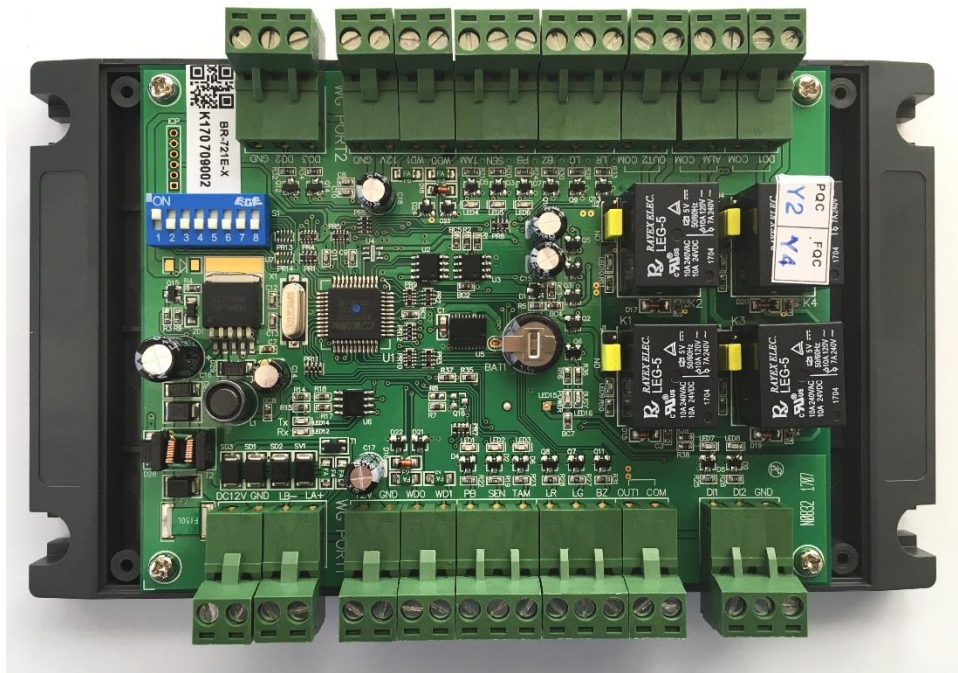


721EX Access Controller Installation



721EX Controller

Standalone Controller Specifications

Max Card Capacity: 3000

What is included in the box

- B-Id 721EX controller board
- RS485/Serial converter
- USB/Serial adapter
- 4-conductor wire
- 2-conductor wire
- Crimp connectors
- Wiring terminal block
- Thermistor (relay protection)

Tools that you will need

- Wire cutters/strippers (for 24-gauge wire)
- Small flat-head screwdriver (2mm)
- Pliers (for crimping wire connections)
- Voltmeter (optional)



Controller Power Supply
with female pigtail connector



RS485/RS232 Adapter
with 4-terminal strip



Terminal Block



Serial/Wiegand Adapter
(for barcode readers only)



Crimp Connectors



Thermistor

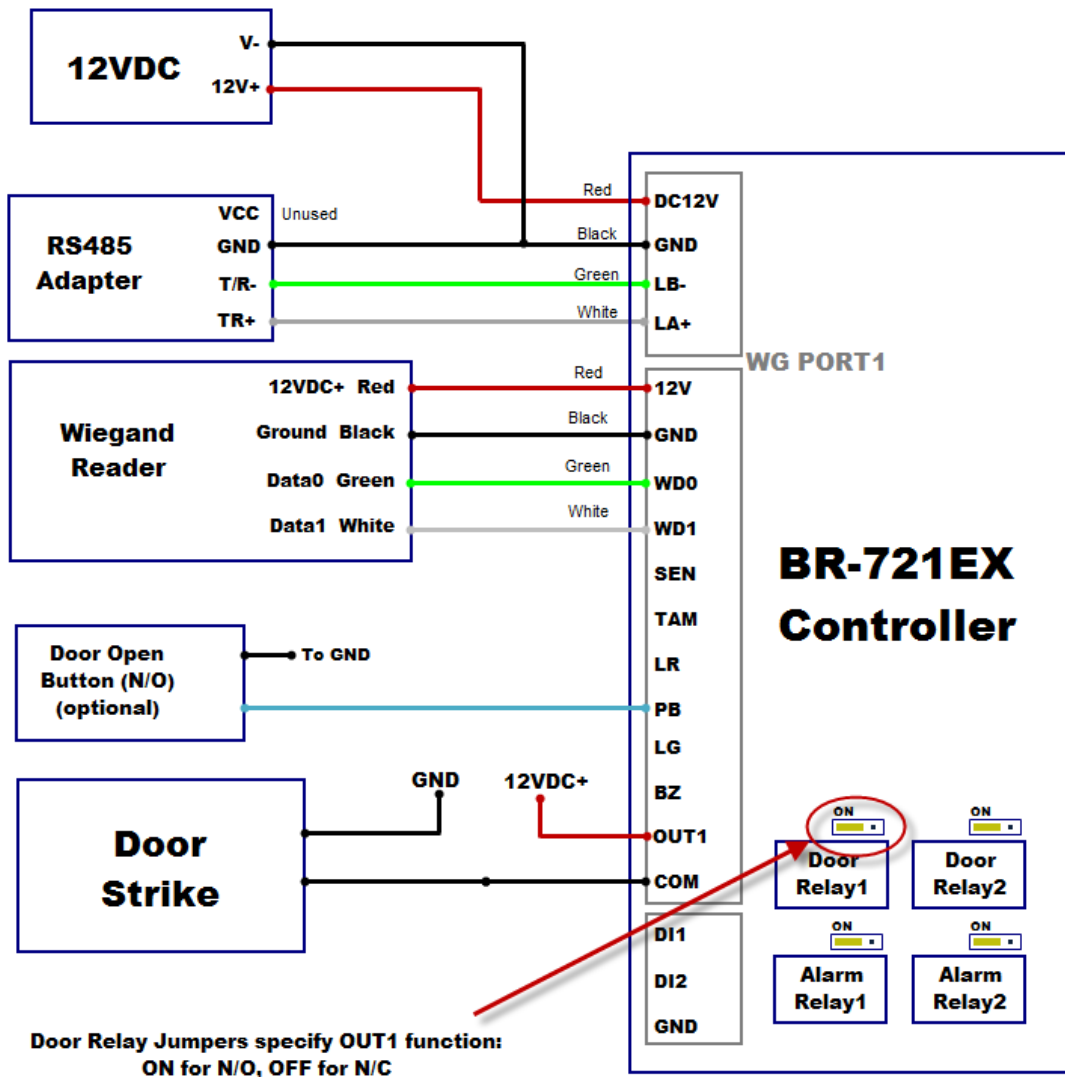


Proximity Reader
(Wiegand Interface)



Door Strike

BR-721EX Access Controller Wiring Schematic



Installation Notes

- Use crimp connectors when connecting wires together.
- When connecting wires to the controller board terminals, be sure to loosen the terminal screw (counter-clockwise) completely before inserting the wire. This lowers the metal piece that will clamp onto the wire. Then tighten the screw to raise up the metal clamp against the wire. Note that the wire will be inserted above the clamp, not below.

Install Gym Assistant Version 2.5

The standalone controller requires Gym Assistant v2.5 or newer. You can download v2.5 at:

<http://www.gymassistant.com/download/2.5.0>

Note that you must exit Gym Assistant and GateKeeper before installing the new version.

You should also install ProShop v2.5 if you have purchased a ProShop license.

Connect Power to the Controller

Connect 12VDC power to DC12V and GND terminals on the controller.

Power	Controller
Ground (-)	GND
12VDC (+)	DC12V

When you turn on power to the controller, the green LED (labeled “Power”) should light up.

Connect the Controller to your Computer

The RS232/RS485 Adapter consists of two pieces: the converter itself (with 9-pin male and female ends) and a terminal strip with four connections. You can disconnect the terminal strip from the convert for convenience while attaching wires to the terminal strip.



Connect Adapter terminals to Controller (with 4-conductor wire):

Wire Color	RS485 Adapter	Controller Terminal
Black	GND	GND
Green	T/R-	LB-
White	T/R+	LA+
	+5V	

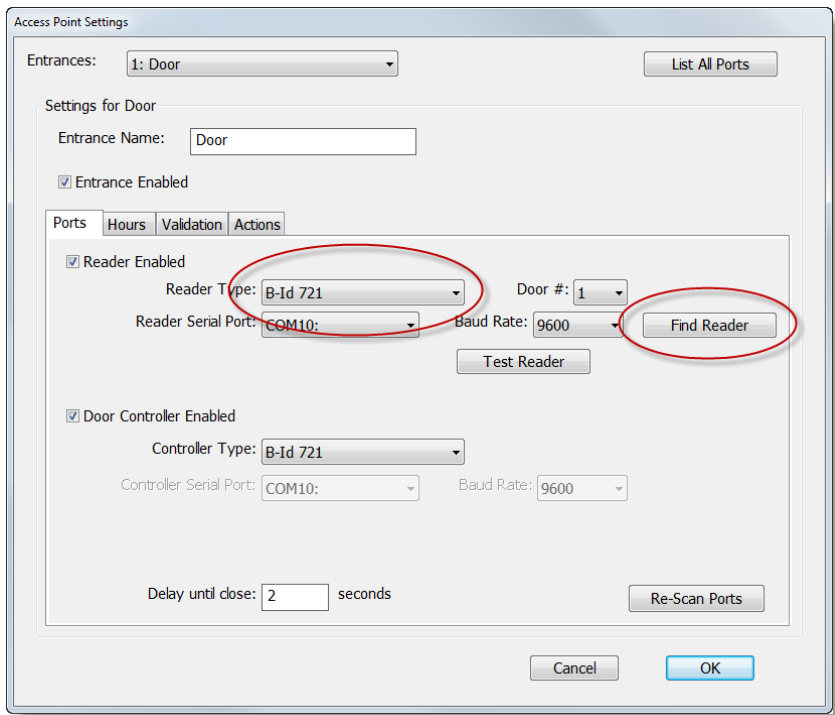
Connect the female end of the RS485 Converter (labeled “RS232” on the side opposite the DTEch logo) to any serial port on your computer.

Test Computer/Controller Connection

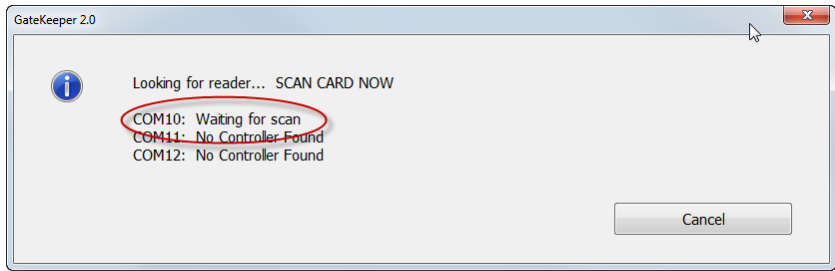
In GateKeeper select **Access Points / Ports** from the **Settings** menu.

Check both the **Reader Enabled** and **Door Controller Enabled** boxes.

In the Ports tab set the **Reader Type** to **B-Id 721**.



Click the **Find Reader** button.



If the controller is connected, then the controller serial port will show “Waiting for scan”. If no ports show “Waiting for scan”, then there is an issue with the wiring.

Note which COM port shows “Waiting for scan”, then click Cancel.

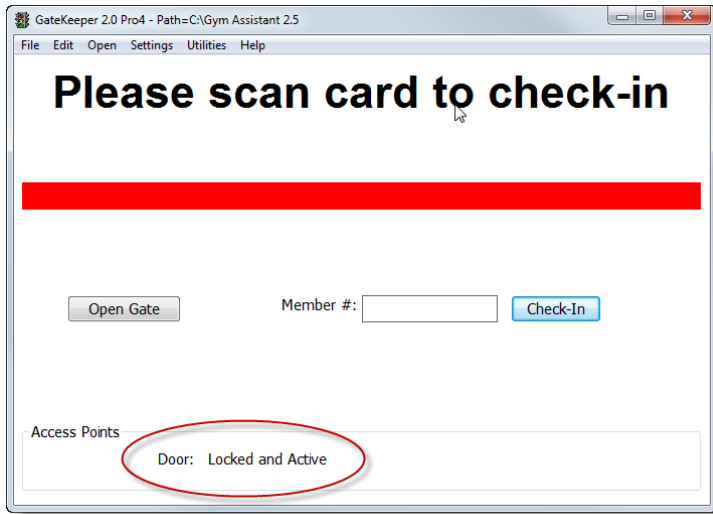
Set the **Reader Serial Port** to the COM port on which the controller was found.

Note that the **Controller Serial Port** will automatically mirror the reader port setting.

Click **OK** to close the **Access Point Settings** window.

The red Tx and green Rx LEDs on the controller should now be blinking rapidly.

Also, the door status should now show “Locked and Active.”



Click the Open Gate button. You should hear the controller relay click, and door relay green LED should light up. After 5-10 seconds the relay should click again and the green LED should turn off.

Connect Door Strike (Normally-Open Circuit)

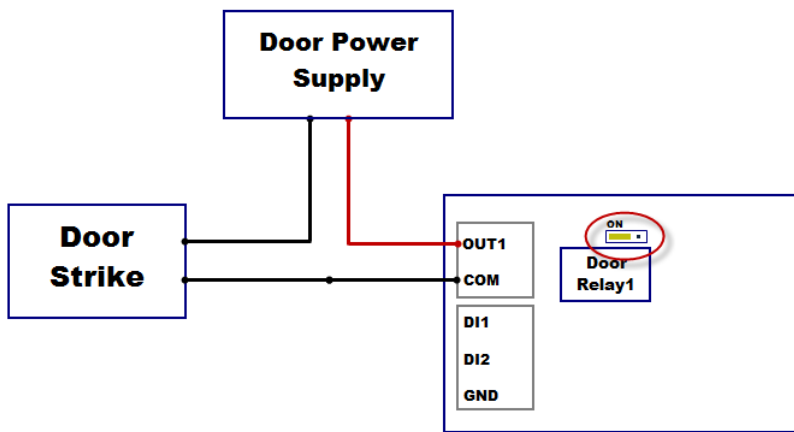
Note that the controller does not supply power to the door lock. The controller provides a dry-contact relay that opens and closes a circuit. You should have a separate power supply for the lock and test the lock connected directly to the lock to ensure that the lock/power circuit is correct.

First test the wiring for the door lock.

Confirm that the door strike is unlocked by trying to move the strike with your fingers. It should not move.

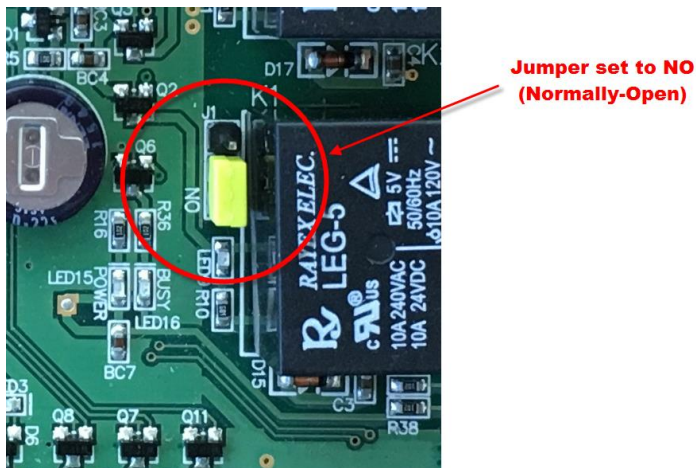
Connect the lock power supply direct to the door strike, and the door strike should unlock. Again, confirm by trying to move the strike with your fingers. The strike should open easily as long as power is applied.

Now connect the door power supply to the lock and controller:



- Connect the lock power supply positive (red) to the controller OUT1 terminal.
- Connect one wire from the lock to the controller COM terminal.
- Connect one wire from the lock to the lock power supply negative (black).

Confirm that the Door Relay jumper is set to **NO** (Normally-Open) position.



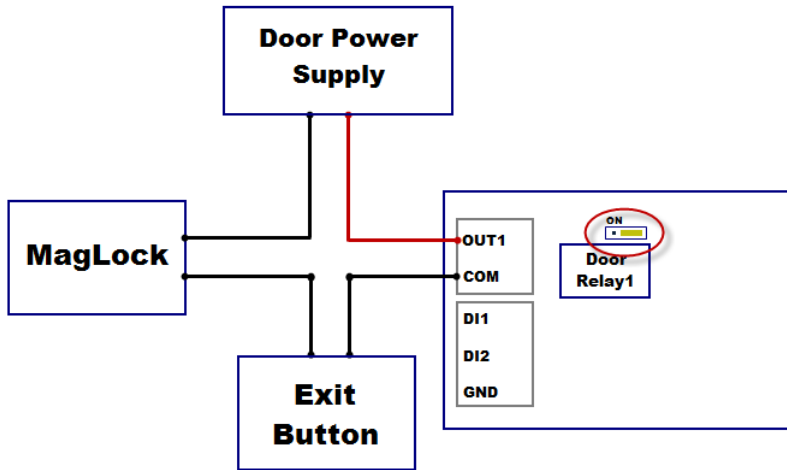
Confirm that door is normally locked, and it unlocks when you click the **Open Gate** button.

Connect MagLock (Normally-Closed Circuit)

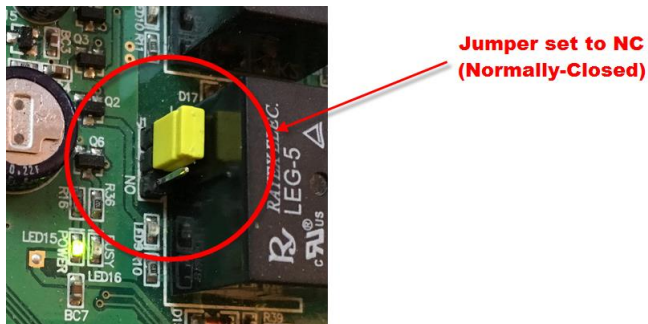
Before connecting the maglock to the controller confirm that the maglock and the maglock exit functions are working correctly. The maglock should allow exit completely independent of the Gym Assistant controller.

You should have two wires from the maglock circuit that will lock/unlock the door. When the two wires are touching the door is locked, and when the two wires are separated the door unlocks.

Now connect these two wires to the **OUT1** and **COM** terminals on the controller.



Confirm that the Door Relay jumper is set to **NC** (Normally-Closed) position, with the **NO** jumper pin exposed as in the picture below.



Confirm that door is normally locked, and it unlocks when you click the **Open Gate** button.