



Room Controller

Intelligent 2-zone lighting control with 0-10V dimming, dual 16A relays, Bluetooth programming, and plug-and-play CAN Bus connectivity. The brain behind every Canyon-powered space.

SKU	CATEGORY	VOLTAGE	REVISION
CYN-RC-2Z	Room Controller	120/277V	Rev 1.0 — Apr 2026

Room Controller

2-ZONE DIMMING & RELAY CONTROL

The Canyon Room Controller is the intelligent hub that powers every Canyon lighting system. Delivering two independently controlled 0-10V dimming zones with millivolt-level precision for granular dimming and warm-dim support, plus two 16A relays rated at 120/277V. Dual CAN Bus ports with 12V output power downstream devices — sensors, switches, and dials — with automatic zone assignment via selector dials for out-of-the-box functionality. Onboard Bluetooth enables advanced programming via the Canyon app.

DIMMING ZONES	2 × 0-10V (millivolt-level control)
RELAYS	2 × 16A, 120/277V
INPUT POWER	120/277V AC
CAN BUS PORTS	2 × RJ45 (daisy chain or home-run)
12V OUTPUT	Powers downstream sensors & switches
WIRELESS	Bluetooth (app programming)
BATTERY	Onboard (timeclock applications)
AUTO-PROGRAM	Via zone selector dials on devices
MOUNTING	Junction box / above ceiling



Features

INTELLIGENT CONTROL, SIMPLIFIED



Millivolt 0-10V Dimming

Two independent 0-10V dimming zones with millivolt-level precision. Enables granular dimming curves and warm-dim tuning for high-end architectural lighting applications.



Dual 16A Relays

Two heavy-duty 16A relays rated at 120/277V provide reliable switching for high-wattage lighting circuits. Independent relay control per zone.



Plug-and-Play Setup

Automatic programming via zone selector dials on downstream devices gives basic functionality out of the box — control 1, 2, or both zones with a simple switch. No software required for initial setup.



Bluetooth Programming

Onboard Bluetooth enables advanced configuration via the Canyon app. Combine multiple Room Controllers, set schedules, create scenes, and fine-tune dimming curves wirelessly.



Daylight Harvesting

When paired with a Canyon Sierra sensor, automatically adjusts artificial lighting based on ambient daylight levels to maximize energy savings and maintain target light levels.



Onboard Timeclock

Built-in battery-backed timeclock enables scheduled on/off and dimming events. Maintains schedule accuracy through power outages for code-compliant time-based control.

Connectivity

PORTS & OUTPUTS

CAN BUS PORTS (x2)

Connector	RJ45 Cat5e T568B
Protocol	CAN Bus
Topology	Daisy chain or home-run
Devices	Sensors, switches, dials

POWER & OUTPUT

Input	120/277V AC
12V Output	Powers downstream devices
0-10V Out	2 zones, millivolt precision
Relay Out	2 x 16A, 120/277V

WIRELESS & EXPANSION

Bluetooth	App programming
Multi-Unit	CAN Bus or Bluetooth
Battery	Timeclock backup
Auto-Config	Zone selector dials

Specifications

ELECTRICAL

PARAMETER	SPECIFICATION
Input Voltage	120/277V AC, 50/60 Hz
Relay Rating	2 × 16A, 120/277V AC (resistive)
Dimming Output	2 × 0-10V DC (millivolt-level precision)
Dimming Range	0-100% (supports warm-dim tuning)
CAN Bus Ports	2 × RJ45 Cat5e (T568B)
CAN Bus Protocol	CAN 2.0B, 250 kbps
12V Output	12 VDC regulated, powers downstream devices
Wireless	Bluetooth Low Energy (BLE) for app configuration
Processor	STM32F ARM Cortex-M (STMicroelectronics)
Power Supply	TDPOWER TAS10-12-W2 (10W, 85-265VAC to 12VDC, 830mA)
Battery	Onboard rechargeable (timeclock backup)
Power Consumption	< 3W typical (controller only, excl. relay loads)

MECHANICAL & ENVIRONMENTAL

Mounting	Standard junction box, above-ceiling, or open-plenum
Conduit Entry	1/2" threaded conduit connector
Operating Temperature	32 °F to 131 °F (0 °C to 55 °C)
Storage Temperature	-15 °F to 160 °F (-26 °C to 71 °C)
Relative Humidity	0-90% non-condensing
Enclosure	UL 94 flame-rated thermoplastic
Finish	Black

PROGRAMMING & CONTROL

Auto-Programming	Zone selector dials on downstream devices — basic control out of box
App Programming	Canyon app via Bluetooth — scenes, schedules, dimming curves
Multi-Controller	Combine via CAN Bus or Bluetooth for larger spaces
Daylight Harvesting	Supported when paired with Canyon Sierra sensor
Timeclock	Battery-backed scheduled events (on/off, dim levels)
Occupancy/Vacancy	Supported via Canyon Sierra sensor

ENERGY CODE COMPLIANCE

ASHRAE 90.1	IECC	TITLE 24 PART 6	MULTI-LEVEL DIMMING	DAYLIGHT HARVESTING	DEMAND RESPONSE
TIMECLOCK CONTROL	OCCUPANCY SENSING				

LISTINGS & WARRANTY

UL Listed	Yes
cUL Listed	Yes
FCC Part 15 Class B	Yes
RoHS Compliant	Yes
Warranty	5-Year Limited

DISCLAIMER

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