## Occupancy Sensor Configuration Reference Guide for Optimal Sensor Settings



OPTIMAL CONFIGURATION FOR AN OCCUPANCY SENSOR

- Location/Rotation of Sensor
- Passive Infrared (PIR is a line of sight
beam that reacts to heat motion across a field of view.
- Stand or sit at the entry point
spots in the room (can you see the sensor lens?).
- Ultrasonic (U/S) is a reflective wave form that reacts to room disturbances in return view form.
- Stand or sit in the most used spot in the room (can the signals reflect your movement?).
- Angle of Sensor
- Sensor range is optimally designed at $90^{\circ}$. Any variance to the angle will result in less range.

WHILE CONFIGURING AN OCCUPANCY SENSOR, REMEMBER THAT IF YOU CANNOT SEE IT, IT CANNOT SEE YOU.
ADJUST TO ACCOMODATE THE AREAS THAT ARE MOST LIKELY TO BE USED, IF NECESSARY.


## PREFERRED ANGLE = MAX RANGE (SPECIFIED FIELD OF VIEW)

Minor Motion, IR: Typing, stationery sitting or standing with few gestures or movements, reading, writing
Major Motion, IR: Walking, running, dancing, sitting or standing with constant gestures or movements

Minor Motion, U/V: Typing, stationery sitting or standing with few gestures or movements, reading, writing
Major Motion, U/V: Walking, running, dancing, sitting or standing with constant gestures or movements


## COMMON CUSTOMER CONCERNS

## 1. Sensor not turning the lights on when I walk in the room

a. Auto-ON mode + correct configuration $=$ lights will turn ON within two steps of entry.
b. Adjust location/rotation or angle of the sensor to better cover the entry points.
c. If (b.) has not corrected, then increase PIR (red dial) slightly until desired reaction at entry.

2. Lights are turning off on $\mathbf{m e}=$ false-OFF
a. Adjust location/rotation or angle of the sensor to better cover the user's location.
b. If (a.) has not corrected, then increase time delay (black dial) = improves probability of sensing motion.

c. If (a.) and (b.) have not corrected, then increase $U / S$ (green dial) slightly until desired reaction at user location.

3. Lights are on when no one is in the room = false-on
a. Adjust location/rotation or angle of the sensor to block or remove the offending object (such that the sensor cannot detect this unwanted motion: minimum 6 feet from air vents and 4 feet from fixtures). b. PIR will turn the lights ON with any heated motion (oscillating fans, moving parts, pets, etc.).
i. If (a.) has not corrected, then decrease PIR (red dial) slightly until lights turn off (no longer detecting unwanted motion).

c. U/S will keep the lights ON with any room disturbance (high air flow, flag or cloth blowing, fans, etc.). i. If (a.) and (b.) have not corrected, then reduce U/S (green dial) slightly until lights turn OFF after appropriate time setting.

| Green | $(2) y(1))$ | Sets the ultrasonic range |
| :--- | :--- | :--- | :--- |

4. Lights turn on in a room when someone walks past in the hallway
a. Auto-ON mode + correct configuration = lights will turn ON within two steps of entry.
b. Adjust location/rotation or angle of the sensor so that you cannot see it from the hallway.
c. If (b). has not corrected, then decrease PIR (red dial) slightly until hallway motion does not activate.


## ADVANCED OPERATIONS

1. Maximize energy savings with Auto Adapting Technology (factory default settings).

| DIP SWITCH SETTINGS |  |  |  |
| :--- | :--- | :--- | :--- |
| SWITCH |  | SWITCH FUNCTIONS | SWITCH SETTINGS |
|  | BANK A | OFF | ON |
| A1 | N/A | Multi-Tech | Single Tech |
| A2 | N/A | PIR | Ultrasonic |
| A3 | Manual Mode | Auto Adapting Enabled | Auto Adapting Disabled |
| A4 | Walk-Thru Disable | Walk-Thru Enabled | Walk-Thru Enabled |
|  | BANK B |  |  |
| B1 | Override to On | Auto Mode | Lights forced ON |
| B2 | Override to Off | Auto Mode | Lights forced OFF |
| B3 | Test Mode | OFF'ON'OFF | Enter/Exit Test Mode |
| B4 | LED Disable | LEDs Enabled | LEDs Disabled |

2. For fixed (stable) settings, the Auto Adapting and Walk-Thru feature must be disabled.

- Not desirable for maximizing energy savings.
- Desirable in educational environments due to vacation periods.
- Desirable if end user expectations are that all lights will operate ON/OFF the same way all the time.
- Desirable if troubleshooting, this will eliminate strange time delays and $U / S$ sensitivity.


## TO DISABLE ADVANCED FEATURES

a. To disable Auto Adapting, flip the A3 dip switch to the rght (ON Position). b. To disable Walk-Thru, flip the A4 dip switch to the right (ON Position).

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