



DIALOG®

Room Controller 4000 Series

- WRC-4222 - 2 Relay / 2 Dimmer
- WRC-4244 - 4 Relay / 4 Dimmer
- WUL-4924 - 2 Relay UL924 Expansion Pack

WARNING!
**SYSTEM MUST BE INSTALLED IN ACCORDANCE
WITH LOCAL AND NATIONAL ELECTRICAL CODES**
INDOOR USE ONLY

Risk of Electric Shock. More than one disconnect switch is required to de-energize the device before servicing. All Servicing should be performed by qualified service personnel. This unit has more than one power supply connection point. To reduce the risks of electric shock disconnect both the branch circuit breakers / fuses & emergency power supplies before servicing.

SAVE THESE INSTRUCTIONS

- READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
- Be aware that Line Voltage Connections may be 120Vac or 277Vac or 347Vac
- Do not use outdoors.
- Do not mount near gas or electric heaters.
- Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
- The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
- Do not use this equipment for other than intended use.

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1. General Description

The Dialog Room Controller 4000 Series provides localized distributed lighting control for a specific application, defined space or room.

The product is factory configured to be used without the need for on-site programming prior to commissioning. If changes are required, the technician can make the required updates.

2. Design Features

- The Dialog Room Controller is plenum Class 2 power unit rated for indoor environments that are stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity with an Ambient Operation Temperature of 32°F to 100°F (0°C to 38°C).
- High voltage connections are pre-wired with colour coded, tinned, flying leads. The high voltage compartment is not accessible and has no serviceable components.
- Low voltage push-connect terminal blocks are labeled and colour coded.
- A ½" threaded chase nipple with locknut is integrated into the chassis for installation to standard size junction boxes
- Two ½" knockouts and two break-away tabs allow direct wiring access to the low voltage compartment.
- A 120° opening lid is notched to stay in the open position to provide access to the low voltage compartment and circuit test buttons
- A top-mounted bi-colour LED indicates device status and allows for easy device locating
- Dialog Room Controller is a 24VAC data line source for use with the Dialog Occupancy Sensors, Daylight Sensors and Digital Wallstations
- Self networkable for up to 12 Relays and 12 Dimmer unified control
- BACnet IP Native
- Demand Response Ready
- Networkable for Global Controls

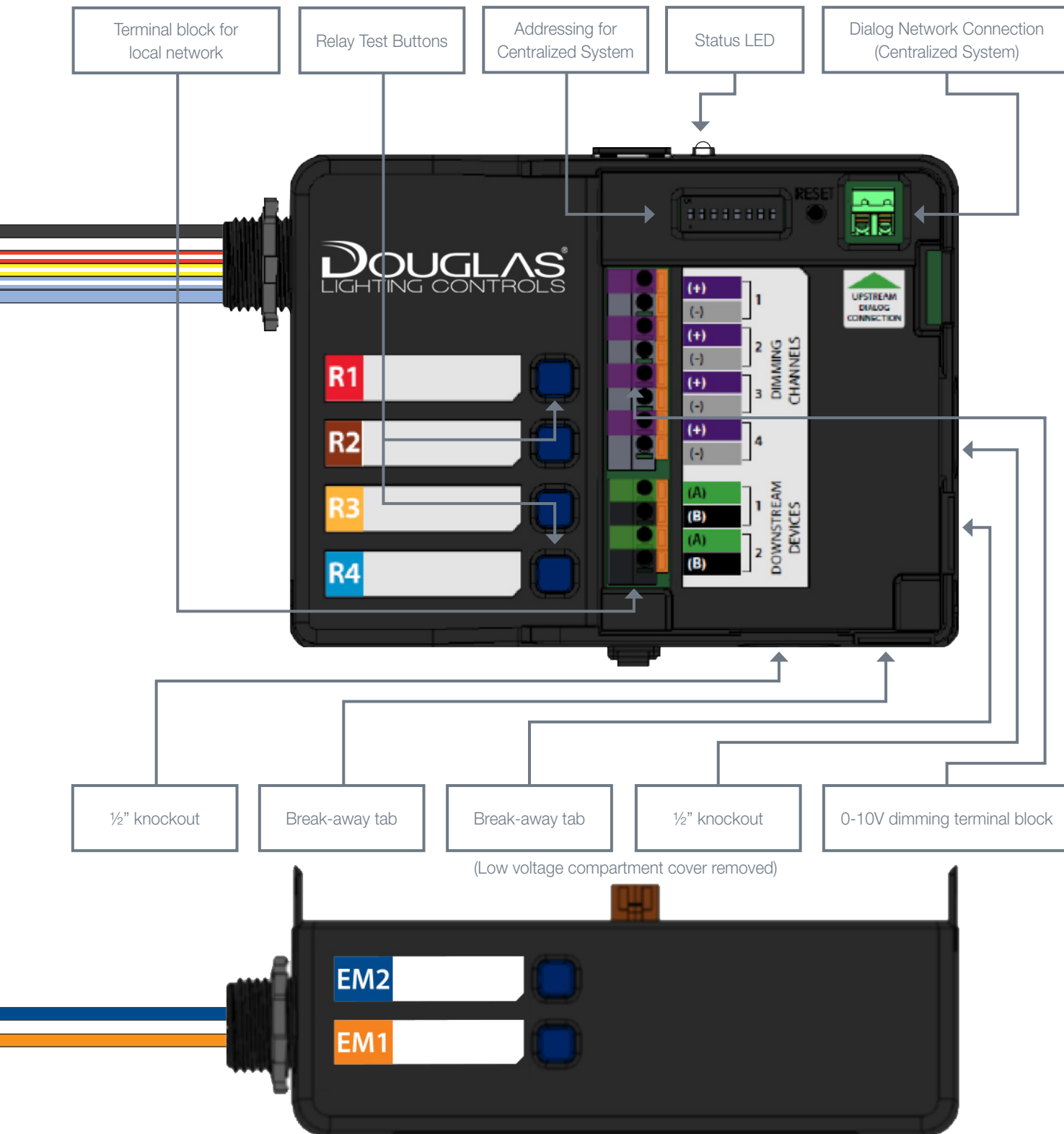
3. Compatible Devices

The WRC-4222 and WRC-4244 work in conjunction with the following part numbers:

Description	PN
Recessed Ceiling Occupancy Sensor, Standard Range w/ Time Delay Dial & Aux Relay, No Photo	WORS DG1-R-T
Recessed Ceiling Occupancy Sensor, Extended Range w/ Time Delay Dial & Aux Relay, No Photo	WORX DG1-R-T
Recessed Ceiling Vacancy Sensor, Standard Range w/ Time Delay Dial & Aux Relay, No Photo	WWRSDG1-R-T
Recessed Ceiling Vacancy Sensory, Extended Range w/ Time Delay Dial & Aux Relay, No Photo	WWRX DG1-R-T
1-Button Wall Station with Occupancy & Daylight Sensor w/Time Delay Dial & Daylight Set-point Dial	WOSS DG1-P-T
Recessed Ceiling Daylight Sensor with Daylight Set-point Dial	WPP-INT
1-Button & Dimmer Wall Station	WSD-3501
1-Button Wall Station	WSW-3511
2-Button Wall Station	WSW-3512
3-Button Wall Station	WSW-3513
4-Button Wall Station	WSW-3514
8-Button Wall Station	WSW-3528
Keyed Wall Station	WSK-3502

4000 Series Devices

Description	PN
360° Ceiling Sensor - Standard Lens, Aux Relay	WORS DG1-BPR-N
360° Ceiling Sensor - Extended Lens, Aux Relay	WORX DG1-BPR-N
360° Ceiling Sensor - Highbay Lens, Aux Relay	WORBDG1-BPR-N
1-Button Wall Station	WSW-4511
2-Button Wall Station	WSW-4512
4-Button Wall Station	WSW-4514
6-Button + Master ON/OFF Wall Station	WSW-4516
8-Button Wall Station	WSW-4518
1-Zone Dimmer Station	WSD-4501
2-Zone Dimmer Station	WSD-4502
4-Zone/4-Preset Dimmer Station	WSD-4504



4. Specifications

4.1. Mounting

- WRC-4222 and WRC-4244 are designed to be mounted to an electrical junction box. Integrated ½" threaded chase nipples allow for easy mounting to junction box. Please follow wiring schematics as shown in this instruction manual.

4.2. Power

- Line Voltage: 120/277/347Vac
- Frequency: 60Hz

4.3. Inputs:

- 24VAC Dialog Low Voltage Control

4.4. Output Power Supply:

- Low Voltage: 24VAC ±25% source.
- Frequency: 60Hz
- Current: 250mA

4.5. Contact Ratings

- 20A Suitable for General Purpose Loads @ 120/277/347VAC
- 20A Suitable for Standard Ballasts & Tungsten Loads @ 120/277VAC
- 15A Suitable for Standard Ballast Only @ 347VAC
- 16A Suitable for Electronic Ballasts @ 120/277VAC
- 0.5HP @ 120/277VAC

4.6. Operation Environment

- Indoors, stationary, non-vibrating, non-corrosive atmosphere and non-condensing humidity
- Ambient Operation Temperature: 32°F to 100°F (0°C to 38°C)
- Plenum Rated

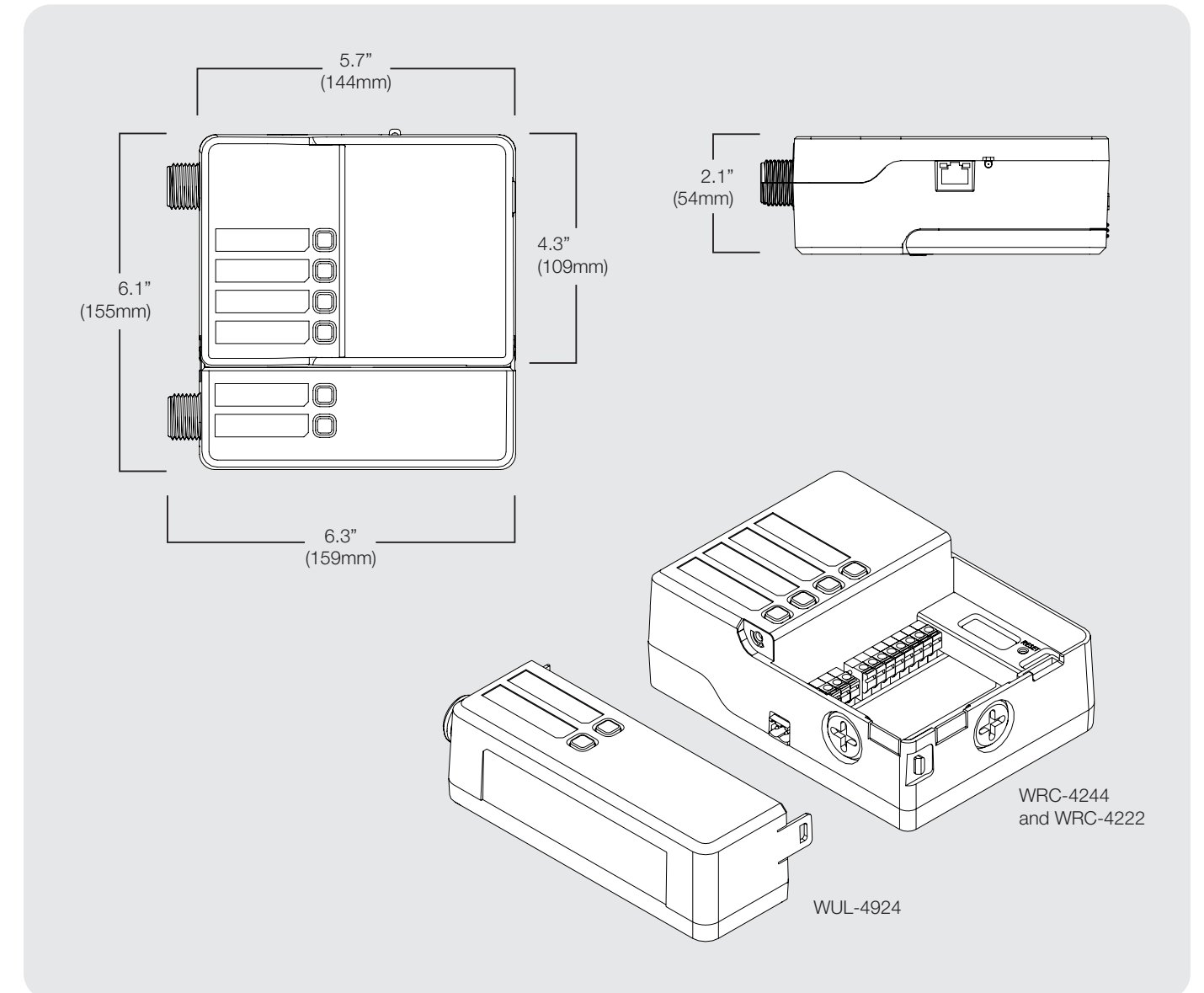
4.7. Storage temp:

- -14° to 140°F (-25° to 60°C)

4.8. Approvals:

- CAN/CSA Std. C22.2 No. 14
- UL 508
- UL1310 Standard
- UL2043 Plenum Rating
- Meets ASHRAE 90.1 Requirements
- Meets CEC Title 24 Requirements
- Meets NYLL 48 Requirements

5. Dimensions

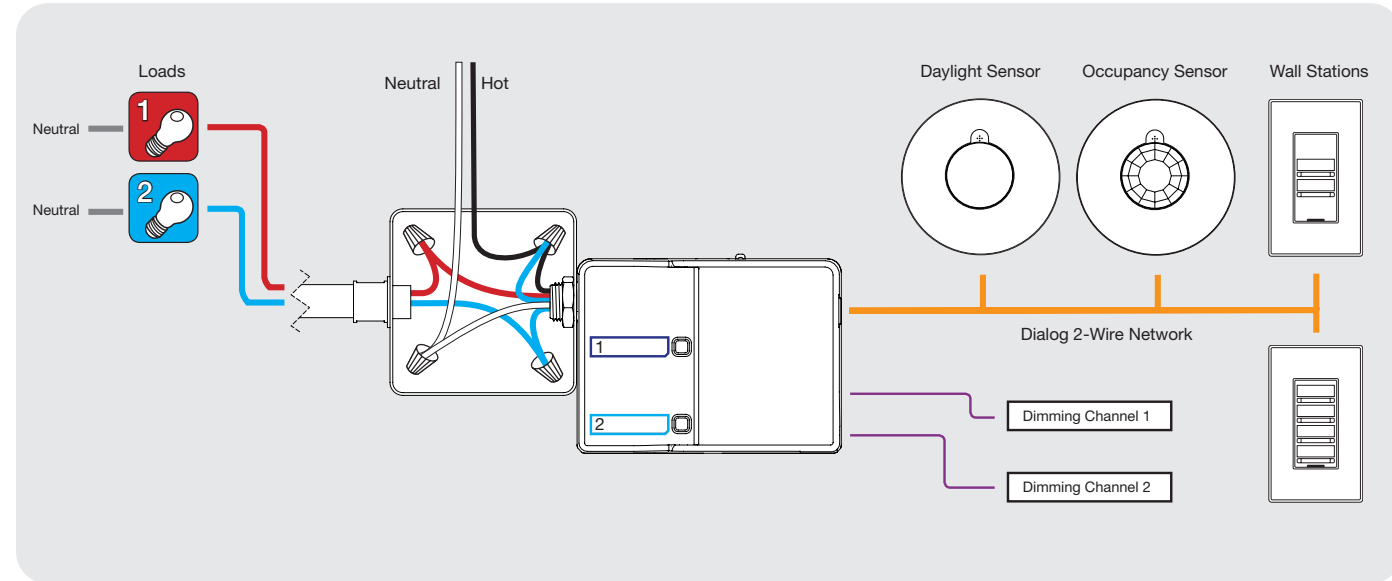


6. Installation Features

- Electrical rough-in can be done before devices arrive on-site (see installation examples below).
- Lightweight chassis allows for the device to be installed directly onto standard 4" x 4" square metal junction boxes using existing knockouts.
- Locknuts are included with each chase nipple.
- WRC-4222 and WRC-4244 should be installed with either rigid metallic conduit (as shown below) or with flexible metallic conduit. Not intended for use with Rigid Non-Metallic Conduit.

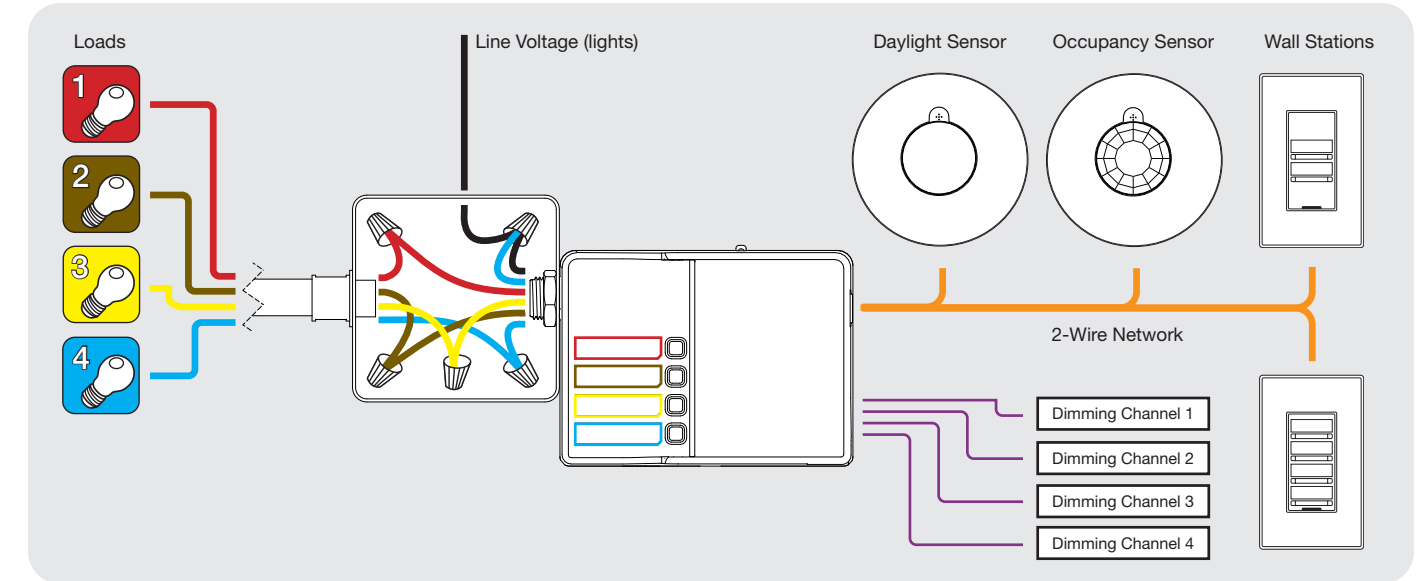
7. Installation Diagrams


Two Circuits – Common Line Voltages



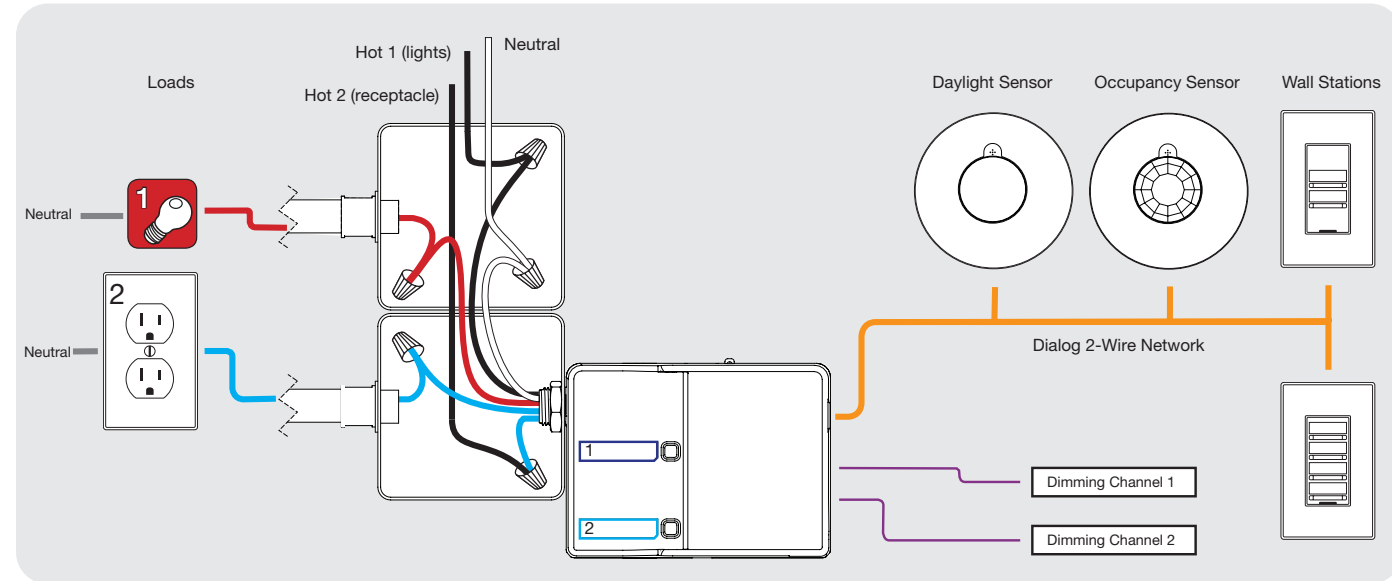
7. Installation Diagrams

Basic 1.0

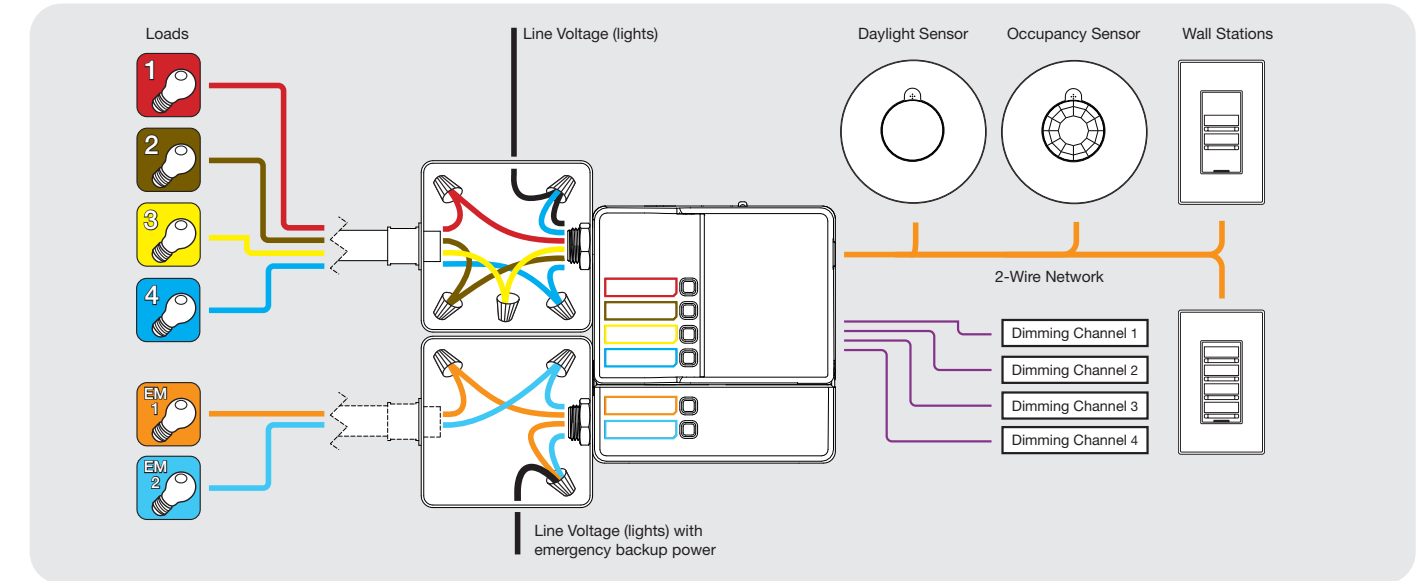


 **Neutral not shown - these illustrations are for reference purposes only.**
For site installations, please review Guide wiring diagrams and follow local and national electrical codes.

Two Circuits – Different Line Voltages



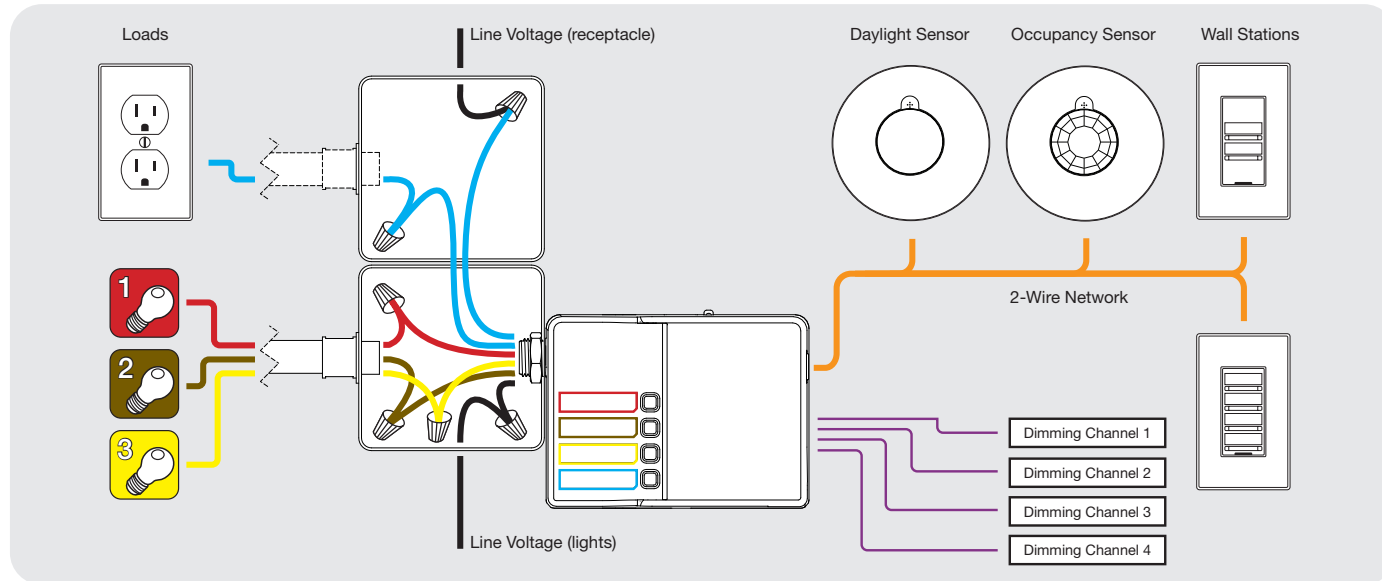
Basic + Emergency 2.0



 **Neutral not shown - these illustrations are for reference purposes only.**
For site installations, please review Guide wiring diagrams and follow local and national electrical codes.

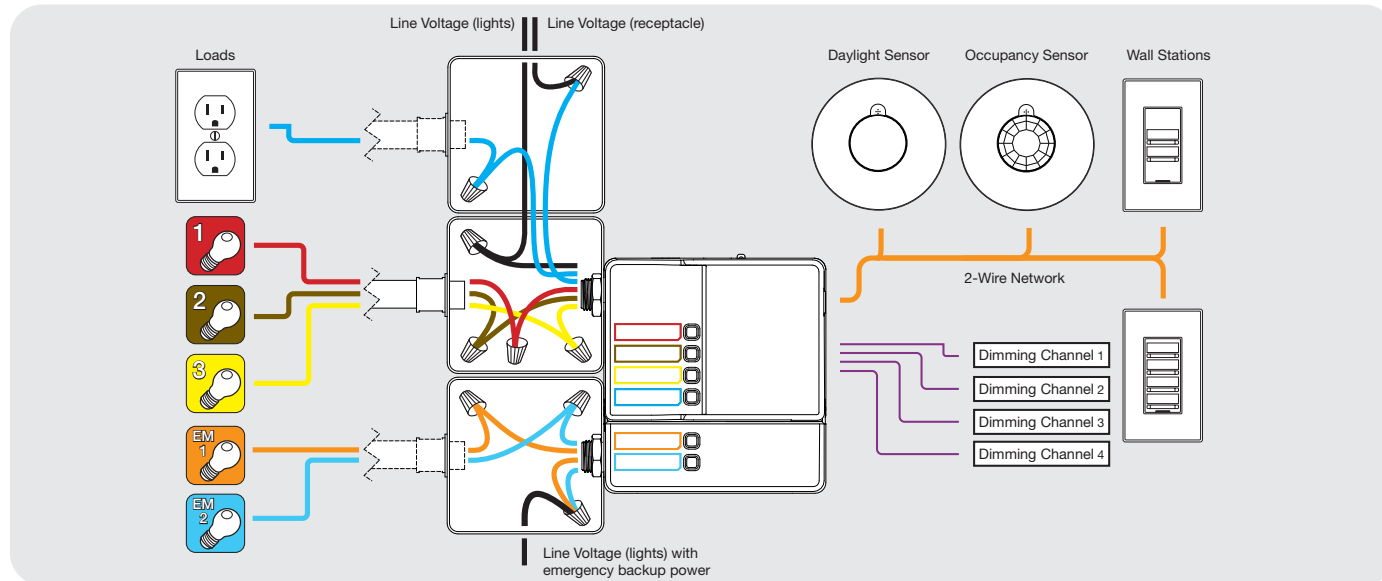
7. Installation Diagrams

Basic + Receptacle 3.0



⚡ Neutral not shown - these illustrations are for reference purposes only. For site installations, please review Guide wiring diagrams and follow local and national electrical codes.

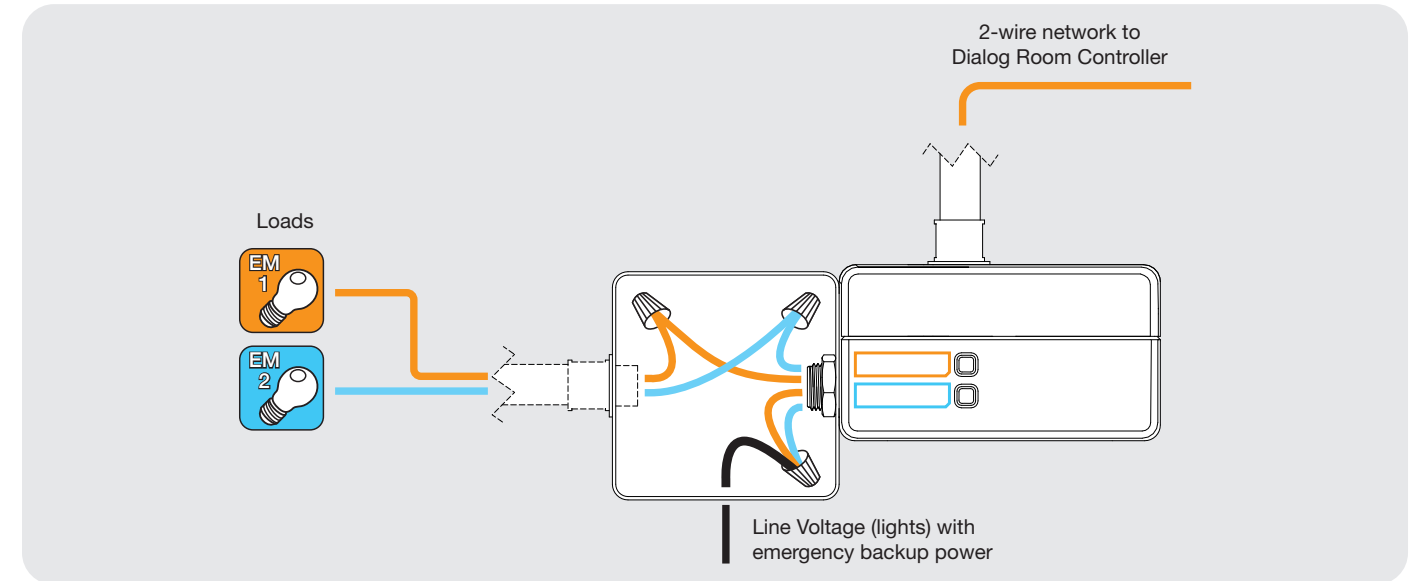
Basic + Receptacle + Emergency 4.0



⚡ Neutral not shown - these illustrations are for reference purposes only. For site installations, please review Guide wiring diagrams and follow local and national electrical codes.

7. Installation Diagrams

Emergency (Remote Installation) 5.0



⚡ Neutral not shown - these illustrations are for reference purposes only. For site installations, please review Guide wiring diagrams and follow local and national electrical codes.

8. Installation

1. Install Dialog Room Controller chase nipples through a 1/2" knockout in standard 4"x4" square metal junction box
2. Attach and tighten locknut
3. Install peripheral devices and run #18/2 power and data network to Dialog Room Controller

9. Wiring and Start-Up

⚠ CAUTION ⚠

Risk of Electric Shock. More than one disconnect switch is required to de-energize the device before servicing. All Servicing should be performed by qualified service personnel. This unit has more than one power supply connection point. To reduce the risks of electric shock disconnect both the branch circuit breakers / fuses & emergency power supplies before servicing.

Dialog Room Controller has a 24VAC data line network for use with the Dialog Occupancy Sensors, Daylight Sensors, and Digital Wall Stations. All Wallstations and sensors to be supported by the controller must be included in the current calculation (maximum 100mA).

The Dialog Room Controller is equipped with #12AWG tinned leads for line voltage connections.

Use appropriate sized wire-nuts to connect the wires to the incoming load terminations.

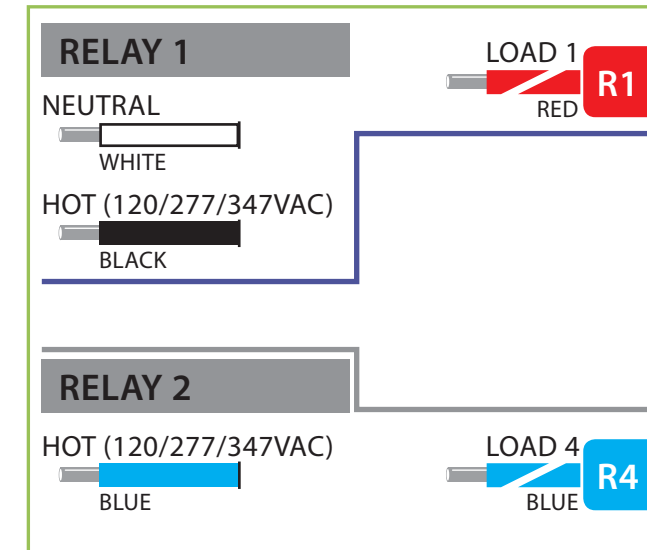
When using field-installed conductors ensure a 60°C minimum rating.

Wire leads are color coded to match circuit labels. Follow circuit wiring information found on the inside of low voltage compartment door.

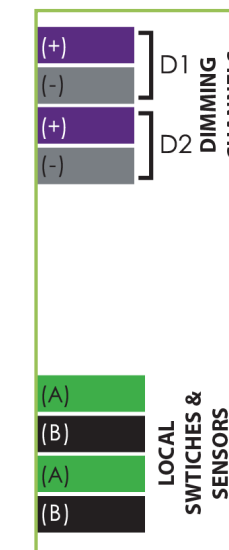
1. Connect power, load, and control wiring as shown on appropriate Guide Wiring Diagram
 - a. Neutral wire is for Room Controller
2. Power up system
3. Wait 15 seconds for system to start-up and run system checks
4. Check LED status light
5. When is Solid Green or Flashing Green, test relays with Blue relay test buttons to confirm intended load control
 - a. If LED not Solid Green or Flashing Green, see LED Status Indicators (Section 9)
6. Installation & configuration complete!

9. Wiring and Start-Up

Wiring Information: Low Voltage Compartment Door

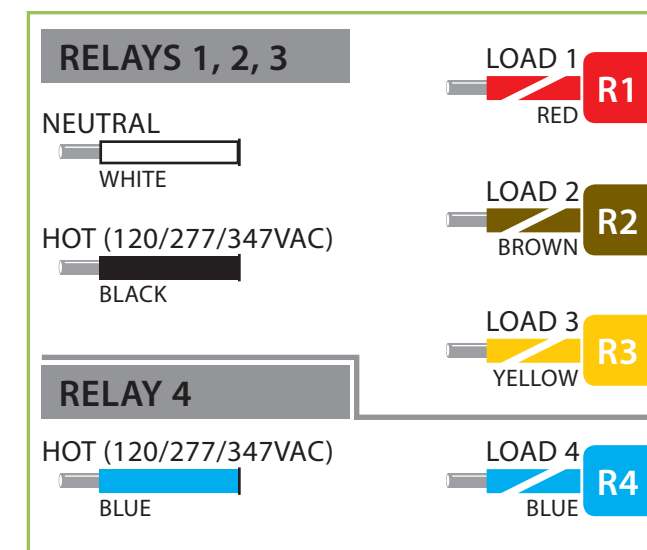


Wiring Information: Low Voltage Terminal Blocks

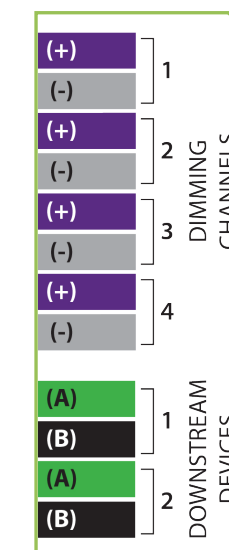


(WRC-4222)

Wiring Information: Low Voltage Compartment Door



Wiring Information: Low Voltage Terminal Blocks



(WRC-4224)

10. Centralized System

The Dialog Room Controller can be integrated into a centralized Dialog system for global scheduling and control. When using Dialog Room Controllers in a centralized system please be aware of the following:

- The Dialog Centralized Controller is programmed to recognize the Dialog Room Controller.
- The Dialog Room Controller is factory addressed by setting the addressing DIP switches.

DIP Switch Addressing

DIP	1	2	3	4	5	6	7	8
Binary	1	2	4	8	16	32	N/A	N/A

Addressing is done by moving DIP switches UP.

E.g. For address 10, DIP 2 (value=2) and DIP 4 (value=8) are in up position (2+8=10). The Dialog central controller is then programmed to control address 10.

11. LED Status Indicator

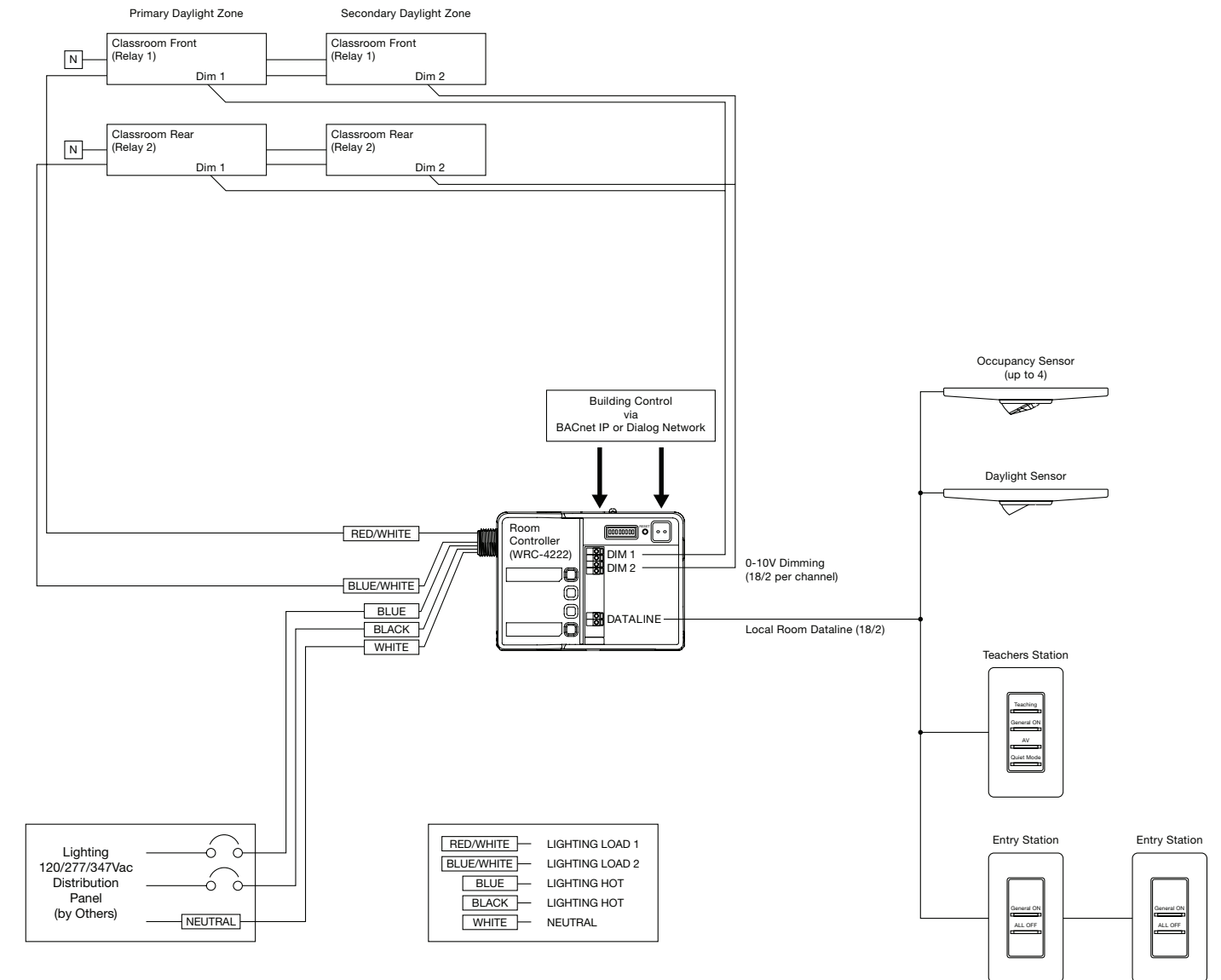
The WRC-4222 and WRC-4244 each have a locator and system status bi-color LED on the top surface. There are also 2 LEDs (Green and Orange) on the Ethernet connector.

Status LED	Description
Green - Solid	Daylight Sensor address 1 is connected to provide 2 zone CLC
Green - Blinking	Daylight Sensor address 1 and 2 are connected to provide 2 zone CLC
Green/Red - Blinking	Daylight Sensor is NOT connected
Red - Solid	Incorrect Wiring or a Short
Red - Blinking	Dialog downstream of Dialog Room Controller is failing to provide power to the power & data bus

Ethernet LED	Description
Blinking	Ethernet Initializing (during start-up for 30 seconds)
Green - Solid	Ethernet Initialized
Green - Blinking	BACnet transmitting data
OFF	Ethernet failed to initialize

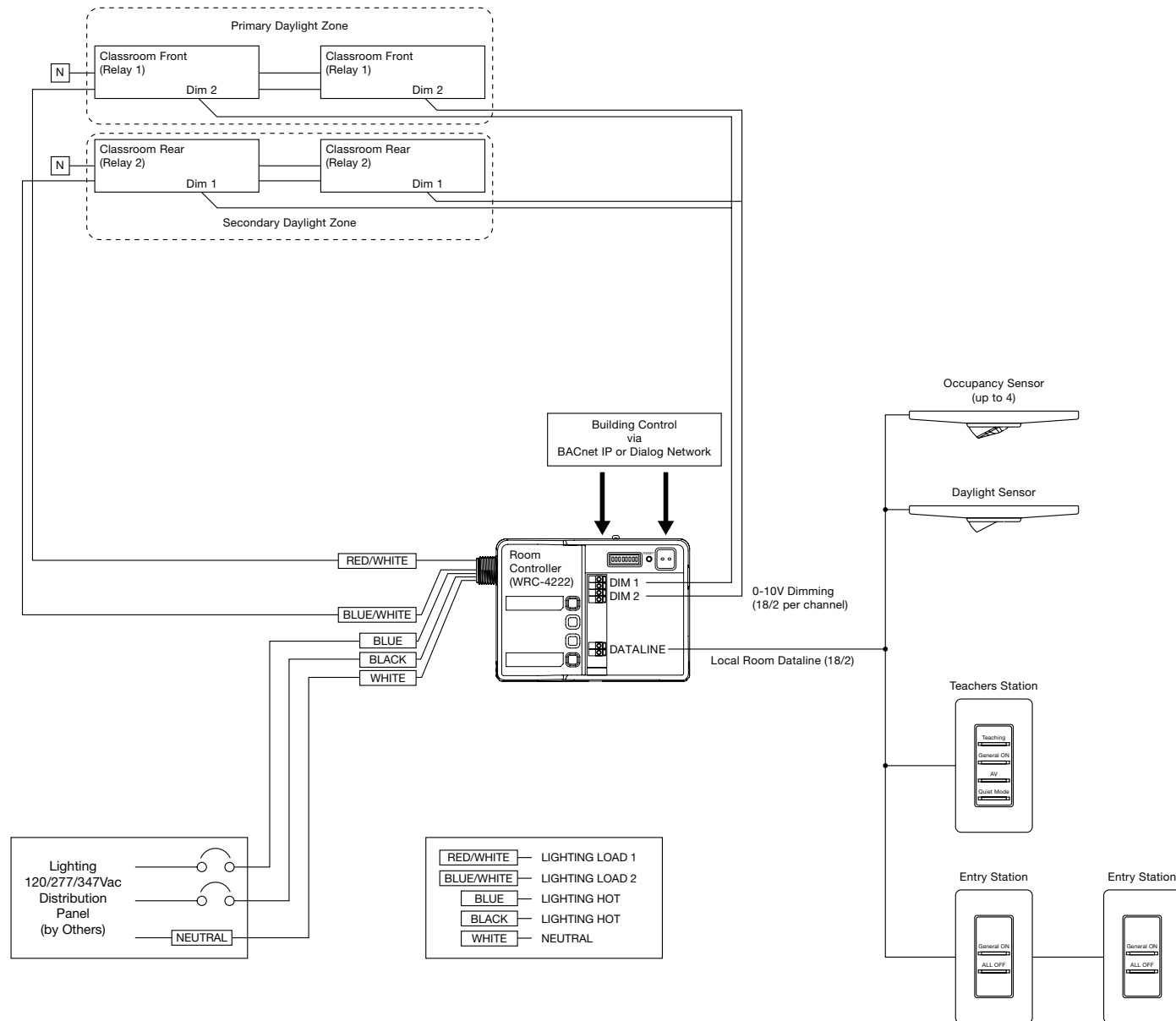
12. Wiring Diagrams

Dialog Room Controller - Guide #20



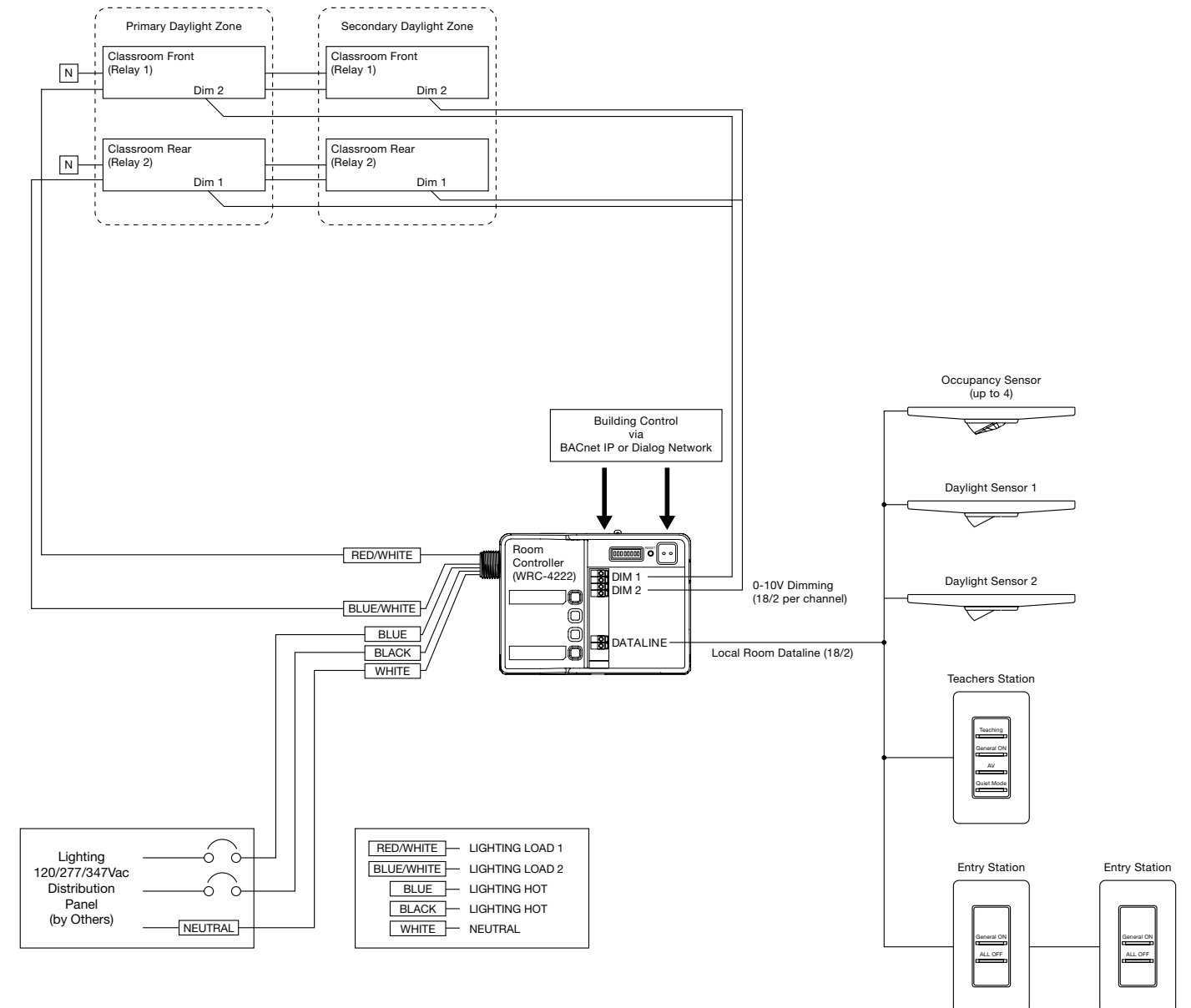
12. Wiring Diagrams

Dialog Room Controller - Guide #21



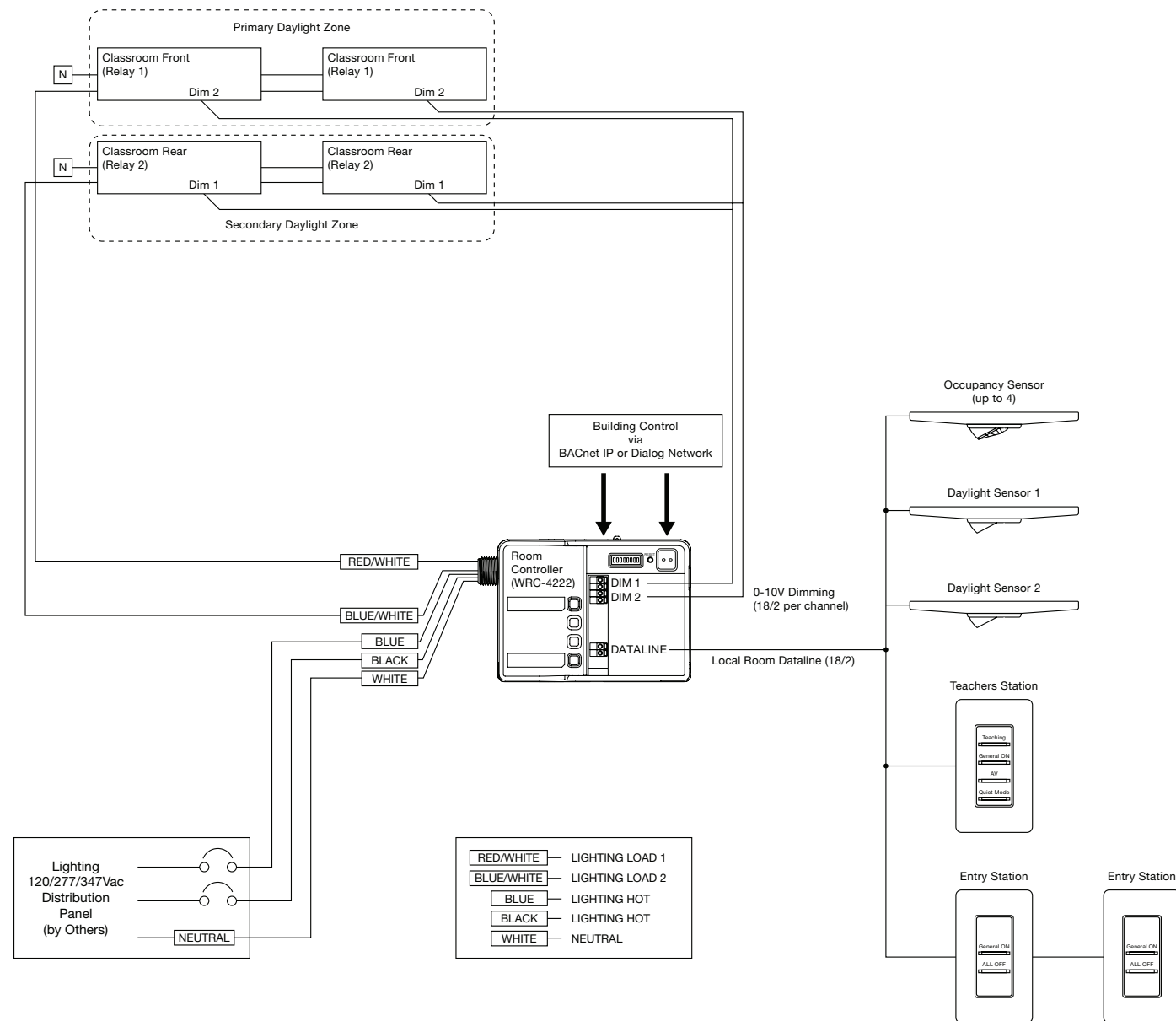
12. Wiring Diagrams

Dialog Room Controller - Guide #22



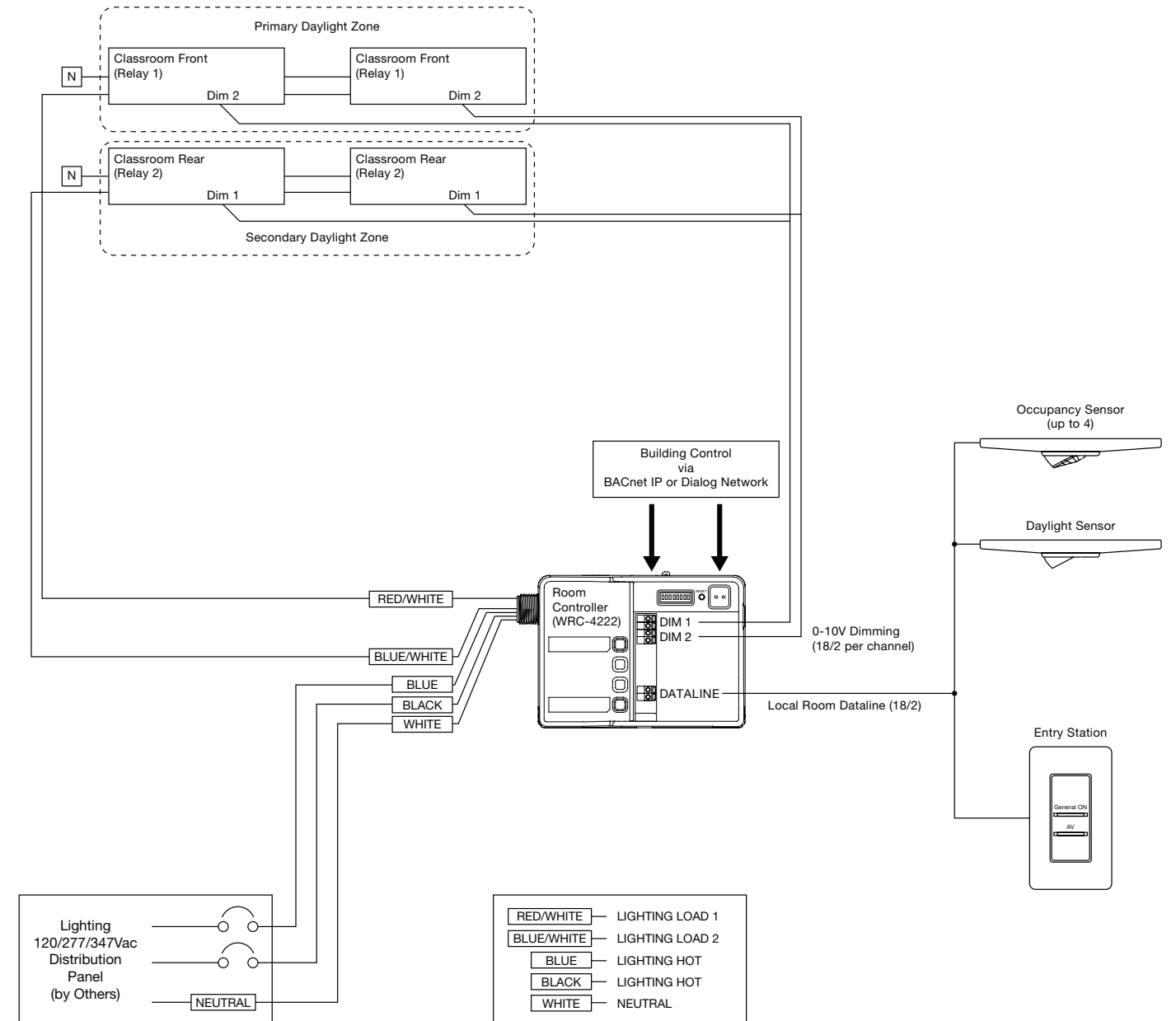
12. Wiring Diagrams

Dialog Room Controller - Guide #23



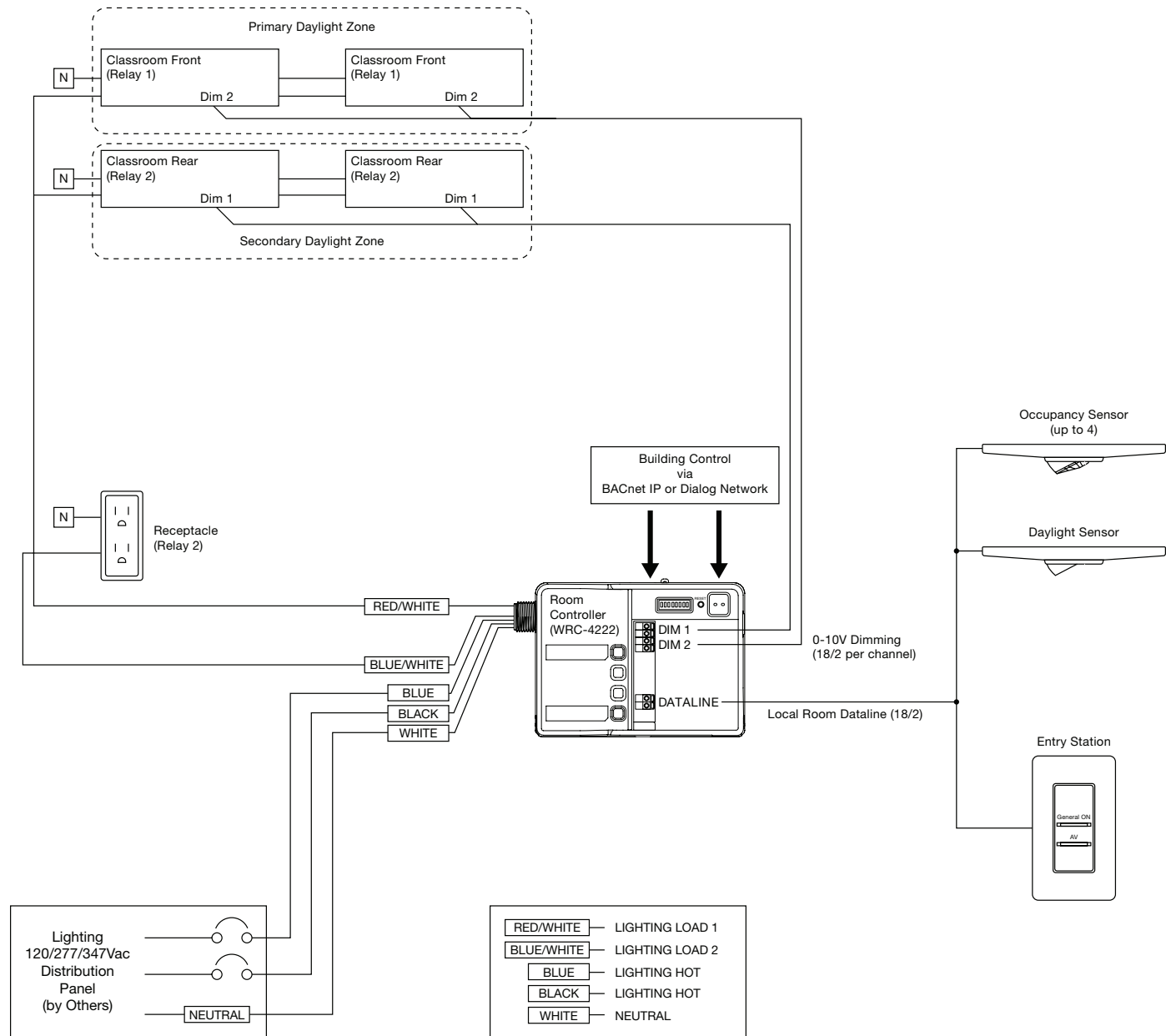
12. Wiring Diagrams

Dialog Room Controller - Guide #24



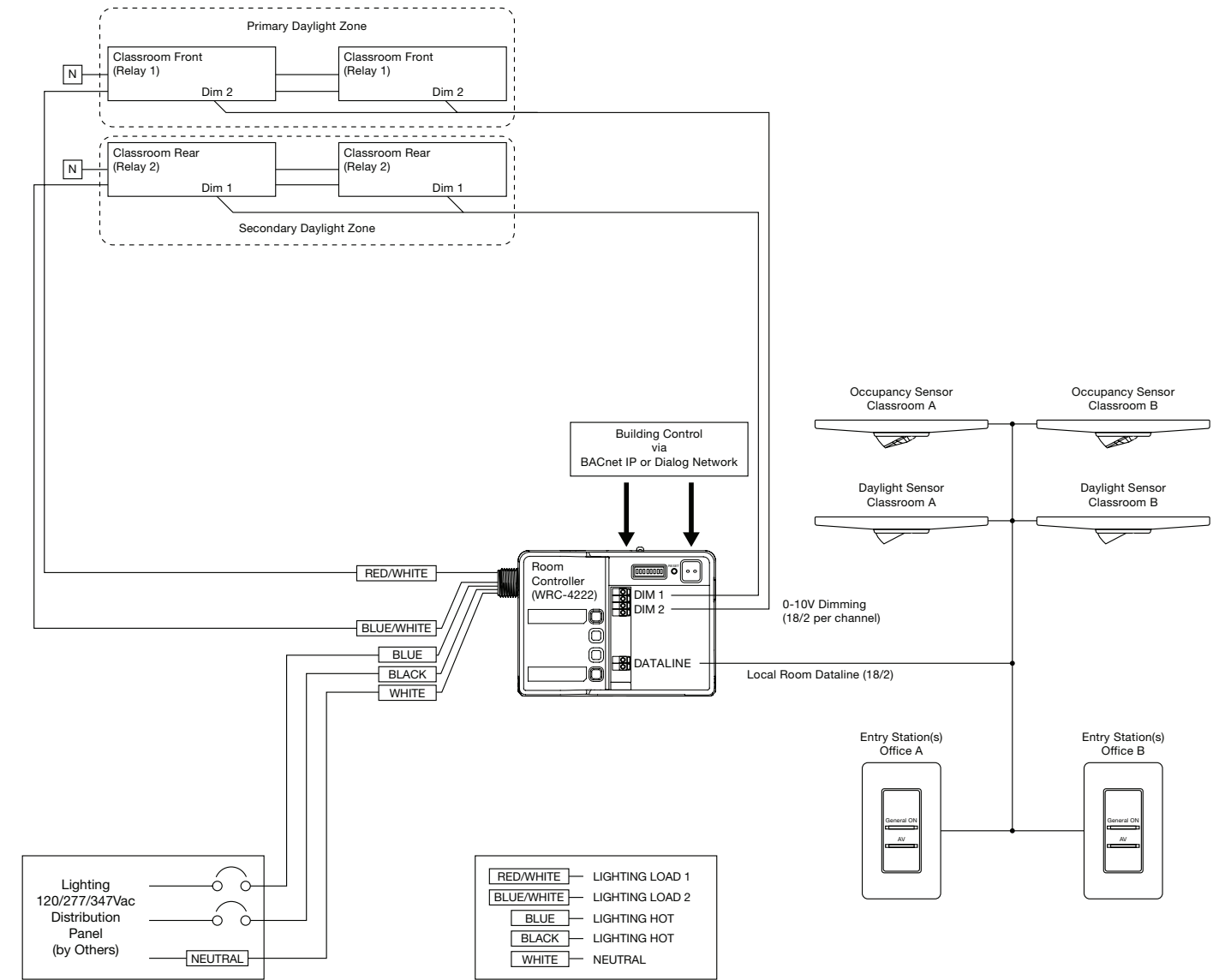
12. Wiring Diagrams

Dialog Room Controller - Guide #25



12. Wiring Diagrams

Dialog Room Controller - Guide #26





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tes@universaldouglas.com

www.universaldouglas.com

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