

DH94-2

2-Row Active Infrared Presence Detector for Automatic Sliding Doors

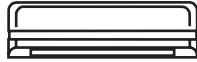
INSTALLATION INSTRUCTIONS

Section 1

General Description

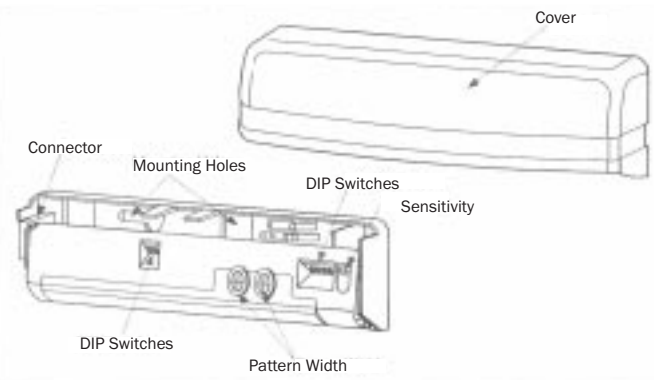
The DH94-2 is a 2-row microprocessor controlled active infrared presence detector for single slide and bi-parting sliding doors.

- Detection area of the sensor is adjustable using mounting height, dip switches, pattern width and pattern angle adjustments
- Snow Mode Switch ensures against false operation caused by snow, insects, etc.
- Microprocessor provides programmable Presence Timer (2, 15, 60 or 180 seconds)

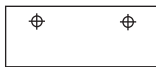


Section 2

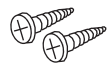
Parts Identification



Accessories



Mounting Template



Mounting Screws



Connection Cable
5 ft. (1.5m)

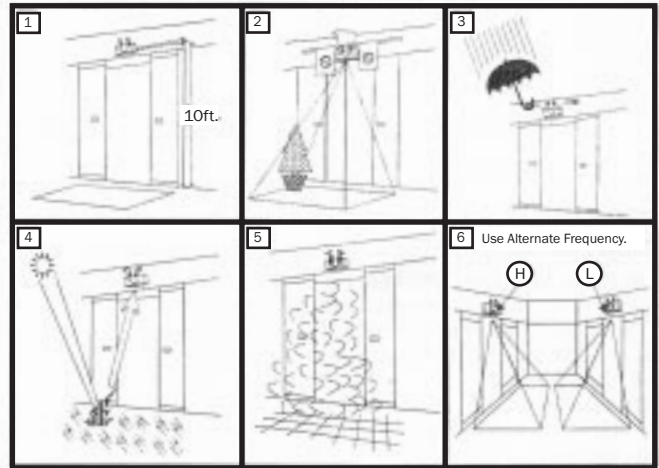


Instructions

Section 3

Mounting Information

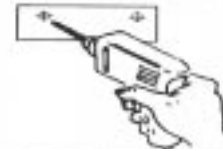
1. Do not mount higher than 10 ft. (3m).
2. Do not leave any objects which may move in the detection pattern.
3. Do not mount where rain or snow will fall directly on unit.
4. Do not mount in a place where reflection of sunlight will shine on unit.
5. Do not mount in a humid or steamy environment.
6. Do not mount five devices in proximity to each other. When using from 2 to 4 devices in proximity, use alternate frequency settings as shown below. (Maximum 4 sensors)



Section 4

Mounting and Wiring

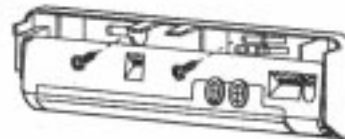
1. Using the mounting template provided, drill mounting and wire holes.



2. Remove cover using a quarter or other coin.



3. Fasten unit with mounting screws provided.

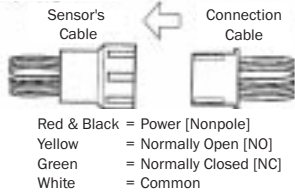


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4. Connect wiring. Push amp connectors tightly together.



5. Place connector in holder.



6. Set desired sensor parameters as noted in Sections 5 & 7.

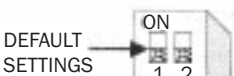
- ⇒ **5. DIP Switch Settings**
 ⇒ **7. Adjusting Detection Pattern**

7. Place cover on sensor and clean the sensor.



NOTE: For maximum pattern depth and width, mount the DH94-2 as high as possible and use the maximum pattern angle (5°).

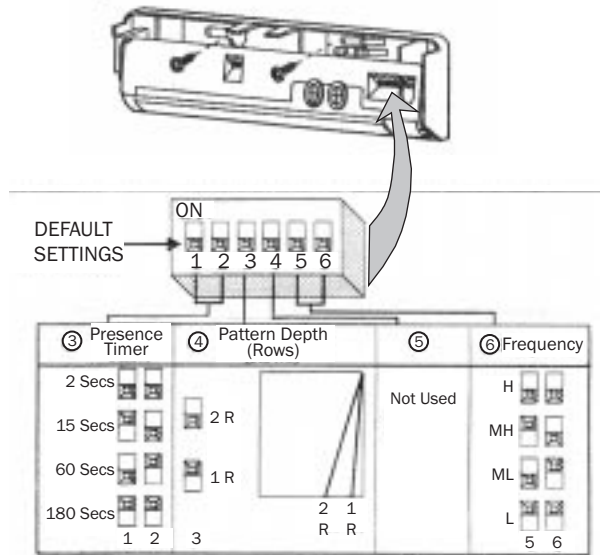
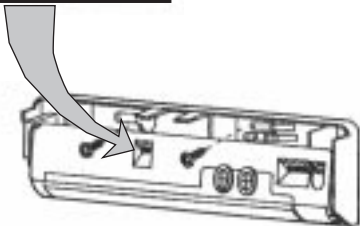
Section 5 Dip Switch Settings



① Monitor Mode	②
Snow Normal 1	Not Used

- ① **Monitor Mode:** A snow Mode is available using switch 1. Snow Mode should only be used in environments with heavy snowfall or other extreme conditions.

- ② Not Used



- ③ **Presence Timer:** Delay is adjustable using dip switches 1 and 2. The DH94-2 will detect a stationary object only for the time period set by the Presence Timer. The timer will reset and begin if any movement is detected.
- ④ **Pattern Depth (Rows):** To adjust the pattern depth, set switch 3 as shown.
- ⑤ Not Used.
- ⑥ **Frequency:** When more than two sensors are used in close proximity to each other, to prevent interference use alternate frequency settings. (H + MH + ML + L = Maximum 4 sensors).

Section 6 Power

BEFORE APPLYING POWER, READ AND FOLLOW THESE INSTRUCTIONS:

When power is applied, the sensor will read and store the environmental optical parameters. This is necessary for Presence Detection to work properly.

1. CLEAR THE AREA OF ANY UNNECESSARY OBJECTS.
2. Apply POWER.
3. Vacate the Detection Pattern immediately. While the sensor sees ANY moving objects in its DETECTION PATTERN, it will not proceed to the following step.
4. DO NOT enter DETECTION PATTERN for 10 seconds (Presence Detection Setting).
5. TEST the presence feature, especially near the door.

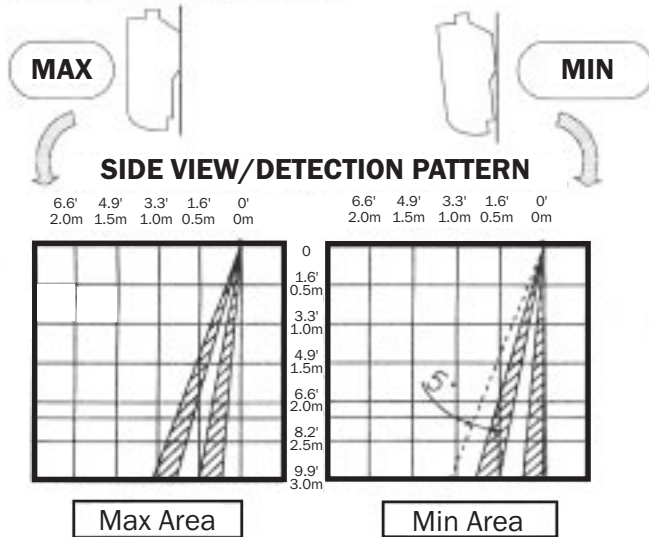
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Section 7

Adjusting Detection Pattern

Adjust the detection pattern according to the following diagrams:

1. Pattern Angle Adjustment.

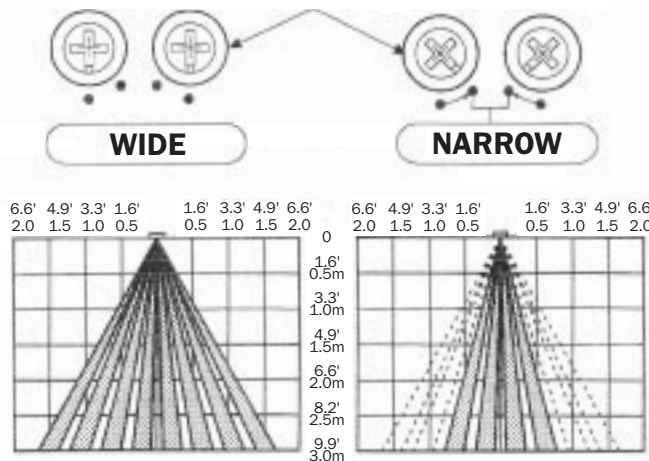


- The body of the sensor can be rotated from 0° to 5° (3 steps).

2. Pattern Width Adjustment.

Mask Adjustments for single and/or double doors.

PATTERN WIDTH ADJUSTMENT



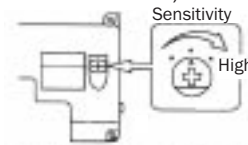
Detection pattern will vary according to objects, material, color and speed.

Section 8

Verification of Operation

1. After mounting, setting parameters and applying power, walk test unit to verify detection pattern.
2. If the door does not operate properly, recheck the dip switch settings and pattern adjustments.
3. After rechecking, if there is still a problem, adjust the sensitivity.

- Adjust high (clockwise) to increase sensitivity.
- Adjust low (counter-clockwise) to decrease sensitivity.



*******EXTREMELY IMPORTANT*******
 After final set-up, test unit(s) completely to ensure that proper coverage has been achieved (width, depth and location of the pattern must be tested).

After the installation and operational check of the system:

1. Place the proper labels on the door per ANSI/BHMA A156.10 & BS 7036.
2. Instruct the owner of the door system operation and how to test it. This should be checked on a daily basis.
3. Instruct the owner on what to do if the door or any of its components become damaged.
4. Strongly recommend to the owner that the complete entry be inspected twice a year as part of the service agreement.

Section 9

Troubleshooting

PROBLEM 1: Door does not open.

CAUSE 1: Sensor Connector
SOLUTION 1: Tighten connector or reconnect

CAUSE 2: Power Supply
SOLUTION 2: Check that the power supply is properly connected

PROBLEM 2: Door operates intermittently.

CAUSE 1: Sensor is very dusty or covered in water drops, etc.

SOLUTION 1: Clean the sensor (do not use thinner or alcohol to clean sensor)

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PROBLEM 2: Door operates intermittently.

CAUSE 2: Sensitivity too low

SOLUTION 2: Turn up sensitivity

CAUSE 3: Detection pattern in the wrong position

SOLUTION 3: Alter the detection pattern by changing sensor angle, dip switch settings and/or pattern width adjustments

PROBLEM 3: Door operates by itself

CAUSE 1: Sensitivity too high

SOLUTION 1: Turn down sensitivity

CAUSE 2: Another sensor is too close by

SOLUTION 2: Change the frequency to each sensor

CAUSE 3: Sensor detects the door movement

SOLUTION 3: If the indicator LED is an Orange color, adjust the pattern depth angle away from the door

CAUSE 4: There is a cloth mat in the detection pattern

SOLUTION 4: Turn the sensor power off and then on again, and allow it 10 seconds

CAUSE 5: Detection pattern too far in front of the door, detecting people passing by

SOLUTION 5: Adjust the detection pattern - move it closer to the door

CAUSE 6: The condition of the monitored area is varying (i.e., dusty, dirty, snow)

SOLUTION 6: The condition of the detection zone can change due to heavy dust or dirty, heavy snow or footprints being left in fresh snow. This will cause the door to open sometimes. Set the Presence Timer to a short time. (See Section 5)

Section 10

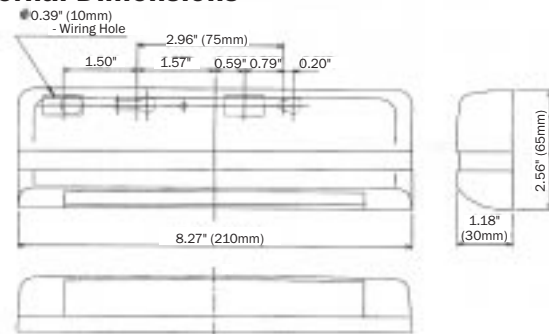
Technical Data

Model..... DH94-2 Presence Detector
Detection Method..... Active Infrared Detection
Max. Installed Height..... 10 ft. (3m)
Pattern Adjustments..... Pattern Width (wide or narrow)
Pattern Depth (1 to 2 rows)
Angle Adjustment 0° to 5° in 3 steps
Sensitivity
Power Supply..... 12 to 24 V AC or DC ± 10%
Red & Black wires (nonpole)

Power Consumption..... AC24V-2VA, AC12V-1.5VA
DC24V-55mA, DC12V-85mA
Output Contact..... Form C Relay: DC50V 0.1A
(Resistor Load)
Yellow Wire = Normally Open
Green Wire = Normally Closed
White Wire = Common
Output Holding Time..... Approx. 0.5 seconds
Presence Timer..... Limits of 2, 15, 60 and 180 seconds
LED Indication..... RED = Detecting
GREEN = Standby
ORANGE = Hunting Door
Temperature Range..... -4 °F to 140 °F
(-20 °C to 60 °C)
Weight..... 0.43 lbs. (0.195kg)
Color..... Black
Accessories..... Cable: 5 ft. (1.5m)
Mounting Template
Installation Instructions

Section 11

External Dimensions



Section 12

Warranty

MS Sedco guarantees this product to be free from manufacturing defects for 3 years from date of installation. Unless MS Sedco is notified of the date of installation, the warranty will be in effect for 3 years from the date of shipment from our factory. If, during the first 3 years, our motion detector or support device fails to operate and has not been tampered with or abused, the unit can be returned prepaid to factory and it will be repaired free of charge. After 3 years, the unit will be repaired for a nominal service charge. **This limited warranty is in lieu of all other warranties expressed or implied, including any implied warranty of merchantability, and no representative or person is authorized to assume for MS Sedco any other liability in connection with the sale of our products. All warranties are limited to the duration of this written warranty. In no event shall MS Sedco be liable for any special, incidental, consequential or other damages arising from any claimed breach of warranty as to its products or services.**

