How to use the Time Clock input on the Room Controller

Overview

The Room Controller and Room Controller Network provides an onboard time clock input, that can be used to control lighting normally via time clock or implement Partial On/ Partial Off controls. The Room Controller will provide inputs for an external dry contact closure. (Integration connections are not available on all models.)

Connect the dry contact closure to the appropriate terminal for the application. The terminal block is remov¬able for ease of wiring. Use 18 AWG, 2 conductor twisted pair wiring for connection.

Maximum distance must not exceed 1000 ft. (300m).

Time clock commands can be sent to the Room Controller via dry contact input or via the network broadcast command on a Room Controller Network system.

Network broadcast commands for time clock input is "RGTC", this command can be broadcast to all Room Controller Network panels when a time clock dry contact input is closed and broadcast on the network. The "RGTC" command can also be sent from a ControlKeeper lighting control panel to all Room Controller Network panels when triggered by a local time clock input.

The table below outlines the Room Controller functionality when a time clock input dry contact closure occurs or a network broadcast command is received in conjunction with occupancy status.

Network Broadcast	Dry Contact	Occupied	Unoccupied	No Occupancy Sensor
RGTC OFF	Time Clock Open	DIP #3 & #4 ON Lighting = Scene 6 DIP #3 ON, #4 OFF Lighting = All ON, Dimmers 50% DIP #3, 4 OFF Lighting = Manual ON Receptacle = ON	Lighting = OFF Receptacle = OFF (30 seconds after OFF	Lighting = Blink warn OFF (5 min) Manual ON for 1hr Receptacle = OFF (30 seconds after blink warn)
RGTC ON	Time Clock Closed	DIP #3 & #4 ON Lighting = Scene 6 DIP #3 ON, #4 OFF Lighting = All ON, Dimmers 50% DIP #3, 4 OFF Lighting = Manual ON Receptacle = ON	Lighting = Scene 5 Receptacle = ON	Lighting = Scene 5 Receptacle = ON
RGTS	Time Sweep	Lighting = No Change Receptacle = ON	Lighting = OFF Receptacle = OFF (30 seconds after OFF)	Lighting = Blink warn OFF (5 min) Receptacle = OFF (30 seconds after blink warn)

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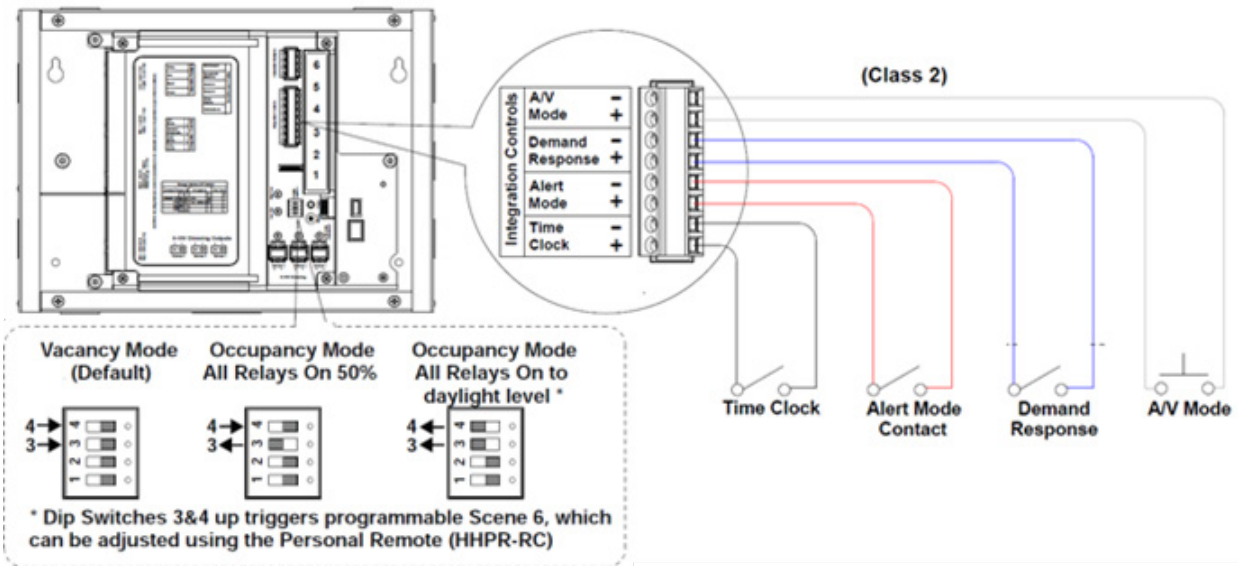
How it wires

Figure 1 below illustrates the Time Clock input as well as the Occupancy Sensor DIP switch selections. A simple time clock closure can be used to command the lighting to ON/OFF/SCENE levels as well as control the receptacles.

An installed occupancy sensor will always take precedence over time clock controls.

Figure 1: Integration Controls and Occupancy DIP switch settings



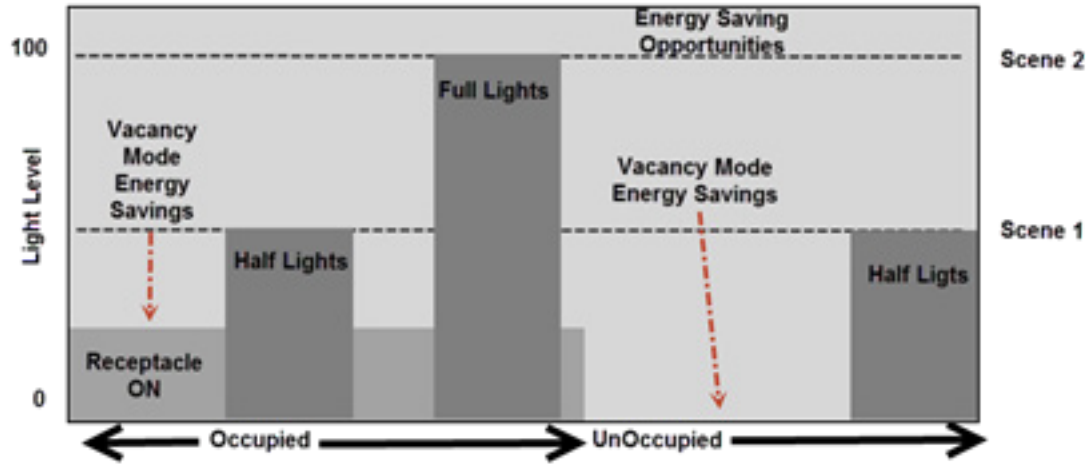
How it works

Normal out of the box functionality the time clock is open, DIP #3, #4 are OFF which means it is in vacancy mode with an Occupancy Sensor connected.

Occupancy Sensor DIP #3 & #4 OFF, Time Clock Open (Figure 2)

- The user enters the space the Receptacle will turn ON however the lighting will not turn ON until a manual button press occurs.
- The user presses a wallstation button, the lighting will go to the appropriate light level.
- When Unoccupied the lighting will turn OFF after occupancy sensor time out. The Receptacle will turn OFF 30 seconds after OFF.

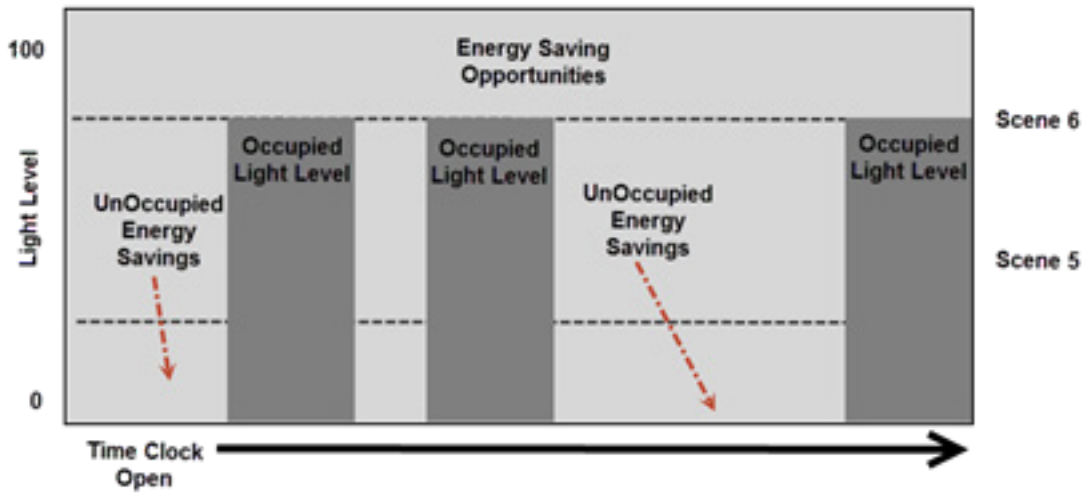
Figure 2: Manual ON/ Automatic OFF



Occupancy Sensor DIP #3 & #4 ON, Time Clock Open (Figure 3)

- The user enters the space the Receptacle will turn ON; lighting will turn ON to Scene 6, which is programmable using the personal remote (HHPR-RC) and daylight sensor (DSFMOIR-RC).
- The user presses a wallstation button, the lighting will go to the appropriate light level.
- When Unoccupied the lighting will turn OFF after occupancy sensor time out. The Receptacle will turn OFF 30 seconds after OFF.

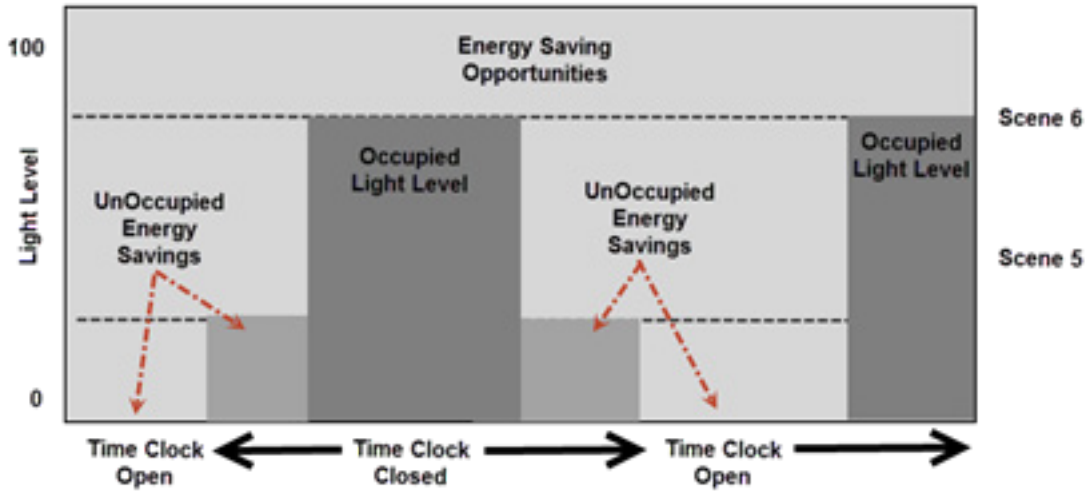
Figure 3: Automatic Scene ON/Automatic OFF



Time Clock Closed with Occupancy Sensor DIP #3 & #4 ON (Figure 4)

- The time clock closes or network broadcast RGTC - ON is received. The Receptacle will turn ON; lighting will turn ON to Scene 5, which is programmable using the personal remote (HHPR-RC).
- The user enters the space the lighting will turn ON to Scene 6, which is programmable using the personal remote (HHPR-RC).
- The user presses a wallstation button, the lighting will go to the appropriate light level.
- When Unoccupied the lighting will go to Scene 5, which is programmable using the personal remote (HHPR-RC).
- The time clock opens or network broadcast RGTC – OFF is received. If unoccupied lighting will turn OFF after occupancy sensor time out. If unoccupied, the Receptacle will turn OFF 30 seconds after occupancy sensor time out. (If occupied there is no change to the lighting or the receptacle)
- The time clock is open and the user enters the space the Receptacle will turn ON; lighting will turn ON to Scene 6, which is programmable using the personal remote (HHPR-RC).
- The user leaves the space, lighting will turn OFF after occupancy sensor time out. The Receptacle will turn OFF 30 seconds after occupancy sensor time out.

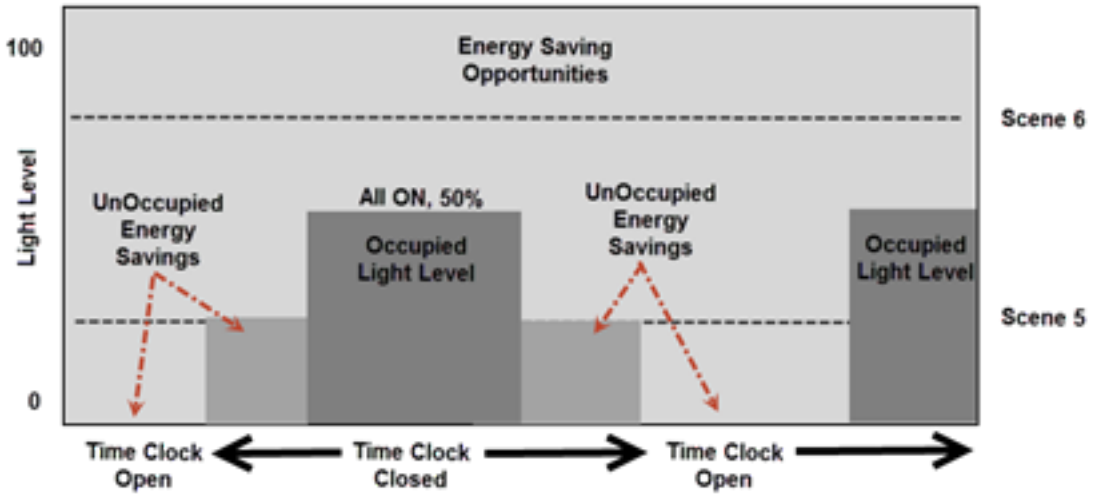
Figure 4: Partial ON/Partial OFF/ Automatic OFF



Time Clock Closed and Occupancy Sensor DIP #3 ON, #4 OFF (Figure 5)

- The time clock closes or network broadcast RGTC - ON is received. The Receptacle will turn ON; lighting will turn ON to Scene 5, which is programmable using the personal remote (HHPR-RC).
- The user enters the space the lighting will turn all relays ON and dimmers to 50%.
- The user presses a wallstation button, the lighting will go to the appropriate light level.
- When Unoccupied the lighting will go to Scene 5, which is programmable using the personal remote (HHPR-RC).
- The time clock opens or network broadcast RGTC – OFF is received. If unoccupied lighting will turn OFF after occupancy sensor time out. If unoccupied the Receptacle will turn OFF 30 seconds after occupancy sensor time out. (If occupied there is no change to the lighting or the receptacle)
- The time clock is open and the user enters the space the Receptacle will turn ON; lighting will turn all relays ON and dimmers to 50%.
- The user leaves the space, lighting will turn OFF after occupancy sensor time out. The Receptacle will turn OFF 30 seconds after occupancy sensor time out.

Figure 5: Partial ON/Partial OFF/Automatic OFF



Send a time clock command from a ControlKeeper to the Room Controller Network

ControlKeeper lighting control panels can be programmed to send a network broadcast command to Room Controller Network panels to simulate time clock open/close functionality.

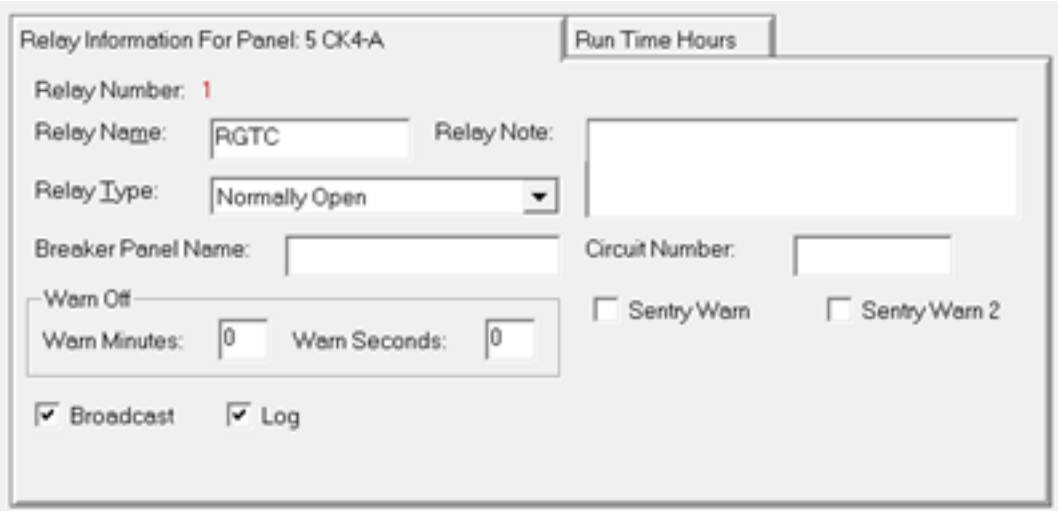
All Room Controller Network panels have a prepopulated network listener command labelled "RGTC". This command will simulate a time clock close/open when a RGTC – ON/OFF is received respectively.

The Room Controller panel will behave per table 1 above when it receives the appropriate RGTC network command.

The Set up:

1. Using Keeper Enterprise V 8.10 or greater, program a relay name to "RGTC" in the sending ControlKeeper panel. (See figure 6)
2. Select the Broadcast check box.
   - Selecting the Broadcast checkbox means this ControlKeeper will send the name "RGTC" and it's ON/OFF state on the lighting control network each time the relay is commanded ON/OFF.

Figure 6: Set Relay Name to RGTC



3. In the ControlKeeper set up a time schedule that you wish to issue the "RGTC" command ON.
   - Select Active, include the time value, command (ON) a priority if necessary and which days of the week this schedule occurs on. (See figure 7)
4. In the ControlKeeper set up a time schedule that you wish to issue the "RGTC" command OFF.
   - Select Active, include the time value, command (OFF) a priority if necessary and which days of the week this schedule occurs on. (See figure 8)
5. Link the two time schedules to control the relay name "RGTC".

Figure 7: Time schedule ON setup

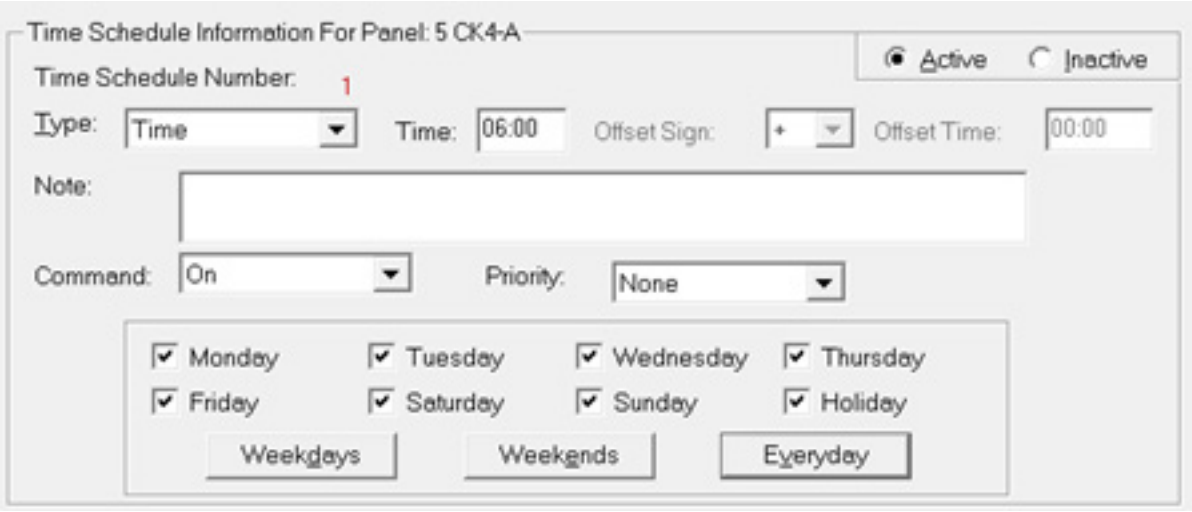
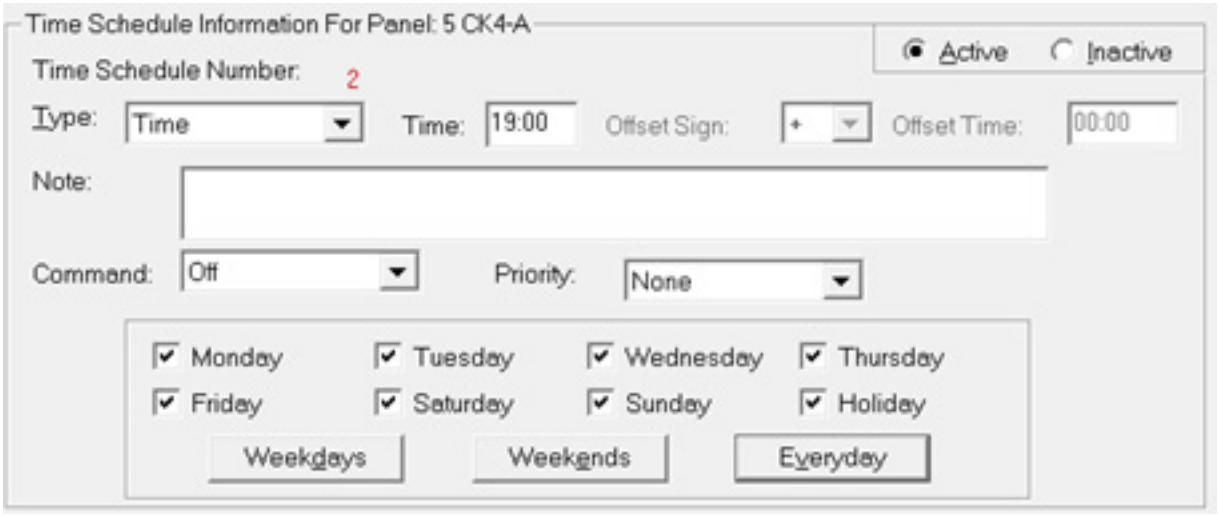


Figure 8: Time Schedule OFF setup



6. Within Keeper Enterprise open the Remotes section of the Room Controller you wish to receive this network time clock command.
7. Ensure the Active check box is selected.
   - If you do not want the "RGTC" command to affect a certain Room Controller uncheck the Active selection in that panel.

Figure 9: Room Controller RGTC setup

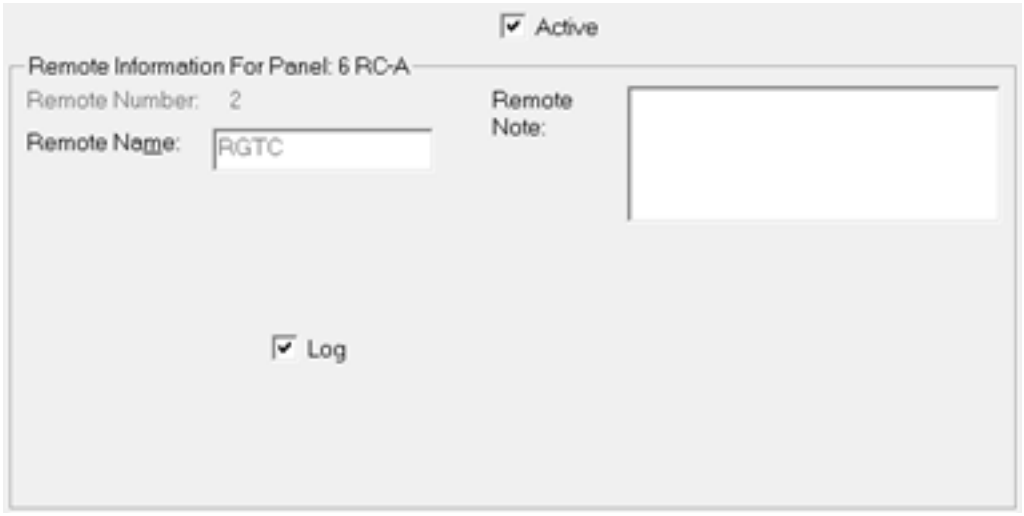


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Table 1 Alternate: Time Clock functionality in a Room Controller

Input	Position	Operation
Time Clock Input With an Occupancy Sensor Connected	Closed	• If occupied with DIP #3 & #4 OFF – Vacancy Mode manual pushbutton required • If occupied with DIP #3 & #4 ON – lighting goes to Scene 6. • If occupied with DIP #3 ON & #4 OFF – lighting goes to all relays ON all dimmers 50% • Receptacle will turn ON • If not occupied lighting goes to Scene 5.
	Pulsed	• If occupied no lighting change • If occupied Receptacle will remain ON • If not occupied lighting will turn OFF • If not occupied Receptacle will turn OFF (Open, Close 1sec, Open 1sec, Close 1sec, Open)
	Open	• If occupied no lighting change • If occupied Receptacle will remain ON • If not occupied lighting will turn OFF • If not occupied Receptacle will turn OFF
Time Clock Input Without an Occupancy Sensor Connected	Closed	• Triggers Scene 5 within the Room Controller • Receptacle will turn ON • Wallstations function with no timer
	Pulsed	• Blink warn and turn lighting OFF • Receptacle will turn OFF (Open, Close 1sec, Open 1sec, Close 1sec, Open)
	Open	• Wallstations function with 1hr timer and blink warn OFF after 5 minutes • Receptacle turns ON with Wallstation button press for 1hr then turn OFF
RGTC Network time clock broadcast command	ON	• Triggers Scene 5 within the Room Controller • Receptacle will turn ON
	OFF	• Receptacle will turn OFF • Lighting will blink warn and turn OFF after 5 minutes
RTGS Network Time Sweep broadcast command	ON	• If occupied no lighting change • If occupied Receptacle will remain ON • If not occupied lighting will blink warn and turn OFF after 5 minutes • If not occupied Receptacle will turn OFF
	OFF	• No Change

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