulty or damaged cable:
  - Swap out cables where possible with good cables
- A faulty reader:
  - Contact GymMaster if the first solutions do not work

GateKeeper Database LED is not lit up

- The GateKeeper is not able to communicate with the database. Indicates that the server which hosts your database been not contactable for more than five minutes.
  - Check GateKeeper Internet LED
  - If the database is hosted within your facility, it is not contactable. Check with your local IT services provider.
  - Contact GymMaster for further information

GateKeeper Relay LED is not lit up

This does not usually indicate a problem.

- The relay LED lights up **ONLY** when the relay is active. The relay is active when a valid tag is swiped, and the system sends the signal to open the door.
- The relay LED will stay lit up if a door is set to Unlocked

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Door reader troubleshooting

A normally-working and powered door reader has a green LED, and will briefly change LED color when a valid tag is swiped across it, a pop-up will show on the GymMaster page, and a new entry will show in the Visitors page.

The default LED color is green, and indicates the door reader is receiving power from the GateKeeper, and that the card reader software is active. (Older door readers may have a separate power supply which also connects to a relay board).

Door reader LED is not lit up

The door reader LED should **light up** immediately upon connection to the GateKeeper.
- Power to the reader is out:
  - Check the reader is plugged into the correct Reader 1 or Reader 2 socket at the back of the GateKeeper.
  - Check GateKeeper Power LED
  - Check the wall power plug (only applies to older version)
- Loose wiring:
  - The wires have become loose. Check the wires at the connector screws. Re-seat if needed.
  - Recheck wiring according to the 'GateKeeper Wiring Installation'
- The door reader is faulty:

- ○ Contact GymMaster if the first solutions do not work

Door reader LED is dim or weak

- The door reader has insufficient power:
  - ○ Incorrectly wired or has some device on the same power line. The door locks are probably drawing the power away. Recheck wiring according to the 'GateKeeper Wiring Installation' Note: Door lock MUST have its own separate power supply. Do NOT use the GateKeeper or the GateKeeper power supply to power any mag locks or door strike
  - ○ The wires have become loose. Check the wires at the connector screws. Re-seat if needed.

Door reader LED is always red

- The card reading software is not active:
  - ○ Settings -> Door Reader -> select the door reader in question -> Restart Software button. Allow a minute for restart to complete.
- The reader is a older-style network reader and has lost its network settings:
  - ○ Power cycle the reader at the wall electric socket
  - ○ Recheck wiring, especially that all the the diodes are installed according to the 'GateKeeper Wiring Installation'
  - ○ Contact GymMaster to reset the reader if further issues
- Misconfigured database door settings:
  - ○ Check Settings -> Door Readers. Contact GymMaster if not sure
- The reader is not connected to the GateKeeper:
  - ○ Recheck connection and sockets according to the 'GateKeeper Wiring Installation'
- Incorrect wiring:
  - ○ Recheck wiring according to the 'GateKeeper Wiring Installation'

Keytag swipe does not show a member name or shows not assigned

- The tag has not been activated or assigned to a member:
  - ○ Assign the tag to a member via the member details page, save, then swipe again to verify
  - ○ Contact GymMaster if this solution does not work

Door reader LED does not change color when swiped

When a valid tag is swiped over the reader, the LED should briefly change color.

- The door reader has been disconnected from the GateKeeper:
    - Check the plugs are securely inserted into the sockets on the GateKeeper
    - Restart the software Settings -> Door Reader -> select the door reader in question -> Restart Software button
- Faulty tag:
    - Try another tag. If second tag works, but first does not, contact GymMaster
- Faulty cable:
    - Swap out cables where possible with good cables
- Faulty reader:
    - If none of the above work, contact GymMaster.

Door lock is not locking

After a valid tag has been swiped, the door does not return to 'locked', or remains released.

- Door is incorrectly set to **Unlocked** (door open):
    - Lock the door via **Visitors** -> **Access Control.** Select the door and set to **Active** (tag required) or **Locked** (no access for members). Click Apply.
- Incorrect wiring to door lock or relay:
    - Recheck wiring according to the 'GateKeeper Wiring Installation'
- Faulty lock:
    - Check with vendor of lock
- Possible faulty relay:
    - Recheck wiring, especially that all the the diodes are installed according to the 'GateKeeper Wiring Installation'
    - If none of the above work, the relay may be faulty. Contact GymMaster. Components inside the GateKeeper are not user-serviceable.

Door lock is not releasing when swiped

The lock should release when a valid tag is swiped at the access control unit.

- The tag is associated with a membership which has incorrect benefits and access rights:
    - Check the membership benefit door access rights and times via **Settings** -> **Membership Types**
- Member access rights do not allow entry:

- - Check **Member page** -> **Visit History**. This displays reasons for access denied, i.e. no benefit on membership type, outside of rostered hours, etc. Adjust the membership benefits to allow for access.
- Door is incorrectly set to **Locked** (no access for members):
  - Unlock the door via **Visitors** -> **Access Control**
  - Select the door and set to **Active** (tag required) or **Unlock** (door open). Click **Apply**.
- Incorrect wiring to door lock:
  - Recheck wiring according to the ‘GateKeeper Wiring Installation’
- Possible faulty relay:
  - If none of the above work, the relay may be faulty. Contact GymMaster. Components inside the GateKeeper are not user-serviceable.

Door reader has a lengthy delay before any beep or response

- Misconfigured settings:
  - Open the **Visitors** page, select the green **Open** button beside the door. The GateKeeper **‘Relay’ LED** should briefly light up immediately, indicating that the relay has been activated, and at the same time a **clicking sound** should be heard from inside the GateKeeper. If you can hear the relay ‘clicking’, then the GateKeeper is working, but the settings are likely wrong. Contact GymMaster.
- Door reader settings expect a second reader, but none is connected:
  - Check **Settings -> Door Readers**. Check the ‘Reader Type’ and ‘GateKeeper Socket’ settings for each door or reader listed. If a reader unit is NOT connected to any GateKeeper, then settings must reflect that. Contact GymMaster if not sure
- Faulty wiring:
  - Recheck wiring according to the ‘GateKeeper Wiring Installation’
- Possible faulty relay:
  - If none of the above work, the relay may be faulty. Swipe a valid keytag at the reader, you should hear a faint, but audible, ‘click’ as the relay engages. Contact GymMaster if no ‘click’ is heard. Components inside the GateKeeper are not user-serviceable.

Popup has a delay before showing on screen, but door unlocks immediately

- Internet upload speed is slow:
  - Check that no other system in the facility is using up your Internet capacity, in particular, music streaming services.

○ Check with your local IT services provider

Door lock has a delay before opening

- Misconfigured wiring:
  - Open the **Visitors** page, select the green **Open** button beside the door name. The GateKeeper **'Relay' LED** should briefly light up immediately, indicating that the relay has been activated. Refer to the '***Relay Wiring to Magnet Lock***' section of the ['GateKeeper Wiring Installation'](#)
- Faulty door lock:
  - Try shorting the relay contacts (i.e. COM and NO, or COM and NC). A working lock will open the door. Refer to the '***Relay Wiring to Magnet Lock***' section of the ['GateKeeper Wiring Installation'](#) for help doing this. Refer to vendor or system installer if the lock is faulty.
- Door lock has a timer:
  - Refer to lock vendor or system installer for adjusting the lock-open delay.
- Possible faulty relay:
  - If none of the above work, the relay may be faulty. Contact GymMaster. Components inside the GateKeeper are not user-serviceable.

Note on reader power supply

The input power supply **MUST** provide 12V DC. It is recommended that an uninterruptible power supply (UPS) with line-smoothing is used to ensure constant supply.

Door lock MUST have its own separate power supply. Do NOT use the GateKeeper or the GateKeeper power supply to power any mag locks or door strike

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Note on network readers

There are two types of door readers: serial and network. If you are experiencing repeated issues with network readers, the long-term solution is to consider switching to the more reliable serial readers. Contact GymMaster to discuss this.

GateKeeper-Mini troubleshooting

The GateKeeper Mini (GK-Mini) is a stand-alone mini-computer, similar to the GateKeeper, but designed to handle desktop readers, receipt printers, and other functions. It is not designed to control magnetic locks on doors.

A normally-working and powered GK-Mini always has a network connection, and has network LEDs which are lit up. Network cable is NOT supplied, and must be sourced locally.

1. **USB Micro power slot**
    ○ Standard USB type Micro-B power cable; supplied by GymMaster
2. **HDMI monitor output** (not used)
3. **Headphone output** (not used)
4. **Network port LED**
    ○ Indicates cable connection. Will show a solid amber LED when connected
5. **Network port LED**
    ○ Indicates network activity. Will flicker green when there is network activity
6. **USB ports**
    ○ Standard USB type A sockets for desktop readers, receipt printer, etc

The receipt printer is plugged into the GK-mini, but doesn't print POS receipts

- The receipt printer has no power:
  - Check the printer is switched on at wall and at power button
- The receipt printer has no paper:
  - Check that there is a paper roll correctly installed
- Check Settings -> Advanced Configuration -> POS -> Use Receipt Printer tickbox
- Check that the printer is in ESC/POS mode:
  - The printer MUST be able to be put into 'ESC/POS mode'. ESC/POS is a standard variant of the 'Epson Standard Code for Printers', and is used for controlling receipt printers, and commonly used at the point of sale. Please check with the vendor of the printer that it can be put into such a mode.
- Check Station ID top right of POS screen:
  - Only applies if you have more than one printer or GK-Mini. Contact GymMaster for further details.

The desktop reader is plugged into the GK-mini, but doesn't work

- The desktop reader has no power:
  - [Check desktop reader troubleshooting](#)
- The GK-Mini has no power:
  - Check that the USB micro power cable is plugged in and connected to a power source (wall socket)
  - Check the power cable from the power supply to the GK-Mini; swap out or change cables if the cable is suspect
  - A device on the card power cable is consuming too much power; ensure that the power supply and power cable is supplying power **ONLY** to the GK-Mini
- The GK-Mini is not connected to the Internet:
  - [Check network connection troubleshooting](#)

The cash drawer is plugged into the GK-mini, but doesn't open

- Cash drawer is normally connected by RJ11 cable directly into the **receipt printer**, not the GK-Mini:
  - [Check GK-Mini internet connection](#)
  - Connect RJ11 to receipt printer

- - Retest 'open drawer' function
- Cash drawer has a RJ11 connector, but I have no suitable receipt printer:
  - Connect a USB Cash Drawer Kicker to RJ11. Connect other USB end to the GK-Mini. Retest 'open drawer' function
- Cash drawer has a serial RS232 connector only
  - Connect the RS232 connector to a Serial-to-USB adapter, then connect BOTH USB loose ends to the GK-Mini
  - Contact GymMaster to configure the GK-Mini

Web page troubleshooting

GateKeeper web-page status shows as offline

The GateKeeper will report the door status and its own status to the database server on a frequent basis. If the system detects that the GateKeeper is not reporting its status for more than 5 minutes, it will show the GateKeeper as offline in the web pages.

- The GateKeeper **Internet** LED is NOT lit up:
    - [Check GateKeeper Internet LED](#)
- The GateKeeper **Internet** LED IS lit up:
    - The GateKeeper is **currently** able to connect to the Internet, but the earlier messages about being offline may indicate that *your Internet connection* is intermittent, or faulty in some respect. Swipe the key tag again on the reader.
    - The reader should beep, and a popup should show on your screen. If so, there is no current problem, and no further action needed at this stage. The system status will update and show the correct status in a few minutes time
    - If no beep or popup, try rebooting your Internet router or modem. Verify Internet connectivity by refreshing a web page. If you cannot refresh a web page, there is some issue beyond GymMaster control. Contact your IT service provider.
- The GateKeeper **Internet** LED IS lit up, but the **Database** LED is NOT lit up:
    - [Check the Database LED](#)

Visitors page shows error messages at the top of the screen

- The GateKeeper for door (x) has a status of offline
    - [Check GateKeeper Error LED](#)
- The GateKeeper for door (x) has a status of can't detect reader
    - [Check GateKeeper Reader socket LED](#)
- The GateKeeper for door (x) has a status of (Failed to open serial port /dev/ttyUSBX)
    - The desktop reader is **plugged into the wrong USB port** on the GateKeeper. Plug into the port which is specified on Settings -> Door Readers -> desktop reader -> GateKeeper Configuration -> COM Port. Restart the software via the 'Restart Software' button. Reader should beep, and when a tag is swiped, a pop-up should show on-screen. Contact GymMaster if this does not work.
- Door X is currently Locked
    - This is a *warning message only* that the door will not respond to any tag swipe. Change the door lock status to 'Active' if you want staff and members to be able to open it.

- Door X is currently Unlocked
  - This is a *warning message only* that the door is not locked, and anyone can come through. Change the door lock status to 'Active' if you want to enforce tag swipes to open the lock.

GateKeeper web-page status shows 'No GateKeeper'

- The door reader settings are misconfigured
  - Check Settings -> Door Readers. For each door reader, check that it is correctly linked to the correct GateKeeper in the 'Gatekeeper Configuration' section of the page (you may have more than one GateKeeper)
- This is not necessarily an error.
  - Hardware purchased prior to 2017 will likely be using an earlier version of the software which does not show the GateKeeper in this section of the interface
  - If you use Barcode readers, or have any sort of customisation, then your GateKeeper will also not show in this section of the interface
- Contact GymMaster for further information