THE BASICS

1. A sensor(s) detect(s) a vehicle entering a monitored area
2. A control panel receives a signal from the sensor and triggers an alert inside the home or business

MORE OPTIONS

3. Add a remote chime in the front room to alert those on the first floor
4. Add another chime in the basement to alert those downstairs
5. Add a third chime in an upstairs bedroom to alert those upstairs
6. Add a wireless or hard-wired timer controlled light kit to turn on outdoor lights, indoor overhead lights, and/or lamps to warn strangers or welcome friends
7. Attach video surveillance to record activity and display the driveway on a monitor inside
8. Add a portable chime to alert those in the backyard pool, garden or deck
9. Activate signs, gates or other equipment
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cover Page</td>
</tr>
<tr>
<td>2</td>
<td>Table of contents</td>
</tr>
<tr>
<td>3</td>
<td>Introduction to the Wireless Drive-Alert Systems</td>
</tr>
<tr>
<td>4</td>
<td>Quick Installation Guide</td>
</tr>
<tr>
<td>5</td>
<td>Wireless DA-600 Drive-Alert Control Panel and Receiver Installation</td>
</tr>
<tr>
<td>6</td>
<td>Wireless DA-600 Drive-Alert Control Panel Terminals, Hooking Up Other Equipment</td>
</tr>
<tr>
<td>7</td>
<td>Wireless DA-600, DA-605P, DA-610TO, and DA-611TO Specifications</td>
</tr>
<tr>
<td>8</td>
<td>Wireless DA-605P Drive-Alert Control Panel and Receiver Installation</td>
</tr>
<tr>
<td>9</td>
<td>Wireless Drive-Alert Options - DA-660 Long Range Antenna and Sensor Choices</td>
</tr>
<tr>
<td>10</td>
<td>Wireless DA-660 Long Range Reception Booster Antenna Installation Instructions</td>
</tr>
<tr>
<td>11</td>
<td>Wireless DA-610TO and DA-611TO Sensor/Transmitter Installation (4 pages)</td>
</tr>
<tr>
<td>12</td>
<td>Wireless Drive-Alert Accessories: Lights, Chimes, Timer-Controls, outlets, Sensor-Rocks</td>
</tr>
<tr>
<td>14</td>
<td>Technical Support and Warranty Information</td>
</tr>
<tr>
<td>15</td>
<td>Troubleshooting Guide</td>
</tr>
</tbody>
</table>
INTRODUCTION TO THE 2012 WIRELESS DRIVE-ALERT FAMILY OF SYSTEMS

The Mier Products’ Wireless Drive-Alert Detection Systems give you the benefit of easy and economical wireless installation.

All Mier Wireless Vehicle Detection Systems includes 3 components:
1. Receiver
2. Sensor/Transmitter and
3. Sound Annunciator or control

Mier’s Wireless Vehicle Detection Systems are the:
• DA-600 containing an internal piezoelectric sounder AND use of Form C Dry Contacts
• DA-605 with integrated “line of sight” transmission to multiple DA-068 plug-in chimes and DA-070 battery powered portable chimes that include s choice of three different tones, as well as a set of Form C Dry Contacts

All Mier Wireless Vehicle Detection Systems feature:
• UL Listed 110 volt AC plug-in
• +24 volt DC power source for use with accessories
• Relay output available for use by accessories or control (Form C Dry Contacts available)
• Visible POWER LED to monitor power status and LO BATT LED to monitor transmitter batteries
• User accessible address switches to set a unique address code between it and the transmitter
• Normal reception to 1000 feet or ½ mile if using to the DA-660 Booster Antenna (see Options Page)
• Use of an unlimited number of Mier Wireless Transmitters by a Receiver
• 100% compatibility with the Mier DA-610TO and optional DA-611TO Sensor/transmitters
• Compatible with Mier Accessories detailed in this manual (See Accessories Page)

The DA-610TO Sensor/Transmitter and optional DA-611TO Sensor/Transmitter:
• Complete portability
• Operation on 2-AA (LR6) Alkaline or Rechargeable Batteries
• Included circuitry to detect and transmit a low battery condition to the Receiver
• A durable, lockable, standard brick size, weather sealed steel housing with mounting brackets
• Detection of any disturbance in earth’s magnetic field (moving vehicles) and not people, animals & etc.
• Sensor detection through standard building materials

EASY INSTALLATION IS OFTEN COMPLETED IN UNDER 30 MINUTES!

AS EASY AS 1, 2, 3 ...

1. Install 2 - AA batteries in the Sensor/Transmitter, turn it on and place it in the area you wish to monitor
2. Set up the Receiver 4-6 feet above ground inside the home/building and plug it in
3. Test the installation using a vehicle or other moving metal. Then, mount the control panel when performance is satisfactory
4. DA-605P model) Place the Plug-in DA-068 Remote Chime(s), and/or DA-070 Portable Chime(s) in areas where you wish the audible alert to sound

NOTE: All installations can be easily tested by plugging in the Receiver and turning on the Sensor/Transmitter, in the same vicinity, which will send a radio signal to the Receiver for about one minute. The sounder or control will respond. If the sensor is moved after the one minute interval, the receiver will be triggered (ex: walking while carrying the sensor/transmitter will trigger)
Wireless Drive-Alert Quick Installation Guide

1) Test the system before installation by:
   • Plugging in the Receiver. If it has a Whistle Switch (e.g. DA-600) turn it on.
   • If the system is equipped with wireless chimes, plug one in nearby the Receiver.
   • Opening the lid of the Transmitter, installing 2-AA Batteries and turning on the power switch and observing the valid XMSN LED on the Control Panel being lit.
   • Confirm that the Whistle, Chimes, Light Controls or other accessories have activated.
   • Turn OFF the Sensor/Transmitter and repeat the alarm sequence by turning the power on again.
   • Close the Sensor/Transmitter Lid, Turn ON power one final time and wait for about 1 minute and then move the Sensor/Transmitter or wave a steel screwdriver or pliers along the latch side of the unit and observe the sounder and/or accessories activating.

2) Take the Sensor/Transmitter and place it long ways within 5 feet of the edge of the driveway to be detected at about the location where you propose to install it. The sensor/transmitter box should be a few inches off of the ground to prevent heavy rains from flooding the unit.

3) Place the Receiver at least 4 feet above ground in the proposed installation location and plug the power cord into an AC receptacle. The power light in the lower right hand corner of the Receiver will now be ON.

4) Make certain the annunciators are on:
   • On models containing a piezo whistle, slide Whistle Switch to ON or
   • On models using wireless chimes and/or controls plug-in or install batteries in remote wireless chimes

5) Test the system using a vehicle to pass by the Transmitter @ 5MPH or by swinging a steel shovel along the long side of the Transmitter setting off the sounder signal.

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

NOTE: AVOID THE FOLLOWING!!!

• Putting the Receiver in a basement without the use of a Long Range Antenna & Long Range Receiver
• Hills in the terrain existing between the Transmitter and Receiver of greater than 4 Feet without the use of the Long Range Antenna & Long Range Receiver
• Burying the Transmitter in the ground.
• Shielding the Transmitter in an Aluminum, Copper or Steel enclosure
• Heavy gauge Aluminum or Steel obstructions in direct path of the line-of-sight from the Transmitter to the Receiver
• Aluminum or Steel electrical enclosures or conduit within 12 inches of Receiver installation
• E-Glass window in the direct path of the line-of-sight between the Transmitter and Receiver
• Receiver mounted behind a Stucco wall without the use of a Long Range Antenna/Receiver mounted so that the Stucco wall does not interfere between the Transmitter & Receiver
• Mounting Transmitter more than 5 feet from the edge of the driveway to be detected
• Mounting the Transmitter on a tree as they twist in the wind causing false alarms to occur.
• Mounting the Transmitter greater than 4 feet above the ground creating detection misses as most vehicles are non-ferrous above the belt line.
• Mounting the Control Panel within 10 feet of a wireless modem, cellular phone, or cordless phone
• Installing the DA-660 Reception Booster antenna in an attic with a metal roof over it (wood and shingle roofs are fine)
MODEL DA-600 CONTROL PANEL/RECEIVER GENERAL INFORMATION:
The Model DA-600 Drive-Alert is a direct wireless replacement for the original hard-cabled DA-500 model. An internal piezo electric whistle acts as the alert and is located inside the control panel. The whistle may be switched off if desired, and when switched off, the relay contacts are converted to Form C dry contacts. There is also an additional set of Form C dry contacts. With the whistle switch ON you have one set of Form C dry contacts available, and with the whistle switch OFF you have two sets. These relay contacts may be supplied with 24 volts DC or used as Form C dry contacts. The DA-600 control panel will operate any of Mier’s Drive-Alert accessories listed on the “Accessories” pages of this manual. It can also be used to control other external bells, surveillance systems, signs, gates and relays. An adjustable time control provides 2 to 12 seconds of alarm time for each vehicle detected.

A DA-600 INCLUDES: ONE DA-600 CONTROL PANEL AND ONE DA-610TO SENSOR (pictured here). See the Options and Accessories pages to customize this system for your particular application.

DA-600 CONTROL PANEL/RECEIVER INSTALLATION:
The DA-600 receiver is to be mounted inside where 110 volts AC power is available 4-6 feet above ground level. To maximize transmitter reception the flexible antenna is to be at least 12 inches from any metal pipes, power conduits, breaker boxes, etc. For extended ½ mile range reception, or for mounting below ground, use the DA-600 Long Range system (i.e. DA-600LR) which includes a factory installed accessory and a DA-660 Long Range Booster Antenna. (See Options page for details)

A Red power lamp (see FIGURE 1 labeled LED 1) indicates that the power is on and that the internal 1 Amp Fuse is okay. An Amber lamp (see FIGURE 5 labeled LED 2) indicates a low battery condition at the Sensor/Transmitter. This lamp will stay on until the battery voltage in the transmitter is above 2.7 volts DC. NOTE: Before changing batteries, unplug the receiver and wait at least one minute after replacing batteries before applying power. This prevents unwanted alarms and resets the low battery detector.
Under the unit cover are the address code switches (see FIGURE 1: SW1, SW2, SW3, SW4 in left lower quadrant) that must be set to match those in the transmitter. These switches are preset at the factory for code 0000. They should only be changed if the transmitter code is also changed. Also there is an alarm time control (see FIGURE 5 TIME near middle) which is preset at minimum of 2 seconds of alarm time. The maximum alarm time is 12 seconds. LED 4 (VALID XMSN) is on when the Receiver detects a valid transmission of its address and LED 3 (ALERT) is on when the relay is closed. On the outside of the Receiver is a WHISTLE ON-OFF switch. This switch basically provides or removes the 24 volt DC available at the relay output. The common contact of the relay receives 24 volts DC from this switch. In the "whistle off" position, the relay provides Form C dry contacts for external device control.

**DA-600 CONTROL PANEL TERMINALS:**
The terminal block, TB1, provides a convenient wire connection point for external device control and test points (See FIGURE 2 for a detailed description of the contacts available).

<table>
<thead>
<tr>
<th>SIG</th>
<th>ALA</th>
<th>+5VDC</th>
<th>GND</th>
<th>+24VDC</th>
<th>NO</th>
<th>NC</th>
<th>C</th>
<th>NO</th>
<th>C</th>
</tr>
</thead>
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<tr>
<td>[+]</td>
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**FIGURE 2**

- **SIG** - Received Signal Strength (e.g. 1-1.5VDC = No Signal; 1.6-2.5VDC = Signal
- **+5VDC** - 5 Volt DC Logic Power @ 25mA (max)
- **ALA** - Alarm Signal (0-1vdc = No Alarm; 4-5 VDC = Alarm)
- **GND** - Unit Ground
- **+24VDC** - Power Supply for 24VDC @ 100 mA (.1 amp) maximum accessories
- **NO** - Normally Open Relay Contact
- **NC** - Normally Closed Relay Contact
- **C** - Common Relay Contact
- **NO** - Normally Open Relay Contact
- **C** - Common Relay Contact

**NOTE:** The DA-600 receiver will operate on 12 VDC. An auto battery with the positive (+) connected to the +24 VDC terminal and negative (-) connected to the GND terminal will operate the DA-600. Therefore, the control panel can become portable (the sensor is always portable) so the unit can be used in a vehicle or at a remote site.

**NOTE:** DO NOT PLUG THE UNIT INTO 110 VAC IF OPERATED ON BATTERY AS IT CAUSES FAILURE

Figure 3A shows a typical DA-600 control panel connection to an accessory and with the whistle ON

Figure 3B shows a typical DA-600 control panel connection to an accessory with the whistle OFF

**Connection using relay contacts switching internal power**

- External 24VDC Bell DA-500 Whistle Switch ON
- Capacitor 0.1 Microfarads 100 Volt (min)
- Adding a capacitor extends the life of the relay.

**NOTE:** Limit of two external bells

**Connection using dry contacts and external power**

- External Power
- Capacitor 0.1 Microfarads 100 Volt (min)
- Adding a capacitor extends the life of the relay.

**NOTE:** If internal piezo whistle is not wanted, move the DA-500 Whistle Switch to the OFF position and connect the jumper between +24 and the C Terminal

**Connection using relay contacts switching internal power**

- External Relay Hookup 24VDC

**Connection using relay contacts switching internal power**

- 1N4004 DIODE
- Adding the diode extends the life of the relay.

**To AC operated CHIMES/ALARMS**

**Connection using relay contacts switching internal power**

- +24VDC External Relay Limited to 100 Milliamperes

**NOTE:** Adding the diode extends the life of the relay.

**To AC operated CHIMES/ALARMS or Panel Function**

**Figure 3A**

**Figure 3B**
Figure 4 shows a typical DA-600 control panel connection to a "line of sight wireless transmitter" like our DA-066, with the whistle ON or OFF.

Figure 4

If your Drive-Alert does not look like this, you may have an older model. Please call Mier’s free tech support line at 800-473-0213.

SPECIFICATIONS:

DA-600 and DA-605P CONTROL PANEL/RECEIVER:
1. INPUT POWER: 120 VOLTS AC 50-60 HZ, 3 WATTS
2. OUTPUT POWER: 24 VOLTS DC AT 100 MILLIAMPERES (.1 AMP)
3. FREQUENCY: 433.92 MHZ FIXED SUPERHETRODYNE
4. ANTENNA: ¼ WAVE MONOPOLE FIXED BOLTED IN STEEL CASE 0 DBI GAIN
5. RECEIVER: LINX TECHNOLOGIES MODEL KH2
6. ADDRESS CODES: FOUR POSITION DIP SWITCH
7. LAMPS/LEDS: POWER=RED, LO BATT=YELLOW, VALID XMSN=RED, ALARM=RED
8. OUTPUT: PIEZO WHISTLE AND 24 VOLT RELAY
9. ALARM TIME: ADJUSTABLE 2 TO 12 SECONDS FOR EACH ALARM.
10. OPERATING TEMP: 0 DEGREE F. TO +105 DEGREE F.
11. WEIGHT: 2.5 POUNDS.

DA-610TO SENSOR/TRANSMITTER:
1. POWER REQUIREMENTS: TWO (2) SIZE AA (LR-6) BATTERIES 3.0 VOLTS DC
2. OPERATING FREQUENCY: 433.92 MHZ FIXED
3. ANTENNA: 1/4 WAVE MONOPOLE BOLTED INTO THE STEEL CASE. 0 DBI GAIN
4. TRANSMITTER OUTPUT: 2 MILLIWATTS
5. TRANSMITTER: LINX TECHNOLOGIES MODEL KH ENCODER/TRANSMITTER
6. ENCODER MODULATION: AMPLITUDE ON-OFF KEYING (OOK) AT 1200 BPS.
7. ADDRESS CODES: FOUR POSITION DIP SWITCH SELECTED FOR THE ENCODER
8. DATA: ONE DATA BIT ENCODED WHEN BATTERY IS LOW.
9. TRANSMITTER ON TIME: LESS THAN 5 SECONDS FOR ANY SINGLE ALARM
10. ENCLOSURE: 18 GAUGE GALVANEAL PAINTED STEEL WITH WEATHER SEAL AND LOCKABLE LATCH CLOSURE. HOUSES THE TRANSMITTER AND SENSOR
11. QUIESCENT CURRENT: 60 MICROAMP
12. ACTIVE CURRENT: 3 MILLIAMP
13. BATTERY LIFE: ABOUT ONE YEAR IN RESIDENTIAL USE.
14. OPERATING TEMP: -40 DEGREES F TO + 125 DEGREES F
15. WEIGHT: FOUR POUNDS
16. DETECTION OF VEHICLES: DISTANCE FROM SENSOR/TRANSMITTER UNIT FOR STANDARD SEDAN MOVING AT 5 MPH+ IS 14 FEET (MAX), 9 FEET (MID), 7 FEET (MIN)

DA-611TO SENSOR/TRANSMITTER:
ALL SPECIFICATIONS ARE THE SAME AS THOSE LISTED FOR THE DA-610TO ABOVE, EXCEPT THE FOLLOWING:
A. THE SENSOR IS NOT INSIDE THE ENCLOSURE WITH THE TRANSMITTER. IT IS AN EXTERNAL SENSOR ATTACHED TO THE TRANSMITTER ENCLOSURE WITH 50’ OF CABLE (SEE OPTIONS PAGE)
B. DETECTION OF VEHICLES: DISTANCE FROM SENSOR/ FOR STANDARD SEDAN MOVING AT 5 MPH+ IS 17 FEET (MAX), 12 FEET (MID), 10 FEET (MIN)
WIRELESS DA-605P DRIVE-ALERT

DA-605P CONTROL PANEL/RECEIVER GENERAL INFORMATION:
The DA-605P Drive-Alert’s receiver board is the same as the one used in the DA-600 receiver (see FIGURES 5-6). However, the DA-605P does not have an internal whistle, nor a whistle switch. The advantages of the DA-605P over the DA-600 are the DA-066 wireless chime transmitter which activates remote chimes as an alert. Any combination or quantity of the DA-068 Plug-in Chimes and/or the DA-070 Battery-powered Portable Chimes may be used. Each chime is activated by a radio signal from the DA-066 attached to the control panel. (See Accessories page). These chimes have a choice of three tones and volume control, and can be used up to 100’ away from the control panel. As stated, the DA-068 plugs into any standard wall outlet and can be easily hidden behind furniture. The DA-070 can be taken into the backyard, out to the pool & etc.

If your Drive-Alert does not look like this, you may have an older model. Please call Mier’s free tech support line at 800-473-0213

DA-605P Control Panel with one DA-068 Plug-in Remote Chime and a DA-610TO Sensor/Transmitter
(Optional DA-070 Battery Operated Portable Chime pictured on Accessories Page)

TESTING FOR RADIO TRANSMITTER COMMUNICATION:
The alarm signal is used to turn on the 315 MHz radio signal in the push button located on the top of the DA-605P, which will sound the remote chime. This signal will reach at least 100 feet to the chime. The radio module located on the top of the housing contains a user accessible push button for test or “call” purposes. Internal to the module a 12 volt battery type A23 is contained and should last about 3 years. This battery is activated only when testing the radio module to chime signal path and does not have an effect on Drive-Alert operation. The chime can be tested independent of the Drive-Alert by pushing the button causing the chime to sound. The enclosure of the radio module can be opened by pushing in on the bottom latch carefully with a screwdriver and lifting up. Both the jumpers as well as the battery are now accessible. To re-seat the radio module enclosure carefully align and place the enclosure top locking tabs and carefully push in the bottom latch until it snaps closed. The DA-068 Plug-in Chimes and DA-070 Battery-powered Portable Chimes are factory preset for an 8 note Westminster tone. To change the sound to a two note tone, remove jumper #8 under the small cover on the back of the chime. To obtain a 1 note tone, remove only the jumper from the radio module while leaving the jumper in the chime.

INSTALLATION:
For Sensor/Transmitter installation details see the sensor installation pages. The DA-068 & DA-070 chimes may be located in multiple rooms and locations and the DA-605P can chime an unlimited number of chimes within 100+ feet of the Control Panel. Simply plug the Control Panel in a standard wall outlet, in an out of site space where the signal from the DA-610 Sensor can reach it. Plug in the DA-068 Remote Chime(s) and place the DA-070 Portable Chimes in an area(s) of the house where an alert is desired. The DA-068 volume control is accessible on the back panel of the chime. However, the DA-070 must have its back removed to gain access to the volume control. The DA-070 Battery Operated Portable Chime needs three D size batteries which will last about 3 years. For all options and operation instructions of the chimes, see the instructions enclosed with the chimes.

Figure 5 shows a typical DA-605P control panel connection to a “line of sight wireless transmitter” like our DA-606LK Light Kit

For DA-605P control panel and DA-610TO/DA-611TO sensor specifications, see previous page 6.
WIRELESS DRIVE-ALERT OPTIONAL ANTENNA AND SENSORS

The DA-660 Long Range Antenna is an option that can be used with all of Mier’s Wireless Drive-Alert Systems to boost the reception-range from the sensor to the control panel up to 1/2- mile. This is a factory installed accessory and must be ordered at the time of purchase by adding an “LR” to the end of the part number. Example: a DA-600 or DA-605P Drive-Alert with the with a DA-660 long range option would be a DA-600LR or DA-605PLR.

The DA-610TO Sensor/Transmitter is the standard sensor that comes with a DA-600 or DA-605P. The sensor and transmitter are encased inside a durable NEMA 4 outdoor enclosure (see the DA-611TO if an external sensor is needed). The DA-610TO monitors a 14 foot radius (28 foot sphere). Mier’s sensors/transmitters require two AA batteries which will last more than a year under normal residential usage. These sensors may be placed up to 1000 feet from the control panel, and up to 2500 feet when used with an “LR” system which includes the DA-660 Long Range Reception Antenna. The sensors are tamper resistant due to the fact that if anyone touches or moves one, the alert will be triggered.

The DA-611TO Sensor/Transmitter is an optional wireless sensor that can be used in place of, or in conjunction with, the standard DA-610TO Sensor that comes with a DA-600 or DA-605P Drive-Alert. The DA-611TO is used in applications where it is impossible to place a DA-610TO close to the driveway or area needing monitoring. The DA-611TO allows you to bury the sensor right next to, or under, the driveway and then place the transmitter up to 50 feet away under some landscaping or up a tree/pole (which also helps increase transmission reception). If you want this option without the standard DA-610TO, order a Drive-Alert control panel only by adding a “CP” to the end of the part number as well as the DA-611TO. Example: a DA-600 or DA-605P Drive-Alert with the DA-611TO would be a DA-600CP or DA-605CP and a DA-611TO. Note: If you order a DA-605CP, make sure you also remember to order DA-068 and/or DA-070 chimes too. An unlimited number of, or combination of, wireless sensors may be used to monitor several areas.

NOTE: If needed, Mier’s wireless systems can be completely battery operated allowing them to be entirely mobile.

See the following pages for Installation Instructions of these options
When a monitored location is more than 1000’ away, the DA-660 is the perfect accessory for the DA-600 or DA-605P wireless Drive-Alert Vehicle Detection Systems.

- This antenna boosts the normal Drive-Alert range up to 1/2-mile.
- The antenna measures 36” long, 13” wide, and 1.5” high.
- It weighs approximately 1 pound.
- This is a FACTORY INSTALLED ACCESSORY due to the fact that some components must be changed on the control panel for long range applications.
- When ordering you must specify which Drive-Alert model you will be using and add “LR” to the end of the part number. Example: DA-600LR or DA-605PLR will be a complete system with the DA-660 Booster Antenna included.
- Retro-fits must be shipped back to Mier Products for installation of the components needed for the long range antenna.

STAY CLEAR OF POWER LINES WHEN INSTALLING!

The antenna is equipped with clamps at the rear of the antenna for mounting to one inch mast pipe. One inch schedule 40 PVC pipe works well for a mast. Removing the end of the clamps allow mounting on a flat surface. The antenna can also be mounted indoors such as an attic space. Simply lay the antenna across the rafters.

For maximum range and best reception of the transmitter/sensor the antenna should be pointed at the signal source. The mounting clamps are the back of the antenna. The connecting coaxial cable should be securely fastened to the antenna connector and clamped to the boom with the cable wire tie supplied. Use standard 75 Ohm TV cable, RG-6/U, available at many home stores. If used outdoors, wrapping the connector with black plastic tape will give many years of use. Connect the other end of the cable to the control panel.

After mounting and connecting the antenna, turn on the DA-610 transmitter/sensor in the vicinity of the control panel to check that the system is working properly. If the system is responding correctly, the DA-610 can be mounted in the desired location on the drive.

The DA-660 pictured here is mounted on a pole. The antenna may be mounted indoors or outdoors. Typically, it is mounted hidden inside the attic of a home or business.

Specifications:
- Weight - 1.2 lbs.
- Length - 36 inches
- Width - 13 inches
- Height - 1.5 inches
- Frequency - 434 mHz
- Impedance - 75 Ohms
- Gain - 10.6 dB
- Type - 7 element Yagi

The DA-660 is the perfect option for monitoring remote buildings or equipment up to 1/2 mile away.

This Factory Installed Option works with any Wireless Drive-Alert Model
The DA-610TO Sensor/Transmitter comes standard with all of Mier’s wireless Drive-Alert Vehicle Detection Systems. This sensor detects the movement of metal within 14’ in every direction, and sends a signal back to the control panel up to 1000 feet away. See the DA-611TO below if you are not able to place the sensor right next to the drive, and see the DA-660 to boost the reception range between the transmitter and control panel up to 1/2-mile.

The DA-610TO detection threshold is set by a sensitivity control on the transmitter circuit board. Maximum sensitivity adjustment is clockwise and minimum is counter-clockwise. In most cases the factory sensitivity and address code setting will function for the installation. If a unique address code is needed (e.g. interference from a neighboring Mier wireless system) open the top cover and adjust the blue and white rocker switches labeled ADDRESS in both the DA-610TO AND the Control Panel so they are different than factory spec and still match.

The DA-610TO should be placed next to the drive or area to be monitored, and at least 40 feet from any road traffic to prevent false alarms. Reducing sensitivity would reduce detection of road traffic, but would also reduce the detection sensitivity in the driveway. 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 sensor to the control panel in the home is 500’ if placed on the ground, and up to 1000’ if mounted 2-4’ high on a post (metal, wood or concrete) or a convenient building. Long-range “LR” Drive-Alerts include a DA-660 reception booster antenna and increases this range up to 1/2-mile!

If occasional false alarms occur, reduce sensor sensitivity by turning the small brown sensitivity control slightly counter-clockwise. Lightning strikes cause a large disturbance in the magnetic field, so nearby strikes will cause a false alarm. It is also possible for electrical current variations in nearby power lines to cause a false alarm.

The DA-611TO Remote-Sensor/Transmitter is an option which is identical to the standard DA-610TO with one exception: the DA-610TO sensor is inside the transmitter box, but the DA-611TO sensor is outside and attached to the transmitter by a 50’ cable. 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 better range.

For most installations, the DA-611TO 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.

NOTE: Try the system above ground temporarily before burying. The entire system, probe, cable and transmitter can be installed above ground if there is little risk of probe or cable damage and the probe cannot move. Any movement of the probe will trigger an alarm.

Both sensors are powered by two AA batteries which last one year in residential applications.

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

<table>
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<td>Maximum sensitivity</td>
<td>14 feet</td>
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<tr>
<td>Factory set sensitivity</td>
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<td>16 feet</td>
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<td>75% sensitivity</td>
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<td>Minimum sensitivity</td>
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</tbody>
</table>
The Model DA-610TO (or optional DA-611TO) Sensor/Transmitter contains the sensing and transmitting electronics and is to be placed in the area of detectable moving vehicles. The detection threshold is set by a sensitivity control (See FIGURE 6: lower Right Hand quadrant) on the transmitter circuit board. Maximum sensitivity adjustment is Clockwise and minimum is Counter-Clockwise. In most cases the factory sensitivity and address code setting will function for the installation. If a unique address code is needed (e.g. interference from a neighboring Mier wireless system) open the top cover revealing the transmitter circuit board. Look for the blue and white rocker switches labeled ADDRESS in the lower middle of the circuit board.

The address code switches are factory preset to OFF, in other words all 0’s (e.g. 0 = OFF then 1 = ON). To set 1001, switch 1 = ON, switch 2 = OFF, switch 3 = OFF, switch 4 = ON, and etc. The corresponding Receiver address MUST match this Sensor/Transmitter address for reception from this Sensor/Transmitter.

The Sensor/Transmitter operates on 2 - AA batteries providing 3.0 volts DC to the electronics. When battery voltage reaches 2.7 volts a signal is transmitted and the LO BATT LED is lit in the Receiver. The transmitter continues to operate for a time but new batteries will be needed for uninterrupted operation. Typical battery life is 1 year in a residential installation with Alkaline batteries. To install batteries, unlock and open the cabinet door, turn off the Power switch, remove and install batteries, observing the correct polarity. Turn on the Power switch, close and lock the cabinet door. When working on the transmitter, it is advised to unplug the Receiver to prevent false alarms. An LED marked XMSN near the center indicates the transmitter is currently transmitting. A jumper marked as TX_TEST near the top puts the Sensor/Transmitter into a “continuous transmit” mode when the jumper is in the TEST position. Both of these are meant to be used during setup and troubleshooting.

*NOTE: The optional DA-611TO (Options Page) is used in cases where it is impossible to securely place the DA-610TO near the drive or area that needs monitoring, but it still provides the same sensing & wireless performance.
WIRELESS DRIVE-ALERT SENSOR INSTALLATION page 3 of 3

With factory settings, install the Sensor/Transmitter at least 60 feet from streets or roads (see FIGURE 7). FIGURE 7 illustrates a typical installation for all receivers and sensor/transmitters.

Underground OR Overhead Power or Telephone Lines

- 40 ft (min)
- 60 ft (min)
- 1000 ft (max)

Garage Driveway House

Control Panel

To aid in reliable transmitter installation, please follow these DO’s and DON’Ts:

TRANSMITTER INSTALLATION DO’s and DON’Ts

1. **DO** mount DA-610TO enclosure or the sensor of the optional DA-611TO parallel to the driveway
2. **DON’T** point the antenna at the passing vehicle
3. **DO** mount the DA-610TO enclosure or DA-611TO sensor securely. IT MUST BE STABLE AND MOTIONLESS! Any movement of the sensor will cause an alarm.
4. **DON’T** mount the DA-610TO on a tree. If a tree mount is needed use the optional DA-611TO.
5. **DO** avoid power surges (any lightning or power surges in the sensor area will cause false alarms)

For a simple driveway installation, the unit can be turned on, locked, and placed a few inches above the ground near the drive and the signal will still be received by the Control Panel up to 500 feet away (line of sight).

Some mounting options are to cover it with a fake rock (see DA-ROCK1 on accessories page) or other non-metallic cover, place the box in a nearby bush, or firmly bolt the case to a STABLE wood, plastic, or metal post. A 4X4 mailbox or fence post may be used. The unit can be bolted inside or outside a buildings wall.

- **DA-610TO** Low on a post
- **DA-610TO** High on a post
- **DA-610TO** Under a bush
- **DA-610TO** Under a DA-ROCK1
- **DA-611TO** High in a tree with sensor under the drive

NOTE: Any moving metal objects such as a gate, metal fence or metal garage door that may move with wind should be considered and located outside the detection range to minimize false alarms that could occur.
WIRELESS DRIVE-ALERT ACCESSORIES:

- The DA-066 Remote Chime Transmitter is used in combination with the wireless DA-068 Remote Plug-in Chime(s) and/or the DA-070 Battery-operated Portable Chime(s) in applications where a more pleasant chime and alerts in more rooms/areas of a home are desired. *This is standard on the DA-605P.* Any number and combination of plug-in chimes and portable chimes may be used.
- The DA-606LK Wireless Light Kit comes with a DA-606 Timer Control, one DA-071 Light-Switch, and one DA-072 Lamp Module. Any number and combination of light-switches and lamp modules may be used. For heavy-duty applications the DA-073 Heavy-Duty Outlet includes a top receptacle that handles up to a maximum of 1800 watts or maximum of 15 amps.
- The DA-067 Antenna Stabilizer is used with the DA-610 or DA-611 Sensors to prevent transmitter antenna vandalism (i.e. animal or human) protection and/or environmental stability (i.e. high wind, blizzard conditions, animals perching, etc.).
- The DA-ROCK1 is a popular accessory with all of our wireless systems, and is used to hide the DA-610 Sensor.

HARD-WIRED DRIVE-ALERT ACCESSORIES:

- The Hard-Wired DA-655 Chime with Volume Control is our most popular accessory for the model DA-600 Drive-Alert in Drive-up Window or business applications!
- The DA-052V Whistle with Volume Control – is used with the DA-600 when a second whistle is desired (hard-wired installation)
- The Hard-Wired DA-505 Timer Control is used to with the DA-600 to turn on lights when the sensor detects a vehicle.
- The DA-050 Power Pack is a replacement power-pack/transformer for the Drive-Alerts.
Mier Products’ Drive-Alert Technical Support

Mier Products, Inc. provides free telephone and email technical support for all of our Drive-Alert vehicle detection systems. Call us at 800-473-0213 between the hours of 8:00 am and 5:00 pm EST, send an email to info@mierproducts.com, or download our Cut-Sheets, Instruction Manuals, or FAQs from our website:

www.mierproducts.com

Mier Products’ Drive-Alert Warranty

Limited Warranty for Drive-Alert Models and Accessories Manufactured by Mier Products, Inc.

Mier Products, Inc.’s Limited Warranty Program for Drive-Alert models and accessories protects the original owner for one year from the date of purchase against defects in original parts or workmanship. Mier Products, Inc. agrees to repair or replace parts (Mier’s option) that are deemed defective by our Quality Control Team, without charge for parts or labor, if the defective unit is returned prepaid to Mier Products, Inc., Kokomo, IN, 46901, within the one-year period. Close inspection at the time of receipt by the customer will quickly determine product quality. Thus, Mier Products, Inc. recommends inspection of Drive-Alert models and accessories immediately upon receipt, before installation or driving to an installation site, and contacting Mier Products, Inc. if quality issues arise.

NOTE: Sensors and cables that have been buried are not covered. Wireless sensors that have been sitting in flooded areas or standing water are not covered.

Mier Products, Inc. does not assume responsibility for claims or damages caused by improper installation or use of these products, accessories, and/or products connected to them. Mier Products, Inc. does not assume responsibility for damages to these products or their accessories due to shipping damage or damage occurring while in a customer’s warehouse and/or possession. Mier Products, Inc. does not assume responsibility for damage due to accident, faulty wiring, overload of Drive-Alert or Drive-Alert accessory output, or components attached to the Drive-Alert parts. Drive-Alert accessories and parts built by other OEMs (including but not limited to chimes, lamp modules, light switches, bells, splice kits) are covered under their respective OEM warranties. Drive-Alert models and accessories must be shipped, handled, stored, and installed with strict adherence to OEM installation instructions.

This warranty constitutes the entire warranty with respect to Mier’s Drive-Alert Models and Accessories and IS IN LIEU OF ALL OTHERS, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND IN NO EVENT IS MIER PRODUCTS, INC., OR IT’S OEM PARTNERS, RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.

Any warranty OR sales questions should be directed to Mier Products at 800-473-0213, or via e-mail to info@mierproducts.com

Repair work not covered by this Warranty is available for a nominal charge.
WIRELESS DRIVE-ALERT TROUBLESHOOTING TREE

Step 1 - Check to make sure the Power Light is on. If not, replace the internal 1A fuse, or send to Mier Products for repair.

Step 2 - Make sure the Control Panel is mounted in an above ground area where its antenna can receive a good signal from the Sensor/Transmitter, and make sure the Sensor/Transmitter is in a position free where it can send a signal freely. Make sure there are no large metal objects, mirrors, aluminum siding, etc. between the Control Panel and the Sensor/Transmitter. There is a “continuous on” or “test” switch inside the transmitter to help you test signal strength.

Step 3 - Check to make sure all address codes inside the Control Panel match the address codes in the Sensor/Transmitter Enclosure.

Step 4 - If installing a DA-605P, make sure the address codes in the small DA-066 mounted on the side of the Control Panel match the address codes in the Chimes.

Step 5 - If installing a DA-605P, make sure there are no large metal objects, mirrors, appliances, etc. between the Control Panel and the Chimes.

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**False Alarms**

- Check the sensor/transmitter placement - 60' (min) away from the street, power/phone lines. Move sensor or reduce sensitivity.
  - OK
- Check the sensor/transmitter placement to make sure it is mounted securely, and not in a tree if a DA-610TO (this is ok if using a DA-611TO).
  - OK
- Check the sensor/transmitter to make sure it is not on the same address code as a system at a neighbor’s home.
  - OK
- Remove all accessory wires from the terminal block.
  - OK
- Call Mier Products’ Free Tech Support. They will work with you and might recommend returning the system to Mier Products for diagnosis and repair.
  - Still Not Fixes

**No Detection or Intermittent Detection**

- Check the batteries, Power is ON, TX_TEST is OFF/SW10
  - OK
- Check sensor/transmitter sensitivity at or near MAX on the Sensitivity Adjustment in the lower right corner
  - OK
- Check sensor/transmitter and Control Panel address codes to make sure they match
  - OK
- Check for metal obstructions, sensor/xmitter 5’ MAX from 10’ drive edge, vehicle does not pass between transmitter & receiver
  - OK
- If using more than one sensor/transmitter, make sure they are more than 20’ apart
  - OK
- Check that VALID XMSN and ALERT LEDs come on in the Control Panel when a detection and transmission was to occur. Note: listen for a Relay “click.”
  - OK
- If using a long-range reception antenna, check connections and orientation (vertical and short end pointing toward transmitter).
  - Still Not Fixes
- Call Mier Products’ Free Tech Support. They will work with you and might recommend returning the system to Mier Products for diagnosis and repair.

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**Panel is quiet:**

- Replace the accessory

**Defective Accessory**

**Not Fixes**

**No Alert or Relay Click**

- Trigger sensor by passing a steel tool by it
  - No Alert or Relay Clicks
- Return to Mier Products for Repair

**No Alert but Relay Clicks**

- Flip Whistle Switch 25 times and retry
  - Still no Alert
- Return to Mier Products for Repair

**False Alarms**

**No Detection or Intermittent Detection**

- Check POWER and LO BATT LEDs on the control panel. If no POWER LED replace the fuse. If LO BATT replace the batteries.
  - No Alert or Relay Clicks
- Return to Mier Products for Repair

**False Alarms**

**No Detection or Intermittent Detection**

- Check the sensor/transmitter placement - 60' (min) away from the street, power/phone lines. Move sensor or reduce sensitivity.
  - OK
- Check the sensor/transmitter placement to make sure it is mounted securely, and not in a tree if a DA-610TO (this is ok if using a DA-611TO).
  - OK
- Check the sensor/transmitter to make sure it is not on the same address code as a system at a neighbor’s home.
  - OK
- Remove all accessory wires from the terminal block.
  - OK
- Call Mier Products’ Free Tech Support. They will work with you and might recommend returning the system to Mier Products for diagnosis and repair.
  - Still Not Fixes

**No Detection or Intermittent Detection**

- Check the batteries, Power is ON, TX_TEST is OFF/SW10
  - OK
- Check sensor/transmitter sensitivity at or near MAX on the Sensitivity Adjustment in the lower right corner
  - OK
- Check sensor/transmitter and Control Panel address codes to make sure they match
  - OK
- Check for metal obstructions, sensor/xmitter 5’ MAX from 10’ drive edge, vehicle does not pass between transmitter & receiver
  - OK
- If using more than one sensor/transmitter, make sure they are more than 20’ apart
  - OK
- Check that VALID XMSN and ALERT LEDs come on in the Control Panel when a detection and transmission was to occur. Note: listen for a Relay “click.”
  - OK
- If using a long-range reception antenna, check connections and orientation (vertical and short end pointing toward transmitter).
  - Still Not Fixes
- Call Mier Products’ Free Tech Support. They will work with you and might recommend returning the system to Mier Products for diagnosis and repair.

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Tech Support: 800-473-0213 x 107
info@mierproducts.com