



IRC Code-Compliant Room-in-a-Box Classroom Control

ENGINEERED TO DELIVER A SIMPLE, COST-EFFECTIVE ASHRAE 90.1 AND TITLE 24 SOLUTION

Conservation codes and standards such as IECC, ASHRAE 90.1 and California Title 24 require advanced lighting control in classrooms with daylighting, automatic shutoff and level control. ASHRAE 90.1 also mandates the inclusion of controlled receptacles in education applications. The Integrated Room Control (IRC) was specifically engineered to meet and exceed all local and national requirements for classrooms and is available as a room-in-a-box solution, allowing you the convenience of ordering a complete classroom system (including pre-configured occupancy sensor, photocell and a 4-button switch) with only one part number. Additional components are easy to expand onto the IRC room solution by simply adding power packs.

PROBLEM

Education facility requires a code compliant solution for individual classrooms throughout the school.

- Campus contains 0-10V lighting
- School desires easy installation for quick and efficient implementation
- Classroom lighting is zoned with daylighting areas next to windows
- Solution must be able to control zones separately to accommodate different lighting levels and occupant needs (such as dimming lights for presentations)
- Solution must meet all IECC, ASHRAE 90.1 and Title 24 requirements, including plug load control

SOLUTION

The IRC is a complete code compliant solution that can be easily commissioned for all individual classrooms within a school.

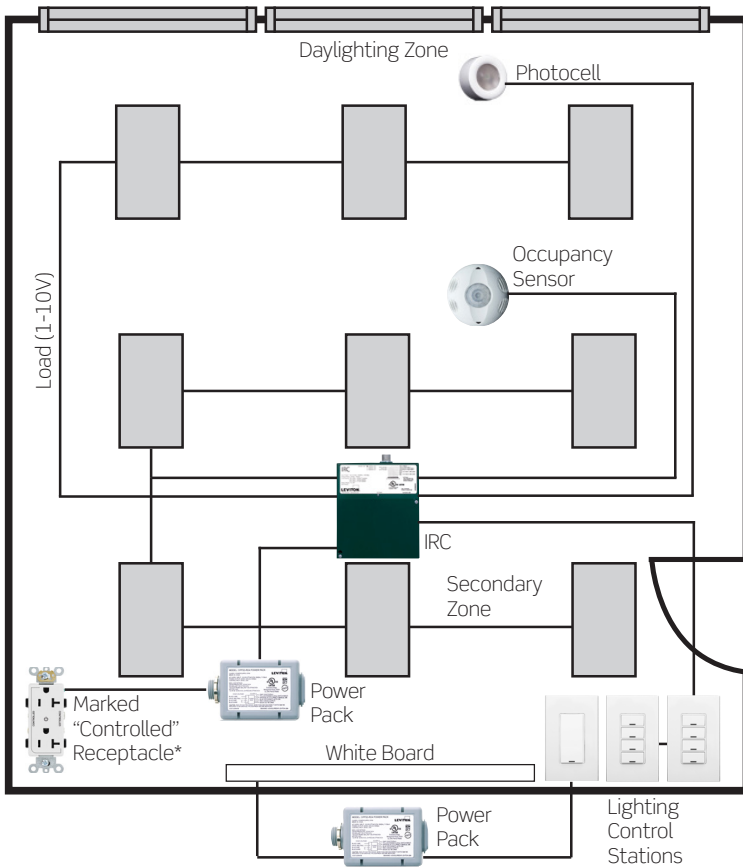
- IRC provides 0-10V dimming control
- Solution can be used to comply with IECC, ASHRAE 90.1 and 2016 Title 24 Part 6 lighting control requirements for daylight classrooms, and can be combined with a power pack for plug load control*
- Ladderless Commissioning™ and AutoCal™ features create install-and-forget convenience
- Solution automatically adjusts electric light levels based on the amount of daylight in the space
- IRC delivers either 2- or 3-zone dimming for multiple light levels between full-ON and full-OFF

*Marked controlled receptacles are optional in Title 24 classroom requirements; see the code for more details

Disclaimer: This document is for informational purposes only. Each project will have its own specific requirements for satisfying Title 24 code and ASHRAE 90.1 standard compliance based on a variety of factors. Other exceptions or details may apply. Review the code for specific requirements and/or consult with a professional advisor. Leviton Mfg. Co., Inc. is not responsible for any loss resulting from the use of any information found in this document. Solutions are subject to change without notice. For additional assistance, contact your local Leviton representative.

CODE COMPLIANT CLASSROOM SOLUTION

CAN BE USED TO COMPLY WITH



IECC REQUIREMENTS:

- Section C405.2.1 (2012), C405.2 (2015)
 - Mandatory lighting controls
- Section C405.2.1.1 (2012), C405.2.2.3 (2015)
 - Interior manual lighting controls
- Section C405.2.1.1 (2015), C405.2.2.2 (2012)
 - Occupancy sensors
- Section C405.2.1.2 (2012), C405.2.2.2 (2015)
 - Light reduction controls
- Section C405.2.2.1 (2012/2015)
 - Automatic time switch control devices

ASHRAE 90.1 REQUIREMENTS:

- Section 8.4.2 (2010/2013/2016)
 - Automatic receptacle control
- Section 9.4.1 (2010/2013/2016)
 - Lighting controls
- Section 9.4.1.1 (2010)
 - Automatic shutoff
- Section 9.4.4 (2010), 9.4.3 (2013/2016)
 - Functional testing
- Section 9.4.1.2 (2010)
 - Space control
- Section 9.4.1.4 & 9.4.1.5 (2010)
 - Automatic daylight control
- Section 9.4.1.1 (2013/2016)
 - Interior Lighting Control

2016 TITLE 24 REQUIREMENTS:

- Section 130.1(a)
 - Area controls
 - Manual-ON/OFF
- Section 130.1(b)
 - Multi-level controls
 - Dimming
 - Task tuning
 - Partial-ON/OFF
- Section 130.1(c)
 - Shutoff requirements
 - Occupancy control
- Section 130.1(d)
 - Daylighting
- Section 130.1(e)
 - Demand response power reduction controls
- Section 130.5(d)
 - Receptacle control/plug load control*

*Marked controlled receptacles are optional in Title 24 classroom requirements; see the code for more details

WHAT YOU WILL NEED

IECC, ASHRAE 90.1 AND TITLE 24 COMPLIANT CLASSROOM SOLUTION		QTY.
	IRC Kit for 2 Zones, 2 Relays RCD20-102 <ul style="list-style-type: none"> • Kitted with IRC, sensor, photocell and lighting control station 	1
	IRC for 2 Zones, 2 Relays MZD20-102 <ul style="list-style-type: none"> • Stand-alone room control for dimming, partial-ON/OFF and demand response 	
	Multi-Tech Ceiling Mount Occupancy Sensor OSCxx-MDW <ul style="list-style-type: none"> • Detects occupancy in a room and signals the system to dim lighting accordingly 	
	Photocell, Indoor ODC0P-00W <ul style="list-style-type: none"> • Continuously measures ambient light in the zone and transmits to the system 	
	Lighting Control Station RLVSW-4LW <ul style="list-style-type: none"> • Manual lighting control to dim and switch at multiple levels 	
	Lighting Control Station RLVSW-4LW <ul style="list-style-type: none"> • One included in kit; one additional required 	1
	Decora Rocker 56081-0xx <ul style="list-style-type: none"> • Switches the white board area lighting ON/OFF to accommodate for presentations 	1
	OPP20 Super Duty Power Pack OPP20-0D1 <ul style="list-style-type: none"> • Allows for control of the white board lighting zone and marked controlled receptacle 	2
	Marked "Controlled" Receptacle 5362-2SW <ul style="list-style-type: none"> • For plug load and receptacle control compliance* 	1

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