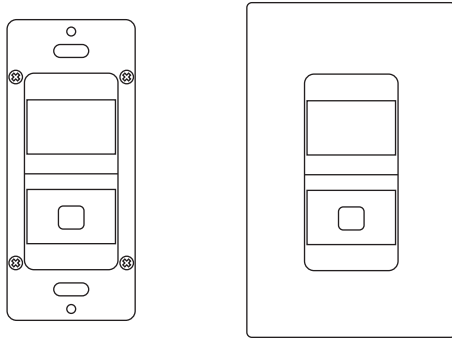


WALLSENZR

BBS-700 Series

Low Voltage Wall Switch Sensor

INSTALLATION INSTRUCTIONS



Indoor dry location use only
Utilisation a L'interieur Uniquement

⚠ WARNING & CAUTION

- Turn power OFF at circuit breaker before installing Power Pack or Sensors.
- Do NOT touch the square window of infrared sensor under the lens assembly.
- Do Not Install To and/or Cover a Junction Box Having Class 1, 3 or Power and Lighting Circuits.
- Class 2 Device Wiring Only – Do Not Reclassify and Install as Class 1, 3 or Power and Lighting Wiring.

⚠ AVERTISSEMENT & PRUDENCE

- Coupez l'alimentation au disjoncteur avant d'installer Power Pack ou capteurs.
- Ne PAS toucher la fenêtre carrée de capteur infrarouge sous l'ensemble de l'objectif.
- Ne pas installer ou couvrir une boîte de jonction ayant les classes 1 et 3 ou circuits de puissance et d'éclairage.
- Classe 2 Câblage de périphériques Seulement - Ne PAS reclasser et installer Classe 1, 3 ou alimentation et circuits d'éclairage.

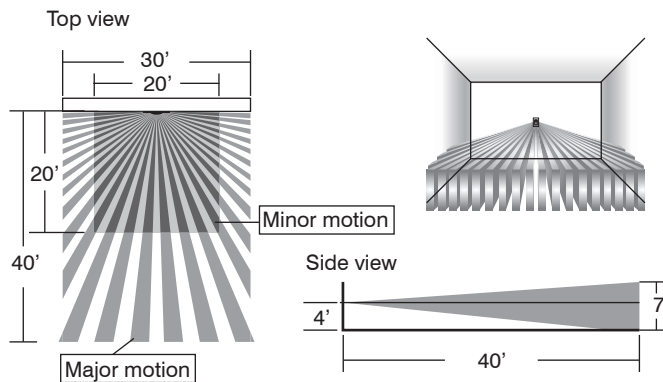
OVERVIEW

The BBS-700 is a member of IR-TEC's WALLSENZR family of low voltage wall switch sensor designed to fit in a standard NEMA wall box. The sensors combine state-of-the-art passive infrared sensing technology with décor aesthetics to provide optimal energy-saving for all applications.

The sensor output will be activated to turn ON the load automatically via the connected power pack or BMS when it detects the presence of an occupant, and will turn OFF automatically if no motion is detected before the delay time elapses. To meet compliance of specific energy code, such as CA Title 24, the BBS-700 series can be easily programmed as a Vacancy sensor. In Vacancy mode the sensor output will only be activated by pressing the push-button manually and will turn OFF the load automatically per the sensor time delay. The BBS-700 allows for the push-button operation to be programmed with different manual control options.

The model BBS-700S comes with an ambient light sensor (ALS) to inhibit the lighting if ambient light levels are higher than required. The Accu-Set digital potentiometers make delay time (TIME) and ambient light level (LUX) settings fast, easy and accurate. Isolated dry contact output allows the BBS-700 series to control the load with IR-TEC Power Packs or BMS.

DETECTION COVERAGE



INSTALLATION NOTES

1. The sensor is more sensitive to the movements "crossing" the detection zones than "toward" or "away" the sensor. To obtain better sensitivity, ensure the sensor to have clear field of view for the occupant's motion within the desired coverage.
2. The closer movement is to the sensor, the more sensitive the sensor is.
3. The sensor should be mounted within the specified mounting height for optimal performance.
4. Avoid blocking the sensor with any obstacles, such as door, plant, partition or furniture. As a general rule, every occupant within the desired range should be able to clearly see the sensor.
5. Do NOT mount the sensor directly above or nearby a heat source, or where unintended motion (e.g. hallway traffic) will be "seen" by the sensor.

SPECIFICATIONS

Power input	12~24 VDC ± 5%
Current drain	5/20 mA, 24VDC @ vacant/occupied
Infrared sensor	Dual element pyroelectric
Control output	Form A relay (NO), isolated dry contact
Contact rating	Max. 2A @30VDC, isolated
Detectable speed	1~10 ft./sec. (0.3~3 m/sec)
Mounting height	3~5 ft. (90~150 cm) above the floor
Detection coverage	Major motion - 30 ft x 40 ft (W x L) @ 4 ft H Minor motion - 20 ft x 20 ft (W x L) @ 4 ft H
Ambient light level	7 levels, from dark to 24 Hour
Delay time setting	T/1'/3'/5'/10'/20'/30', T=10 sec. for testing
Op. humidity	Max. 95% RH, non-condensate
Op. temperature	-40°F ~ 131°F (-40°C ~ 55°C)
Dimensions	4.13"H x 1.77"W x 1.65"D (w/mounting plate)

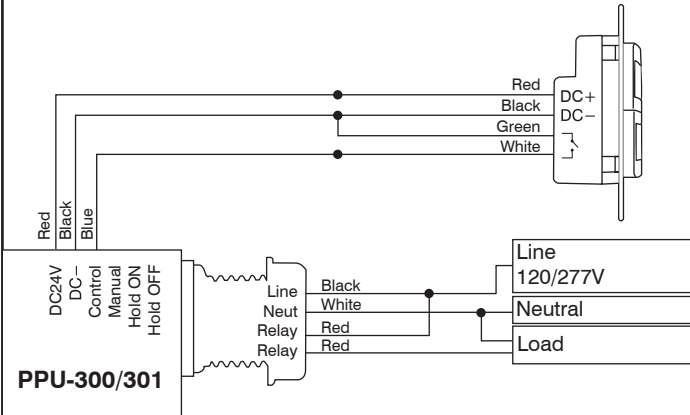


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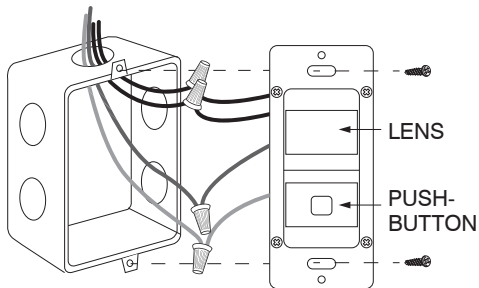
WIRING DIAGRAM

• Sensor control ON/OFF (PPU-300/301)



The sensor may be available with other control options, consult a qualified electrician or contact info@irtec.com for assistance.

INSTALLATION



1. Install the power pack and connect the load according to its instructions.
2. Connect the low voltage wires of power pack with the respective wires of the sensor according to the diagram of desired control.
3. Turn ON the line voltage power for the power pack.
4. Conduct sensor operation test.
5. Attach the wallplate cover after testing and setting completed.

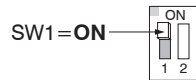
OPERATION & SETTINGS

The BBS-700 series low voltage wall switch sensor employs passive infrared (PIR) sensing technology to monitor the occupancy status within its coverage, and provide an isolated dry contact output for the connected power pack to control the operation of connected load. The sensor can be programmed to control the load as an Occupancy Sensor or Vacancy Sensor via setting the DIP switch #1. The push-button operation can be programmed to turn the load ON and OFF manually or in Presentation Mode (PM) for specific requirement.

The BBS-700S features ambient light sensor to inhibit unnecessary lighting when ambient light is higher than the level set. The time delay (TIME) and ambient light level (LUX) settings can be changed by rotating the respective Accu-Set potentiometer at different positions.

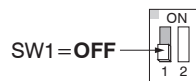
Sensor Mode

Occupancy Sensor (Auto-ON, Auto-OFF)



Occupancy sensor switches the light ON automatically when it detects the presence of an occupant. The sensor will switch the light OFF automatically if no occupant activity has been detected before the time delay elapses.

Vacancy Sensor (Manual-ON, Auto-OFF)

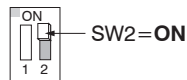


Vacancy sensor requires the user to manually press the push-button to turn ON the light. The sensor will switch the light OFF automatically if no occupant activity has been detected before the time delay elapses.

NOTE - The sensor will automatically turn ON the light if it detects occupant activity within 30 seconds after time delay elapsed.

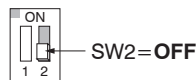
Push-button Control

Manual ON/OFF



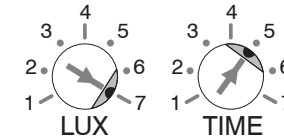
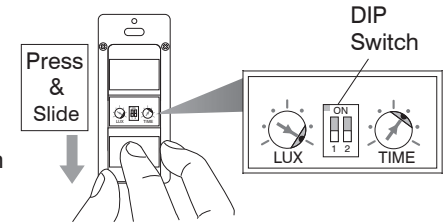
Pressing the push-button during occupied state will turn OFF the load immediately and hold off until the push-button is pressed again.

Presentation Mode



In Presentation Mode (PM), pressing the push-button will turn OFF the lights immediately, and the lights will remain off even if motion is detected. Pressing the push-button again will turn the light ON and the sensor will operate per its settings. If the time delay expires and no occupant activity has been detected, the sensor will return to its normal operation. The lights will turn on with the next motion detected.

To program the sensor operation mode or change the settings, press the push-button cover and slide it down as shown.



POS.	1	2	3	4	5	6	7
TIME	T	1'	3'	5'	10'	20'	30'
LUX	5	10	30	50	100	150	24H

Factory Set

TIME - Delay time

This is the delay time that the BBS-700 series sensor will hold the load on after the last motion detected. The factory setting is 10 minutes, and it can be changed by pointing the arrowhead of potentiometer to the specific position.

LUX - Ambient light level

This is the threshold of ambient light level that the sensor will inhibit switching on the load. The factory setting is ALS disabled (24 Hr) for ease of testing, and it can be changed by pointing the arrowhead of potentiometer to the specific position.

TESTING

After the sensor installed and wiring completed, sensor operation test can be conducted as instructed below;

1. Apply the power to the Power Pack.
2. Walk within the desired coverage. LED will blink to indicate the motion sensed.
3. Replace the wall plate cover after completing the sensor test and setting.

NOTE: The connected load will be switched ON as delay time set (factory default 10 minutes) once apply the power. The delay time can be set to the shortest (10 seconds) for ease of testing. **Ensure to set the TIME as desired for optimum operation after testing.**

WARRANTY

IR-TEC International Ltd. warranties this product to be free of defects in materials or workmanship for a period of five years from date of shipment. There are no obligations or liabilities on the part of IR-TEC International Ltd. for consequential damages arising out or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.