

# WLS-904

## Wireless Motion Detector



### INSTALLATION INSTRUCTIONS

Software Version 4.3L

Each Motion Detector should be located so that it provides optimal coverage of the intended area. Refer to Changing Motion Detector Lenses below for information on the four lenses available for the WLS-904. Motion Detector. When locating Motion Detectors, observe the following:

- For the Wall-to-Wall, Corridor and Curtain Lenses, the Mounting Height should be 6-10 ft./ 2-3 m from the floor. The nominal mounting height is 7.5 ft./ 2.3 m.
- For the Pet Alley Lens only, the Mounting Height should be 4-5 ft./1.2-1.5 m from the floor.
- Do not aim the detector at reflective surfaces such as mirrors or windows. This may distort the coverage pattern or reflect sunlight directly onto the detector. Avoid locations where the detector may be exposed to direct or reflected sunlight.
- Avoid locations that are subject to direct air flow, such as near an air duct outlet.
- Do not locate the detector near sources of steam or oil vapor, such as a stove or fryer.
- Do not obscure the Detector's coverage pattern with large objects within the detection area. If you can't see the detector, it can't see you.
- For indoor use only
- Dead zone 6"/15 cm

**! No detector should be mounted without first performing a module placement test to determine that it is in range of the wireless receiver. See the Placement Test instructions in the Instruction Sheet for your receiver, or in the installation manual for your system.**

When a location has been determined, remove the plastic from the mounting holes and locate the backplate on the wall and mark screw locations. It is suggested that wall anchors be used for all screw locations. Secure the backplate to the wall, and then secure the enrolled Detector to its backplate.

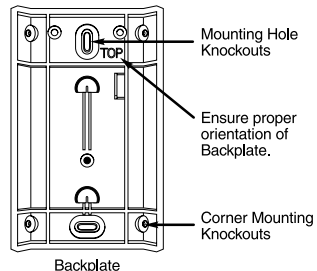
### Enrolling a WLS-904

On the back of the PIR housing, there will be two serial numbers: a five-digit number and a six-digit number. Please refer to your receiver installation manual for information on which serial number should be enrolled. NOTE: If using a WLS900 system, you must use the five-digit serial number.

### Changing Motion Detector Lenses

Each Motion Detector is supplied with the Wall-to-Wall lens; three additional lenses are available for the WLS-904 Motion Detector. The charts on the next page illustrate the range and coverage patterns of each lens.

To change the lens, first open the Motion Detector by removing the screw in the bottom of the battery compartment. With the screw removed, pull the back of the detector away from the front case.



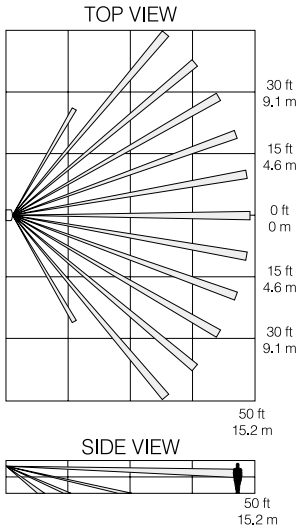
**! The coils and antenna on the Motion Detector circuit board are very sensitive components precisely adjusted for maximum performance. Do not touch the coils or antenna! Even minor distortions can affect the performance of the Motion Detector.**

Remove the lens holder by pressing down on the top of the holder and pulling the holder away from the case. When installing the new lens, ensure the grooved surface faces the interior of the case, and the notches on the lens face the bottom of the case. Replace the lens holder by snapping it back into place.

Reassemble the motion detector by first engaging the clips on the bottom of the case. Close the case and then secure the case with the screw in the bottom of the battery compartment.

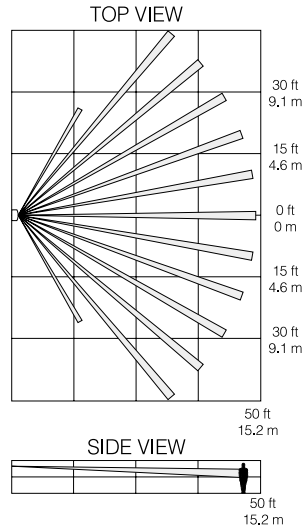
**Wall-to Wall Lens  
DSC Model BV-L1**

Range: 50' L x 60' W (16 m x 18 m)



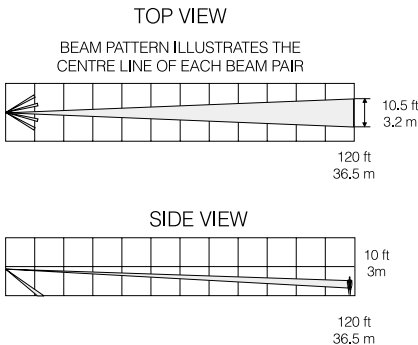
**Pet Alley  
DSC Model BV-L4**

Range: 50' L x 60' W (16 m x 18 m)



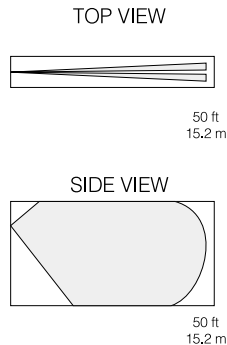
**Corridor Lens  
DSC Model BV-L2**

Range: 120' L x 10.5' W (36.5 m x 3 m)



**Curtain Lens  
DSC Model BV-L3**

Range: 50' L x 4.4' W (16 m x 1.3 m)



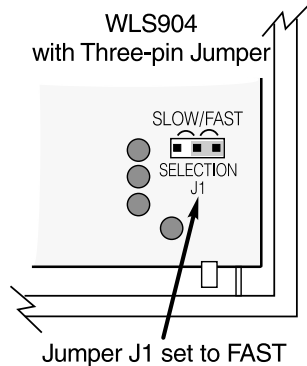
## Changing Motion Detector Sensitivity

The motion detector features Fast and Slow detection modes, which are set on jumper J1. Jumper J1 is set at the factory for the Fast detection mode. In a normal operating environment, this setting provides the best detection.

In certain environments where rapid air movement, heaters and other variables present problems, use Slow detection mode to stabilize the detection.

The diagram on the right shows the jumper location. To change the setting from Fast to Slow, move the jumper over one pin, as shown in the diagram.

**Note: Refer to the PC5132 or PC4164 Receiver and Control Panel Installation Instructions for UL/ULC requirements. For UL/ULC installations where the WLS904 is used on entry or exit delay zones, the entry delay must not be longer than 39 seconds, and the exit delay must not be longer than 54 seconds.**



## High Traffic shutdown Mode

To prolong battery life, the motion detector uses a feature called High Traffic Shutdown. When motion is detected, the device will transmit to the receiver and will then shut down for three minutes. If motion is detected again during the shutdown time, the unit will not transmit the event to the receiver. The detector will thus remain in the shutdown mode until three minutes after the first motion detected was transmitted. The detector will transmit detected motion every three minutes.

The High Traffic Shutdown Mode affects testing the motion detector in two ways:

- When performing the **module placement test**, the unit must be tampered by removing the unit from the backplate and replacing it. The placement test cannot be performed by creating motion in front of the device.
- When performing a **system test**, the unit must be left idle for three minutes before testing can be performed. Once three minutes has passed, create motion in front of the detector to see if the device is both detecting motion and transmitting to the receiver.

## Motion Detector Transmission Delay

A motion detector transmission is always delayed by six seconds. This is necessary to prevent false alarms caused by a motion sensor transmitting before a delay zone has a chance to report. This six-second delay cannot be altered or disabled.

## Walk Test Mode

The motion detector has a walk test mode which will activate an LED for testing purposes. During normal operation, the LED will not turn on.

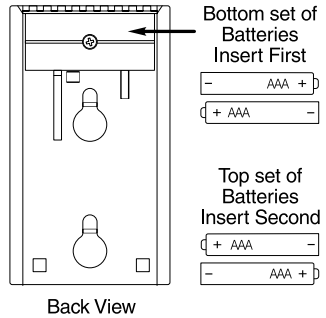
To put the detector in walk test mode, create a tamper by removing the detector from its backplate and then replacing it. Each time the detector senses motion, it will turn on the red LED. Five seconds after motion is detected, the detector will send a signal to the receiver, and the LED will flash rapidly 5 times. The detector will be in walk test mode until it has sent 10 transmissions.

**NOTE: The Walk Test Mode will override the High Traffic Shutdown Mode.**

## Battery Installation

- **This system is designed to work with Eveready Alkaline Energizer Batteries.** Do not install any other type. The reliability of the security system depends on its batteries, and “no name” or generic brand batteries may not provide the best quality and dependability.
- Use fresh batteries. Most batteries have a “best before” date printed on their packaging or on the batteries themselves. Buy batteries that have a “best before” date of two years or more from your purchase date.
- When disposing of used batteries, follow the instructions and precautions printed on the batteries. Many cities and communities have collection sites or services for used household batteries. Contact your municipal offices for information on the disposal of used batteries.

Remove the motion detector from its mounting plate by holding the sensor by its sides and pushing up. Install four fresh Eveready Alkaline Energizer AAA batteries. Be sure to insert the batteries in the proper orientation. Replace the sensor on its mounting plate, making sure it snaps into place. After the batteries are installed, the detector will take 60 seconds to warm up. During this time the LED will flash slowly.



### FCC Compliance Statement

**CAUTION:** Changes or modifications not expressly approved by Digital Security Controls Ltd. could void your authority to use this equipment.

This equipment generates and uses radio frequency energy and if not installed and used properly, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for Class B device in accordance with the specifications in Subpart "B" of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in any residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to television or radio reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient the receiving antenna
- Relocate the alarm control with respect to the receiver
- Move the alarm control away from the receiver
- Connect the alarm control into a different outlet so that alarm control and receiver are on different circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio/Television Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock # 004-000-00345-4.

### Limited Warranty

Digital Security Controls Ltd. warrants that for a period of twelve months from the date of purchase, the product shall be free of defects in material and workmanship under normal use and that in fulfilment of any breach of such warranty, Digital Security Controls Ltd. shall, at its option, repair or replace the defective equipment upon return of the equipment to its repair depot. This warranty applies only to defects in parts and workmanship and not to damage incurred in shipping or handling, or damage due to causes beyond control of Digital Security Controls Ltd. such as lightning, excessive voltage, mechanical shock, water damage, or damage arising out of abuse, alteration or improper application of the equipment.

The foregoing warranty shall apply only to the original buyer, and is and shall be in lieu of any and all other warranties, whether express or implied and of all other obligations or liabilities on the part of Digital Security Controls Ltd. This warranty contains the entire warranty. Digital Security Controls Ltd. neither assumes, nor authorizes any other person purporting to act on its behalf to modify or to change this warranty, nor to assume for it any other warranty or liability concerning this product.

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