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WaveLinX PRO Universal Dimming Switchpack with Dry Contact Input (WSP)

Wiring and installation manual



Overview

The WaveLinx PRO Universal Dimming Switchpack (WSP) can interface with most electrical lighting loads and sensors. It features an integrated relay to interrupt power to its loads (ballasts/drivers) which is rated for 120 - 347V, making it usable with all common lighting circuit voltages.

The WSP features an interface which allows control of the dimming signal to fixture ballasts or other accessories. Also available (in addition to a dimming load control), is an input for Greengate low-voltage sensors (PIR or Dual Tech) or a maintained contact closure input to drive a scene.

The WSP makes each device addressable via the wireless network (e.g. each light fixture or the group of fixtures controlled by the module can be dimmed and turned "ON/OFF"). The module will obtain its address during the commissioning process and no actions are required during installation.

Part Number

WSP-CA-010

Important Safeguards



When using electrical equipment, basic safety precautions should always be followed including the following:

- READ AND FOLLOW ALL SAFETY INSTRUCTIONS.
- Do not let power supply cords touch hot surfaces.
- 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 is not recommended by Cooper Lighting Solutions as it may cause an unsafe condition.
- Do not use this equipment for other than the intended use.



SAVE THESE INSTRUCTIONS

Installation Notes

WSPs are to be installed in dry, indoor locations ONLY.

Troubleshooting

There are no user-serviceable parts inside the WSP. Please return the device to Cooper Lighting Solutions if service is required.

Regulatory Approvals

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

This equipment has been tested and found to comply with Industry Canada ICES-003 Issue 5 (CAN ICES-3 (A)/NMB-3(A)).

Contains FCC ID: H79DFZM-E7210

Contains IC ID: 4259B-DFZM7210

Local Power Sense, Stand-alone WSP

Mains Connection

- WSP is NOT connected to an emergency back-up power branch circuit. The WSP detects power loss in this configuration (“local sense”).

Condition Prior to Emergency

- Luminaire is dim (or off).

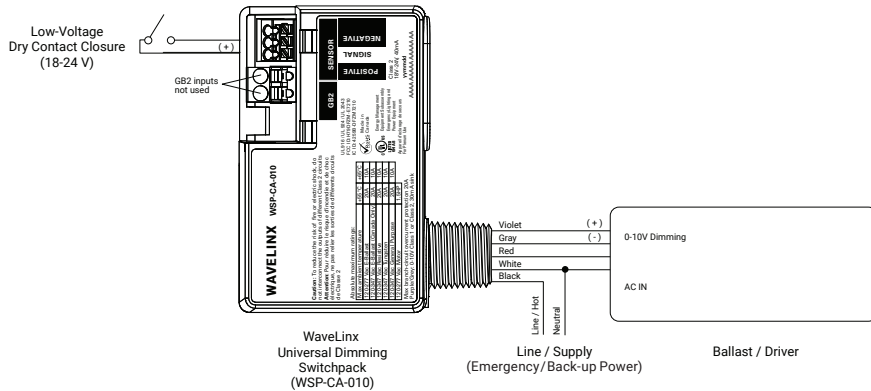
Emergency Condition:

- WSP loses power when power outage occurs.

Emergency Behavior:

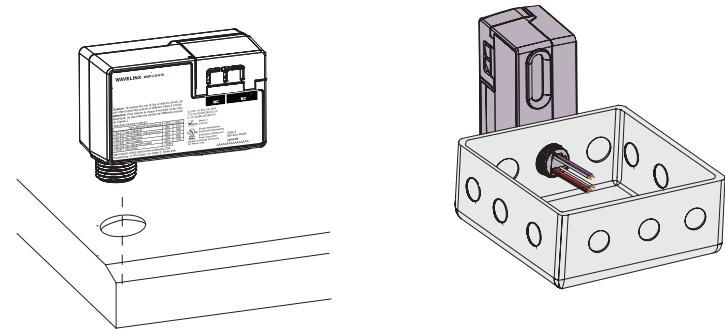
- WSP does NOT regain power feed because it is not connected to an emergency back-up power branch circuit.

Note: The WSP will begin dimming again when the normal power is restored.



Module Installation

In a typical installation, the WSP connects to electronic dimming, non-dimming, HID, etc., ballasts or LED drivers to make each individual device controllable by the WaveLinx Wireless Area Controller. The mechanical construction allows for simple installation of the module in an available ½-inch knock-out on top or side of a fixture, as shown. For some installations, a junction box may be required. To securely mount the WSP to the junction box, use an available ½-inch knock-out and retainer nut.



Fixture Installation

Junction Box Installation

The module has been tested in accordance to UL2043 and is suitable to be used in plenum or “plenum rated” areas. All wiring is rated 600V, 105°C for use in luminaires.

The Black and Red wires connect to the internal relay and allow the module to interrupt power to the load for complete shutoff. Refer to local electrical code, etc.

To control multiple ballasts, parallel all ballast input wires (line, neutral and control wires purple and grey). It is recommended to observe the maximum ratings of the WSP to ensure maximum ratings are not exceeded (see below).

- ⚠ Recommended branch circuit, 120-347V, 20A maximum.
- ⚠ Recommended dimming signal capacity, 0-10V, 30mA maximum (sinking).

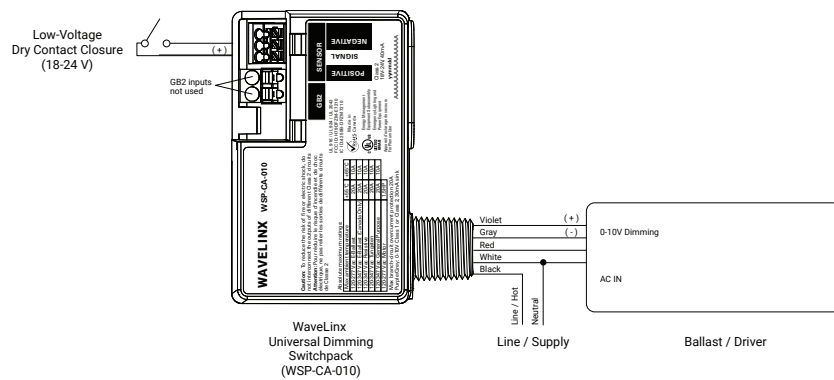
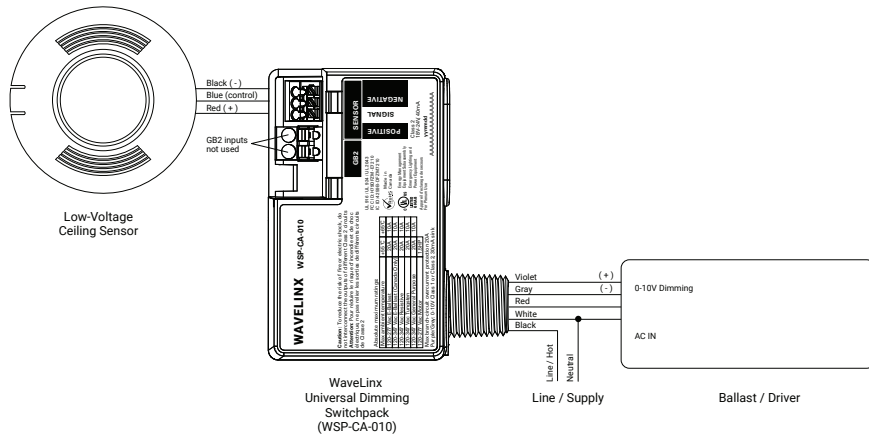
- ⚠ Due to the internal relay, power feed to the fixture may be live even if lights are off. Turn off power at circuit breaker or fuse before installing or servicing module. Observe lockout procedures.

Configurations

WSP to Low Voltage Occupancy Sensor or Maintained Contact Closure input

Provide the WaveLinX system a wired sensor input by connecting one (1) Green-gate Low-Voltage Occupancy Sensor (Passive InfraRed or Dual Tech) as shown below.

A low-voltage contact closure may also be used (not in conjunction with a sensor input) to drive a WaveLinX scene when wired as in the second image below.



Emergency Lighting Configurations

Central Power Sense, Stand-alone WSP

Mains Connection

- WSP is connected to a branch circuit that is connected to back-up power circuit.
- WaveLinX Area Controllers NOT connected to emergency back-up power.

Condition Prior to Emergency

- Luminaire is functioning normally.

Emergency Condition:

- WSP and WaveLinX Area Controller lose normal power when power outage occurs.
- Emergency/back-up power system is initiated via central sense or switchgear.

Emergency Behavior:

- WSP regains power feed when back-up power comes on. It releases the dimming control and turns on the internal relay to pass back-up power to the emergency luminaire.

Note: The WSP will begin dimming again when the WaveLinX Area Controller comes back online.

