LEVITON®

GreenMAX® DRC Room Control System

Change the Way You Design Lighting Control Projects

Confidently design and specify a secure, simple and scalable distributed control system with GreenMAX® DRC Wired or Wireless solutions.

- Enables a full suite of lighting control capabilities including programmable room behaviors, occupancy/vacancy sensing, daylight harvesting, scene control, and multi-location control for different types of lighting for virtually any application
- Fully configurable using the GreenMAX DRC App on any Wi Fi-enabled Android or iOS smart device
- Secures data with fully encrypted communication—privacy is guaranteed as unauthenticated queries and commands are rejected
- Flexibility to grow and change with your business and its evolving needs as a scalable solution; add additional components at any time to modify or expand the system, and reconfigure rooms and zones from the convenience of your smart device
- User Access Controls allow for employees or tenants to use their own app interface to set scenes and make adjustments, while keeping the overall facility secure—the perfect balance of pre-configured maintained settings and human-centric lighting
- Implement a plug-and-play, Category 6, RJ45 hardwired digital network or wireless mesh system

Lighting Evolved

Lighting control that meets the needs of today and the pace of tomorrow.

- **Data-driven lighting design**—lighting becomes part of the building management strategy, resulting in better occupancy sensing, daylighting, scheduling, dimming/switching, and other control methods
- **Communication standardization**—app-based commissioning drastically reduces the cost and time necessary for installation, and putting the power of adjustments in the palm of your hand
- **Human-centric lighting**—allows building occupants to change lighting based on their individual needs and preferences, and mimic natural lighting to keep them in tune with circadian rhythms for overall well being
- **Code compliance**—as standards such as IECC, ASHRAE 90.1 and Title 24 energy codes become stricter, lighting control design follows suit to ensure compliance and enable the next evolution of compliant solutions

Revolutionize your facility with the GreenMAX DRC Room Control System.

The GreenMAX DRC Room Control System is engineered to address the needs and developments of modern lighting control applications. GreenMAX DRC improves lighting control at every level of the process—easy specification and design, low-cost and painless installation, and convenient end user control capabilities. Implement a plug-and-play, Category 6, RJ45 hardwired digital network or wireless mesh system.

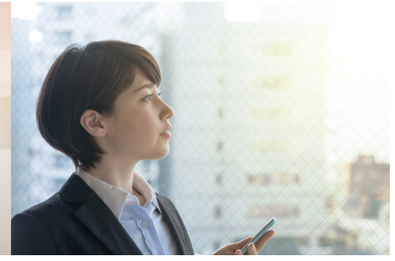
Designed with every stakeholder in mind.

Specifier

- **Interoperable line of room control solutions**—build a custom system from a family of products designed to work together in a secure, simple and scalable fashion, making specification and ordering simple
- **One-stop code compliance**—can be used to comply with ASHRAE 90.1, IECC, and 2019 Title 24, Part 6 multi-level lighting, occupancy/vacancy sensing, partial-ON, partial-OFF, daylighting, demand response, and receptacle control requirements

Installer

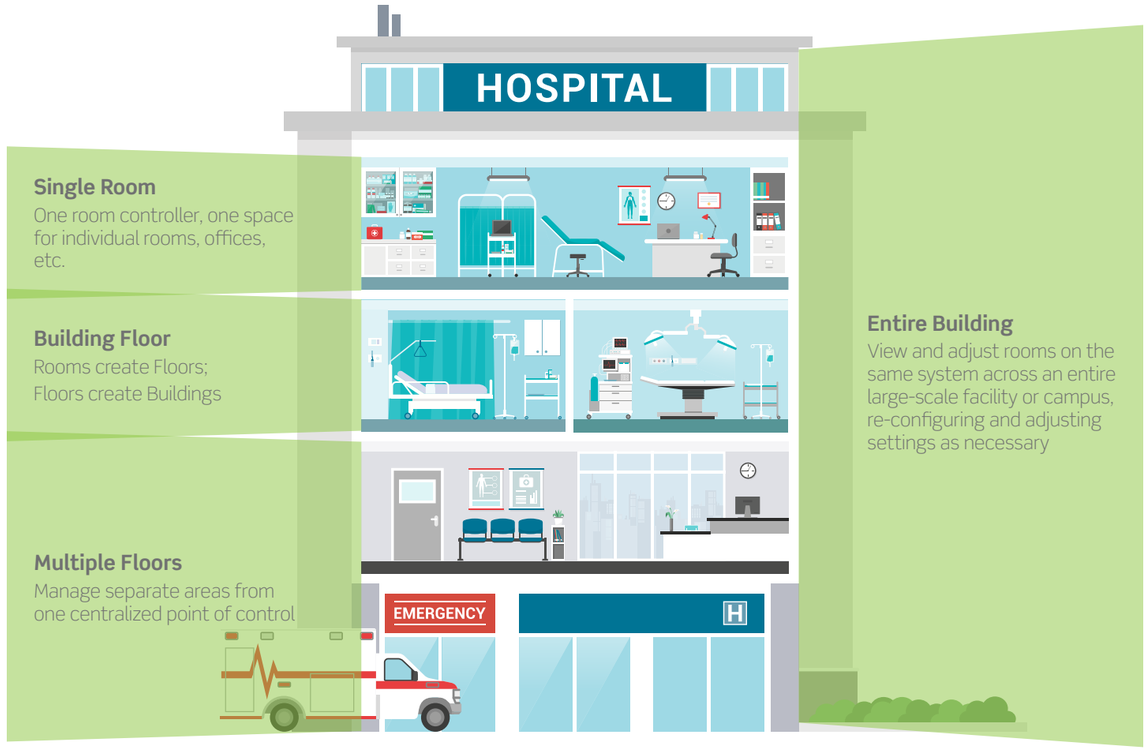
- **Room-agnostic distributed system**—each room operates independently of others and is not dependent on network processors or centralized controllers for operation, cutting down on installation time and wiring costs
- **Ladderless commissioning**— fully configurable from the GreenMAX DRC App, for effortless setup of system preferences, group and scene settings, daylighting behaviors, and more



End User

- **Reconfigure and expand**—add or rearrange system components and easily reconfigure from the App, allowing the scalable GreenMAX DRC to quickly and inexpensively adapt with your evolving business needs
- **Individual user control**—user controls within the App allow authorized occupants to adjust lighting settings in their own areas, creating a more natural, productive and human-centric working environment

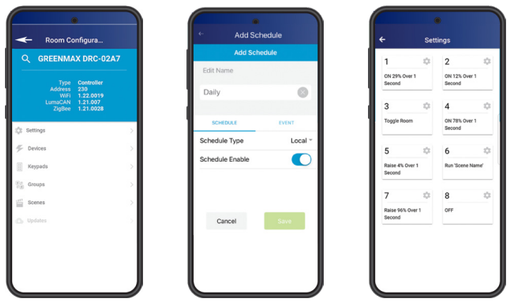
Why GreenMAX DRC?



The GreenMAX DRC Room Control System grows with any business.

The GreenMAX DRC Room Control System is a components-based solution. Add, rearrange, re-configure, or remove wired or wireless controllers and inputs as necessary to meet the needs of any facility today—and whatever awaits in the future.

- Fully digital CAT6 RJ45 and wireless mesh system—drastically reduces commissioning time and callbacks, and simplifies wiring
- User-controlled fixture groups with unlimited groups allow for easily adding and consolidating areas as needs shift
- Multi-zone daylight harvesting with unlimited zones allows changes to be made to take advantage of natural daylight with a few simple taps of the App



How It All Comes Together

LEVITON

Secure, Simple, Scalable Solutions

Expand your single-room solution into an entire facility or campus. Simply add additional components, and tie them together into networked zones using the GreenMAX DRC App.

Rooms changing from their initial purposes? New occupants arriving?

No need to redesign your building. Simply add additional sensors, controllers, or other loads, then group them together using the App.

Can occupants control their spaces?

Yes, from the palm of their hand with the App.

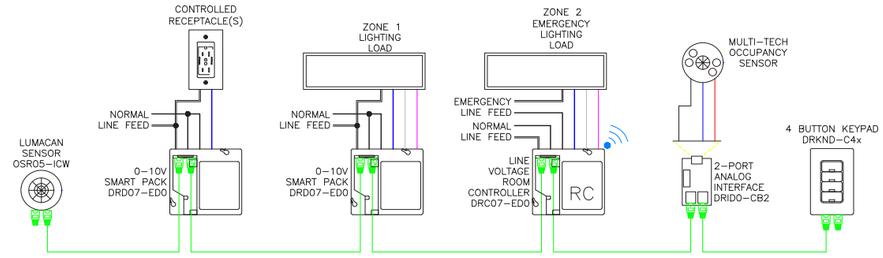
What about security? Will users be able to change settings for the whole facility?

Configuration and master controls are protected via secure encrypted network, meaning that occupants and tenants will only have access to make aesthetic adjustments to their own areas, tamper-free.

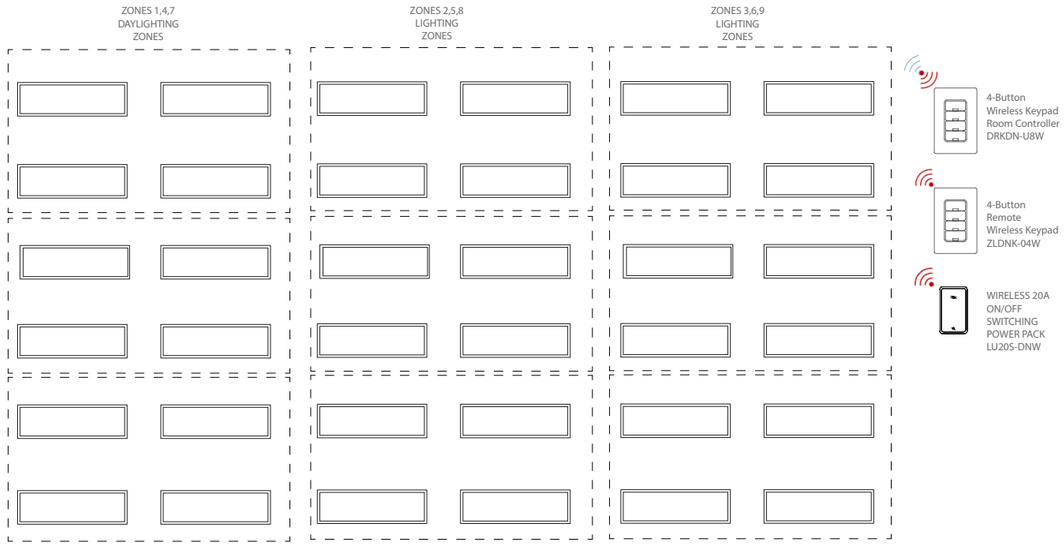
Simple application rules

- One Room Controller per room—wired or wireless
- 50 network devices per wired Room Controller; 60 network devices per wireless Room Controller
- Network rooms together via WiFi

GreenMAX DRC Wired 2-Zone Plus Daylighting, Typical



GreenMAX DRC 9-Zone Wireless With Plug Load Control Plus Daylighting, Typical



GreenMAX DRC Components

Wired

Room Controllers
- The “brain” of the GreenMAX DRC Room Control system
- Manages all the energy management functions in the space



GreenMAX DRC App	Line Voltage Room Controllers	Low Voltage Room Controller
Download at the Apple App Store or Google Play	DRC07-ED0 / DRC07-E30	DRC00-0L0

Load Controls
- Integrate lighting fixtures into the GreenMAX DRC Room Control system
- Incorporates various lighting loads seamlessly into the same GreenMAX DRC Room Control System




Smart Pack	Phase Control Dimmers	DALI Gateway	LumaCAN Gateway
DRD07-ED0 / DRD07-E30	DRDDP-A20/DRDDP-A40	DRCDD-0L0	NP00G-000

Sensors
- Gather information from the space and send consistent feedback to the GreenMAX DRC Room Controller
- Allow for daylighting, occupancy/vacancy sensing, etc.



Digital Sensor	Analog Sensors	Analog Interface (AI) (for use with Analog Sensors)
OSR05-ICW	Visit Leviton.com/sensors	DRID0-A40

User Interfaces
- Allow users to access system features either manually from within the room or remotely
- Recall scenes, zones, dimming/switching levels, and other previously configured information

Digital Keypads	Sapphire™ Touch Screen
DRKDN-Cxx	TS007-000

Wireless

Keypad Room Controllers
- The “brain” of a GreenMAX DRC Wireless Room Control System when used with Wireless devices
- Manages all the energy management functions in the space with no extra wires


GreenMAX DRC App	Wireless Keypad Room Controllers
Download at the Apple App Store or Google Play	DRKDN-Uxx

Load Control Devices
- Expand GreenMAX DRC capabilities with wireless devices. Add wireless control to any ON/OFF, 0-10V dimming or phase cut dimming device.




20A ON/OFF Switching Power Pack	10A 0-10V Dimming Power Pack	800W Phase Cut Dimming Power Pack	10A ON/OFF Decora® Wall Switch	0-10V Decora® Wall Dimmer, 120-277V	10A 0-10V Decora® Wall Dimmer, 347V	24V 0-10V Decora® Wall Dimmer	1000W Dimmer	Marked Controlled Receptacle
LU20S-DNW	LU107-DNW	LU04P-1NW	ZS10S-D0Z	ZS057-D0Z	ZS057-30Z	ZS057-ALZ	DL1KD-1BZ	ZSTLR-1HW

Intellect-Enabled Fixtures by Leviton Lighting Brands and Other Manufacturers*
- Virtually any fixture can be Intellect-enabled with wireless occupancy/vacancy sensing and dimming control







VISCOR			ConTech Lighting				Brichwood Lighting	Intense Lighting
ALRM/ ALRA/ALRB	LRTG	LRTH	LCOMN SQ	R4NCIE	R4SQNCIE	R6NCIE	JAKE-LED	SS4G4DR

* Contact factory for additional information.

Sensors
- Gather information from the space and send consistent feedback to the GreenMAX DRC Keypad Room Controller
- Allow for daylighting, occupancy/vacancy sensing, etc.


Wireless PIR Occupancy Sensors	Wireless Photocell
ZSC04-INW/ ZSC15-INW	LURPC-01W

Ordering Information

Wired

GreenMAX DRC App—the Only Setup Tool Needed	
Cat. No.	**Description**
—	For use with Android and iOS smart devices; visit Download at the Apple App Store or Google Play to download

Room Controllers	
Cat. No.	**Description**
DRC07-ED0	GreenMAX DRC Line Voltage Room Controller with Interface to LumaCAN and WiFi Networks, 0-10V, 120-277VAC, 50/60 Hz
DRC07-E30	GreenMAX DRC Line Voltage Room Controller with Interface to LumaCAN and WiFi Networks, 0-10V, 347VAC, 50/60 Hz
DRC00-0L0	GreenMAX DRC Low Voltage Room Controller with Interface to LumaCAN and WiFi Networks, DIN Rail Form Factor

Load Controls	
Cat. No.	**Description**
DRD07-ED0	GreenMAX DRC Smart Pack, 0-10V, 120-277VAC, 50/60 Hz
DRD07-E30	GreenMAX DRC Smart Pack, 0-10V, 347VAC, 50/60 Hz
DRDDP-A20	GreenMAX DRC Phase Control Dimmer, 2-Channel
DRDDP-A40	GreenMAX DRC Phase Control Dimmer, 4-Channel
DRID0-C02	GreenMAX DRC 2-Port AI, LumaCAN, DIN Rail or Surface Mount
DRCDD-0L0	LumaCAN to DALI Gateway, DIN Rail Mount
NP00G-000	LumaNet to LumaCAN Gateway

Sensors	
Cat. No.	**Description**
OSR05-ICW	GreenMAX DRC Digital Sensor, 1500 sq ft, White
Analog Occupancy/ Vacancy Sensors	Visit www.leviton.com/sensors for selection, or reference the Leviton Sensor Guide for a full selection

User Interfaces—Digital Keypads	
Cat. No.*	**Description**
DRKDN-C1W	GreenMAX DRC Digital Keypad, 1-Button, LumaCAN
DRKDN-C2W	GreenMAX DRC Digital Keypad, 2-Button, LumaCAN
DRKDN-C4W	GreenMAX DRC Digital Keypad, 4-Button, LumaCAN
DRKDN-C8W	GreenMAX DRC Digital Keypad, 8-Button, LumaCAN
CKDNK-x0y	GreenMAX DRC Color Change Kit
CKDNK-xEy	GreenMAX DRC Color Change Kit with Engraving

*Replace "x" to indcate number of buttons: 1, 2, 4, or 8
*Replace "y" to indicate color: (W) = White, (I) = Ivory, (T) = Light Almond, (G) = Gray, (R) = Red, (E) = Black
Wallplate purchased separately; recommend Leviton Cat. No. 80301 screwless wallplates

User Interfaces—Sapphire Touch Screen	
Cat. No.	**Description**
TS007-000	Sapphire 7-in Touch Screen, Capacitive Interface, No Faceplate Included
TS007-C0E	Sapphire 7-in Touch Screen Color Change Kit, Black Faceplate
TS007-C0T	Sapphire 7-in Touch Screen Color Change Kit, Light Almond Faceplate
TS007-C0W	Sapphire 7-in Touch Screen Color Change Kit, White Faceplate
TS007-LCE	Sapphire 7-in Touch Screen Locking Cover, Black

DIN Rail Cabinets	
Cat. No.	**Description**
DINRK-001	DIN Rail Rack Mount Enclosure, Small, 14x10 in with (1) 12.9 in Rail
DINRK-A03	DIN Rail Rack Mount Enclosure, Medium, 21x25 in with (3) 13.7 in Rails
DINRK-A06	DIN Rail Rack Mount Enclosure, Large, 25x48 in with (5) 19.5 in Rails

Wireless

Keypad Room Controllers	
Cat. No.*	**Description**
DRKDN-U1W	GreenMAX DRC Wireless Keypad Room Controller, 1-Button
DRKDN-U2W	GreenMAX DRC Wireless Keypad Room Controller, 2-Button
DRKDN-U4W	GreenMAX DRC Wireless Keypad Room Controller, 4-Button
DRKDN-U8W	GreenMAX DRC Wireless Keypad Room Controller, 8-Button
CKDNK-x0y	GreenMAX DRC Color Change Kit
CKDNK-xEy	GreenMAX DRC Color Change Kit with Engraving

*Replace "x" to indcate number of buttons: 1, 2, 4, or 8
*Replace "y" to indicate color: (W) = White, (I) = Ivory, (T) = Light Almond, (G) = Gray, (R) = Red, (E) = Black
Wallplate purchased separately; recommend Leviton Cat. No. 80301 screwless wallplates

Load Controls	
Cat. No.	**Description**
LU20S-DNW	Wireless 20A ON/OFF Switching Power Pack
LU107-DNW	Wireless 10A 0-10V Dimming Power Pack
LU04P-1NW	Wireless 800W Phase Cut Dimming Power Pack
ZS10S-D0Z	Wireless 10A ON/OFF Decora® Wall Switch
ZS057-ALZ	Wireless RF 0-10V Decora® Wall Dimmer 120-277VAC
ZS057-30Z	Wireless RF 0-10V Decora® Wall Dimmer, 347VAC
DL1KD-1BZ	Lumina™ RF 1000W Dimmer

Intellect™-Enabled Fixtures by Leviton Lighting Brands and Other Manufacturers*	
Cat. No.	**Description**
VISCOR	
ALRM	Intellect-enabled LED ALLURA Linear Pendant Type M; premium-grade, pendant-mount, bi-directional luminaire
ALRA	Intellect-enabled LED ALLURA Linear Pendant Type A; premium-grade, pendant-mount, bi-directional luminaire
ALRB	Intellect-enabled LED ALLURA Linear Pendant Type B; premium-grade, pendant-mount, bi-directional luminaire
LRTG	Intellect-enabled Premium-grade, recessed, lay-in T-Bar luminaire
LCOMN SQ	LED Commercial Type N Square; commercial-grade, LED strip luminaire
ConTech Lighting	
R4NCIE	Intellect-enabled 4" Integrated LED Universal New Construction Downlight
R4SQNCIE	Intellect-enabled 4" Square Integrated LED Universal New Construction Downlight
R6NCIE	Intellect-enabled 6" LED Recessed Downlight; Universal New Construction Downlight
Birchwood Lighting	
JAKE-LED	Recessed Linear Luminaire
Intense Lighting	
SS4G4DR	Intellect-Enabled 4" LED Round Downlight

* Contact factory for additional information.

Sensors and Receptacles	
Cat. No.	**Description**
ZSC04-INW	Wireless PIR Occupancy Sensor, 400 sq. ft.
ZSC15-INW	Wireless PIR Occupancy Sensors, 1500 sq. ft.
LURPC-01W	Wireless Photocell
ZSTLR-1HW	Wireless Controlled Receptacle

Security

Leviton takes the security of your lighting control and network systems seriously.

Providing a cohesive, complete, and integrated end-to-end control solution and allowing intended, safe communication while rejecting malicious communication has been built into each physical and software layer of the GreenMAX DRC Room Control System.

Leviton's commercial lighting control network systems are broken into several different physical layers, each of which have different security concerns and approaches to network functionality and security. The table below reviews these layers in detail.

Physical Layer	Function	Communication Method	Security Method	Notes
GreenMAX DRC App to Room Controller	• Configuration and commissioning of system • Control of devices	• WiFi, Ethernet IP connectivity between smart device and DRC Room Controller • Interface may be through the building WiFi system OR direct with the room controller acting as an access point	• TLS Security using AES-256 encryption • Communication privileges secured by communication user token • User authentication through Leviton Cloud • Key storage on Leviton Cloud	• IP address can be statistically assigned or provided through a DHCP server • DNS name resolution is required on networks using DHCP for address assignment
GreenMAX DRC App to Leviton Cloud	• User privileges for each part of each building (User Access Control) • Storage of user and project/security information	• Connect to Leviton Cloud Services through public internet using the configuration tool's cellular or WiFi connection	• TLS Security using AES-128 encryption • User authentication through Leviton Cloud	• Leviton Cloud Services are hosted on Amazon Web Services • Connectivity to Leviton Cloud Services is only required to (1) create a user account, (2) create a project, (3) asynchronously store/sync project information • Connectivity to Leviton Cloud Services is not required to (1) commission a project, (2) allow lighting controls to operate
Room Controller to Room Controller	• System message broadcast (load shed, group ON/OFF, etc.) • Using sensor/actuator data in from Room A in Room B	• WiFi, Ethernet IP connectivity between room controllers	• TLS Security using AES-256 encryption • Communication privileges secured by communication system token, distributed at time of configuration	• Requires implemented WiFi backbone in space, provided by a 3rd party or Leviton • Each room is a WiFi client to the system access point
BACnet Communication	• Interface to Building Management System (BMS), either at the micro or macro level	• Wired Ethernet, BACnet/IP, using NP00G Gateway	• See ASHRAE BACnet protocol documentation for details • Primarily secured and encrypted at the physical interface level	• BACnet standard PICS statement available at www.leviton.com which details interface specifics

Meet Energy Codes

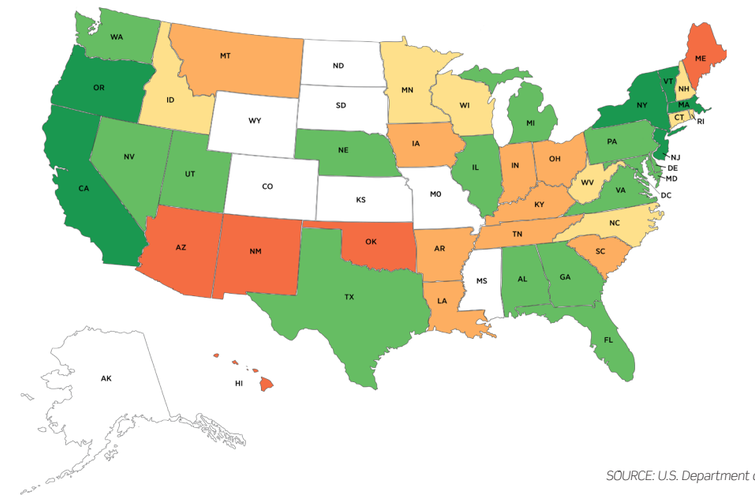
GreenMAX DRC is engineered to meet the latest and most stringent versions of local and national energy code requirements, including 2018 IECC, ASHRAE 90.1 2019, and 2019 Title 24, Part 6.

Control Type	2018 IECC	ASHRAE 90.1 2019	2019 Title 24, Part 6
Manual Space Control	• Every area enclosed by walls or floor-to-ceiling partitions must have a manual control • Controls must be located within area served by the controls, or must be a remote switch clearly identifying the lights it controls with a status indicator • Occupancy sensors must also incorporate a manual control • Manual control to reduce the connected load by at least 50% by controlling all lamps (dimming), dual switching, inboard/onboard switching, or controlling each fixture/lamp independently • Display/accent/case lighting must be separately controlled	• All spaces shall include manual control devices that are continuous or stepped dimming • Must control an area no larger than 2,500 sq ft if the space is smaller than 10,000 sq ft • If 10,000 sq ft or more, must control an area no larger than 10,000 sq ft	• Manual-ON/OFF override control required in each area enclosed by ceiling-height partitions • If lighting is dimmable, controls must be on a dimmer with dimming and manual-ON/OFF capabilities • Public restrooms with 2 or more stalls, parking areas, stairwells, and corridors may use manual-ON/OFF control not accessible to unauthorized personnel • Display/accent/case lighting must be separately controlled with manual-ON/OFF controls • Certain exemptions for healthcare facilities
Multi-Level Area Lighting Controls	• Each area required to have manual control is also required to be able to reduce lighting by 50%	• All spaces must have a lighting control that is either manual-ON or auto-ON to <50% of lighting load • In addition to controls that switch OFF all lighting, enclosed spaces must have controls that reduce the lighting by 30-70% of the full lighting load	• Manual-ON/OFF override control is required in each area enclosed by ceiling-height partitions • All general lighting in rooms >100 sq ft and >0.5W/sq ft shall meet control step requirements of Table 103.1[4]
Automatic Shutoff	• Automatic time switches required in most areas not controlled by an occupancy sensor, and switch must also have a manual override • Motion sensors required in a number of applications that must auto-OFF after 20 minutes (30 minutes in 2015) of vacancy, and must be manual-ON or auto-ON to no more than 50% power, and include a manual control • Motion sensors must auto-OFF within 20 minutes (30 minutes in 2015) of occupants leaving space, and manual-ON or auto-ON to 50%	• Interior lighting must have an automatic control to turn lights OFF • Device can be scheduling control, occupancy sensor, or BAS/BMS system • Applicable spaces must be capable of: • Manual-ON or partial-ON—auto-ON to 50% • Bi-level control—step between 30-70% or continuous dimming • Automatic daylight controls • Automatic partial-OFF—reduce to 50% when unoccupied for some spaces • Automatic full-OFF or scheduled shutoff	• Interior lighting must have an automatic control to turn the lights OFF as required per area • This device can be a scheduling control, an occupancy sensor, or a BAS/BMS system as required per area[2] • Partial-ON may only activate lights between 50-70% power • Partial-OFF required in corridors, stairwells, warehouse areas, library book stacks, and parking areas[3]

Energy Standards by State

Commercial State Energy Code Status as of September 2020

Note: For Canadian code compliance, refer to your provincial code



8 No statewide code

5 Meets ASHRAE 90.1-2007 or less

9 Meets or exceeds ASHRAE 90.1-2007

8 Meets or exceeds ASHRAE 90.1-2010

14 Meets or exceeds ASHRAE 90.1-2013

7 Meets or exceeds ASHRAE 90.1-2016

SOURCE: U.S. Department of Energy, www.energycodes.gov/status-state-energy-code-adoption

Control Type	2018 IECC	ASHRAE 90.1 2019	2019 Title 24, Part 6
Automatic Daylight Control	• Control required in daylight control zones that provide these areas with separate control that is independent of general lighting in the space, which can be stepped or continuous dimming • Calibration must be readily accessible • Required in spaces where more than 150W of lighting is installed in the Sidelit and Toplit zones • Offices, classrooms, labs, and library reading rooms must dim lights continuously from full power to 15% of full light output and capable of full shutoff of all controlled lights	• Sidelit and toplit areas must be separately controlled by a photocontrol, which can be stepped or continuous dimming • Calibration cannot be located on the photocontrol	• Photocontrols are required in all interior daylit spaces with at least 24 sq ft of glazing and at least 120W of installed lighting power in daylight and skylight zones along with other exemptions that are listed • Includes nearly every non-residential space with skylights or windows • Secondary zones must have the same level of functionality as those in the primary zone • Zones must be controlled separately • Photocontrols are required in parking garages with at least 36 sq ft of opening and at least 60W of installed lighting power in daylight areas
Parking Garage Control	• Must adhere to the standard requirements for lighting control, space control, and automatic daylight control with stepped control or continuous dimming, OR manual switched daylighting control	• Parking garage lighting zones must be controlled by a device that reduces power by 30% after 30 minutes of vacancy • Open exterior walls must utilize automatic daylight harvesting	• Occupancy sensors must reduce power to 50% of lighting power when unoccupied • No more than 500W of lighting may be controlled per zone • Automatic controls must turn lights to full-ON and be activated from all paths of egress
Automatic Receptacle Control	• Required in hotel/motel guest rooms	• Required in: • Open office spaces • Computer classrooms • Hotel/motel guest rooms • Conference rooms • Printing/copy rooms • Classrooms • Individual workstations • 25% of branch circuit feeders installed for modular furniture • Must be turned off via time-of-day control, or control system/occupancy sensor after 20 minutes of vacancy	• Required in: • Private offices • Open office spaces • Lobbies • Conference rooms • Kitchenettes • Copy rooms • Hotel/motel guest rooms • There shall be a controlled receptacle within 6 ft of every non-controlled receptacle • Hotel/motel guest rooms to have 50% of the receptacles controlled[1]
Demand Response Controls	—	—	• Required in all commercial buildings >10,000 sq ft • Must be capable of automatically reducing lighting energy usage by at least 15%

1. Controlled receptacles must be properly labeled.
2. These areas where multi-level control is required must be controlled by partial-ON or vacancy sensors: offices<=250 sq ft, multi-purpose rooms <=1,000 sq ft, conference rooms, classrooms, and restrooms. Hotel guest rooms must have auto-OFF controls for 50% of receptacles and lighting.
3. There are certain exceptions for 24/7 areas in facilities and healthcare facilities; see the code for more details.
4. Multi-level control is not required in parking areas, stairwells, corridors, and warehouse areas, and there are certain exemptions for healthcare facilities; see the code for more details.

Code Compliant Capabilities

- Manual Space Control (keypads)
- Multi-Level Area Lighting Controls or Dimming (keypads, pre-set scenes, bi-level switching)
- Automatic Shutoff (occupancy sensors, time clock control)
- Stairwell lighting control (occupancy sensors)
- Automatic Daylight Control (photocells)
- Receptacle Control
- Demand Response

Frequently Asked Questions

How does the Sapphire Touchscreen interact with the GreenMAX DRC Room Controllers?

Sapphire can be used to control any light in the system. A Sapphire can be placed at one location controlling lights in another space; i.e. in a hospital at a nurse's station controlling lights in patient rooms).

Can the GreenMAX Room Control System accomplish shade control?

Simple control of shades can use the 0-10V Smart Pack to trigger contact closure input of a shade control system indicating open/close or preset status. Other more advanced methods using multiple contact closures, alternate forms of signals or direct Mechoshade interface can be provided as needed. Contact Leviton Controls Quotations to facilitate a system design.

Is the GreenMAX DRC Analog Input (AI) device necessary to connect standard low voltage sensors, photocells, etc.?

Yes, the AI can be used to interface to any 24V occupancy sensor or 0-10V analog photocell. In addition, the device can receive a contact closure to trigger channels, groups, act as a security or fire alarm system interface, or trigger a load shed response from a demand response interface.

Which keypads are utilized to manually dim/switch lights and recall scenes?

GreenMAX DRC Keypads (DRKDN) are used for manual room control.

What wireless encryption is used?

The GreenMAX DRC Room Control System uses AES 128 encryption on both wireless networks. There is no open communication; it is all secured encryption.

How do you tie a GreenMAX Relay Control Panel to a GreenMAX DRC Room Control System?

GreenMAX Relay Panels can be used in a GreenMAX DRC Room Control System. Note that those Relays, when configuring, will be put in a behavior that tells the panel to do nothing with them other than let them be controlled from across the network. The GreenMAX DRC Room Controllers will be in charge of those relays and the NPU will just ignore them. The Relays will look like Smart Packs to the GreenMAX DRC system.

Can a GreenMAX Relay Control System and a GreenMAX DRC Room Control System coexist on the same LumaCAN network?

Yes; however, they are independent systems. A GreenMAX HDU will be used to program the GreenMAX Relay Panel and the GreenMAX DRC App to program the GreenMAX DRC Room Control System. Even if they are on the same LumaCAN cable, they operate as two independent systems. GreenMAX is commonly used for panel scheduling for applications such as landscaping and hallway lighting, and GreenMAX DRC is used for rooms that don't have crossover with the other applications.

This works best when each controller is fully in charge of its own applications and they do not co-mingle, which becomes confusing. Note that there is no particular benefit to running GreenMAX and GreenMAX DRC on the same LumaCAN network, except in the case of having a Sapphire Touchscreen front-end controlling the entire building.

How do you network the GreenMAX DRC Room Control System together with GreenMAX DRC?

Connect all of the Room Controllers via the App and network via WiFi.

How do you network the GreenMAX DRC Room Control System with BACnet?

BACnet is used for control from BMS and LumaGraphics interfaces. The NP00G is the BACnet interface for the GreenMAX DRC Room Control System, which is a LumaCAN to BACnet interface. Add that solution to the network, and then the system has an IP connection going out to the BACnet network. The system shows up to the BACnet network with every load (sensor/button) as an analog input that gets full exposure to the network. Every group of 250 LumaCAN nodes has a BACnet interface to the system.

Is it possible to set the address through the App or does that have to be done at the dip switches?

Network addresses have to be set at the dip switches. Channels can be set from anywhere on the network.

What is the GreenMAX DRC Room Control System's operation out-of-the-box? What happens before the App is used to commission the system?

The only action that happens is the load turns on.

Is it a good idea to try and run a parallel WiFi system to the building's existing WiFi?

As a general rule, no. It results in negative performance for all systems as a result of having two WiFi networks in a facility. It is a standard Ethernet and WiFi best practice to create segmented networks.

For example, in facilities that offer guest WiFi access. Every time you log in to that guest network, it forms a network that is separate from every other guest network in a building. Users cannot see or talk to one another, but they are on the same WiFi system.

Does the GreenMAX DRC Room Control System have a Plenum rating?

All components are UL2043 Plenum Rated as appropriate to their application. To meet some local requirements, such as Chicago Plenum, installation into a metal enclosure may be required. See the Technical Article for more information.

Additional questions? Contact your Leviton representative for more information and assistance.

Service and Support

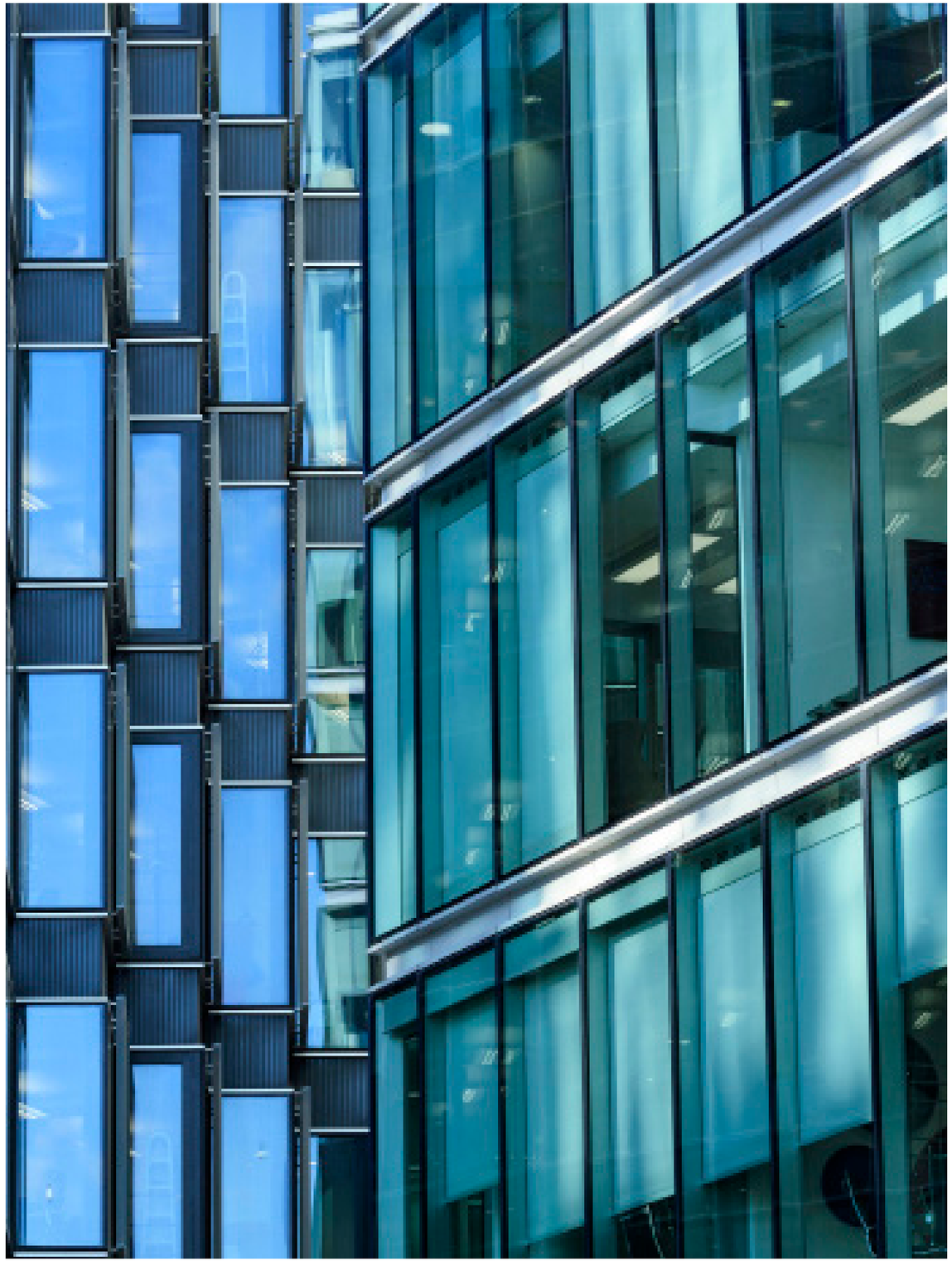
During Every Step of the Process.

There is much more to making lighting more energy efficient than just installing a simple device or two. System design, product selection, installation and service: it all has to come together. That's where Leviton service and support options come in. We'll help you design your GreenMAX DRC Room Control system and make the right product selections so you can create a solution that does exactly what you want it to do while saving electricity, meeting codes and standards, and even garnering rebates.

It all starts with the Leviton sales representative. Our lighting control specialists are here to support you every step of the way. They can perform on-site facility audits and suggest the best GreenMAX DRC Room Control System configuration to meet your needs and preferences.

Exclusive Wealth of Resources

- **Exclusive Training**—contact your local Leviton representative to have a GreenMAX DRC expert provide training in person or online exclusively for your team
- **GreenMAX DRC Resource Library**—all of our data sheets, cookbooks, solution sheets and more in one easy-to-access place - visit **www.leviton.com/greenmaxdrc**
- **GreenMAX DRC Remote Support**—allows users to connect to Leviton's expert Technical Support staff via an Android, iOS, Windows or Mac device for remote troubleshooting and configuration support
- **GreenMAX DRC App**—configure and control the entire GreenMAX DRC Room Control System from the palm of your hand - download at **the Apple App Store or Google Play**
- **ez-Learn™**—get Leviton smart from the comfort of your home or office with this exclusive 24/7 online training—go to **www.leviton.com/ezlearn**
- **Lighting control specialists** at your disposal
- **Field service engineers** for top-level support
- **Factory commissioning service**
- **Dedicated technical support** via phone at **800 959-6004**



Leviton Manufacturing Co., Inc. Lighting & Controls
20497 SW Teton Avenue, Tualatin, OR 97062 **tel** 800-736-6682 **tech line** (6:00AM-4:00PM PT Monday-Friday) 800-954-6004

Leviton Manufacturing Co., Inc. Global Headquarters
201 North Service Road, Melville, NY 11747 **tel** 800-323-8920 **tech line** (8:30AM-7:30PM ET Monday-Friday) 800-824-3005

Visit our website at: www.leviton.com/greenmaxdrc

G-10552B/A21-aa
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