



# **Wireless Motion Sensor**

For the AL101 Driveway Alert System



\* Patent Pending

# INSTRUCTION MANUAL

www.defender-usa.com

Vol 1.0

# **PLEASE READ**

# PRODUCT WARRANTY INFORMATION

# Please visit our website at **www.defender-usa.com** for information about your product's warranty.

We take quality very seriously. This is why all of our products come with a one year warranty from the original purchase date against defects in workmanship and materials. If you have warranty or support issues please contact us using any of the following methods:

Phone: 1.866.946.7828 DEFENDER Canada DEFENDER USA

Fax: 1.888.771.1701 4080 Montrose Road 60 Industrial Parkway #Z64 Email: support@defender-usa.com Niagara Falls, ON Cheektowaga, NY 14227

Website: www.defender-usa.com Canada, L2H 1J9 USA, 14305

#### **Warranty Terms**

- Defender products are guaranteed for a period of one year from the date of purchase against defects in workmanship and materials. This warranty is limited to the repair, replacement or refund of the purchase price at Defender's option.
- 2. This warranty becomes void if the product shows evidence of having been misused, mishandled or tampered with contrary to the applicable instruction manual.
- 3. Routine cleaning, normal cosmetic and mechanical wear and tear are not covered under the terms of this warranty.
- 4. The warranty expressly provided for herein is the sole warranty provided in connection with the product itself and no other warranty, expressed or implied is provided. Defender assumes no responsibilities for any other claims not specifically mentioned in this warranty.
- 5. This warranty does not cover the shipping cost, insurance or any other incidental charges.
- 6. You MUST call Defender before sending any product back for repair. You will be sent a Return Authorization form with return instructions. When returning the product for warranty service, please pack it carefully in the original box with all supplied accessories, and enclose your original receipt or copy, and a brief explanation of the problem (include RA #).
- 7. This warranty is valid only in Canada and the continental U.S.
- 8. This warranty cannot be re-issued.





# **INTRODUCTION**

Congratulations on your purchase of the AL101-TX! This motion sensor is designed to work with the AL101 Alert System (sold separately). Always be aware when invited guests or unwanted trespassers visit your property or enter a restricted area. This motion sensor notifies you when motion is detected up to 30ft away! So you never have to worry about people sneaking around your property without you knowing. As soon as your motion sensor detects motion, it sends a signal to the receiver (sold separately) which will sound an alarm and give you immediate notification that someone has entered your property. This system has the ability to expand, up to three motion sensors connected to one receiver, so you can easily protect more areas of your property. With the AL101-TX, you can feel comforted knowing when your children come home at night or when someone enters a private or restricted area within your business. Ensure your safety and peace of mind with this advanced motion alert sensor.

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# WHAT'S INCLUDED



Indoor/Outdoor Motion Sensor

- Sensor Hanging Clip
- 4 AA Batteries
- 1 Year Warranty
- 24/7 Live Customer Support

## **OPTIONAL ACCESSORIES**

Additional Indoor/Outdoor Motion Sensors (Up to 2) (AL101-TX)



AL101-TX 2

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# **FEATURES**

#### **30ft Detection Zone Notification**

The adjustable sensor can detect movement close up and even as far as 30ft away. With no wires involved, set up is simple and you can rest assured that the signal between your receiver and motion sensor will remain strong up to 500ft away.<sup>1</sup>

#### Weather Resistant for Outdoor Use

Feel free to place the motion sensor outside in your driveway or in a restricted parking lot all year round as the motion sensor is made out of weather resistant material that can withstand wind, rain and even snow.<sup>2</sup>

#### **Adjustable Sensitivity**

Select your sensitivity level based on where your motion sensor is located. Choose to be alerted only by approaching automobiles or increase the sensitivity to include approaching pedestrians.

#### **Go Completely Wireless with Batteries**

Conveniently, this wireless driveway alert was designed to conserve battery life—in some cases you won't have to replace batteries for over 6 months.<sup>3</sup> When the motion sensor battery is low, the hand held receiver will alert you so you will always be protected.

#### **Expandable Up to 3 Sensors**

Ensure that all areas of your property are secure by adding additional motion sensors. The receiver will notify you when motion is detected for up to three entrances or areas, and indicates which sensor is in alarm.<sup>4</sup>

#### 24/7 Lifetime Live Customer Support

Our customer support team can be reached by phone 24/7 or by email and live web chat services, so you always have access to an expert.

#### Disclaimers

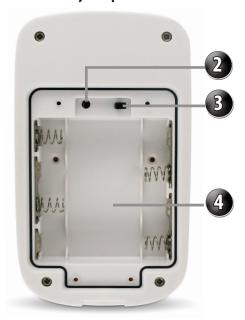
- Optimum range is 250ft when signal is passing through walls or floors. Microwave ovens (when in use) may cause signal disruption at close
  range. Buildings with metal frames may also cause signal disruption. Maximum transmission range is 500ft. Motion sensor has multiple
  detection settings that affect the maximum distance and sensitivity of the unit.
- 2. Although the motion sensor is weather resistant, please note that it is not weather proof Do not install in areas that receive a lot of direct rain and/or snow.
- 3. Battery life of motion sensor is 6-12 months based on tests of daily moderate use (10 times/day). Battery life may vary depending on usage.
- 4. Extra motion sensors are not included and can be purchased separately

# BUTTONS AND CONNECTIONS

#### **Front of Motion Sensor**



#### **Inside Battery Compartment**



#### **Front of Motion Sensor**

**1. Motion Sensor:** This area detects motion in front of the sensor

#### **Inside Battery Compartment**

**2. Pair Button:** Press this button to connect the

motion sensor with the receiver

**3. Sensitivity Switch:** The Sensor has two sensitivity

levels, 15ft and 30ft

4. Battery Compartment: Install 4 AA batteries in the

battery compartment

#### **Side of Motion Sensor**

**5. Hanging Clip:** Use the adjustable hanging clip

to fasten the motion sensor to a

wall or surface

#### Side of Motion Sensor



## **OPERATION**

#### **Powering On the Motion Sensor**

The motion sensor requires 4 AA batteries to operate. Please see instructions on how to install batteries and mount your motion sensor properly.

- Once you have successfully installed the batteries in the motion sensor, the sensor will start up automatically,
  please allow 60 seconds for the unit to initialize before it will begin sensing motion and sending signals
- It will be necessary to pair the motion sensor and the receiver before any alarms are received (see Pairing the Devices below)

#### **Installing Batteries in the Sensor Unit**

This unit requires 4 AA batteries to operate. The unit is designed to operate on batteries for 6 months or longer before they will need to be replaced. This length of time could be shortened somewhat if you have a larger than average amount of alarms set off every day.

- 1. Remove the battery compartment cover on the back of the sensor unit using a small phillips head screwdriver.
- 2. Install 4 AA batteries.
- 3. While you have the compartment cover off, you should adjust the sensitivity to your needs, (see Setting the Sensor Sensitivity on Page 6) and pair the sensor to the proper zone, if you have not already done so (see Pairing the Devices below).
- 4. Replace the battery compartment cover.

#### **Pairing the Devices**

The sensor must be paired with a receiver before the sensor can send alerts.

- 1. Power on both units, press the pair button on the right side of the receiver.
- 2. The receiver will beep once and the first zone LED will blink. Choose which sensor you would like to monitor zone 1, and press the pair button inside the battery compartment of that sensor unit.
- 3. The receiver unit will beep twice and the chosen zone LED will stop flashing when the units have been paired.
- 4. To connect additional sensors, press the pair button on the receiver and choose a zone by pressing one of the zone buttons. The zone button will begin blinking. Press the pair button inside the battery compartment of the sensor you wish to pair.
- 5. The receiver unit will beep twice and the chosen zone LED will stop flashing when the units have been paired.
- 6. If you are finished pairing the devices you can press the power button on the receiver to exit pair mode.
- 7. Always test that the system will receive alerts before installing the sensor unit by waving your hand or walking past it until you receive an alert.



AL101-TX <sub>5</sub>

## **OPERATION**

#### **Setting the Sensor Sensitivity**

Adjusting the sensor's sensitivity will be necessary depending on how far you are mounting the unit from the area being monitored. You will also need to adjust the sensitivity if you are getting false alarms, or missing alarms.

- 1. Remove the battery compartment cover. The sensitivity control is the black switch on the top right side of the inside of the compartment.
- 2. Flip the switch to the left to adjust the sensitivity to the low (15ft) setting.
- 3. Flip the switch to the right to adjust the sensitivity to the high (30ft) setting.
- 4. Replace the battery compartment cover.

## **INSTALLATION**

#### **Installation Recommendations**

Before installing the sensor unit there are several things you should consider:

- This system is water resistant, not waterproof. Installing it in an area where it is under an awning or covering
  is necessary
- Choosing the sensitivity level, either 15 feet or 30 feet, depending on where the sensor will be mounted, the sensor will detect objects within a 30° angle
- Where the sensor will be placed; must be within a 500 foot line of sight range from the receiver

#### **Hanging the Sensor Unit**

You will need an object such as a post or tree to screw the hanging clip to.

- 1. Screw the hanging clip to the post using 3 screws.
- Once you have the hanging clip secured to the post, hang the sensor unit by first placing the flat edge under the plastic loop on the battery compartment cover. Then clip the bottom of the hanging clip around the bottom of the sensor unit.
- Fasten the sensor to the bottom of the hanging clip using the included screw and a phillips head screwdriver.
- Once you have hung the sensor it is important to test its location to ensure you have the proper sensitivity set.



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# **INSTALLATION**

#### **Hanging Recommendation**

**INCORRECT ANGLE** 

• To maximize vehicle detection, the sensor should be installed approximately 4 feet off the ground, pointing on an angle so that it will view the vehicle from behind as it passes

**CORRECT ANGLE** 

# Motion Sensor Motion Sensor 15ft 30° 15ft

#### This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC NOTE: THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS

TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

IC NOTE: LOW POWER DEVICES\_RF

**CLASS B OR A PRODUCTION** 

This Class [B] apparatus complies with Canadian ICES-003.

# **TROUBLESHOOTING**

Problem	Possible Cause
Receiver is powered on but no alarms are sounding	<ul> <li>Motion sensor is too far from the receiver</li> <li>Motion sensor or receiver are located too close to large metal objects</li> <li>Motion sensor and receiver are not paired</li> <li>The zone that the motion sensor is paired to is turned off</li> <li>Batteries on motion sensor are dead</li> <li>Motion sensor may need to be repositioned</li> </ul>
The receiver is getting false alarms	<ul> <li>The motion sensor is too close to the area being monitored</li> <li>The sensitivity of the motion sensor is set too high</li> <li>There are large trees or objects moving into the area being monitored</li> <li>Motion sensor may need to be repositioned</li> </ul>
The motion sensor is missing alarms	<ul> <li>Motion sensor is too far away from area being monitored</li> <li>The sensitivity of the motion sensor is too low</li> <li>The batteries in the motion sensor are low</li> <li>Motion sensor may need to be repositioned</li> </ul>
The motion sensor will not pair with the receiver	<ul> <li>Batteries in motion sensor are dead</li> <li>The motion sensor is too far from the receiver to make a connection</li> </ul>

# **SPECIFICATIONS**

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Motion Sensor		
Input Voltage	4 AA Batteries (6V)	
Standby Current	104 uA	
Transmitting Current	17.5 mA	
Transmit Range (Open Air)	500 feet	
Sensitivity Selections	(low) 15 feet / (high) 30 feet	
Battery Life	More than 6 months	
Dimensions	2.65" x 4.5" x 1.65" (without mount)	
Weight	0.25 lbs (without batteries)	

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# **VISIT US ON THE WEB!**

- Product Information
- Specification Sheets

User Manuals

Technical Support

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#### Disclaimer

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