LEVITON®

Programming GreenMAX® with Lighting Behaviors

Leviton delivers innovative tools to design the most cost-effective methods for turning the lights ON in buildings, and more importantly, for turning them OFF again and keeping them OFF when a space is not being used. GreenMAX® does this easily, unobtrusively and with seamless precision.

LIGHTING BEHAVIORS

Setting operational sequences for lighting options can be a surprisingly difficult task. To make lighting meaningful in an area, the following questions need to be answered:

How is the space being used?

- How does the user want to interface with the lights
- What lighting behaviors does the user want to occur based on a daily schedule?

There are four ways to control lights:

- Time/schedule
- Manual override switch
- Occupancy sensor
- Photocell

Imagine the various combinations of controlling lights:

- Switch turns lights ON/OFF
- Occupancy sensor turns lights ON/OFF
- Lights turn ON/OFF at a specific time
- Photocell overrides the occupancy sensor if adequate daylight is available

GreenMAX makes controlling lights simple by providing a matrix of all possible lighting combinations and classifying them into 12 Behaviors, each with its own unique programming code.

The simplicity of programming GreenMAX becomes apparent as the various lighting control components (switches, occupancy sensors, photocells, etc.) of the system are linked to each other. Each set of control components is tied to individual relays or a group of relays. The Behavior properties of all the components can be programmed from any point on the system simply by plugging in the exclusive portable Handheld Display Unit (HDU) to any accessible port. This means the installer can program the lighting in a space from within the space itself.

LIGHTING CUSTOMIZATION

Greenmax allows different Behavior settings to be programmed throughout the day. Using the HDU, any room can be set quickly and easily with just a few button selections:

- Choose any additional Behavior transitions
- Select time the Behavior is desired
- Optional override to sunrise/sunset astronomical clock, preventing lights from activating pre-maturely in summer or too late in winter
- Set Behaviors to scale on a daily, weekly, monthly or holiday schedule
- Up to 24 Behaviors per 24 hour period can be programmed

For example, to program the combination of Behaviors previously mentioned, a user would simply:

- Enter B10 to activate Behavior 10 for open of business
- Enter start time of 7:00 am for open of business
- Enter B5 to activate Behavior 5 for close of business
- Enter start time of 6:30 pm for close of business
- Enter Blink Warn - Blink Duration as part of the Behavior Modifiers to alert any remaining occupants that lights are turning OFF for the day

Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation
20497 SW Teton Avenue, Tualatin, OR 97062 **tech line** 800-959-6004 **fax** 503-404-5594

To program Behaviors: using the HDU unit, select the number on the screen that corresponds with the desired Behavior. Enter the time of day for the Behavior to be in effect. When programming Behaviors, the user will be prompted to select any corresponding Behavior Modifiers. Behaviors can be set for entire system or individual rooms/relays.

PROGRAMMING

BEHAVIORS

Number	Description	Occupancy Sensor	Photocell	Switch	Time
B1	Lights turned ON with the switch. Can be turned OFF with switch. Occupancy Sensor will turn OFF upon vacancy.	OFF	-	ON/OFF	-
B2	Lights turned ON with the Occupancy Sensor. Can be turned OFF/ON with switch. Occupancy Sensor will turn OFF upon vacancy.	ON/OFF	-	ON/OFF	-
B3	Occupancy sensor turns lights ON/OFF.	ON/OFF	-	-	-
B4	Switch ON/OFF.	-	-	ON/OFF	-
B5	Time triggers a Blink Warn sequence, an OFF blink followed by a variable ON delay. Switch interrupts sequence and starts override timer. Will automatically turn OFF relay if override timer reaches zero.	-	-	ON/OFF	Blink/OFF
B6	Turn ON at specific time.	-	-	-	ON
B7	Turn OFF at specific time.	-	-	-	OFF
B8	Occupancy sensor turns ON lights with occupancy. Measured light levels above Photocell trigger point turns OFF or keep lights OFF, below set-point allows control by Occupancy Sensor. Occupancy Sensor turns OFF lights with vacancy.	ON/OFF	OFF	-	-
B9	Switch turns ON/OFF lights. Measured light levels above Photocell trigger point turns OFF or keep lights OFF, below set-point allows control by Occupancy Sensor. Occupancy Sensor turns OFF lights with vacancy.	OFF	OFF	ON/OFF	-
B10	Occupancy Sensor turns ON lights with occupancy. Measured light levels above Photocell trigger point turns OFF or keep lights OFF, below set-point allows Occupancy Sensor control. Switch can turn ON/OFF lights by over-riding Occupancy Sensor control. Occupancy Sensor will turn OFF lights upon vacancy.	ON/OFF	OFF	ON/OFF	-
B11	Switch ON/OFF. Measured light levels above Photocell trigger point turns OFF or keep lights OFF, below set-point allows Switch control.	-	OFF	ON/OFF	-
B12	Turn ON at specific time (Used for Exterior Lighting). Measured light levels above Photocell trigger point turns OFF or keep lights OFF, below set-point relinquishes control to the constant ON state.	-	OFF	-	ON
B13	Occupancy sensor turns lights partially ON. Switch turns lights ON full bright or turns them OFF	ON/OFF	-	ON/OFF	-
B14	Lights ON at minimum level. Occupancy sensor raises/lowers light level between Partial-ON and full ON	ON/OFF	-	-	-

BEHAVIOR MODIFIERS		
Action	Description	Value Range
Switch OFF Delay	When relay is turned ON with the switch, length of time before relay will automatically turn OFF.	2.5, 5, 10, 15, 30, 60, 90, 120 minutes, and Constant ON
Occupancy Sensor OFF Delay	When vacancy is determined, length of time before relay will automatically turn OFF.	0, 0.5, 2.5, 5, 10, 20, 30 minutes
Photocell Delay	Delay before action is taken after a Photocell trigger point has been crossed.	0, 0.5, 2.5, 5, 10, 20 minutes
Blink Warn - Blink Duration	The length of the OFF Blink used to notify occupants than an OFF sequence has been initiated.	0.5-25.4 seconds
Blink Warn - Delay	This period follows the Blink and lasts the length of the specified time. If button is pressed during this period, the Delay timer stops and the Override Time starts. If no buttons are pressed, the lights will turn OFF.	1-254 minutes
Blink Warn - Override Time	The relay will remain ON for the duration of this timer. A new Blink Warn sequence will be initialized at the end of this period. If the relay had been OFF previously and a button is pressed to turn the relay ON, this timer will be started again.	1-254 minutes

Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation
20497 SW Teton Avenue, Tualatin, OR 97062 **tel** 800-736-6682 **fax** 503-404-5594 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **fax** 800-832-9538 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

Visit our Website at: www.leviton.com/greenmax

G-8621A/B18-aa
REV FEB 2018