Programming Guide GreenMAX[®] DRC App



GreenMAX® DRC App For System Commissioning and Control

Commissioning Flow

- Create the project (internet connection required) and assign other users to the project if more than one person is commissioning
- All comissioning is done one room at a time from within the room
- Connect to the room controller over WiFi—system broadcasts as "GreenMAX DRC xxxxxx"—sticker with serial number is on the device
- Use identify to confirm you have the DRC you want
- Update firmware if required
- Connect to building access point if needed
- Add devices to this room controller, use identify and name devices. Remove devices that belong to other rooms
- Move to next room
- Sync to cloud

Connectivity to Leviton Cloud Servers (Amazon)

- System does not require cloud connectivity for operation, however Leviton cloud services are used as a central point of authority for security
- Connectivity is required to create a new project and add/modify/remove users
- Periodic internet connectivity is required to update project access list, sync new rooms with the cloud during commissioning, and move access permissions between users
- During commissioning, rooms can be created without internet connectivity
- The GreenMAX DRC app communicates when changes need to be synchronized

Create a Project

- Projects are the base organizational structure for a system
- Projects should be named with organization/ company-centric terminology at levels appropriate for the system
- General building hierarchy is:
 - Project
 - Building
 - Floor
 - Area
 - Room
- NOTE: In the following examples, the project will not include an Area level





Define Project Settings

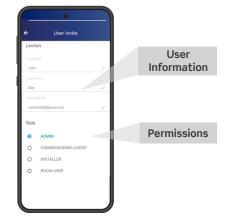
- General building hierarchy is:
 Project
 - Building - Floor
 - -Area
 - Room
 - Group
- Projects and rooms are mandatory
- Building, floor and area are optional—de-select if not needed
- Building, floor and area can be re-named to terms that are more applicable to the application. For example, changing the term "Area" to "Wing", etc.
- NOTE: In the following examples, the project will not include an Area level



Set Up User Permissions

- User permissions can be assigned at any level of the building hierarchy
- All lower levels of the hierarchy inherit higher level permissions





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Select

Project



Create Buildings, Floors, Areas

- Select project by clicking on the project name
- App will open the project and allow you to create buildings, floors, etc. as required—rooms are added last
- To add a room to an existing part of the hierarchy, navigate to the desired location and click the + button to add a room
- To connect to an existing room, navigate to it using the hierarchy





6

Creating a Room

- Buildings, floors, areas, etc. are optional, but creating a room is required. Rooms are used to identify which Room Controller is secured and defined for all system level operations
- Room name should be unique within the building



Connect to Room Controller

- Connect to Room Controller AP through phone's WiFi menu
- Name will be "GreenMAX DRC xxxx"—"xxxx" are the last four digits of the unit's serial number
- Hit "Connect"
- Use password: leviton0000



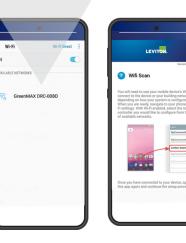
Room Controller Serial Number

- DRC Controller AP name always matches room name
 - Initial connection will initiate the following:
 - Add project security
 - Create room encryption keys
 - Rename SSID

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- Force reconnect to new SSID name

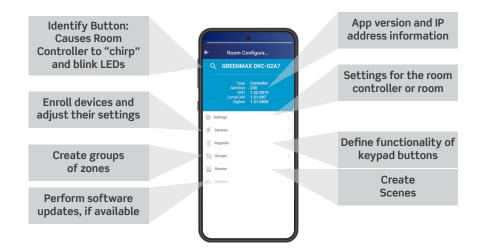
Match last 4 digits to Room Controller serial





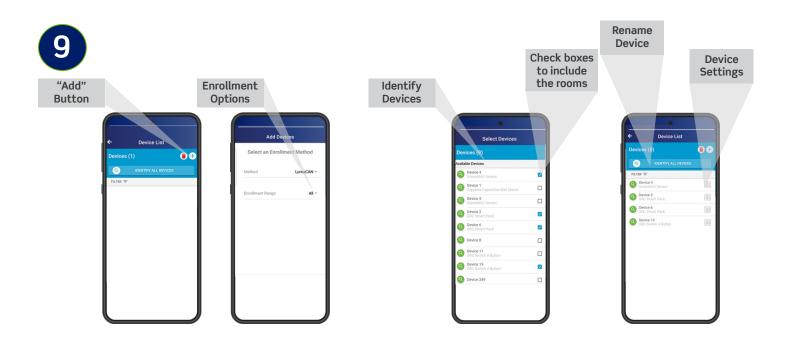








Connect to Building Access Point





Create Groups

- Groups are the way the user interacts with the system and represent a group of lights controlled by the GreenMAX DRC Room Control System
- Common groups:
 - Front of room
 - Back of room
 - Side lights
 - Buffet lights
 - White board light
 - Entryway
 - Closet
 - Corridor
- Select "Groups" to create groups

Group Programming

- Select "Add Group" button
- Give the Group a name
- Use the Search buttons to determine which devices to include
- Check the boxes to include the devices within the Group
- Click "Save" when done
- Use the Search button to visually confirm the correct devices were added to the Group



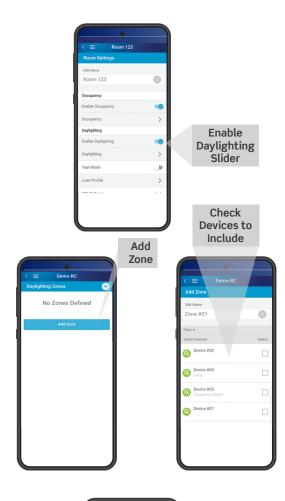


Create Daylighting Zones

- Daylighting zones are groups of lights that work together in response to ambient light in a space to maintain a lighting level target
- Common daylighting zones:
 - Front of room
 - Back of room
 - Front of windows
 - Far from windows
- In Room Settings, press the "Enable Daylighting" slider to enable capabilities
- Return to the main menu and select "Daylighting Zones"

Daylighting Zone Programming

- Select "Add Daylighting Zone" button
- Give the daylighting zone a unique name
- Use the search buttons to determine which devices to include
- Check the box(es) to include the device in the daylighting zone
- Click "Save" when done
- Use the search button to visually confirm the correct devices were added to the daylighting zone





Create Scenes

- A Scene is a collection of Groups with a fade time and predetermined level for assignment to a keypad button or recall from the control screen
- Common Scenes:
 - Presentation
 - Movie
 - Lunch
 - Meeting
 - Cleaning
 - Test-taking
- Select "Scenes" to create scenes

Scene Programming

- Select "Add Scene"
- Give scene a meaningful name
- Select fade duration or fade time (2-5 seconds is common)
- Select which groups to include
- Set desired target levels for each group selected
- Click "Save" when done
- NOTE: Saves can fail if not all devices in all groups are contacted; try again fi it initially fails



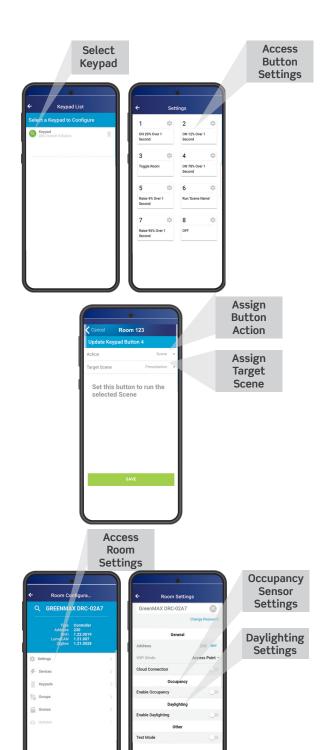


Program Keypad(s)

- Multiple Keypads may coexist
- First Keypad identified is "Master Room Controller"
- Other Keypads will be "Remotes and are added using the Devices screen
- Select "Keypads" and select the Keypad you want to configure

Keypad Programming

- Select the gear icon on the Keypad button you wish to configure, then assign the action and any other necessary parameters:
 - ON/OFF—impacts entire room
 - Toggle Room—turns the room ON/OFF from the same button
 - Toggle Group—turns a group ON/OFF from the same button
 - Scene—executes a scene
 - Raise/Lower—multi-press raise/lower
- Click "Save" when done





Configure Room Settings

- Room settings impact the entire room instead of a single device
- Select the "Room Settings" gear icon
- Occupancy Sensor Settings
 - Use the slider to enable/disable occupancy sensor capabilities
 - General > Sensitivity indicates how sensor responds Mode determines lighting behavior
 - Primary/Secondary Timeouts available
- Daylighting Settings
 - Use the slider to enable/disable daylight harvesting capabilities
 - Cap Target—lights always return to target
 - Override Allowed—user can set lights to any level until the override time elapses
 - Target Mode—auto or manual

Scheduling and Control

All schedules are stored in the room controller

- Ensure time is set from room settings screen before using the scheduler. See above.
- Each room controller can store up to (16) different schedules
- Each schedule can contain (32) events
- An event contains the time an event will occur, specifies how the lights will change, and determines any behavior changes for the room.

Access Schedules & Events

- From the room configuration screen, select "Schedules"
 - Click the + symbol to add and name new schedules
 - Click the settings icon to edit the schedule and edit events
 - Schedule names are determined for your specific needs and organizational requirements, typical Schedule Names
 - Daily Events covering events that happen on a recurring schedule
 - Holidays events that only occur on holiday Special - events that occur on specific dates (**i.e.** banquet room rentals, games, etc)
- Schedule Enable must be enabled for the schedule to run, the entire schedule and all of its events can be disabled by moving the slider to the disabled position
- Events are added on the Events tab, use the + symbol to edit an event or the settings icon to edit an existing events properties



Set

Schedule

Туре

Local



Schedules and Events - Create, Name View

- Choose the event date/time
 - Fixed date—scheduling events on a specific date (i.e. outdoor lights turn red on Valentine's Day)
 - Date Range—events happening through an entire time period (**i.e.** during the summer or turning the lights on only during a time period in December)
 - Day of Week Range—events occurring only on set days between set months
 - Periodic—events that occur on a regular schedule like the first Monday of every month
 - Periodic Range—events that occur on specific days and time (**i.e.** the first Monday between September and June)
 - Calendar—can be used for holidays (**i.e.** turn parking lots off on holidays)
- Event time type
 - Fixed Time (default)
 - Astronomical Time (**i.e.** 30 minutes after sunrise)



Schedule Type

Schedule Enabl

Cancel



Choose
event type

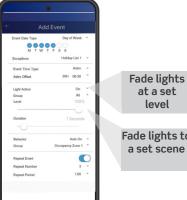
Create exceptions

Set for Astro or Fixed Time



Create Light Action*

- Schedule when the light actions should occur
 - Disabled
 - Absolute fade
 - Scene fade



at a set level

Fade lights to a set scene



Set Event Behavior Action*

- How the room changes its operation
- Disabled •

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- Occupancy
 - Disabled
 - Manual ON
- Auto ON
- Daylighting •
 - Enable
 - Disable
 - Keypad
 - Enable
 - Disable

*At least one action is required



Specify which group the action applies to



Repeat

Repeat can be used to re-trigger the event a specific number of times with a delay between triggers (i.e. sweeping the lights off every hour after closing)



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