

Wireless Drive-Alert Sensor Installation Guide

DA-610TO



Mier Products' Wireless Drive-Alert Sensor/Transmitters detect the changes in the magnetic field (movement of metal) within 14' in every direction. Therefore, they will not false-alarm from animals, wind, rain, etc. The Transmitter electrical boards are epoxied and also encased in a durable, weather-sealed, NEMA 4X housing for worry free weather and corrosion protection. They are able to detect through standard building materials such as brick, stone, vinyl siding, etc. so in many drive-up window applications they may be installed inside the wall next to the drive. They are powered by two AA alkaline batteries, and include circuitry to transmit a low-battery condition to Mier's Drive-Alert Control Panel/Receivers when batteries begin to run low.

DA-611TO



The Sensor (aka: probe or wand) portion of any of these Sensor/Transmitters should be placed next to the drive or area to be monitored, and at least 50 feet from any road traffic to prevent false alarms. The Sensor can be placed in any orientation, parallel or perpendicular to the drive. **Any movement of the Sensor will cause an alarm for asset protection.**

Transmitting range from the Transmitter to the Control Panel/Receiver is 500 feet if placed on the ground, up to 1000' if mounted 2-4' high on a metal, wood or concrete post or a convenient building, and up to 1/2-mile if a long-range system is ordered, which includes a DA-660 reception booster antenna. (See the *Long Range Options* page to learn more about the booster antenna, adding repeaters, or adding additional DA-100 control panels)

DA-612TO



If occasional false alarms occur, or you are not detecting some vehicles, you can try re-locating the Sensor, or you can reduce sensor sensitivity. There is a small blue sensitivity pot on the electrical board. Maximum sensitivity adjustment is clockwise and minimum is counter-clockwise (note arrow direction). Reducing sensitivity would reduce detection of road traffic, but would also reduce the detection sensitivity in the driveway. (See next page for directions)

Lightning strikes cause a large disturbance in the magnetic field, so nearby strikes will cause an alarm. It is also possible for electrical current variations in nearby power lines to cause an alarm.

The address codes for these Sensor/Transmitters, as well as the Control Panel/Receivers are pre-set at the factory. However, if a unique address code is needed (e.g. interference from a neighbor's Mier wireless Drive-Alert) you can change the address codes making sure you do so in **both the Sensor/Transmitter AND the Control Panel/Receiver** so they are different than factory spec, but still match one another. (See next page for directions)



DA-610TO installation with the Sensor/Transmitter hidden under landscaping next to the driveway.



DA-611TO installation with the Sensor buried under the drive and the Transmitter hidden/mounted on a nearby tree.

The Differences between Mier's three Sensor/Transmitter Choices:

The DA-610TO Sensor/Transmitter: Both the Sensor and the Transmitter are contained in the same NEMA 4X enclosure. (See photo at the top left) This unit is standard with complete systems.

The DA-611TO Remote-Sensor/Transmitter: The Sensor is outside the Transmitter Box, and attached to the Transmitter by a 50' cable (cable lengths up to 1000 feet are available). This allows the sensor probe to be buried under or next to the driveway or area to be monitored, and the transmitter box to be hidden up to 50' away or placed high above ground for a better range. The sensor should be buried 6-12 inches below ground and the cable 3-6 inches below ground. Mier HIGHLY RECOMMENDS burying the cable in 1/2-inch PVC pipe to protect it. **Try the Sensor and Transmitter locations above ground for a week, before burying the Sensor and cable.**

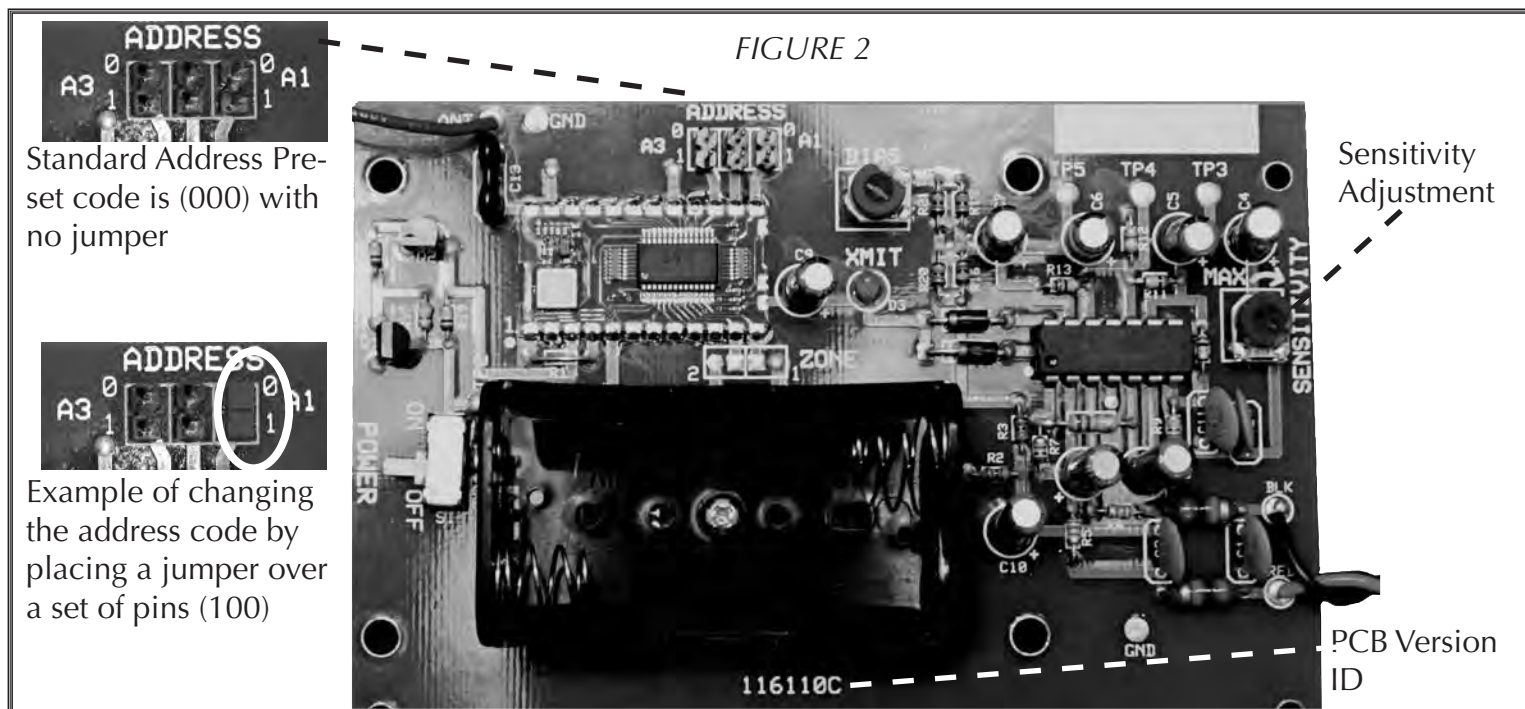
The DA-612TO Remote-Sensor/Transmitter: Is just like the DA-611TO, but with 2 external sensors.

Detection-distance from the sensor for a standard-size modern sedan moving 5MPH

	<u>DA-610TO</u>	<u>DA-611TO</u>
Maximum sensitivity	14 feet	17 feet
Factory set sensitivity	13 feet	16 feet
75% sensitivity	11 feet	14 feet
50% sensitivity	9 feet	12 feet
Minimum sensitivity	7 feet	10 feet

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The **Sensor portion** of a DA-610TO, DA-611TO or DA-612TO contain the sensing and transmitting electronics and should to be placed in the area you wish to monitor moving vehicles or assets. The detection threshold is set by a sensitivity control (See FIGURE 2: Right Hand/Middle) on the transmitter circuit board. Maximum sensitivity adjustment is Clockwise and minimum is Counter-Clockwise. In most cases the factory sensitivity will function for the installation.



For maximum range, the **Transmitter portion** of the DA-610TO, DA-611TO or DA-612TO should be placed 3+ feet above ground on a post, tree, or hung from any convenient point. The front of the Transmitter Box should also face the Control Panel/Receiver in the home/business for best range.

The Transmitter operates on 2 - AA alkaline batteries providing 3.0 volts DC to the electronics. Please observe correct polarity when installing. Typical battery life is 1-2 years in a residential installation. The Transmitter sends a continuous signal for about 1 minute after the power switch is turned on, and then is ready to act on Sensor inputs. When the battery voltage reaches 2.7 volts, a low battery signal is sent to the Control Panel/Receiver in the home/business and the LO BATT LED on the Control Panel/Receiver will be lit to indicate the batteries should be replaced soon. The receiver can be muted by turning off the whistle switch or unplugging the chime to avoid annoying alarms while replacing batteries, working on or moving the Drive-Alert. After installing batteries and confirming operation, the top cover can be put back on the enclosure **with careful attention to keeping the gasket in place and not over-tightening the screws on the cover which would cause the case to crack. Failing to do either will result in moisture entering the enclosure.** The Sensor/Transmitter can now be placed in position.

The Sensor/Transmitter **Address Code Switches** (see Figure 3, ADDRESS) **must be set to match those in the Control Panel/Receiver.** These switches are preset at the factory for code 0000. They should only be changed if the Control Panel/Receiver code is also changed. An example of when you would want to switch these codes is when two neighbors, living right next to each other, both have Drive-Alerts: one neighbor should switch codes so both their Drive-Alerts remain exclusive to their own driveways.

*NOTE: The optional DA-611TO or DA-612TO are used in cases where it is impossible to securely place the Transmitter Box near the driveway or area that needs monitoring, or when extra transmission distance is needed.

Please contact our Tech Support Team and we will be happy to GoogleEarth your installation site, and provide you with information on the products needed, and locations for each piece to meet your installation/application goals.

Don't forget to check out our website for cut-sheets, installation manuals, installation examples, and information on more products!



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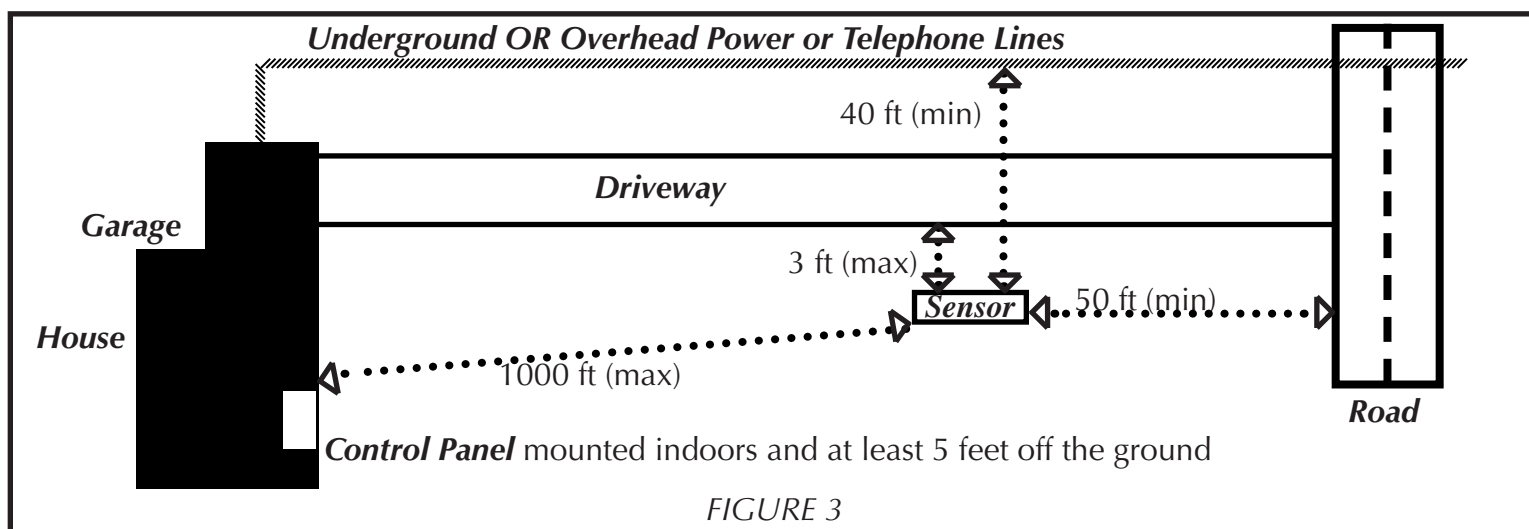
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- 1) Place the **Control Panel/Receiver** inside the home or office at least 5 feet above ground level, and plug the power cord into an AC receptacle. The power light in the lower right hand corner of the Control Panel/Receiver will now be ON.
- 2) Make certain the alert annunciators are ON:
 - On DA-600 models containing a piezo whistle, slide Whistle Switch on the Control Panel to the ON position
 - On DA-605 models using wireless chimes, plug-in or install batteries in the wireless chimes
- 3) Place **Sensor** within 3 feet of the edge of the driveway, or the equipment/area to be monitored. The closer the better!
- 4) The **Transmitter Box** should be at least a few inches off of the ground to prevent heavy rains from flooding the unit. For optimal detection and transmission range, mount the transmitter three (3) feet off of the ground.
- 5) Make sure the **Sensor** and **Transmitter Box** are at least 50 feet from streets or roads, and 40 feet from power lines.
- 6) **Test** the system using a vehicle to pass by the Sensor @ 5MPH or by swinging a steel object along the long side of the Sensor setting off the audible alert.

Once testing is successful, choose the final mounting locations and perform Step 6 repetitively for consistent detection and finalize installation.



Sensor/Transmitter Installation Examples



At the base of a pole



3-foot high for greater range



Under landscape next to the drive



Under a DA-ROCK1 fake rock next to the drive



DA-611TO transmitter box in a tree for greater range

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Additional Tips for Reliable Installation:

- DO NOT mount the **Control Panel/Receiver** within 10 feet of a wireless modem, cell phone, or cordless phone
- DO NOT put the **Control Panel/Receiver** in a basement unless it is a Long-Range Control/Panel Receiver with a DA-660 Long-Range Antenna
- DO NOT mount the **Control Panel/Receiver** outdoors
- DO NOT mount the **Control Panel/Receiver** within 12 inches of Aluminum or Steel electrical enclosures, which would cause interference
- If you must mount the **Control Panel/Receiver** inside a Stucco wall, or aluminum sided wall, use a Long Range system which includes a DA-660 Long Range Antenna which can be mounted outside the wall.
- For long-range applications, consider a **Long-Range Drive-Alert System** which includes a DA-660 Reception Booster Antenna which can be mounted in an attic for additional range. Note: metal roofs will interfere with the signal, but wood/shingle is fine.
- Aluminum or Steel obstructions in the direct path of the line-of-sight from the Transmitter to the Control Panel/Receiver will cause interference. In these cases, consider using a **Long-Range Drive-Alert System** and running the Reception Booster Antenna to an area where it receives a direct signal from the Transmitter
- If there are hills in the terrain between the Transmitter Box and Control Panel/Receiver, you may need to use a DA-611TO or DA-612TO Sensor/Transmitter and/or a **Long Range Drive-Alert System**
- E-Glass windows in the path of the line-of-sight between the Transmitter and Control Panel/Receiver will cause interference. In these installations, move the Control Panel/Receiver away from the window, or consider a **Long Range Drive-Alert System**.
- Mount the **Sensor** parallel to the driveway whenever possible
- DO NOT mount the **Sensor** more than 3 feet from the edge of the driveway, or equipment/area to be monitored
- DO NOT mount the **Sensor** more than 4 feet above ground which is above the non-ferrous belt-line and might result in missed detection
- Mount the **Sensor** securely: IT MUST BE STABLE AND MOTIONLESS! Any movement of the sensor will cause an alarm. Don't mount the Sensor on a tree, post or gate that might move in the wind.
- DO NOT mount the **Sensor** where it might be near underground or above ground power lines. Power surges in the sensor area will cause false alarms.
- DO NOT bury the **Transmitter Box** in the ground.
- DO NOT install the **Transmitter Box** in an Aluminum, Copper or Steel enclosure which will result in shielding the signal

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