Common Lightcloud
Wiring Applications

# Wiring Diagrams



Lightcloud

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# Wiring Diagrams

The following diagrams are commonly used for Lightcloud installations.  If you're planning on using a Lightcloud Device in a manner that isn't covered by these diagrams, please contact us to ensure proper installation.

For additional wiring information or concerns, give us a call at 1 (844) - LIGHTCLOUD

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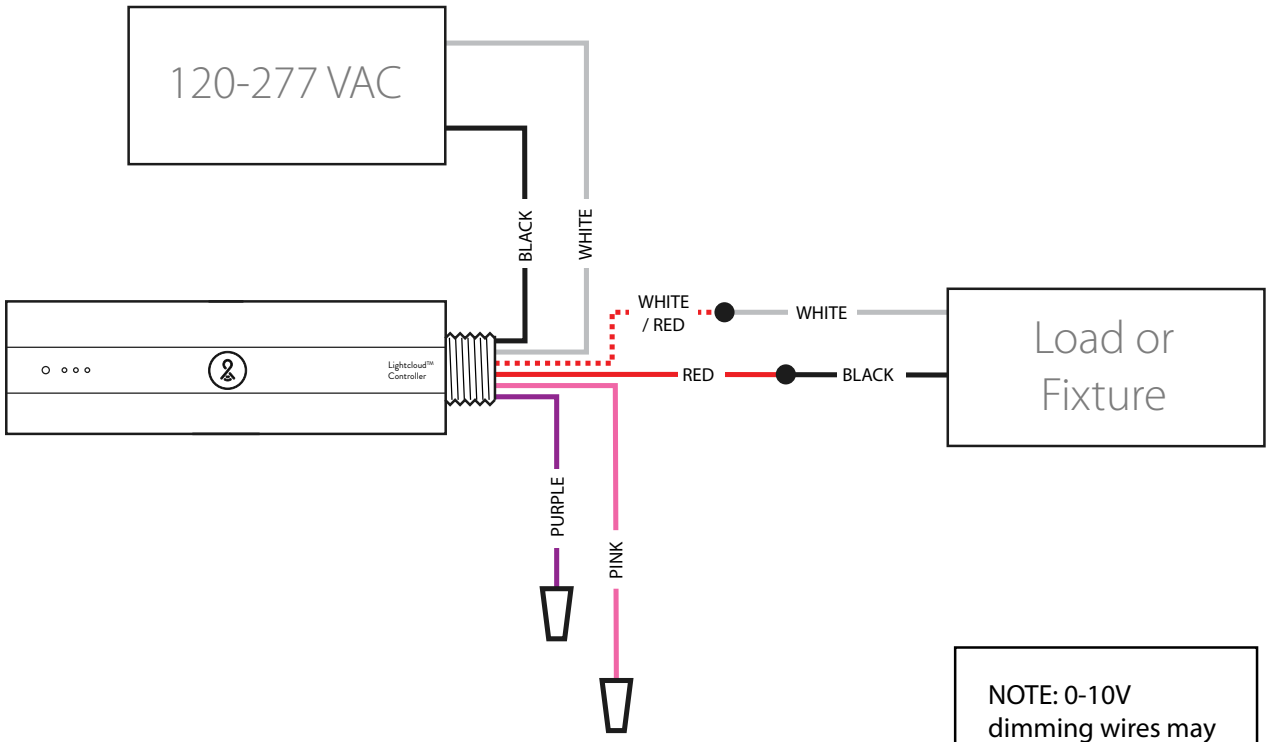
# Lightcloud Controller Switch

Lightcloud Controller used to switch a load without dimming.




NOTE: 0-10V dimming wires may be purple and gray.

**Input**: 120-277VAC, 50/60Hz

**Switching Capacity (Magnetic, Electronic Ballast or LED)**
15.5A (120-277VAC)
277VAC: 20A Magetic/Resistive
240VAC: 5A Tungsten/Electronic, 20A FLA/60 LRA, 2HP
120VAC: 15A Tungsten, 1HP

**Switched Neutral:** The "Switched Neutral" white with red stripe wire is the neutral line for the load being switched. This enables power measurement.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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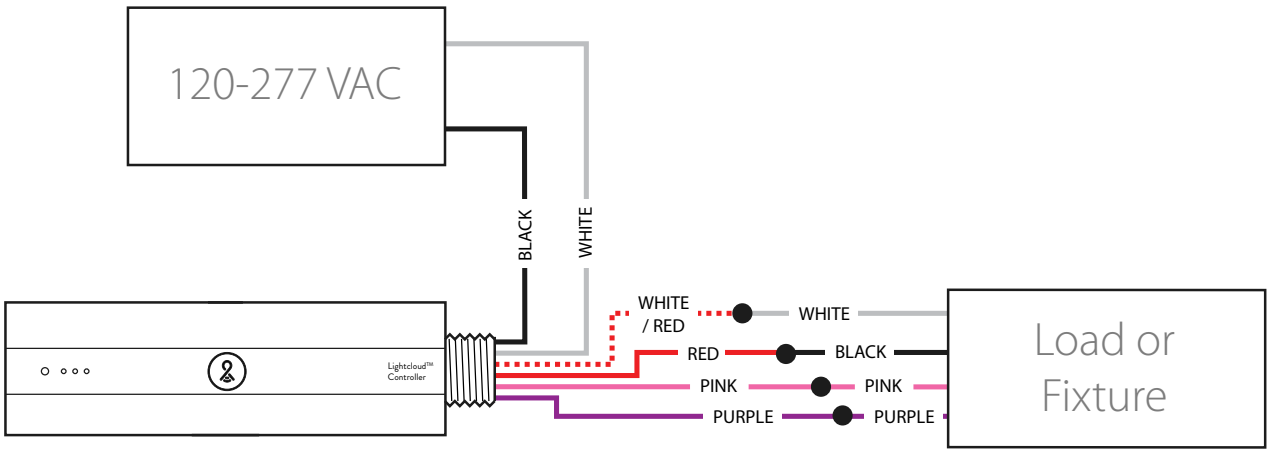
# Lightcloud Controller 0-10V Dimming

Lightcloud Controller used to switch a load with 0-10V dimming.




**Input**: 120-277VAC, 50/60Hz
**Purple:** 0-10V positive
**Grey:** 0-10V common

NOTE: 0-10V dimming wires may be purple and gray.

**Switching Capacity (Magnetic, Electronic Ballast or LED)**
15.5A (120-277VAC)
277VAC: 20A Magetic/Resistive
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**Note:** The National Electrical Code requires that low-voltage wiring use in the same enclosure as high-voltage wiring have an equal or better insulation rating. You may need to complete your low-voltage wiring in another enclosure or use a partition.

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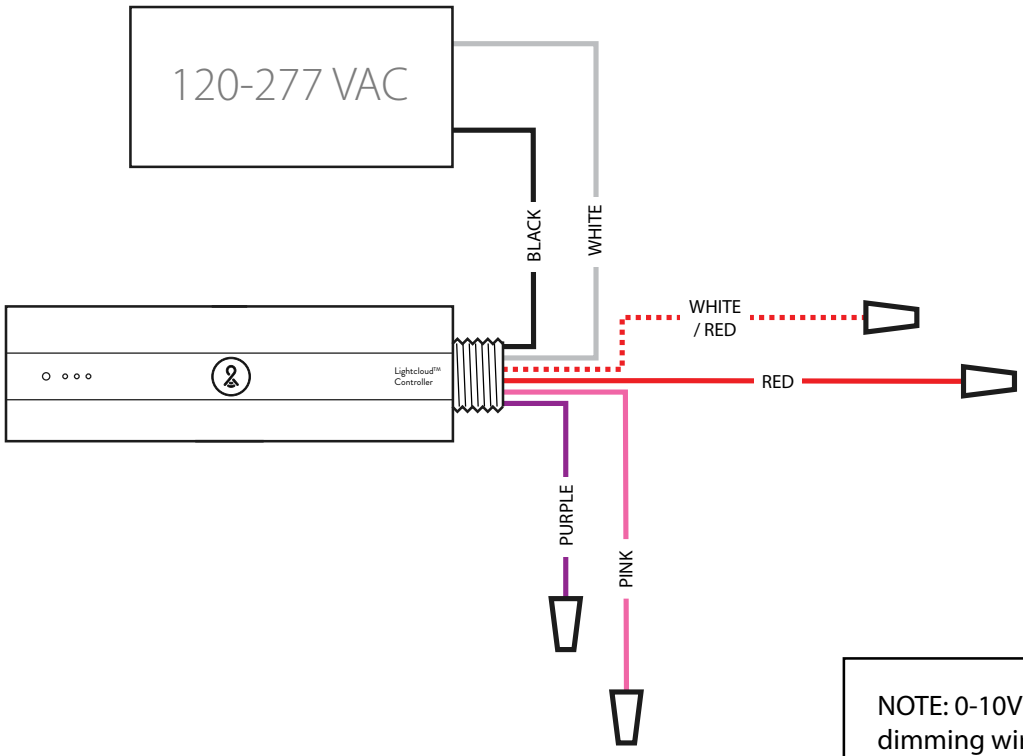
# Lightcloud Controller Repeater

Lightcloud Controller used to repeat Lightcloud mesh network signal without controlling a load.




NOTE: 0-10V dimming wires may be purple and gray.

**Input**: 120-277VAC, 50/60Hz

Any wires not in use must be capped off or otherwise insulated. This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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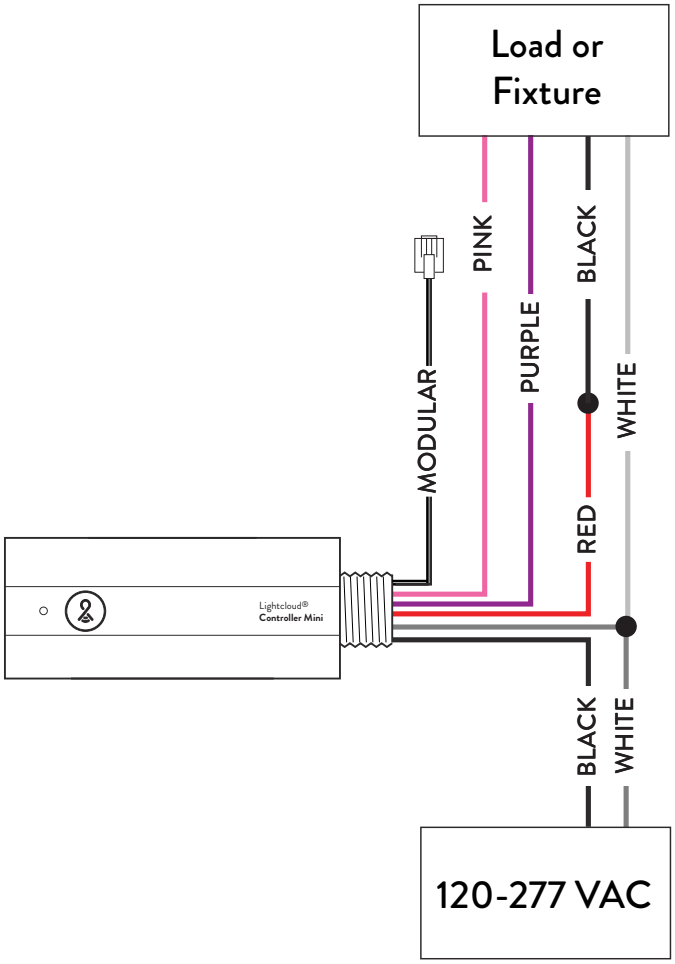
# Lightcloud Controller Mini

Wireless switching, 0-10V dimming, and power monitoring with a smaller footprint for 3A applications.




**Input**: 120-277VAC, 50/60Hz

**Switching Capacity**
277V: 1.81A (500W) Electronic Ballast (CFL, LED Driver)
120V: 4.2A (500W) Electronic Ballast CFL, LED Driver)
120V: 4.24A (500W) Tungsten
277V: 1.81A (500W) Tungsten
120V: 2.2A (264VA) Standard Ballast (Magnetic Ballast)
277V: 1.8A (500VA) Standard Ballast (Magnetic Ballast)
120V: 4.2A (500W) Resistive or Inductive
0-10V SELV: Limited Energy (Class 2) 0-10V Dim output

NOTE: 0-10V dimming wires may be purple and gray.

**Modular:** The Lightcloud Controller Mini can connect to sensors via its modular RJ9 connector.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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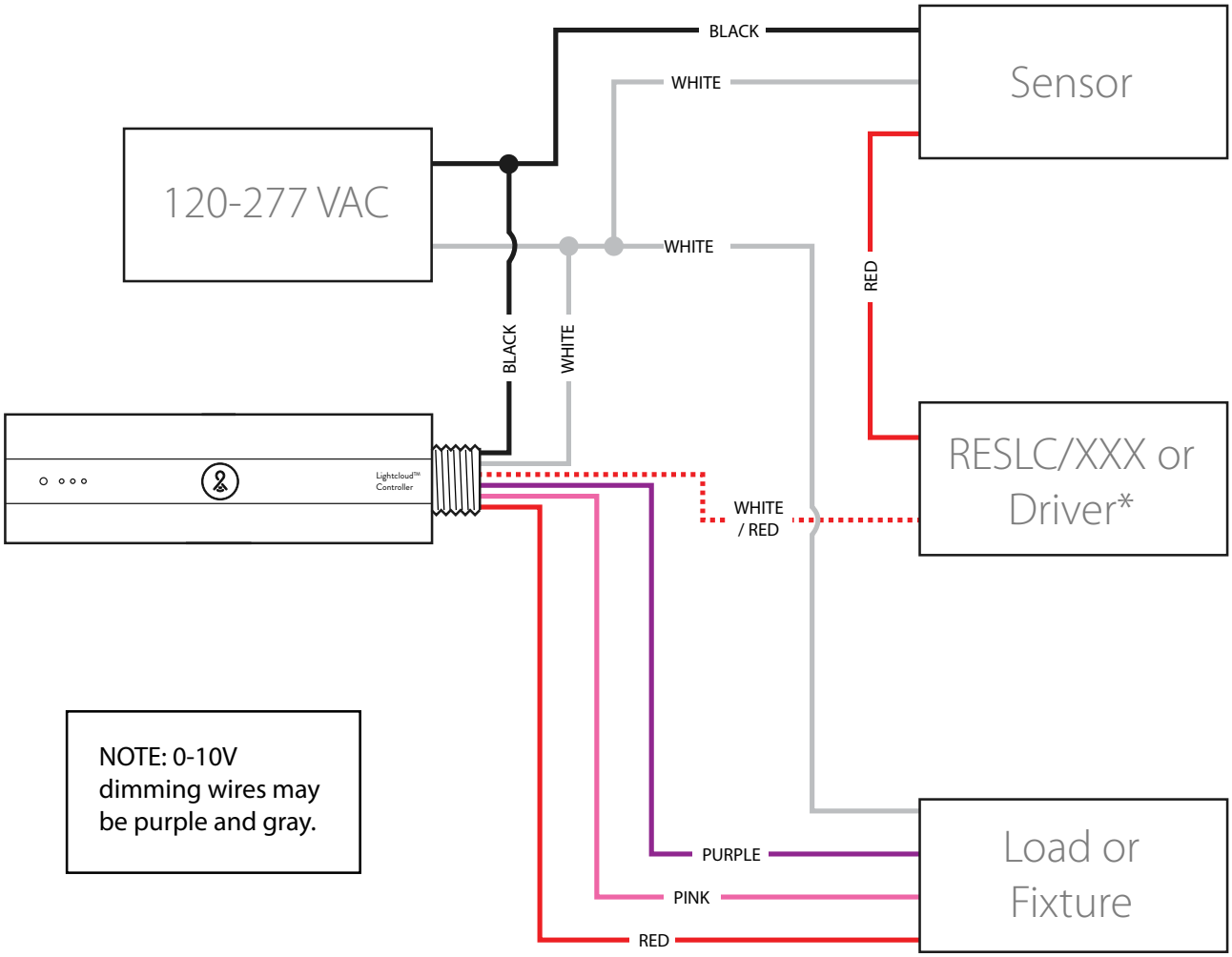
# Lightcloud Advanced Trigger

Lightcloud Controllers can receive inputs or triggers from 3rd party switching devices such as outdoor motion or light sensors.




**Sample Occupancy Sensor**
RAB Stealth STL200

* A resistor or second fixture driver must be used between the Controller and Sensor. RESLC/120 for 120VAC applications or RESLC/277 for 277VAC applications. The driver must be greater than 10mA.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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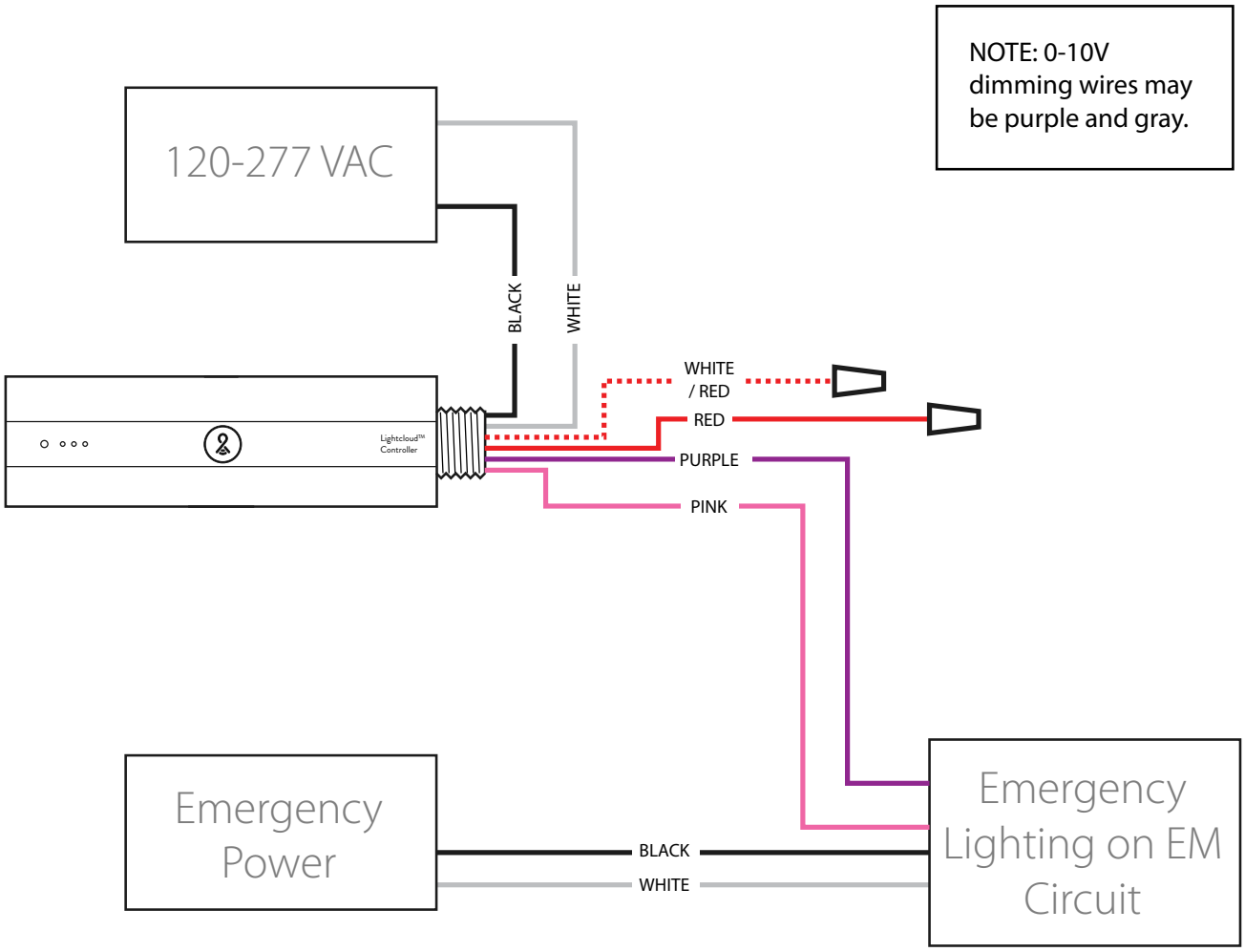
# Lightcloud Emergency Lighting

Lightcloud Controllers can be used to control Emergency Lighting fed with "Always ON" Emergency Power. Upon loss of power, Emergency lighting will fail to "Full ON" light output.




**Notes:** In spaces where there is only one luminaire, and it is connected to emergency power, the Controller will need to be connected to a Normal Power Circuit for proper operation. Emergency fixtures with on-board battery backup don't require special wiring.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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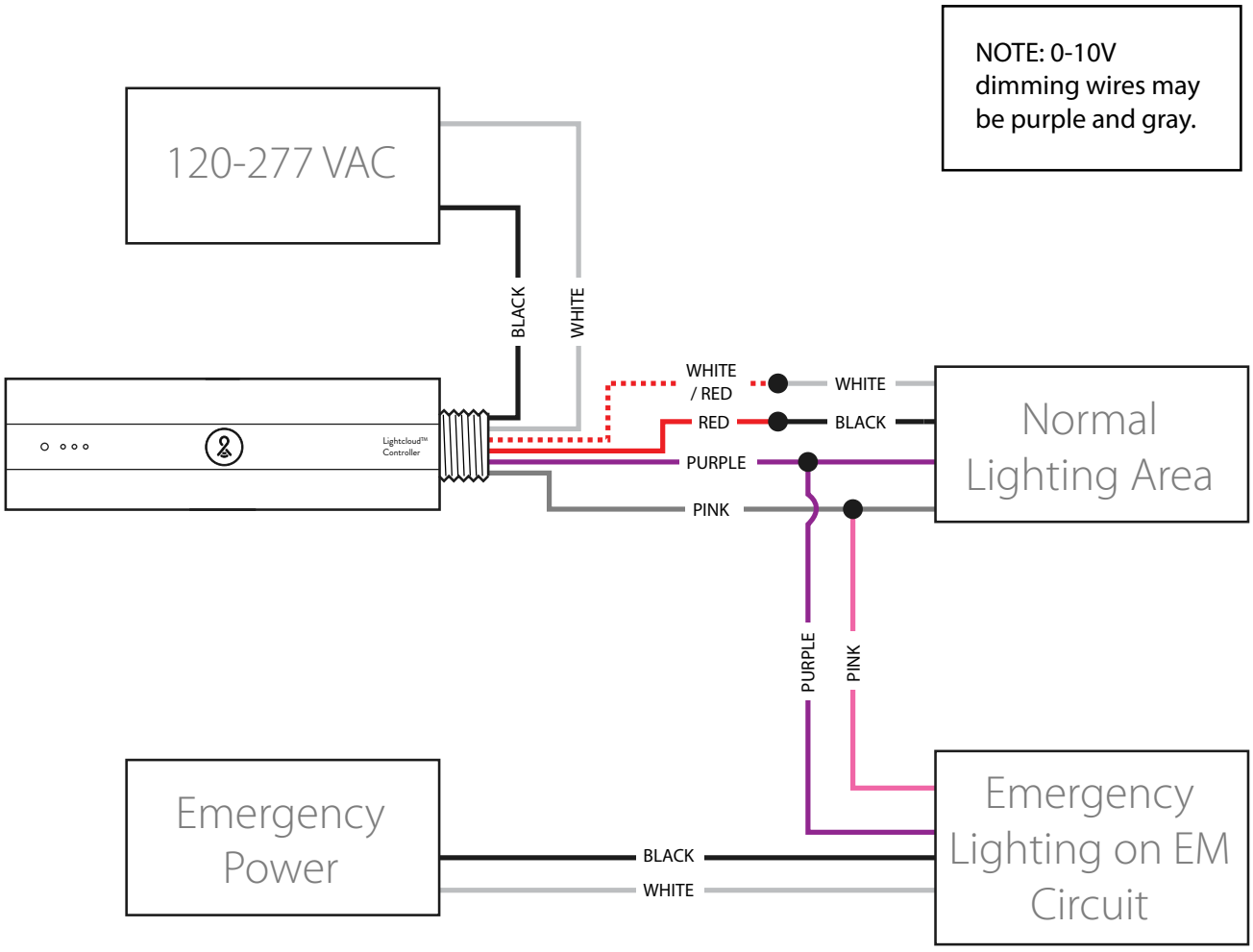
# Lightcloud Emergency & Normal Lighting

Lightcloud Controllers can be used to control Emergency Lighting fed with "Always ON" Emergency Power. Upon loss of power, Emergency lighting will fail to "Full ON" light output.




**Notes:** In spaces where there is only one luminaire, and it is connected to emergency power, the Controller will need to be connected to a Normal Power Circuit for proper operation. Emergency fixtures with on-board battery backup don't require special wiring.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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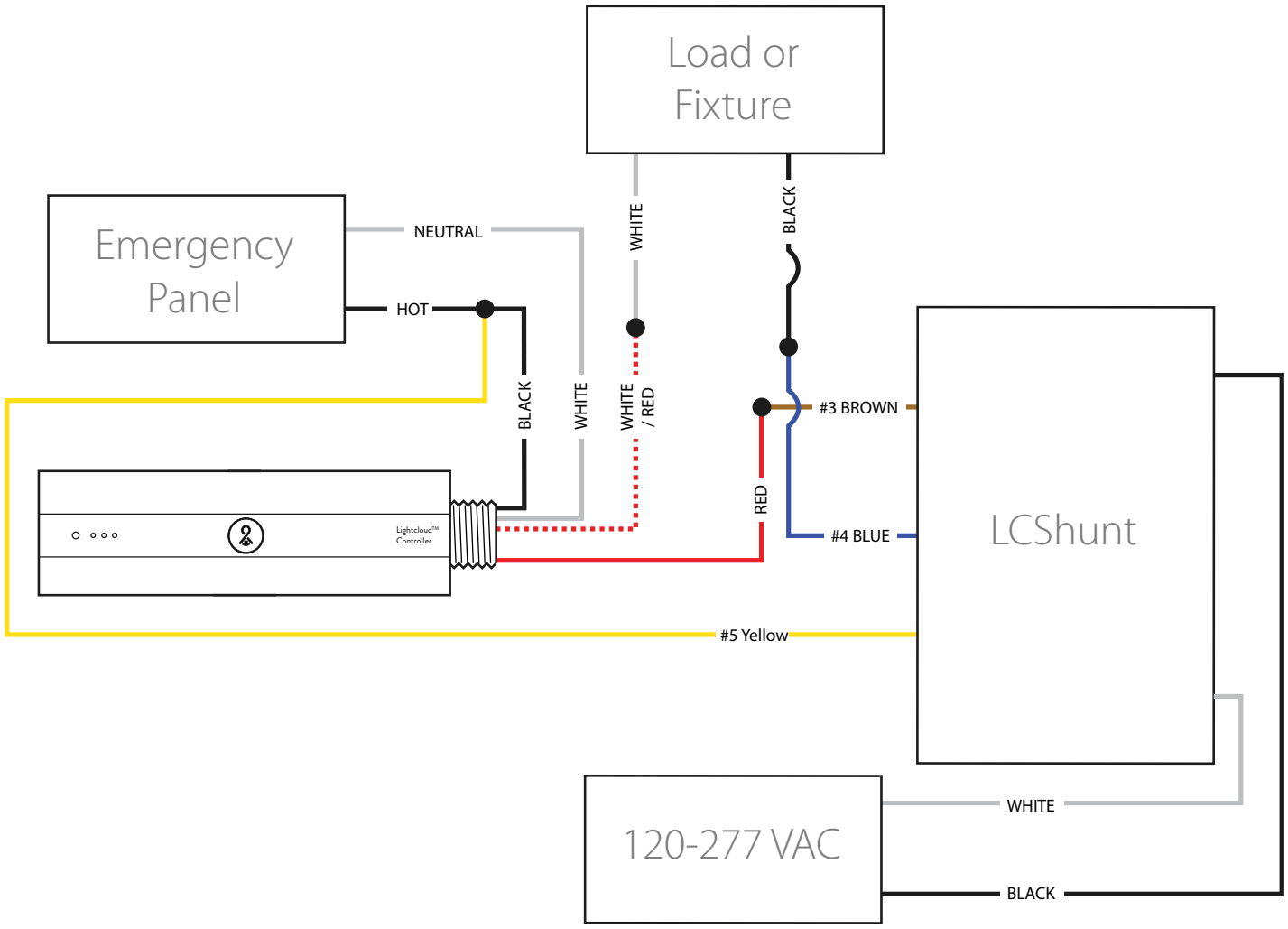
# Lightcloud Emergency Shunt On/Off

Lightcloud Controller emergency fixture wiring withLCShunt for on/off operation.




**Note:** The LCSHUNT includes a 20A rated high voltage Form C (N/O+N/C) relay and is UL924 Listed for emergency lighting control applications. The LCSHUNT can bypass a line voltage switch or dimmer, ensuring that an emergency fixture illuminates at full brightness during a utility power interruption.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in

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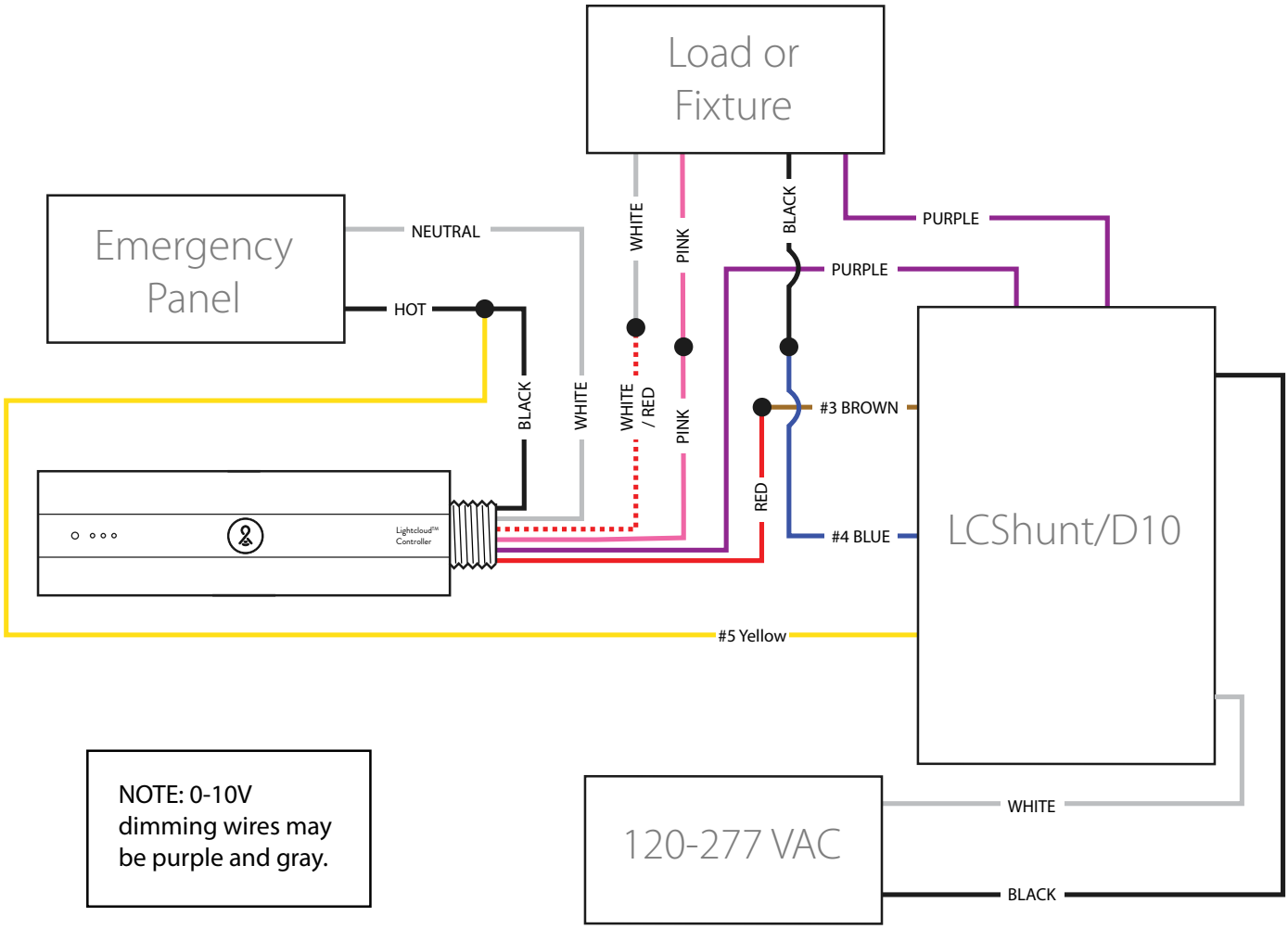
# Lightcloud Emergency Shunt Dimming

Lightcloud Controller emergency fixture wiring with LCShunt/D10 for on/off and 0-10V dimmable operation.




**Note:** The LCSHUNT includes a 20A rated high voltage Form C (N/O+N/C) relay and a low voltage Form A (N/O) relay and is UL924 Listed for emergency lighting control applications. The LCSHUNT can simultaneously bypass both a line voltage switch and a 0-10V dimming signal, ensuring that an emergency fixture illuminates at full brightness during a utility power interruption.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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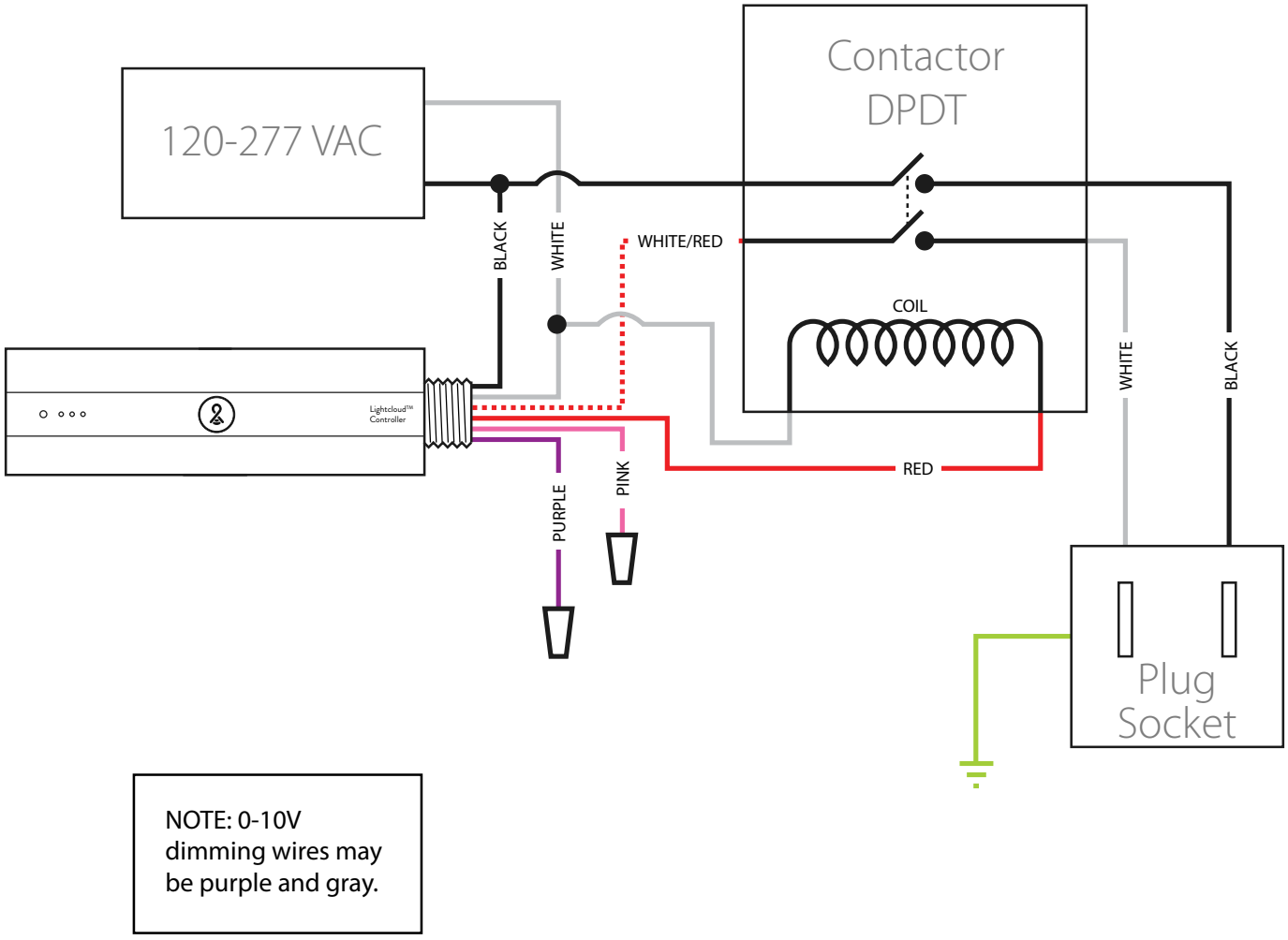
# Lightcloud Plug Load Control

Lightcloud Controllers can control electrical outlets using a contactor.




NOTE: 0-10V dimming wires may be purple and gray.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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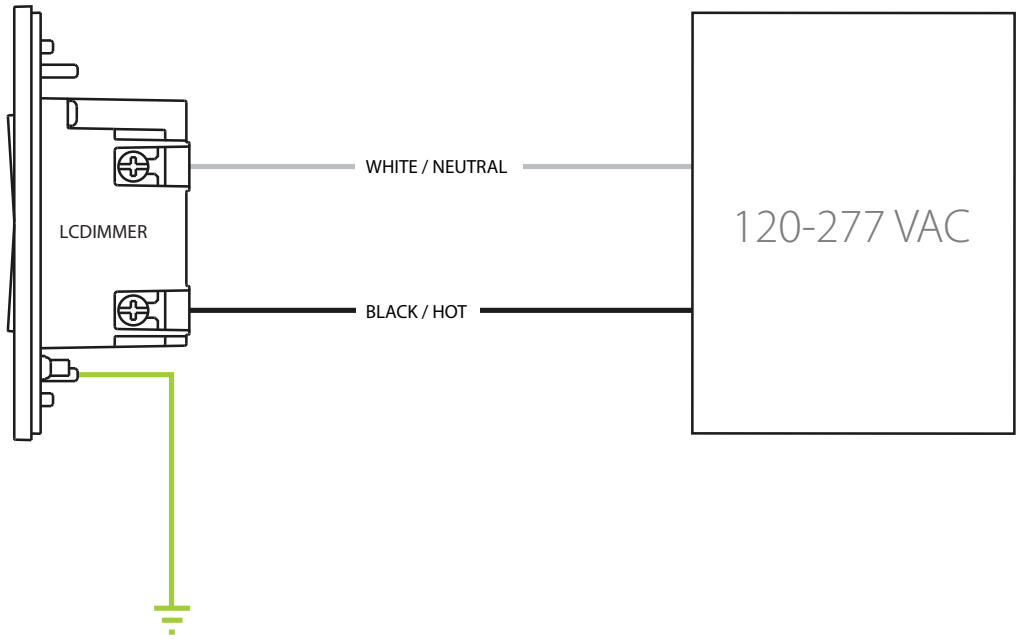
# Lightcloud Dimmer

Lightcloud Dimmer must be hard-wired to AC power to wirelessly controls zones, dimming, and scenes.




**Input**: 120-277VAC, 50/60Hz, 2W
18AWG grounding; terminals supporting up to 12AWG wire

**Caution**
Use only copper wire.
Do not operate with the faceplate removed.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.
This product should only be installed in a UL-approved single or double gang wall-box enclosure.
Indoor use only.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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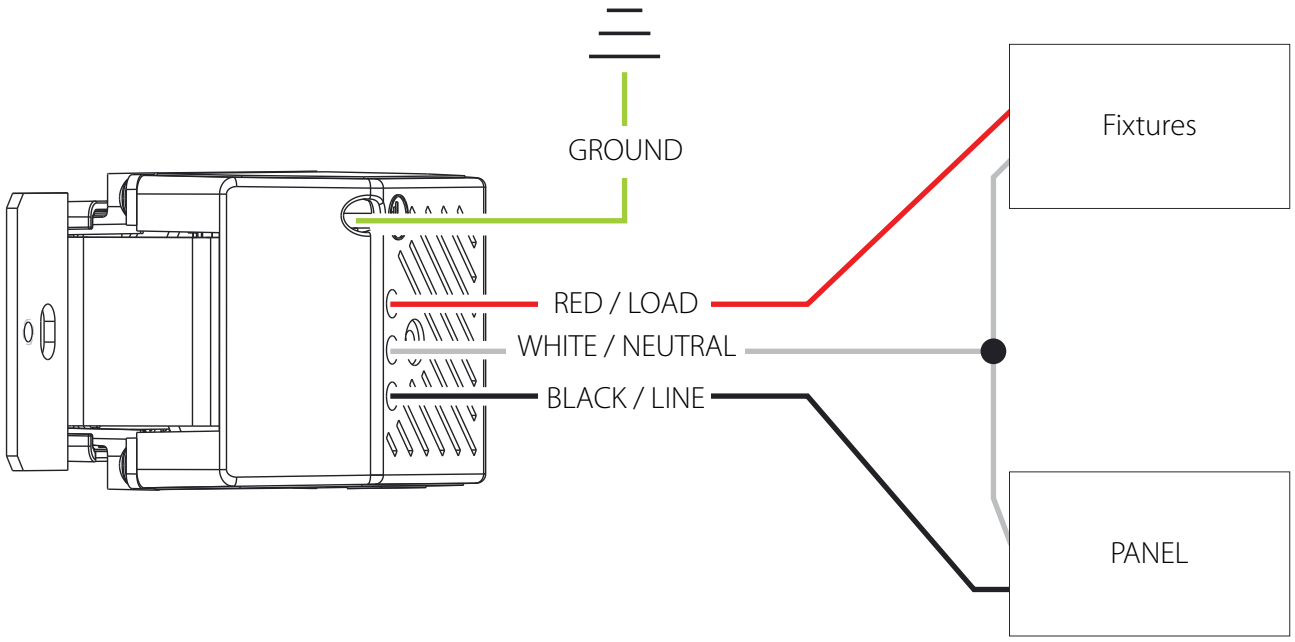
# Lightcloud Phase Dimmer




**Input**: 120VAC, 50Hz

**Load Switching Capacity**
450W LED (reverse phase)
450W Incandescent (reverse phase)
450W Magnetic Low Voltage (symmetric forward phase) 450W Electronic Low Voltage (reserve phase)
450W Dimmable CFL (reverse phase)
***Note: Not recommended for non-dimmable loads.***

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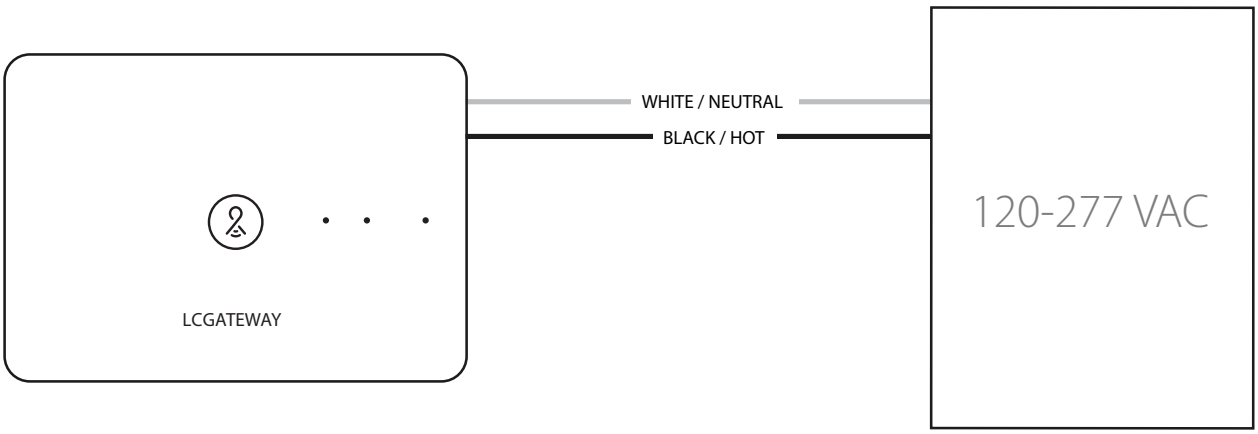
# Lightcloud Gateway

The Lightcloud Gateway must be hard-wired to AC power.




**Input**: 120-277 VAC, 50/60 Hz 60-45mA

Any wires not in use must be capped off or otherwise insulated.
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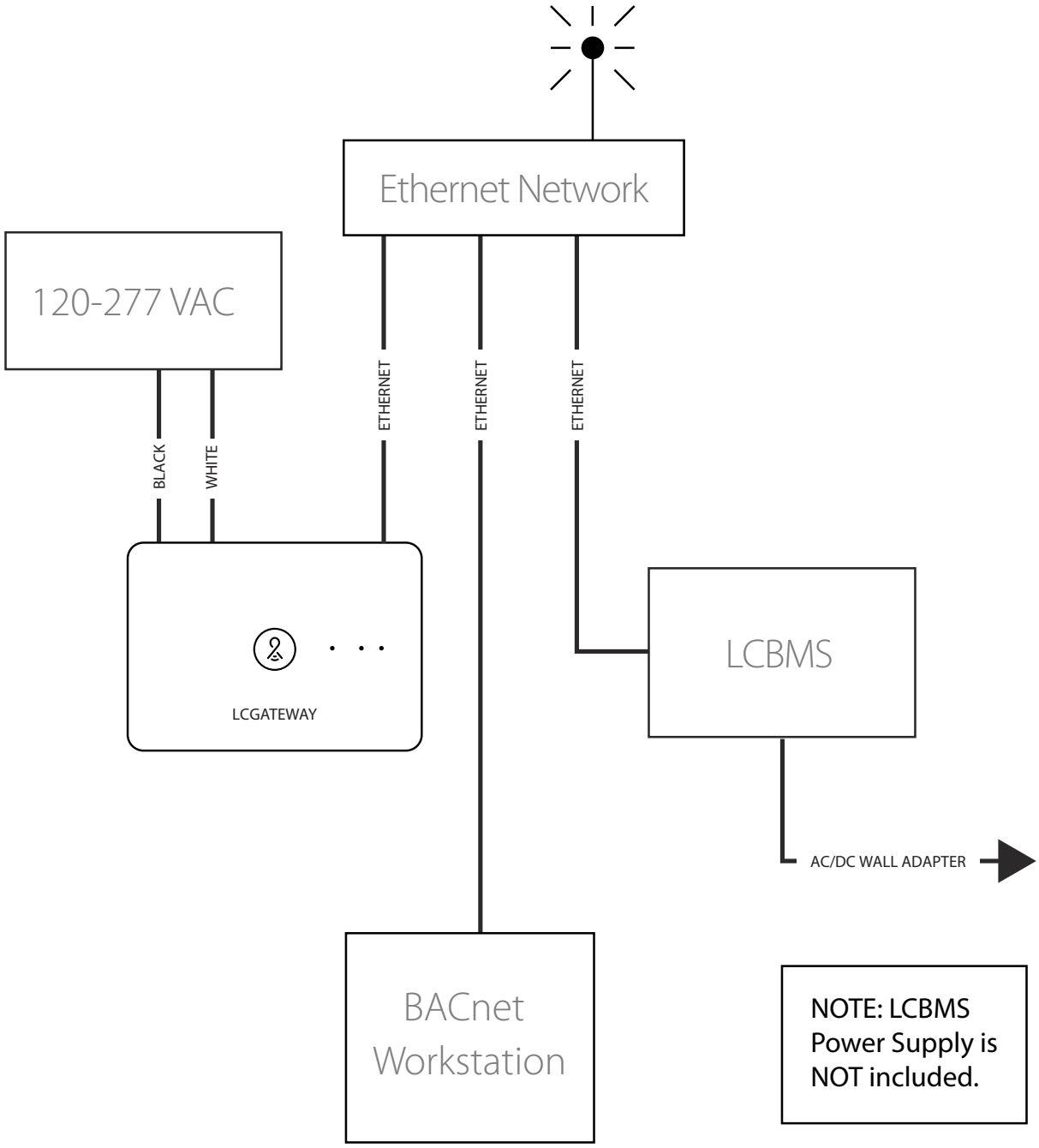
# Lightcloud Integrator

The Lightcloud Gateway must be hard-wired to AC power.




**Input**: 9-30 VDC or 12-24 VAC

Any wires not in use must be capped off or otherwise insulated.
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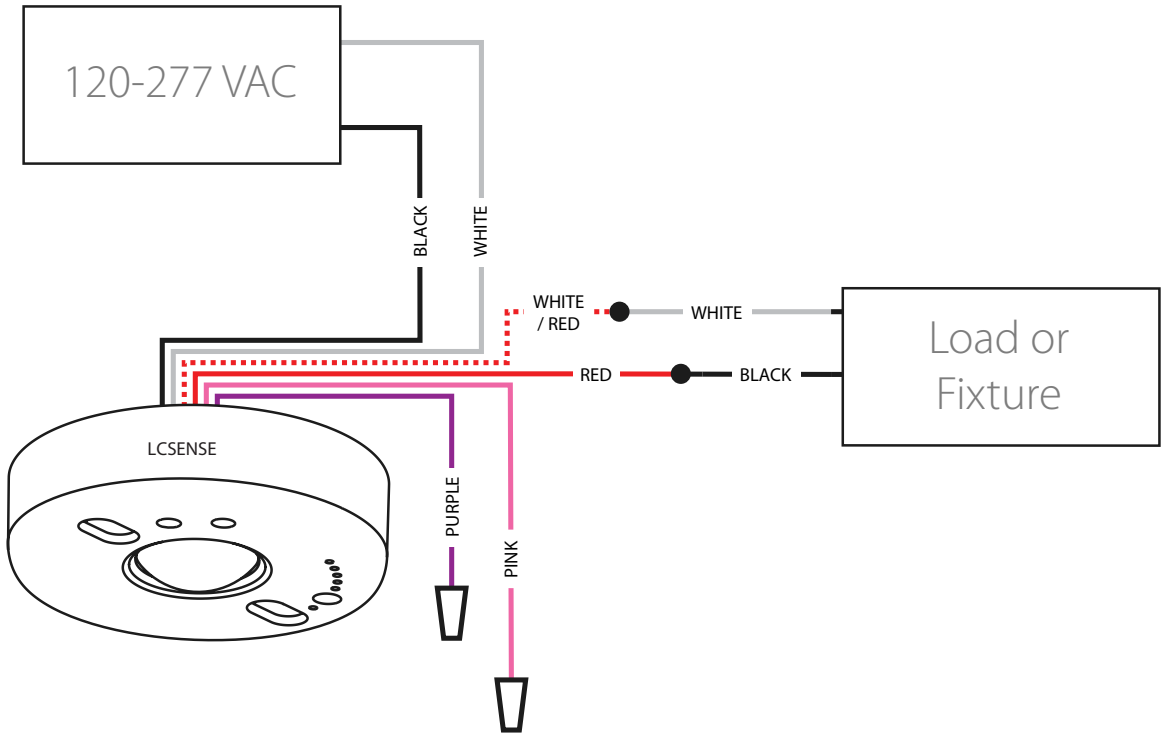
# Lightcloud Sensor Switch

Lightcloud Sensor used to switch a load without dimming.




**Input**: 120-277VAC, 50/60Hz

**Maximum Switched Load Ratings**
Incadescent: 250VAC, 12A
Standard Ballast: 120/277VAC, 6A/4A
Electronic Ballast: 277VAC, 11A

**Switched Neutral:** The "Switched Neutral" white with red stripe wire is the neutral line for the load being switched. This enables power measurement.

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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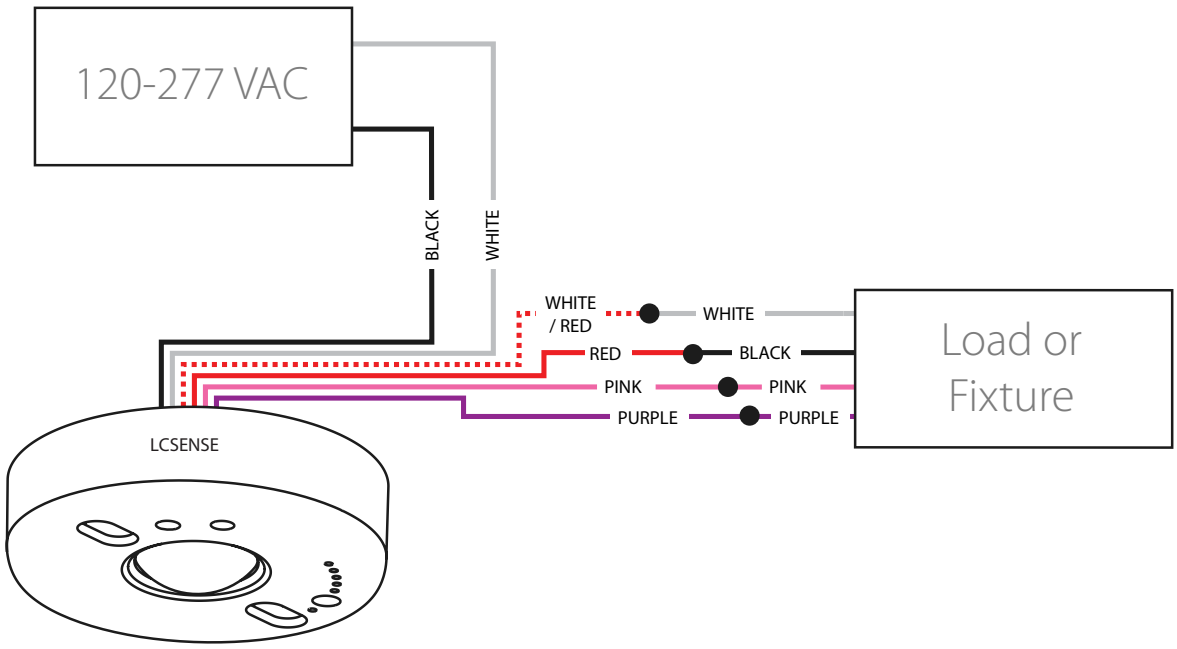
# Lightcloud Sensor 0-10V Dimming

Lightcloud Sensor used to switch a load with 0-10V dimming.




NOTE: 0-10V dimming wires may be purple and gray.

**Input**: 120-277VAC, 50/60Hz
**Purple:** 0-10V positive
**Grey:** 0-10V common

**Maximum Switched Load Ratings**
Incadescent: 250VAC, 12A
Standard Ballast: 120/277VAC, 6A/4A
Electronic Ballast: 277VAC, 11A

**Switched Neutral:** The "Switched Neutral" white with red stripe wire is the neutral line for the load being switched. This enables power measurement.

**Note:** The National Electrical Code requires that low-voltage wiring use in the same enclosure as high-voltage wiring have an equal or better insulation rating. You may need to complete your low-voltage wiring in another enclosure or use a partition.

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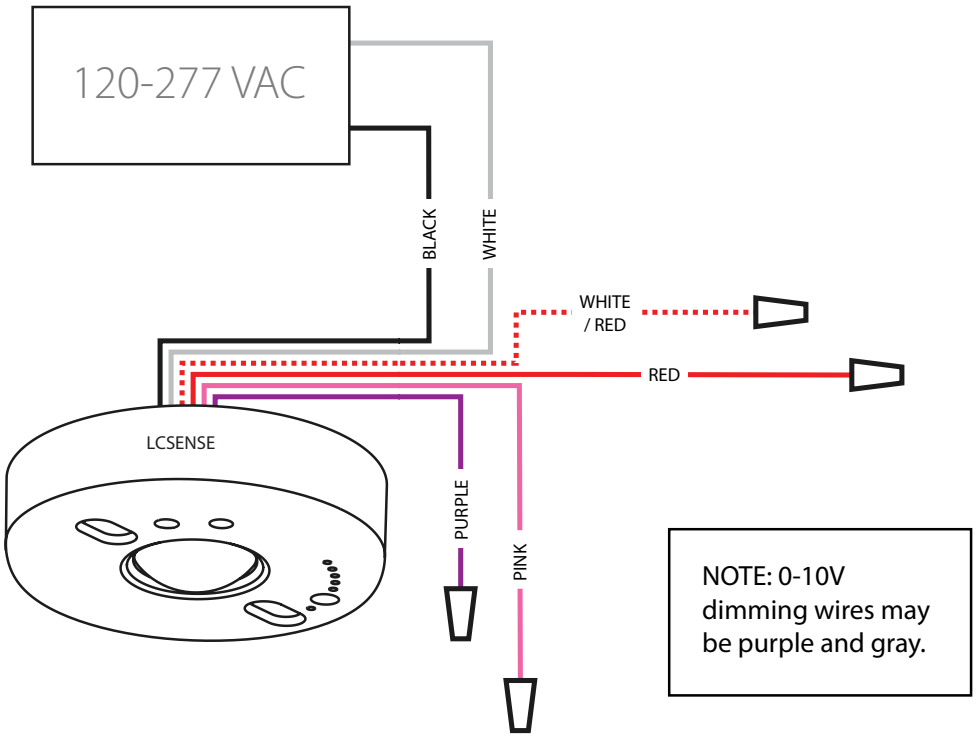
# Lightcloud Sensor Without Load

Lightcloud Sensor not used to control loads.




**Switched Neutral:** The "Switched Neutral" white with red stripe wire is the neutral line for the load being switched. This enables power measurement.

**Input**: 120-277VAC, 50/60Hz

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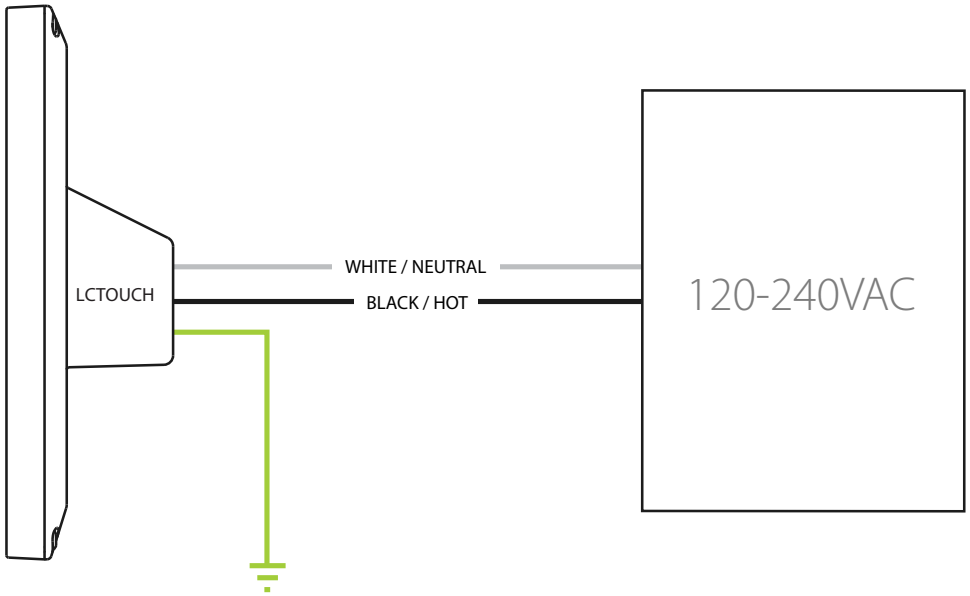
# Lightcloud Touch

Lightcloud Touch must be hard-wired to AC power.




**Input**: 120-240 VAC, 0.3-0.15A, 50/60Hz

Any wires not in use must be capped off or otherwise insulated.
This product should only be installed by a qualified electrician and in compliance with local and national electrical codes.

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# Call For Additional Diagrams

lightcloud.com

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