

Room Controller

Catalog#	Prepared by
Project	Date
Comments	Type

Overview

The Room Controller includes three relays and up to three 0-10 VDC dimming outputs to control compatible dimmable ballasts. The switching relays and 0-10 VDC outputs are controlled separately, allowing flexibility in wiring and control. The Room Controller is shipped preconfigured to work out-of-the-box when connected to Room Controller devices, allowing quick and easy daylighting controls, occupancy/vacancy sensing and manual switching.

Features

- Click & Go ready, RJ45 connections
- Preconfigured for automatic functionality upon power-up
- Manual or Automatic On, bi-level, tri-level and dimming control strategies
- Integral Demand Response input with four levels of preconfigured energy reduction
- Built in tubular lighting control with preconfigured wallstation controls
- Integral pillow speaker connections for GPCS (RC3DEHC)
- Integral Solatube® connection for classrooms
- Guaranteed compatibility with Cooper Lighting LED and 0-10V fluorescent fixtures
- Ladderless UL 924 Emergency Mode testing (RC3DE & RC3DEHC)



Model RC3D-PL Shown



Inside View



Powering Business Worldwide

Specifications

Size	11 1/2" H x 7 1/2" W x 2 1/4" D
Input/Output Voltage	120/277 VAC, 60Hz Maximum 20A combined load per Room Controller Ballast load: 20A @ 120/277 VAC Incandescent load: 15A @ 120 VAC Motor load: 1HP @ 120 VAC
Emergency Output (RC3DE/RC3DEHC only) UL 924	Ballast or Incandescent load: 3A
Class 2 Dimming Output	0-10 VDC, sinks up to 100mA per (40 µA max per circuit leakage to line) Each 0-10V output supports up to 50 ballasts/drivers that draw the standard 2mA each
LED Drivers	Requires isolated LED drivers for optimal performance
Operating Environment	Temperature: 32°F to 104°F (0°C to 40°C) For indoor use
Standards	UL Approved UL 508 Listed UL 924 Listed



Description/Operation

The Room Controllers are connected to a 120 VAC or 277 VAC 20 Amp circuit to provide unit power and input power to the individual relays. The wallstations, occupancy/vacancy sensors, daylight sensors and receptacle control devices connect via QuickConnect cables (ordered separately) providing a Class 2 connection. Upon power up the pre-engraved wallstation automatically controls the On/Off relays adjust the dimming outputs. The daylight sensor will immediately adjust the lighting levels based on natural light.

Installation

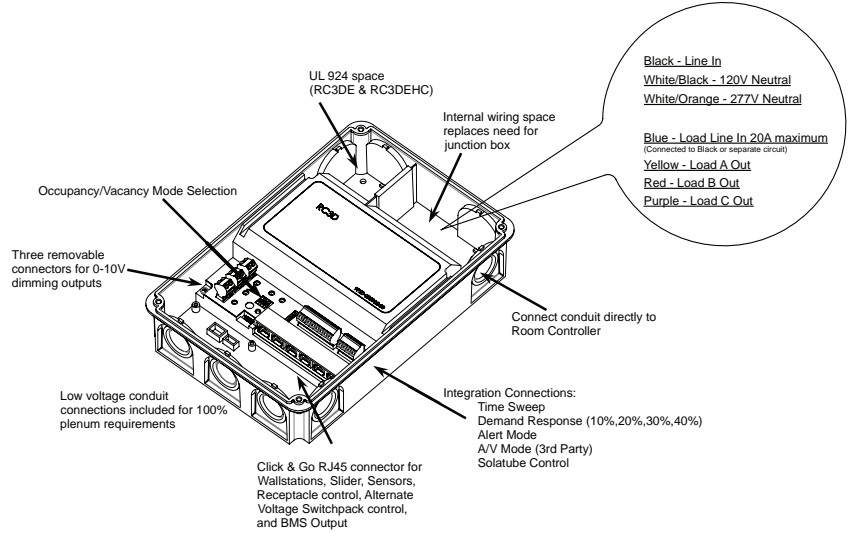
The line voltage section of the Room Controller provides the installing contractor space to make all line voltage connections and direct conduit access, reducing the need for additional junction boxes, while providing easy access to line voltage circuits. Low voltage devices are connected using Cat5 cables (ordered separately).

UL 924 relay is provided on some units for automatic emergency lighting control. The UL 924 relay automatically tracks with output 1 and can be connected to any of the three 0-10V dimmers. The UL 924 relay automatically closes and disconnects the 0-10V control open loss of normal power providing adequate egress lighting control. Ladderless maintenance testing of the UL 924 relay can be achieved by pressing the ALL OFF button four times.

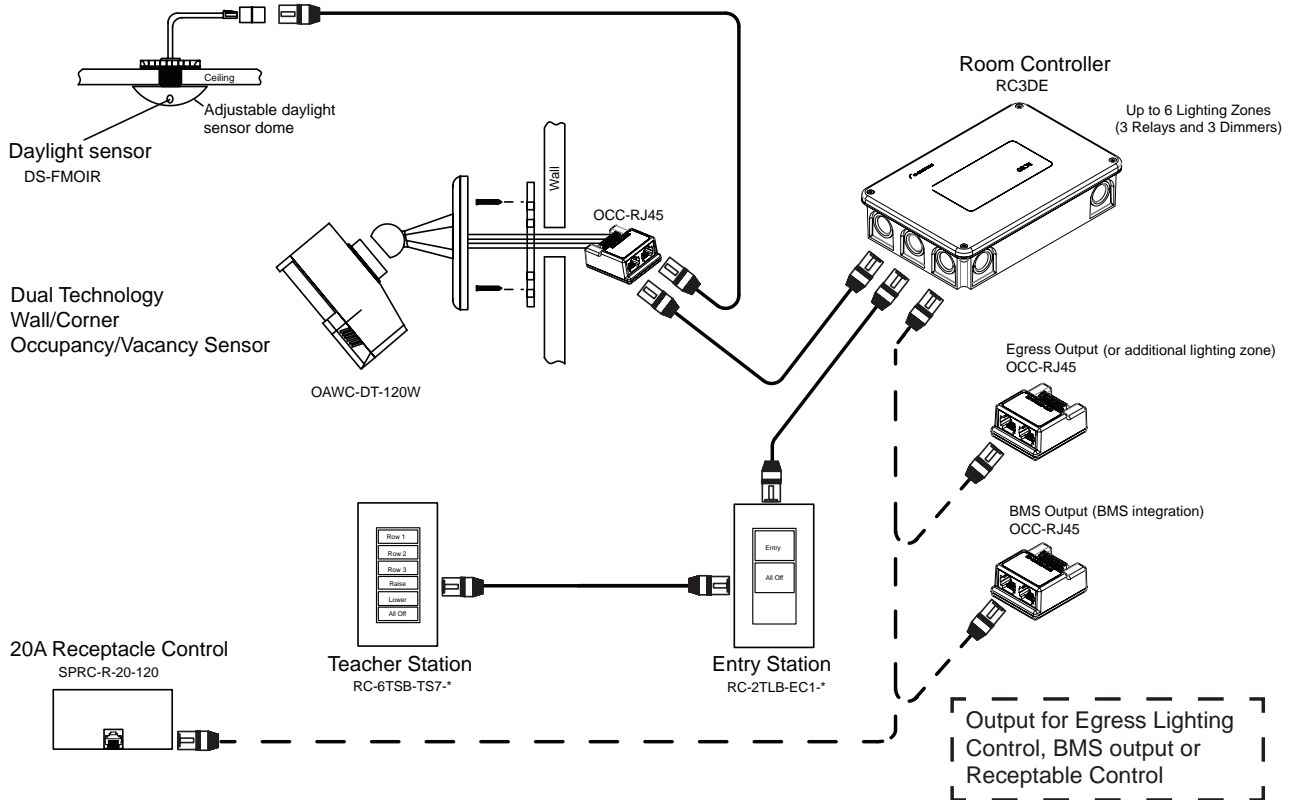
Wiring Diagram

Room Controller Feature Comparison Chart

Product Feature	RC3	RC3D	RC3DE	RC3DEHC
Number of Relays	3	3	3	3
Number of Dimmers	0	3	3	3
Number of Integral UL 924 Relays	0	0	1-3 Amp	1-3 Amp
Number of Wallstations	4	4	4	4
Number of Sliders	0	1	1	1
Number of Powered Sensors	2-Occ	2-Occ 1-DS	2-Occ 1-DS	2-Occ 1-DS
Number of Receptacle Controls	5	5	5	5
Integral Demand Response	No	Yes	Yes	No
BMS/Egress Output	Yes	Yes	Yes	Yes
Integral Solatube	No	No	Yes	Yes
Integral Alert Mode	Yes	Yes	Yes	No
Integral After Hours Input	Yes	Yes	Yes	No
Integral Pillow Speaker Connection	No	No	No	Yes



Room Connections



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Ordering

Catalog #	Description	Voltage	Ballast/Incandescent
RC3	3 Relays	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3D	3 relays, 3 0-10V dimming	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3DE	3 relays, 3 0-10V dimming, UL 924	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3DEHC	3 relays, 3 0-10V dimming, UL 924 for healthcare	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3-PL	3 Relays, Plenum	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3D-PL	3 relays, 3 0-10V dimming, Plenum	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3DE-PL	3 relays, 3 0-10V dimming, UL 924, Plenum	120/277 VAC, 60 Hz	Maximum Combined Load 20A
RC3DEHC-PL	3 relays, 3 0-10V dimming, UL 924 for healthcare, Plenum	120/277 VAC, 60 Hz	Maximum Combined Load 20A

Additional Options

Catalog #	Description
GGRC-COUPLER	RJ45 Coupler
GGRC-SPLITTER	RJ45 Splitter
GGRJ45-006-G	RJ45 cables 6 inches
GGRJ45-03-G	RJ45 cables 3 feet
GGRJ45-10-G	RJ45 cables 10 feet
GGRJ45-25-G	RJ45 cables 25 feet
GGRJ45-50-G	RJ45 cables 50 feet
GGRJ45-100-G	RJ45 cables 100 feet
GGRJ45-10P-G	RJ45 cables 10 feet plenum rated
GGRJ45-25P-G	RJ45 cables 25 feet plenum rated
GGRJ45-50P-G	RJ45 cables 50 feet plenum rated
GGRJ45-100P-G	RJ45 cables 100 feet plenum rated

Note: Please refer to the Room Controller page on our website for more information

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