

myRoom Prime - Welcome Scene Activation After Power Cycles

The myRoom Prime system allows guests to enter the room after an absence and automatically receive the appropriate temperature setpoint expected for comfort and illumination without the need to search for a keycard. This scene, which typically sets lights in the room to pre-defined settings and brings the temperature control into comfort mode, is known as the Welcome Scene. This application note will describe how to reliably achieve this Welcome Scene when a myRoom Prime system is installed in a building that experiences frequent rolling brownouts/blackouts, power outages, load shedding, or other occurrences that involves de-energizing line voltage to the room when the guest is not present.

Current myRoom Prime Behavior After Power Cycles

When power cycles, the myRoom Prime system restarts and assumes the room is in the occupied state. This prevents temperature drifts from being applied, or from an occupancy/door event turning the lighting on – just in case power was temporarily lost in the hotel during evening hours when the guest is asleep.

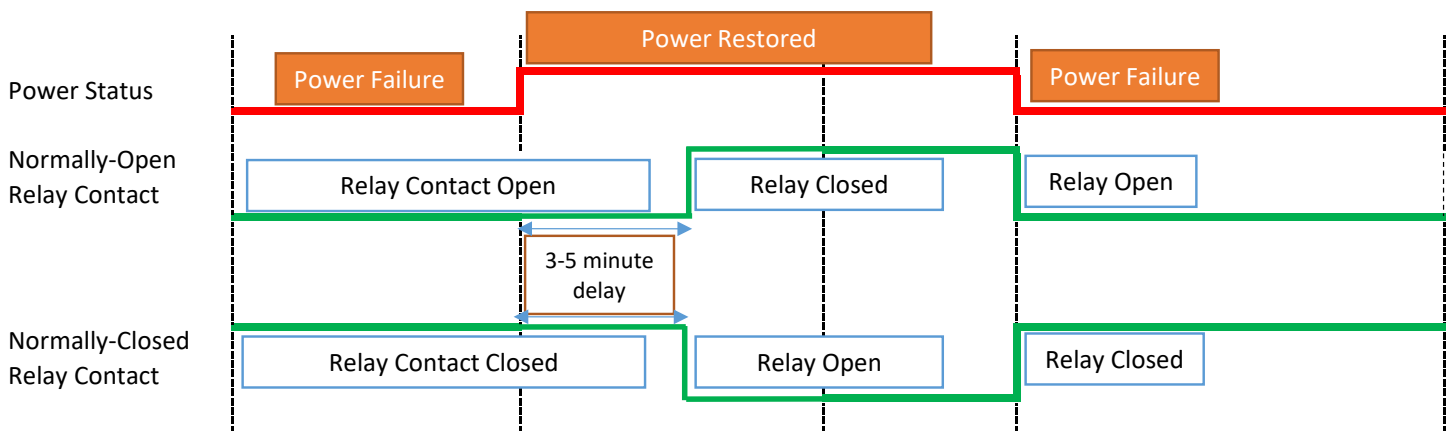
Due to the system’s conservative assumption that the room is occupied after a power cycle, a guest will not experience the Welcome Scene after opening the door.

Recommended Solution

This recommended solution will check for occupancy after a power cycle, rather than immediately assuming the room is occupied.

Required Equipment

- myRoom Prime system including MQSE-4S1-D module
- Delay-on-Make contact relay (GEYA GRT8-M1W240 or equivalent timer relay) with the following properties:
 - Coil rated for 24 V==
 - Relay rated for dry contact
 - Normally-open contact relay for normally-open door sensor applications (ICM105 Delay-on-Make timer relay is also compatible).
 - Normally-closed contact relay for normally-closed door sensor applications
 - For the GEYA relay mentioned above, set function setting to “A: On Delay”
 - Set time setting between 3 and 5 minutes to allow for system to complete power-up
 - Relay timing example:

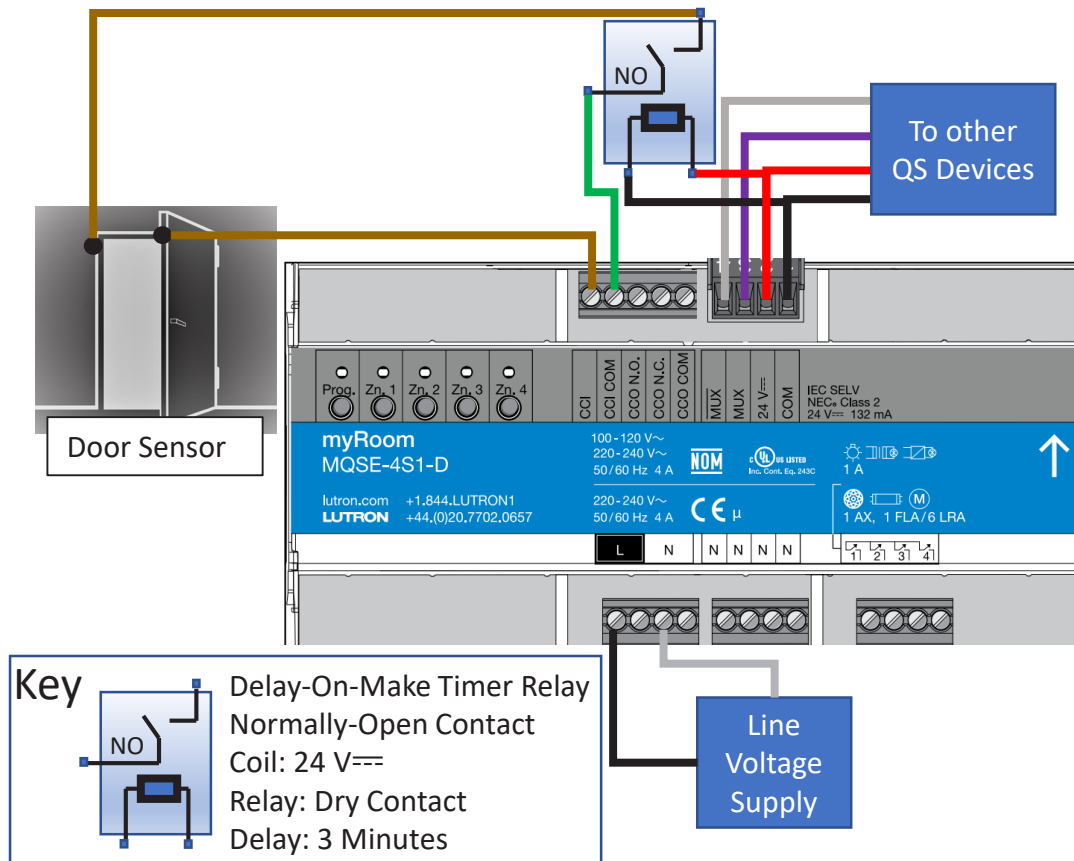


Wiring

The wiring diagrams below show how to properly connect the GRT8-M relay to the myRoom Prime system – typically in series with the normally-open magnetic door contact that is connected to the MQSE-4S1-D’s Contact Closure Input (CCI). Both the normally-open and normally-closed door sensor applications are shown below.

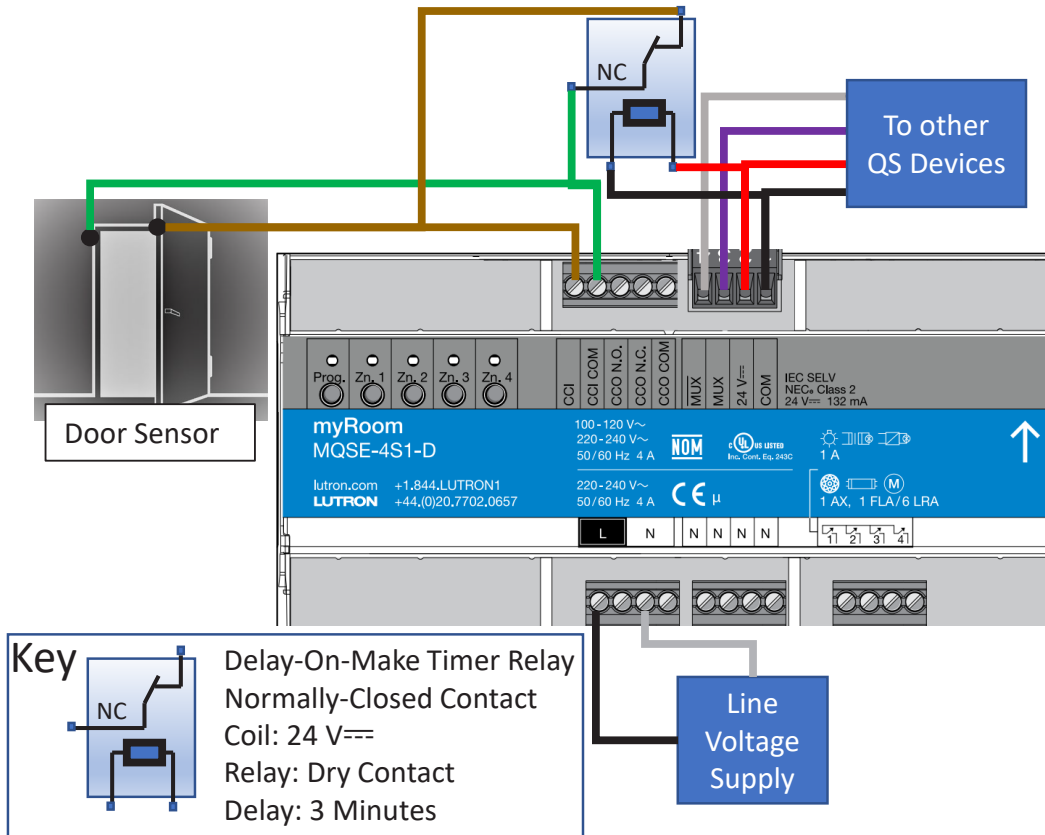
Note: The delay timer will consume 1 of the 4 PDUs supplied from the MQSE module. For more information about PDUs, see “Power Draw Units on the QS Link” (P/N 369405) at www.lutron.com

Figure A: Normally-open door sensor (contact is open when door is open)



Wiring (continued)

Figure B: Normally-closed door sensor (contact is closed when door is open)



Sequence of Operations

Using this solution in the guestroom would provide the following sequence of operation, assuming the Guest Presence Detection (GPD) timeout is programmed for 30 minutes:

Normal Operation (Power Remains Constant):

1. Guest enters the room. Lights in the room turn on to the Welcome Scene, and temperature switches to comfort mode.
2. Guest occupies various portions of the room throughout their stay in the room, and changes the desired temperature setpoint. Lights and temperature remain at the settings set by the guest.
3. Guest turns lights off in the room and sleeps overnight. Lights remain off, temperature remains at the guest preferred setpoint with no energy savings drift for maximal comfort.
4. Guest leaves the room.
5. Lights turn off and temperature drifts 30 minutes after the door closes.

Power Cycles when Guest is not in Room:

1. Guest enters the room. Lights in the room turn on to the Welcome Scene.
2. Guest occupies various portions of the room throughout their stay in the room, and specifies the desired temperature setpoint. Lights and temperature remain at the settings set by the guest.
3. Guest leaves the room. Lights turn off and temperature drifts 30 minutes after the door closes.
4. Power is cycled to the room due to an outage.
5. Guest enters the room 1 hour after the power is restored to the room. Lights in the room turn on to the Welcome Scene, and temperature switches to comfort mode.

Power Cycles when Guest is in Room:

1. Guest enters the room. Lights in the room turn on to the Welcome Scene, and temperature switches to comfort mode.
2. Guest occupies various portions of the room throughout their stay in the room, and specifies the desired temperature setpoint. Lights and temperature remain at the settings set by the guest.
3. Guest turns lights off in the room and sleeps overnight. Lights remain off, temperature remains at the guest preferred setpoint with no energy savings drift for maximal comfort.
4. Power is cycled to the room due to an outage. Lights in the room remain at the current settings.
5. Guest remains still for the duration of the Guest Presence Detection (GPD) timeout (30 minutes).
 - a. System believes the room is unoccupied and drifts the temperature setpoint.
6. Guest moves after this timeout expires.
 - a. Temperature setpoint switches to comfort mode

Conclusion

This solution is effective to apply in properties where frequent power cycles are an expectation, and higher value is placed on achieving the Welcome Scene for the guest every time they enter the room.

A caveat to the solution includes the potential case of a temperature setback if power cycles and the guest remains still for the duration of the GPD timeout.

If you have further questions regarding this solution, please contact the Lutron System Sales Engineering team.

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