

Project		Catalog #		Type	
Prepared by		Notes		Date	



Greengate

SP20-RD4 Heavy Duty Switchpack

Provides 24 VDC operating voltage to all low-voltage, 24 VDC occupancy sensors and daylighting controllers

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Interactive Menu
 - Order Information page 2
 - Wiring Diagrams page 3
 - Mounting Diagrams page 4
 - Connected Systems page 4
 - Product Warranty

Product Certification

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 - Meets ASHRAE Standard 90.1 requirements
 - Meets Title 24 requirements

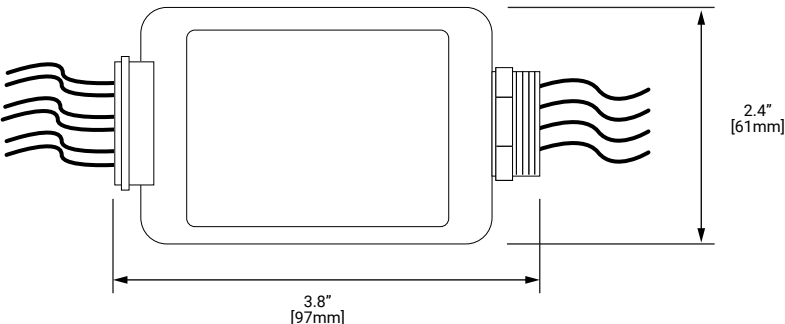
Product Features

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Top Product Features

- Auto ON or Manual On
- Photocell ready
- Fail-safe circuitry – in the event of failure, return-to-closed (ON) capability
- Zero-crossing circuit provides increased durability, especially with today’s high inrush loads
- Voltage regulated to 24VDC, 225mA
- LED ready
- Suitable for general purpose plug load control

Dimensional and Mounting Details



 additional product diagrams

Order Information

Catalog Number

Catalog Number	Ratings	(LED) Ballast	General Purpose (Plug Load)	Motor (HP)	Output
SP20-RD4	120-230-277VAC, 50/60 Hz	16A	20A	1/2HP-120V, 2HP-250V	24 VDC, 225mA

Product Specifications

Key Features

- The SP20-RD4 is the latest addition to the Greengate Switchpacks family, delivering a wide array of switching solutions in a single unit
- This robust switchpack is designed to deliver unmatched performance
- The SP20-RD4 features robust and reliable mechanical latching relays, exclusive fail-safe circuitry, daylight harvesting, bi-level switching and is configurable for energy code requirements
- The switchpack is specifically designed to handle high inrush electronic ballast loads and offer unmatched durability and service
- Can be used to comply with NY LL48, IECC, ASHRAE 90.1 and Title 24, Part 6 daylight harvesting, demand response, bi-level switching and receptacle control requirements
- Auto-ON / Auto-OFF with local switch
- Manual-ON / Auto-OFF with local switch

Mechanical

Size: 2.40"H x 3.81"W x 1.43"D (60.96mm x 96.80mm x 36.37mm)

Environment:

- Operating temperature:** 32°F - 122°F (0°C - 50°C)
- Relative humidity operating:** 0-90%, non-condensing
- For indoor use only

Mounting: Plenum rated for external junction box mounting, with Teflon coated leads

Housing:

- Case:** high impact, UL rated plastic
- Relay:** 60A rated magnetic latching relay; silver alloy contacts
- Wire: 6" leads, 18AWG input; 14AWG load; LV connections: 8" leads 22AWG
- Medium impact injection molded housing.
- ABS resin complies with UL 94V-0.

Electrical

Input:

- 120-230-277VAC, 50/60 Hz

Output:

- 20A, 2400W @ 120V – Resistive
- 20A, 2400W @ 120V – General Purpose
- 20A, 2400W @ 120V – Incandescent
- 20A, 2400W @ 120V – Fluorescent
- 16A, 1920VA @ 120V – Electronic Ballasts
- 16A, 1920W @ 120V – LED
- 20A, 5540W @ 277V – Resistive
- 20A, 5540W @ 277V – General Purpose
- 20A, 5540VA @ 277V – Fluorescent
- 16A, 4430VA @ 277V – Electronic Ballasts
- 16A, 4430W @ 277V – LED
- 1/2 HP @ 120V – Motor Load
- 2 HP @ 240/277V – Motor Load
- Suitable for general purpose plug load control - 20A, 2400W @120V
- Can be used to comply with NY LL48, IECC, ASHRAE 90.1 and Title 24, Part 6 daylight harvesting, demand response, bi-level switching and receptacle control requirements

Control: 2mA, 24VDC

Load: 1 HP 120-240 VAC; 2 HP 250 VAC

Ballast compatibility:

- LED loads
- Magnetic and Electronic ballasts

Standards/Ratings

- UL/cUL Listed
- FCC Certified
- NOM Certified
- Can be used to comply with NY LL48, IECC, ASHRAE 90.1 and Title 24, Part 6 daylight harvesting, demand response, bi-level switching and receptacle control requirements

Environmental Regulations:

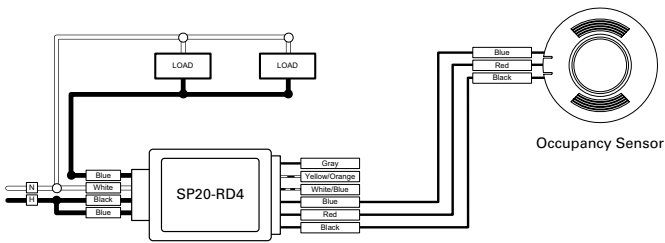
- RoHs Compliant

Warranty

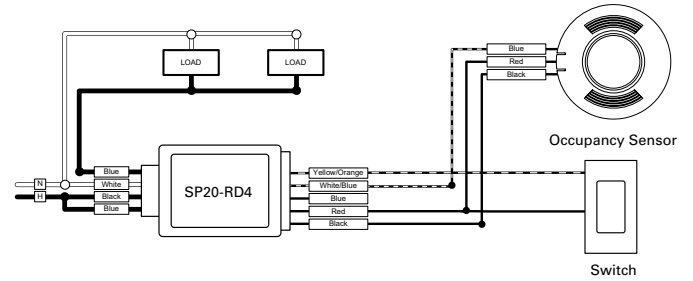
Five-year warranty standard

Wiring Diagrams

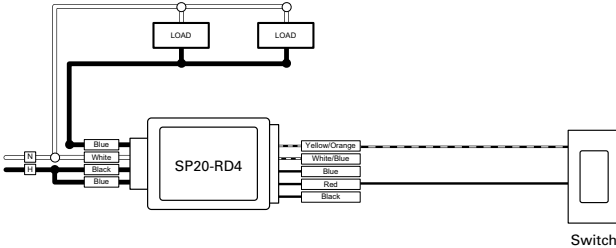
Auto ON/Auto OFF



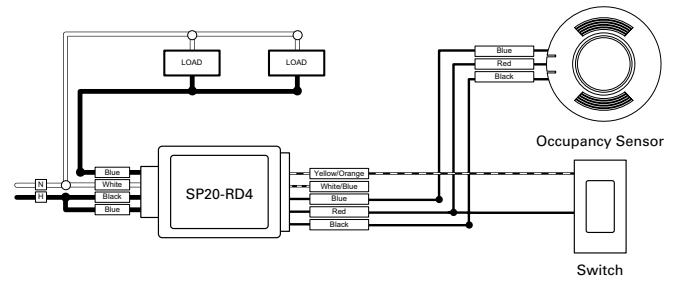
Manual ON/Auto OFF with Local Switch



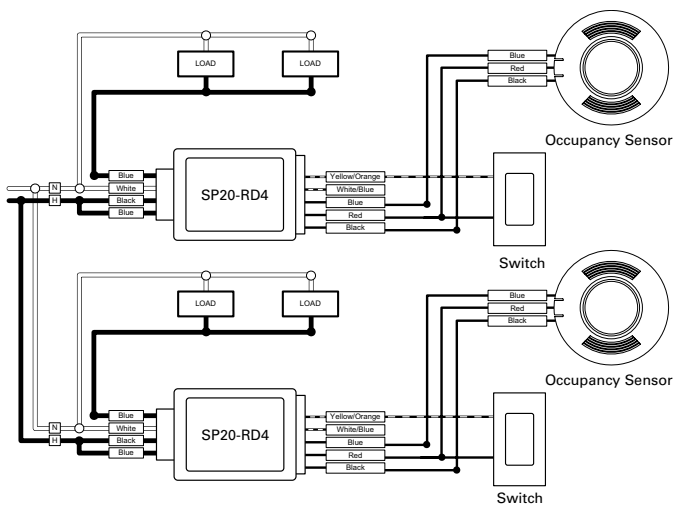
Local Switch ONLY



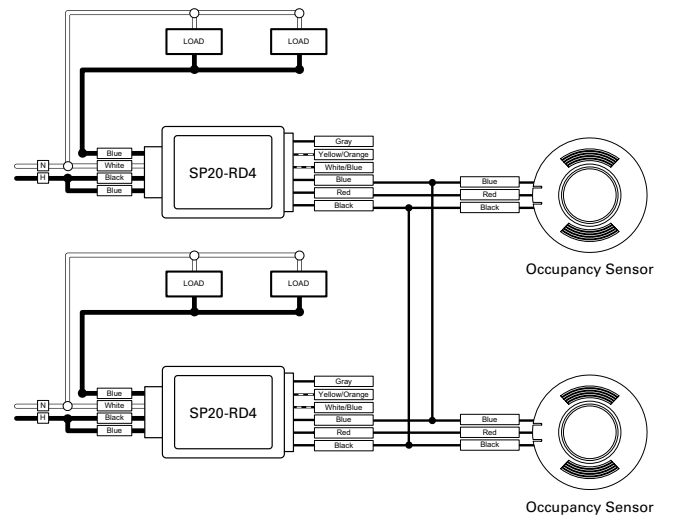
Auto ON/Auto OFF with Local Switch



Bi-Level Switching



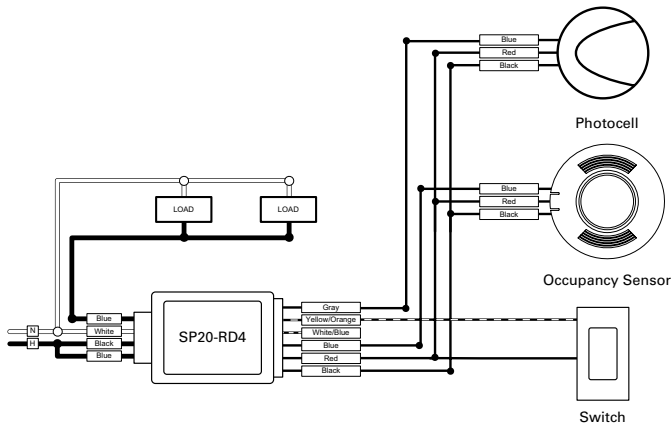
Multiple Occupancy Sensors Exceeding the Power Packs Rating



Note: Switchpack and the load switched by the switchpack MUST be fed from the same phase.

Wiring Diagram

Photocell and Occupancy Sensor with Local Switch



Troubleshooting

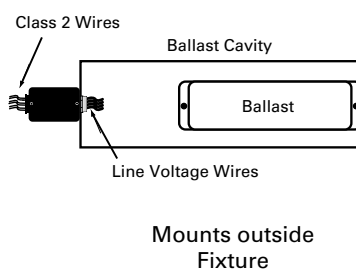
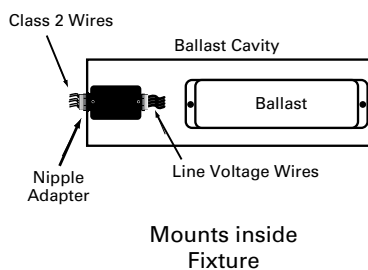
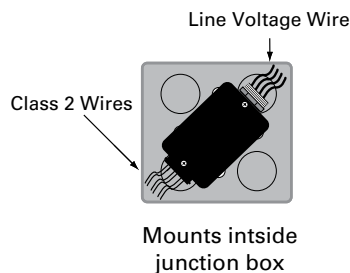
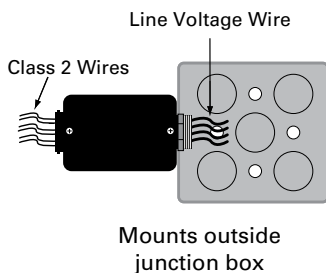
When testing a UL1008 transfer switches, the switchpack will become unresponsive.

Cycle power to the powerpack.
Remove power for more than 10 seconds and the return power. The powerpack will begin normal operation. Ensure the transfer delay time on the transfer switch is either less than 3 seconds or greater than 5.5 seconds.

Note: Switchpack and the load switched by the switchpack MUST be fed from the same phase.

Mounting

Note: If installing powerpacks where a UL1008 switch is being used for emergency power, ensure the 1008 switch timer to switch from normal to emergency power is less than 3 seconds or greater than 5.5 seconds.



 **Control Systems**
• Greengate