Application Note

How to use the Room Controller for shade control

Overview

The Room Controller and Room Controller Network provides an onboard control that can be used for simple shade control. Shade control is done by providing a two contacts that can send signals to a shading interface to Open or Close the shade.

The Room Controller product includes this contact automatically in certain models and provides out of the box functionality controlling the shade based on space occupancy. The onboard shade control can also be programmed to Open or Close the shade as part of a scene using the personal remote (HHPR-RC) and daylight sensor or via Keeper Enterprise software.

Connect the dry contact closure to the appropriate terminal for the application. The terminal block is removable for ease of wiring. Use a standard Cat 5 cable that can be ordered with the Room Controller or provided by the installing contractor for connection.

Maximum distance must not exceed 100 ft.

The table below outlines the Room Controller and shade sequence of operations.

TABLE 1: Room Controller and shade default sequence of operations

Occupied	U
DIP #3 & #4 ON Lighting = Scene 6, Shade Open DIP #3 ON, #4 OFF Lighting = All ON, Dimmers 50%, Shade Open DIP #3, 4 OFF Lighting = Manual ON	Lių Re (3 Sł
Receptacle = ON, Shade Open	

UnOccupied Lighting = Blink warn OFF (5 min) Receptacle = OFF (30 seconds after blink warn) Shade Closes



How it wires:

Figure 1 below illustrates the shade control connection to a MechoShade MNI Interface device switch input port.

By default the shade will Open upon occupancy and Close when the space is unoccupied and the sensor times out.

Figure 1: Shade Integration detail



How it works:

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

Occupancy Sensor DIP #3 & #4 OFF, manual ON

- The user enters the space the shade will open; 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 blink warn OFF 5 minutes after occupancy sensor time out. The shade will close after the initial blink warn.

Occupancy Sensor DIP #3 & #4 ON, automatic ON

- The user enters the space the shade will open; 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 blink warn OFF 5 minutes after occupancy sensor time out. The shade will close after the initial blink warn.

Occupancy Sensor DIP #3 ON, #4 OFF, automatic ON to 50%

- The user enters the space the shade will open and 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.
- The user leaves the space, lighting will blink warn OFF 5 minutes after occupancy sensor time out. The shade will close after the initial blink warn.

How to program shade control:

Shade control is available in the Room Controller RC3DE-PL and the RC3DEHC-PL models as well as the network versions of these panels. These Room Controllers include the shade control connection automatically on the unit. The solatube interface is being used as the shade control interface as well.

Necessary Items for Programming Scene
Room Controller (RC3DE, RC3DEHC)
Personal Remote (HHPR-RC)
Daylight Sensor* (DSRC-FMOIR)
Scene Wallstation (ex. RC-6TSB-P3-W)

*The Daylight Sensor is also the IR receiver

Each Room Controller can store up to six scenes. Scenes 1-5 can be triggered using scene buttons located on a Scene Wallstation that is connected to the Room Controller. Scene 6 is a special scene that is triggered upon occupancy detection, turning the lighting On to this special scene. Scene 6 requires that DIP Switches #3 & #4 are in the Up (ON) position on the Room Controller.

The Personal Remote can also trigger all six scenes and can be issued even if a Scene Wallstation is not connected to the Room Controller.

Programming Scenes

- 1. Using the Personal Remote (HHRP-RC) set the lighting levels the way you want them when you trigger the appropriate scene.
- 2. Press the AUX button to toggle the shade control in the correct position (Open or Closed) for this the appropriate scene.
- 3. Press the SET button on the Personal Remote.
- 4. Press the appropriate Scene button S1-S6 on the Personal Remote to save the scene in the Room Controller.

At this point the scene is saved in the Room Controller and can be triggered using the correct button on the Wallstation or Personal Remote.

Programming Auto On

- 1. Using the Personal Remote (HHRP-RC) set the lighting levels the way you want them to turn ON Automatically upon Occupancy.
- 2. Press the AUX button to toggle the shade control in the correct position (Open or Closed) for this the appropriate scene.
- 3. Press the SET button on the Personal Remote.
- 4. Press the Scene 6 (S6) button on the Personal Remote to save the scene in the Room Controller.

Ensure Dip Switch #3 & #4 are in the UP (ON) position.



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