

WARNINGS

- **READ AND FOLLOW ALL SAFETY INSTRUCTIONS**
- **TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER AT CIRCUIT BREAKER OR FUSE AND TURN OFF POWER AT THE 24 HOUR NIGHT LIGHT/EMERGENCY CIRCUIT AND TEST THAT POWER IN BOTH CIRCUITS IS OFF BEFORE WIRING, SERVICING, OR REMOVING FIXTURE. THIS FIXTURE IS POWERED BY TWO (2) CIRCUITS: THE REGULAR POWER BRANCH CIRCUIT AND THE 24 HOUR NIGHT LIGHT/EMERGENCY CIRCUIT.**
- "EMERGENCY CIRCUITS" enclosed label should be placed in a highly visible location if any DRC Smart Pack is part of the emergency system so as to be readily identifiable as a component of the emergency system.
- Do not mount near gas or electric heaters.
- The use of accessory equipment is not recommended by the manufacturer may cause an unsafe condition.
- To avoid electrical overload, total connected lamp load shall not exceed output rating.

WARNINGS

- Test all LumaCAN cables for compliance to TIA-568B prior to interconnecting devices and systems.
- Equipment should be mounted in locations and at heights where it will not be subjected to tampering by unauthorized personnel.
- To be installed and/or used in accordance with appropriate electrical codes and regulations.
- If you are unsure about any part of these instructions, consult an electrician.

CAUTIONS

- Do not use this equipment for other than intended use.
- For indoor applications only.

SAVE THESE INSTRUCTIONS

INSTALLATION AND QUICK START SHEET

ENGLISH

Product Description

The DRC Controller and Smart Pack combines all the functionality of a DRC Controller and Load controlling Smart Pack in a single device. As with any DRC Controller, this device is responsible for management of all the architectural controls and energy management business logic within a single room, and, is fully setup and configured using a Wi-Fi® enabled cell phone or tablet.

- The LumaCAN™ network can span multiple rooms and connect multiple DRC devices together; however it is important to pay particular attention to setup and control of rooms to avoid cross room control.
- Each DRC Controller can connect to a variety of devices, such as DRC smart packs, relay panels, and in the future Intellect™ fixtures, Lumina™ RF sensors, DALI™ devices, and other devices. For specific capabilities and capacities, refer to the product data sheet.

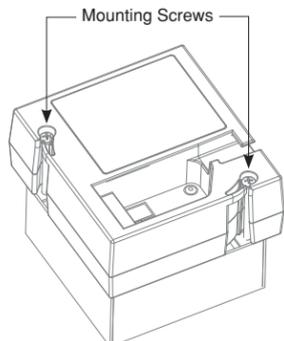
Installation

WARNING: TO AVOID FIRE, SHOCK, OR DEATH; TURN OFF POWER at circuit breaker or fuse and test that power is off before wiring!

NOTE: This is an ESD Sensitive Device. Use safe ESD handling procedures when installing.

1. Mount.

- Mount to face of 4 in sq junction box with minimum volume 30.3 cu in or greater (4 in x 4 in x 2.125 in) using the provided screws.



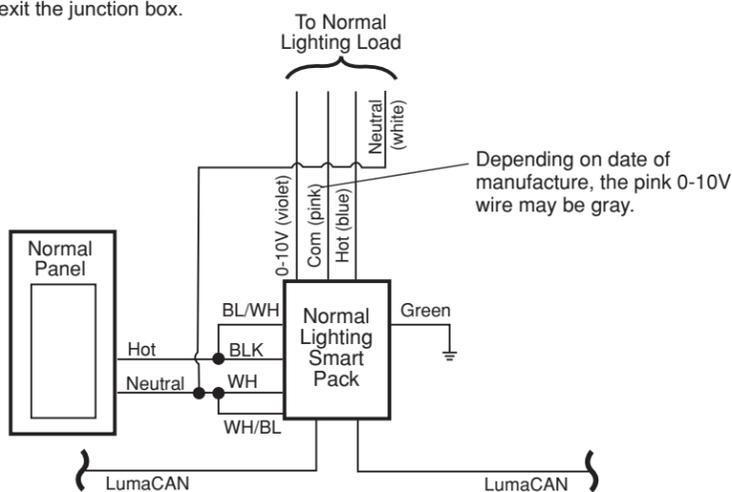
NOTE the following:

- Ensure that conduit/cable entry clamp is located in a corner of junction box opposite the DRC nipple as conflicts may occur.
- Dress wires to provide enough clearance when device is installed.
- When installing in jurisdictions which require Class 2 network wiring in conduit, add a 4 in square extension ring on-top of the smart pack, and a blank cover on top of that. The smart pack will then be sandwiched between two junction boxes, so one can be used for Class 2 and the other for Class 1.
- Some jurisdictions, like Chicago, may require the smart pack to be installed into a metal enclosure. When this is required, the contractor shall provide appropriate enclosure or request the appropriate enclosure from Leviton.

- Preferred installation method is 1a above, but the product may also be mounted using the nipple through a junction box knock-out. **NOTE:** ensure all indicators remain visible and accessible post-installation.

2. Wire.

Wire Line voltage and control wiring per wiring diagram. If control (0-10V) wiring is to be run as class 2, sleeve wires with suitable insulating material from the Smart Pack throughout until they exit the junction box.



3. Connect LumaCAN (See port locations in Operation step 1)

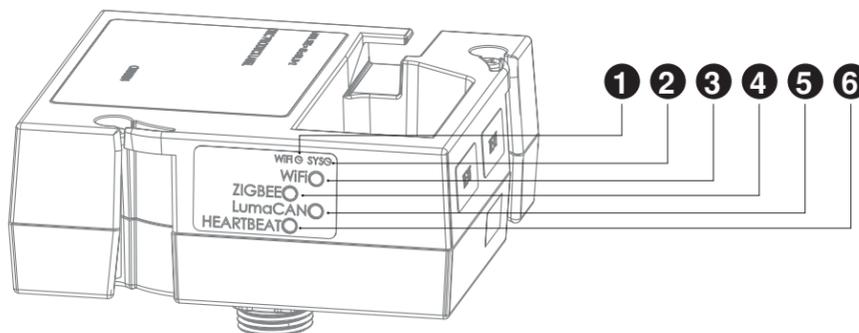
Two LumaCAN ports are provided to maintain the required Daisy-Chain topology of the LumaCAN network. Plug in CAT6 cable with standard RJ45 connector. If two connections are required, remove the terminator from one of the RJ45's and make both connections. If only one connection is required, leave the supplied terminator connected.

- Wire per the TIA-568B standard.
- The sequence of network nodes, as described in the construction documents, may be critical to ensure power distribution between nodes.
- All LumaCAN cable segments must be network cable tested and validated prior to power-up of the system.
- The last device in each LumaCAN run must be terminated using an RJ45 terminator plug. Each Smart Pack is supplied with one terminator plug pre-installed in the Smart Pack. Additional terminators are available upon request. LumaCAN connections must be wired as Class 2 and as such should be installed according to the requirements of your authorities having jurisdiction. If it is required that the Class 2 wiring be in conduit, use a 4 in. square extension ring and blank plate on the LumaCAN side of the Smart Pack, and, terminate conduit to the extension ring.
- Once complete, restore power to the circuit breaker or fuse. When power is applied, DRC Smart Pack will power up in the ON state and then default to the last powered down state. The default from the factory is ON after power up.

SPECIFICATIONS

Cat. No.	DRC07-ED0	DRC07-E30
Input Voltage/Frequency	120-277VAC, 50/60Hz	347VAC, 60Hz
Input Power		
Max	13W @ 120V 12W @ 277V	12W @ 347V
Standby	2W @ 120V 2.5W @ 277V	2.3W @ 347V
Load Ratings	20A Tungsten 20A General Purpose Plug Load 20A Standard Ballast 16A Electronic Ballast, LED	12A Electronic Ballast, LED
Motor Ratings	1/2Hp (9.8 FLA) @ 120VAC 2 Hp (12 FLA) @ 240-277VAC	N/A
0-10V Control	0.8 - 10+VDC, 100mA Sinking	
LumaCAN Data	LumaCAN 3 Only Daisy-Chain Topology 1600 feet max per segment Repeaters can be used for networks up to 10,000 feet and to support home-run topology Max 110 nodes per segment Max 250 nodes Termination required at end of line, termination jumper provided	
LumaCAN Power	300mA Power Supply provided to LumaCAN when EM Sense switch is in LINE position. When EM Switch is in CAN position, no power supplied to LumaCAN network No diodes on RJ-45's, power always passes through	
Connections	18 AWG (Power, 0-10V) 12 AWG (Load IN/OUT) RJ45, CAT6A or better (LumaCAN)	
LED Indicator	Yes	
Dimensions	4.84" x 4.52" x 1.81"	
Weight	0.6 lb (9 oz)	
Mounting	Standard 4" square junction box with minimum volume of 30.3 cu. inches or greater (4" x 4" x 2.125") using the two (2) provided 8-32 x 2.5" screws. Or, mounted to junction box via 1/2" nipple.	
LumaCAN Connections	CAT6 cable	
Operational Temperature	32° to 122F° (0° to 50° C)	
IP Rating	IP30	

Indicator lights and switches (for normal operation)



1 Wi-Fi Switch Actions

Action	Feature	Result
Press/Release <1 second (also can be done with power cycle)	Re-trigger SSID broadcast	SSID broadcast times out after 15 minutes
10 second press	Enable/disable Wi-Fi	2 rapid flashes when triggered
20 second press	Reset Wi-Fi network configuration to factory default state	Rapid continuous flashing, reset triggered on release
>25 second press	LED goes dark	When released, no action will be taken

2 LuminaRF/Intellect/Zigbee Switch Actions

Action	Feature	Result
Press/Release <1 second	Status indication	One blink - not configured Three blinks - network formed
10 second press	Enable/disable	2 rapid flashes when triggered
20 second press	Reset device to factory default state	Rapid continuous flashing, reset triggered on release
>25 second press	LED goes dark	When released, no action will be taken

3 Wi-Fi Indicator

Indicator	Feature
Solid GREEN	Wi-Fi enabled, no traffic
Blink GREEN	Network traffic
OFF	Wi-Fi disabled

4 LuminaRF/Intellect/Zigbee Indicator

Indicator	Feature
Solid GREEN	Enabled, no traffic
Blink GREEN	Network traffic
OFF	Disabled

5 LumaCAN Indicator

Indicator	Feature
Solid GREEN	LumaCAN enabled
Blink GREEN	Traffic
OFF	LumaCAN disabled

6 Heartbeat Indicator

Indicator	Feature	Light Status	Possible Causes/Resolution
Red	Failed application or processor failure	solid	Cycle power. If a power cycle does not restore proper operation, remove LumaCAN cables and cycle power again. Do not reconnect LumaCAN until after normal operation is restored.
	Duplicate LumaCAN address	blinking	Log into controller with app and change LumaCAN address to a unique address.
White	Processor in reset or startup failure	solid	Cycle power. If a power cycle does not restore proper operation, remove LumaCAN cables and cycle power again. Do not reconnect LumaCAN until after normal operation is restored.
Off	Failure	off	Remove LumaCAN cables. If device starts up, then there is either an overcurrent or short on the LumaCAN cables. Resolve the problem and reconnect. If removing cables does not solve the problem, check control Power Input.

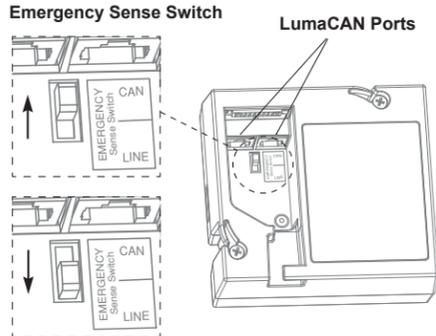
When used in emergency systems:

Emergency operation

The DRC Smart Pack can be used as a UL 924 emergency bypass device ensuring that the relay is closed during a power failure condition. Availability of input power to power the load is the responsibility of others. Two options for sensing power to determine whether you are in "emergency" are available and your Construction Documents will dictate which you are to use. The options and features of normal sense are as follows:

- **Sense is Line Power through the Black wire:** Upon loss of supplying power to the device, relay will close.
- **Sense is power over LumaCAN:** Upon loss of +24V power on LumaCAN cable relay will close.

NOTE: The "Emergency Circuits" label shall be placed on the DRC Smart Pack so the user is aware this device is used for emergency lighting.



• Can Mode

- On loss of +24VDC LumaCAN power Smart Pack will close RELAY and force 0-10V to MAX brightness
- On loss of LINE power the Smart Pack will close RELAY and force 0-10V to MAX brightness.

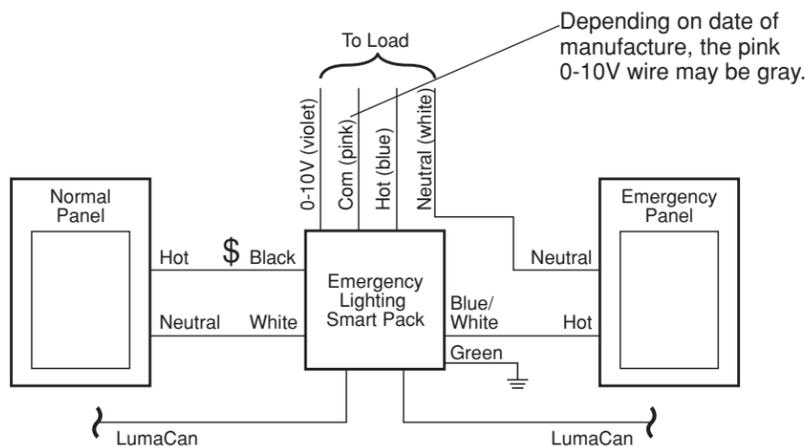
• Line Mode

- On loss of LINE power the Smart Pack will close RELAY and force 0-10V to MAX brightness.

1. Sense: Line mode details

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In this scenario, the supply input wires are connected to normal power, and the Load In for the relay is connected to emergency power. Upon loss of normal power, the relay closes, and the 0-10V lines go to high impedance allowing the load to go to full output powered from the emergency source. The Emergency Switch must be in the LINE position. Upon restoration of normal power, DRC Smart Pack will automatically resume normal operation.



2. Sense: CAN mode details

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In this scenario, both the power input wires AND the Load In are connected to the emergency source. The Smart Pack monitors the LumaCAN cable and upon loss of power, the relay closes and force the 0-10V control wires to MAX brightness. The advantage of this scenario is that only emergency power is run to the DRC Smart Pack so separation of normal and emergency at this location is not required.

FCC Compliance Statement:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Suppliers Declaration of Conformity

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Manufactured by Leviton Manufacturing, Co., Inc. 221 North Service Road, Melville, NY 11747. www.leviton.com

Any changes or modifications not expressly approved by Leviton could void the user's authority to operate this equipment.

IC STATEMENT

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

TRADEMARK DISCLAIMER: The Leviton word mark and logo and the GreenMax, LumaCAN, Lumina, Intellect trademarks, are the property of Leviton Manufacturing Co., Inc. Wi-Fi, Zigbee and DALI are third-party trademarks, the property of their respective owners. Use herein of third party trademarks, service marks, trade names, brand names and/or product names are for informational purposes only, such use is not meant to imply affiliation, sponsorship, or endorsement.

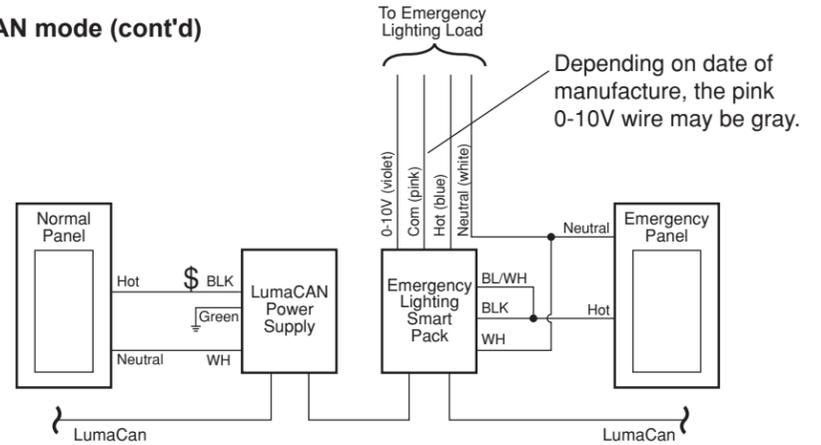
FOR CANADA ONLY

For warranty information and/or product returns, residents of Canada should contact Leviton in writing at Leviton Manufacturing of Canada ULC to the attention of the Quality Assurance Department, 165 Hymus Blvd, Pointe-Claire (Quebec), Canada H9R 1E9 or by telephone at 1 800 405-5320.

LIMITED 5 YEAR WARRANTY AND EXCLUSIONS

Leviton warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Leviton is free of defects in materials and workmanship under normal and proper use for five years from the purchase date. Leviton's only obligation is to correct such defects by repair or replacement, at its option. For details visit www.leviton.com or call 1-800-824-3005. This warranty excludes and there is disclaimed liability for labor for removal of this product or reinstallation. This warranty is void if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. **There are no other or implied warranties of any kind, including merchantability and fitness for a particular purpose, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warranty, including merchantability and fitness for a particular purpose, is limited to five years. Leviton is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, lost sales or profits or delay or failure to perform this warranty obligation.** The remedies provided herein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise.

CAN mode (cont'd)



Notes specific to this scenario:

- The Emergency Switch must be in the CAN position.
- **CAUTION: The systems designer and installer must verify that any and all power supplies which could supply power to either LumaCAN cable segment are fed from normal power and are not connected to a UPS or other power source which could be powered in an emergency mode condition.**
- DRC Smart Pack will go to full output within 1 second.
- Upon restoration of normal power, the DRC Smart Pack will automatically resume normal operation.
- No power provided to LumaCAN network.

3. Emergency self test - \$

NFPA 101 Life Safety Code and NEC {Article 700.3 (B)} requires regular testing of all emergency equipment. To perform a test of these products, use the EM control breaker to interrupt normal power to the device, or the device providing power to the LumaCAN network which will put the Smart Pack into the Emergency behavior. Alternatively, if desired or if your jurisdiction requires it, you can use a standard toggle switch on the normal power line to trigger the emergency systems test. **This test switch must be located local to the load being controlled.** Some jurisdictions may disallow multiple Smart Packs on a test switch or use of breaker in a panel as a test switch. Clarify with all local authorities.

Configuration

1. Configuring the controller.

In order to configure a room with the DRC it is necessary to have an iOS or Android Wi-Fi capable device with the Leviton GreenMax DRC app installed. Connect to the DRC Controller as a Wi-Fi access point then use the app to move through the configuration process.

- Factory Default Access Point Name: GreenMax DRC-[serial number] (The serial number is printed on the product label, use only last four characters.)
- Factory Default Security: WEP Security, Password: leviton0000

2. Changing network configuration:

In situations where a wireless access point or password is changed but the configuration of the DRC needs to remain the same use the following procedure to reset the network and reconnect to the device:

- Press and hold the Wi-Fi button for 20 seconds until the Wi-Fi LED flashes green rapidly.
- Release the button.
- The LED will continue to flash green rapidly until the reset cycle is complete. The LED will go dark then blink slowly indicating that it is ready for connection using its factory default AP name and credentials.

NOTE: even though you can connect to the app, you must be granted access by the site administrator to use the app for configuration.

Troubleshooting

1. Lights are ON after power outage.

- This is the normal operation. The smart pack has a fail-safe feature which forces the relay to close on loss of power and the 0-10V at full output. Approximately 7-10 seconds after power is restored the device will return to its previous state and continue to monitor the LumaCAN network for any changes.

2. Device does not operate immediately after power ON.

- This is the normal operation. The device has a 7-10 second startup time before it will begin operation.

3. Lights flickering.

- Lamp or lamp socket has a bad connection.
- Intermediate wires not secured firmly with wire connectors.

4. Lights did not turn ON.

- Circuit breaker has tripped, or the fuse has blown.
- Bulbs, tubes burn out.
- Fixture Hot or Neutral connection is not wired.

5. Heartbeat LED is either RED or WHITE.

- Represents a processor or application failure. Try power cycling the DRC Smart Pack.