

**OVERVIEW**

The **MP20 347** power/relay pack and **MSP20 347** secondary relay pack work with low voltage occupancy sensors to switch lighting loads on and off. The **MP20 347** also transforms 120 or 347 VAC single phase power to class II 15 VDC to power remote sensors. Although plenum rated, the elongated mounting nipple allows for these packs to be mounted either directly through a 1/2 inch knockout in a junction box, or to be located inside an adjacent box for specific local code requirements. Up to 14 sensors may be connected to one **MP20 347**. Multi-circuit control can be handled by multiple **MP20 347** or **MSP20 347** packs. **MP20 347**s can be wired continuously hot (line side), or on the switch leg (load side) without nuisance delays upon turn on.

**FEATURES**

- Powers Low Voltage Sensors (**MP20 347**)
- Switches Line Voltage Loads
- Plenum Rated

**SPECIFICATIONS**

Size:	(not including chase nipple) 3.00" H x 2.25" W x 1.88" D (7.62 cm x 5.72 cm x 4.78 cm)
Weight:	6 oz
Mounting:	1/2" knockout
Color:	Black
Operating Voltage:	120 or 347 VAC (single phase)
Relay Current Reqs:	40 mA
Switching Load:	20Amps
Output Voltage/Current:	15 VDC, 150 mA at 347 VAC (MP20)
Motor Load:	1 HP
ROHS compliant	

**Warranty**

Five-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

ORDERING INFORMATION

MP20 347		Example: MP20 347 LT
Series		Temperature/Humidity
MP20 347	Power/ Relay Pack	[blank] Standard
MSP20 347	Secondary Relay Pack	LT Low Temp



Sensor Switch™

MP20 347  
MSP20 347  
Power Pack/ Secondary Pack



# WIRING (DO NOT WIRE HOT)

## POWERING CAPACITY

An **MP20 347** power pack's transformer can supply up to 150 mA of power. Each relay requires 40 mA during the on state. Low voltage remote sensors typically require 3 mA when detecting occupants, and 0.15 mA when in standby. Therefore, each transformer can handle up to 3 relays (including its own relay). For example, one **MP20 347** can power its relay (40 mA) and 110 mA of external devices. Because of the ultra low current design of Sensor Switch sensors, up to 14 sensors can be connected to a single power pack. If multiple power packs are used together, an additional 110 mA is available.

	Sensors	Sensors w/ -R (aux. relay) option
1 MP20 347	14	8
1 MP20 347 w/MSP20 347	7	6
2 MP20 347	28	16

Note 1: Only three relays may be controlled with one power pack. If controlling more than three circuits is required, multiple power packs must be used.

Note 2: Only one sensor with auxiliary relay (-R option) is required in most cases. See datasheets on low voltage sensors.

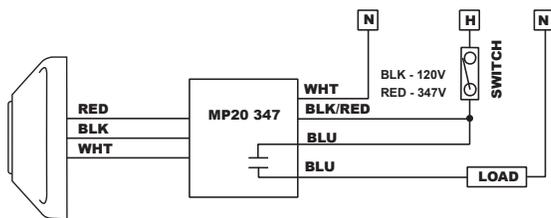
## LOW VOLTAGE OPERATION AND TEST

The pack's low voltage wires are color coded: Red (15 VDC), Black (Common), and White (Occupancy Signal). With no sensors connected, touch the Red wire to the White wire. The lights should turn on. Remove the connection and the lights should turn off. With the sensors connected, the Red and Black wires provide DC power to the remote sensors, and when there is occupancy detected, the White wire produces a 15 VDC signal from the sensor to the power pack initiating the lights to on. Upon initial power up, the sensors automatically send an on signal until the sensors have stabilized and their time delays have expired.

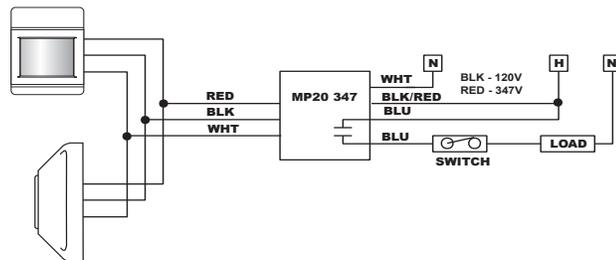
## TYPICAL WIRING

The power pack must be connected to a single phase hot and neutral electrical system. Connect the 18 AWG Red to Hot, the 18 AWG White to Neutral, and cap off the 18 AWG Black wire. **Never connect both the Black and Orange/Red wires!** Low voltage wire can be 18 to 22 AWG, < 2000 ft distance limitation (18 AWG); shielding is not necessary.

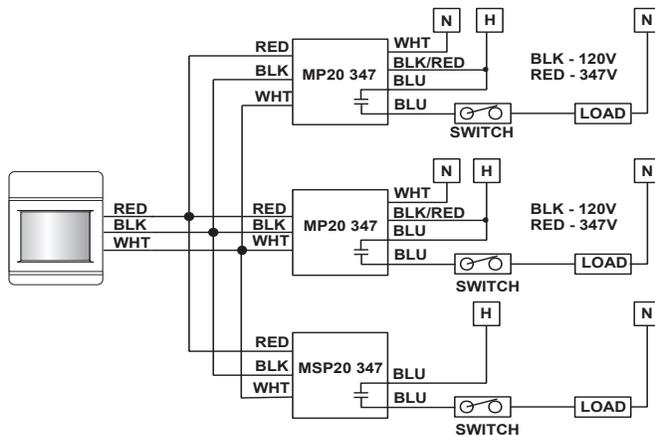
One Sensor & One Power/Relay Pack



Multiple Sensors & One Power/Relay Pack



Multiple Power Packs & Secondary Packs



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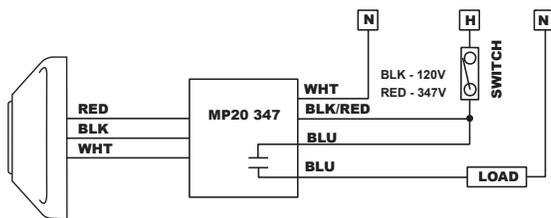
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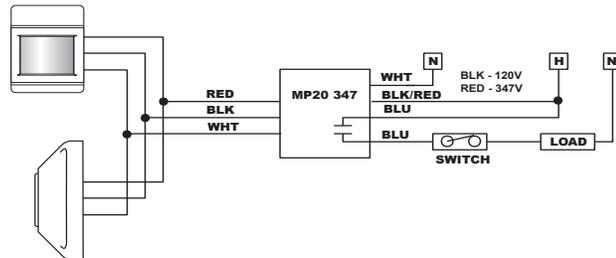
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