

UNIVERSAL ENERGY CONTROL, INC.

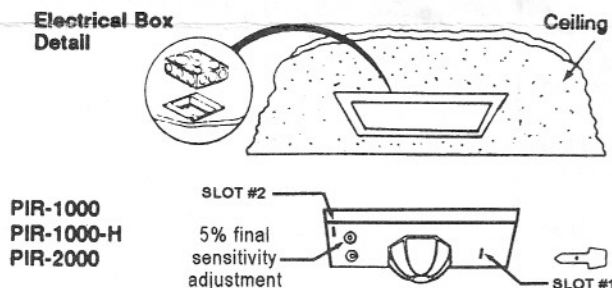
Installation Instructions Infrared Sensors: Ceiling Mounted PIR

Model PIR-1000 (Class 2, 24VDC)
Model PIR-1000-H (Class 2, 24VDC)
Model PIR-2000 (Class 2, 24VDC)

Model PIR-500-P-120V, PIR-500-P-277V
Model PIR-1000-P-120V, PIR-1000-P-277V
Model PIR-1000-H-P-120V, PIR-1000-H-P-277V
Model PIR-2000-P-120V, PIR-2000-P-277V

Installation Tips

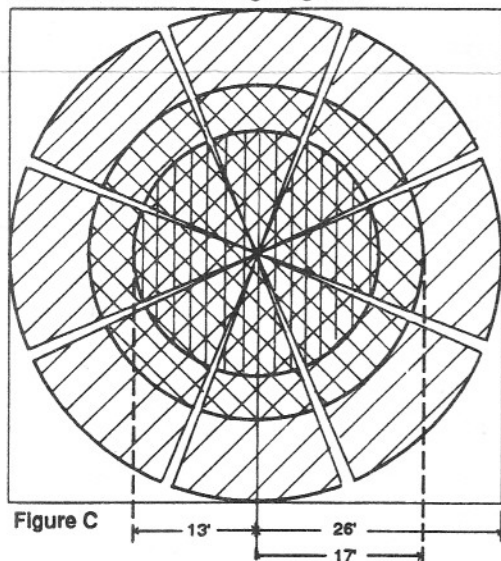
1. Having an understanding of the construction of the sensor helps in placing the unit in the correct location.
2. Verify that the light system you are modifying is 120-volt. Some commercial systems are 277-volt, or a stinger leg may be present at 170-volt.
3. Plan a work procedure and have all tools and equipment available before turning and locking power circuits off.
4. Install Converter in accordance with instruction drawings.



LOGIC BYPASS FUNCTION

NOTE: When key is left in slot #1, load will remain on constantly. Remove key to return to automatic operation. When key is left slot #2, time delay shortens to 30 seconds for test purposes only.

Detection Pattern Ceiling Height = 9



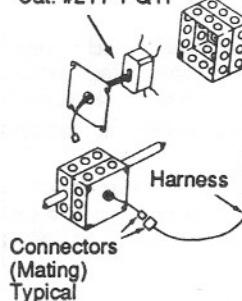
PIR-1000 Approximate Timer Adjustment

150 Sq. Ft. Room - 10 Min
 250 Sq. Ft. Room - 11 Min
 400 Sq. Ft. Room - 12 Min
 500 Sq. Ft. Room - 13 Min
 600 Sq. Ft. Room - 14 Min
 Over 600 Sq. Ft. - 15 Min

PIR-2000 Approximate Timer Adjustment

300 Sq. Ft. Room - 10 Min
 500 Sq. Ft. Room - 11 Min
 800 Sq. Ft. Room - 12 Min
 1000 Sq. Ft. Room - 13 Min
 1200 Sq. Ft. Room - 14 Min
 Over 1200 Sq. Ft. - 15 Min

Power/Switch Pack 277V
 Cat. #213-1-QTI or
Power/Switch Pack 120V
 Cat. #211-1-QTI



Standard low-voltage installation with power/switch pack in accessible tile ceiling

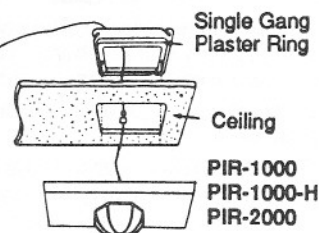
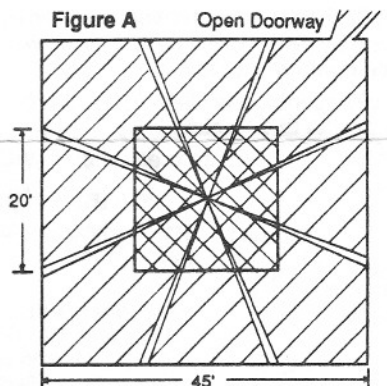


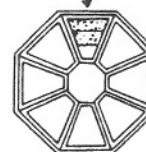
Figure A



SAMPLE MASKING SEGMENTS



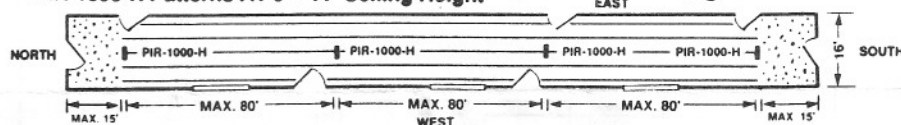
Figure B



PIR-1000 Mounting Height Max 20'
PIR-2000 Mounting Height Max 11'



PIR-1000-H Patterns AT 9' - 11' Ceiling Height



Masking Instructions

To mask a lens segment, use only the mask supplied with the unit and cover only the lens segment which is viewing the potential problem area, such as an open doorway in Fig. A.

Special Note: Sensor should be at least 4' from heat and air conditioning registers

PIR-2000 (Refer to Fig. B for masking)

To be Masked	Masked Segment	Refer to Fig. C
Normal (no mask)		Distance 26'
Mask top half of "A"		Distance 17'
Mask "A"		Distance 12'
Mask "A" & top half of "B"		Distance 6'

PIR-1000 (Refer to Fig. B for masking)

To be Masked	Masked Segment	Refer to Fig. C
Normal (no mask)		Distance 17'
Mask "A" & top half of "B"		Distance 15'
Mask "A" and "B"		Distance 10'
Mask "A", "B" & top half of "C"		Distance 7'

Walk Testing

After completing all rooms to be equipped with sensor, turn power pack on and return to the first room. (NOTE: When AC power is initially turned on, light will be on for adjusted time. This condition will not interfere with normal walk testing because walk test LEDs will function normally.) Proceed with your sensitivity check as follows:

(BUT, ONLY AFTER A 3-MINUTE INITIAL STABILIZATION TIME HAS EXPIRED.)

A. Walk into the middle of the room or activity area. Make no motion for 10 seconds.

B. Move one arm up and down slowly. The red LED should blink. If this does not occur, wait 10 seconds and try again.

Common-Sense Trouble Shooting

Problem: After voltage is restored, red LED does not blink when making motion.

Solution: (PIR-Units) Remove sensor from base and measure if 24-volt-DC is present between red and black leads. If no voltage is present, check power connections and power/switch pack. If voltage is present, replace sensor with new one.

Problem: Lights are on continuously and do not shut off at present time when no one is present.

Solution: (PIR-UNITS) Recheck all your connections and then disconnect sensor while power is still on. If lights remain on, this indicates that there is a short in the cable connecting the sensor and the power/switch pack. The solution to this problem is to replace the cable.

Check for air turbulence. The sensor may be affected by rapid temperature changes from a nearby heating or air conditioning register. Try directing the airstream away from the sensor at the vent or mask as necessary.

Problem: Lights will not switch on even after sensor is disconnected and red and blue wires are shorted.

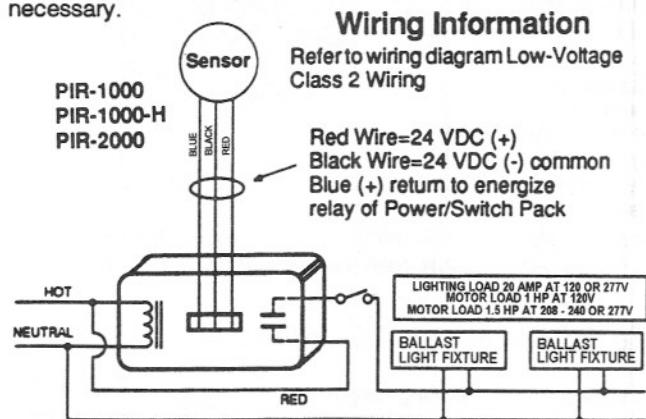
Solution: (PIR-UNITS) This could indicate a broken wire in the cable. Next, disconnect cable at power/switch pack and short blue and red wire together. If lights still do not switch on, replace power pack after checking if all the connections were made correctly.

Problem: LED blinks but lights will not switch on.

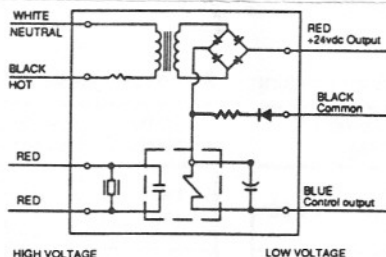
Solution: (PIR-UNITS) Check if sensor is working when bypassing all electronics. This can be done by inserting the key provided with each unit. If lights switches on, replace defective sensor.

Problem: After all connections are verified, lights, stay on when no one is present, and from time to time LED blinks.

Solution: Check for hot air turbulence created by HVAC register and mask lens as necessary.

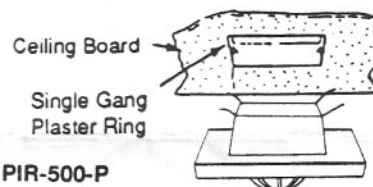


Power Switch Pack (Detail)
211-1, 213-1



Prewired Line Voltage system

In retrofit installations existing switch remains, but is not required in new construction such as closet light control, bathrooms, kitchens, entrance halls, cellars, copy rooms etc.



PIR-500-P

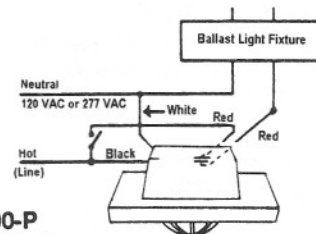
PIR-1000-P

PIR-1000-H-P

PIR-2000-P

Specify 120VAC or 277VAC

Specify 120VAC or 277VAC



PIR-500-P

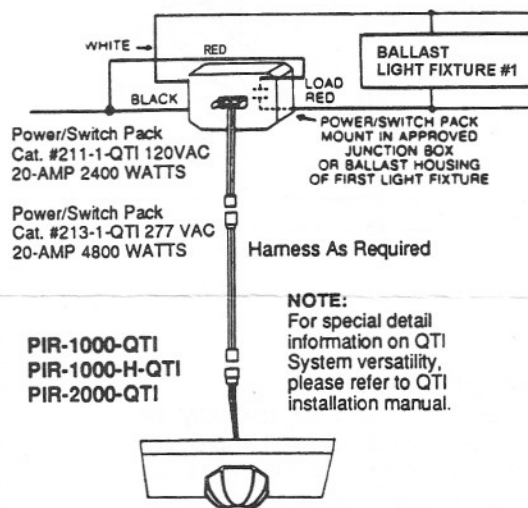
PIR-1000-P

PIR-1000-H-P

PIR-2000-P

Specify 120VAC or 277VAC

Specify 120VAC or 277VAC



Unenco Service, Inc. agrees to correct, by repair or replacement at the option of the company, any units that may fail in service within five years of the date of manufacture. This warranty covers inoperative units due to defects in material or workmanship, provided that unit has been installed correctly according to the instructions and that the conditions of operation have been within the published specifications.

Unenco's obligation under this warranty, which is in lieu of all warranties, expressed or implied, is limited to replacing or repairing inoperative units as outlined herein free of charge. Unenco will not be liable for any consequential damages.