carpenter
EMERGENCY LIGHTING

Fixture Type:	
Model Number:	
Project:	

CBR-1-D Low Voltage Dimming Switch Bypass Module

Carpenter Emergency Lighting's CBR-1-D switch bypass control modules are designed to allow low voltage (0 to 10 volts) dimmed lighting fixtures to be used for emergency operation. The CBR-1-D bypass module must be used in conjunction with either a generator or an inverter system.

ORDERING INFORMATION

MODEL # CBR-1-D

Application	CBR-1-D switch bypass modules are designed to allow low voltage dimmed lighting fixtures to be wired for emergency operation from either generator, inverter system, or secondary sources.
Operation	During normal operation, LEDs on the CBR-1-D module's faceplate indicate the presence of both utility (green), and emergency (red) power; and, the local switch will be allowed to dim, or turn all the lighting fixtures on or off. During a utility power failure, emergency lighting fixtures controlled by the CBR-1-D module will illuminate to full output **regardless** of their current state.
Energy Conservation	By eliminating the need for night light circuits, the CBR-1-D bypass modules conserve energy by allowing all area ambient lighting to be turned off while still assuring the availability of emergency illumination in the event of a utility power failure.

AGENCY APPROVALS

Meets NFPA Life Safety Code101, NEC and OSHA

UL94-5VA Flame rating

UL924 listed

DIMENSIONS

2 3/4"W x 4 3/4"H x 1 3/4"D

PRODUCT FEATURES

- Adapts locally switched, or dimmed lighting fixtures for emergency operation
- 0-10V, DALI, and Eco System Dimming Override
- Compatible with motion detector and photocells
- Saves energy by eliminating night light circuits
- Approved for in-wall or in-ceiling applications
- 20 amp ballast load rating
- Fast, easy installation in standard electrical boxes
- Universal 120 or 277 volts application
- Surge and short circuit protection
- Operating temperature 20°F to150°F
- Visual power readiness indicators provide status at a glance
- Built-in manual emergency circuit test feature
- Momentary test switch

WARRANTY

5 Year replacement Warranty

Carpenter Emergency Lighting
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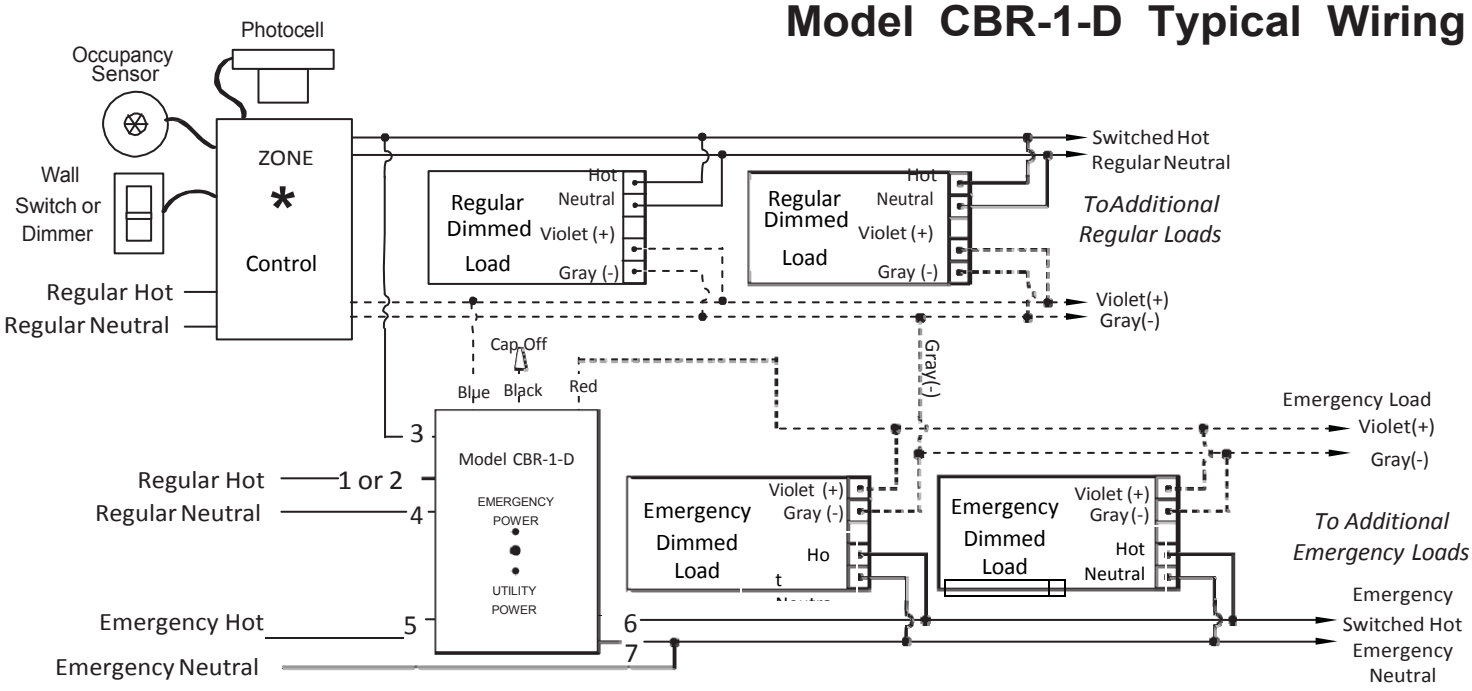
All specifications subject to change without notice

Model CBR-1-D Typical Wiring



REGULAR POWER WIRING		
Wire #	Color	Connection
1	Black	Regular Hot (120V)
2	Orange	Regular Hot (277V)
3	Red	Switched Hot
4	White	Regular Neutral

EMERGENCY POWER WIRING		
Wire #	Color	Connection
5	Blue	Emergency Hot
6	Yellow	Emergency Load Hot
7	White/Blue Stripe	Emergency Neutral

PLENUM CABLE B LOW VOLTAGE WIRING	
Blue	Dimmer Violet(+)
Red	Emergency Load Violet(+)
Black	Cap Off

* NOTE: Zone Control device can be any combination of the following:
a) Intelligent zone controller including both low voltage dimming output & line voltage switching output.
b) Line voltage switching devices (such as occupancy sensor contact, time clock, relay panel) & low voltage dimming devices including photocells, wall dimmers, & other low voltage dimming signals (0-10V or digital).

Theory of Operation

- ***Normal Operation:*** The zone control device turns on and off both regular and emergency luminaires simultaneously. The zone dimmer control dims regular and emergency luminaires simultaneously. Switched and dimmed control of emergency luminaires is accomplished through **Emergency Power Dimmer Control, CBR-1-D.**

- ***Emergency Operation:*** Wire input #1 or #2 and neutral are connected internally to a utility power sensing circuit. During a utility power interruption, the **CBR-1-D** energizes wire #6, which switches on emergency load(s) regardless of switch position. Additionally, the low voltage dimming circuit is disconnected from the emergency load(s), which are then brought to full brightness (100%), regardless of dimmer position.

- ***Automatic Diagnostic & Testing Operation:*** When the zone control is turned off, such as at the end of the day, the emergency luminaires stay on at full brightness for 2.5 seconds & indicate that an emergency power source was available & that the CBR-1-D, ballast, & lamp(s) are all functioning correctly. This satisfies the monthly test requirement required by law. When extended duration testing is desired, such as during initial start-up foot candle readings, the manual test button can be pressed.

- ***Emergency Power Clarification:*** Emergency Line power is supplied at all times from a 24 hour emergency power panel. During normal time this panel is supplied with utility power. During a utility power failure, it is supplied with generator or equivalent power.