

# US WLS 2

## Ultrasonic Dual Relay Wall Switch Occupancy Sensor



The US WLS 2 is a line voltage, two relay, Ultrasonic (40 kHz) wall switch occupancy sensor intended to control bi-level lighting in commercial spaces. Ultrasonic is used where the sensor does not have a clear view of the occupants in the desired coverage area. The hold off photocell daylight option will keep the lighting load OFF when the light level is greater than the threshold level setting. The convenient “Switch Link” feature enables up to four sensors to link together for pier to pier grouping achieving expanded detection zones and multiway switching.

### Applications

The typical application is for bi-level switching (lighting and/or fan motor) in restrooms utility and storage rooms. For best performance use this sensor in enclosed spaces no larger than 15' x 15'.

### Key Features:

- 40 kHz ultrasonic wall switch occupancy sensor
- Adjustable ultrasonic reach setting from 25% to 100%
- Bi-level load switching (2 relays)
- Line voltage lighting control (120/230/277 VAC, 50/60 Hz)
- 180° coverage pattern
- Manual ON or Automatic ON option
- Light level feature keeps lights OFF when sufficient daylight is present
- Mounts to a single-gang NEMA-style, standard switch box & decorator-style wall plate by others
- “Switch Link” communication allows for up to 4 sensors to be grouped together
- IQ Mode dynamically adjusts the ‘ON’ time delay by learning individual room occupancy
- Walk through mode option will switch the load OFF in 3 minutes if no additional detection occurs after the first 30 seconds
- Audible alert feature provides an audible warning that the load will shut-OFF in 10 seconds unless additional motion is detected
- Visible alert feature provides a momentary Off/On blink, warning that the load will shut OFF in 10 seconds unless additional motion is detected
- Service mode option deactivates the automated functions of the sensor and the load is only manually controlled using the ON/OFF button

Project Name:

Location:

66190

66200

66190

66200

### US WLS 2 Specifications

Item No.	66190 US WLS 2-W (white) 66200 US WLS 2-LA (light almond)
Voltage	120/230/277 VAC, 50/60 Hz
Mounting	single-gang NEMA-style switch box (standard switch box) & decorator-style wall plate by others
Load Rating (Per Relay)	0-800 watts @ 120/230/277 VAC, 50/60 Hz tungsten, magnetic or electronic ballast • 1/6 hp 0-600 watts @ 120/230/277 VAC, 50/60 Hz CFL or LED electronic ballasts C ≤ 132 µF max.
Sensing Technology	40 kHz ultrasonic
Time Setting	IQ/Test, 5, 15, 30 minutes
Light Level Setting	80 - 2000 lux / 8 - 200 fc
Environment	IP20 rated, 0°C to +40°C, 32°F to +104°F
Ultrasonic Coverage at 1.2 m / 4 ft Mounting Height	minor motion: max. 8 x 8 m (64 sq.m.) max. 18 x 12 ft (216 sq.ft.) radially: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.) tangentially: max. 7 m (77 sq.m.) 24 ft (904 sq.ft.)
Dimensions	105 x 44.1 x 45.1 mm, 4.13 x 1.74 x 1.78 in (LxWxD)
Warranty	5 years
Certifications	C-UL-US Listed, RoHS compliant, California Compliant

40 kHz

Ultrasonic



18 Ft Minor Motion  
24 Ft Tangential



8 - 200 fc

120/230/  
277V

Line Voltage



IQ/Test, 5, 15, 30 Min



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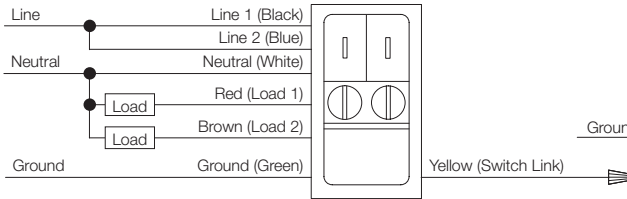
# US WLS 2

## Ultrasonic Dual Relay Wall Switch Occupancy Sensor

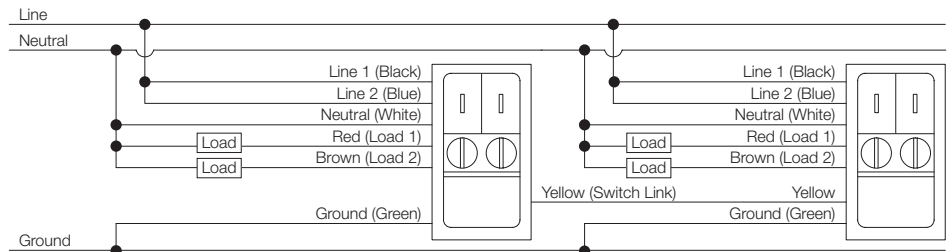


### Wiring

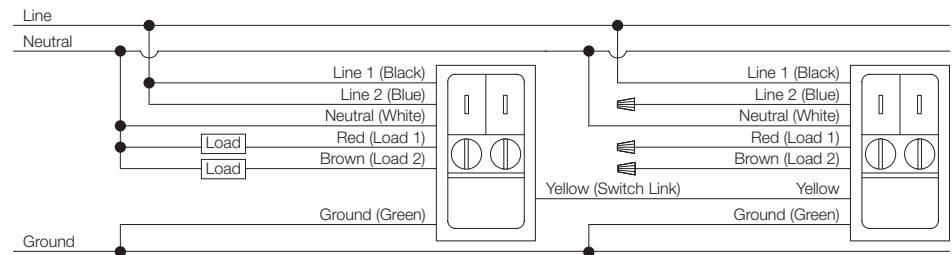
WLS 2 Basic Wiring



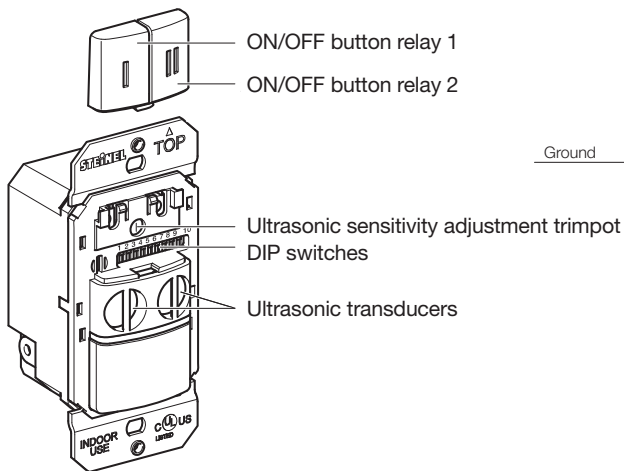
WLS 2 (Master / Master) Three-way Wiring - up to maximum 4 sensors can be grouped via "Switch Link"



WLS 2 (Master / Slave) Three-way Wiring - up to maximum 4 sensors can be grouped via "Switch Link"



### Components

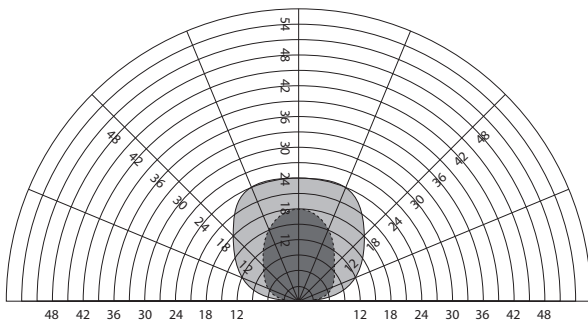


### Setting

	Not Used	Not Used	Relay 2 (Manual ON)	Relay 1 (Manual ON)	Walk Through (ON)	Audible Alert (ON)	Visible Alert (ON)	Time Delay	Service Mode (ON)	
ON	1	2	3	4	5	6	7	8	9	10
OFF	1	2	3	4	5	6	7	8	9	10
	Relay 2 (Automatic ON)	Relay 1 (Automatic ON)	Walk Through (OFF)	Audible Alert (OFF)	Visible Alert (OFF)					Service Mode (OFF)

Time Delay	8	9
IQ / Test	OFF	OFF
5 Minutes	OFF	ON
15 Minutes	ON	OFF
30 Minutes	ON	ON

### Coverage



— Ultrasonic Tangential and Radial Coverage  
 ..... Ultrasonic Minor Motion Coverage



The sensors ultrasonic sensitivity and reach is adjusted with a trim potentiometer (dial). The left stop is minimum 25% (counter clockwise) the right stop is maximum 100% (clockwise).

### Ordering Information

Model	Color	Part #	Relays	Technology	Coverage	Voltage
US WLS 1-W	White	66160	1	40 kHz Ultrasonic	180°	120/230/277 VAC
US WLS 1-LA	Light Almond	66170	1			
US WLS 2-W	White	66190	2			
US WLS 2-LA	Light Almond	66200	2			