

LIMITED WARRANTY

Absolute Automation has a limited warranty for a period of one year after installation. During this year a defective Absolute Automation product will be repaired or replaced. This warranty does not extend to any of our products which have been subject to misuse, accident or lightning damage.

Absolute Automation does not represent that the product it sells may not be compromised or circumvented; that the products will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; or that the products in all cases provide adequate warning or protection. CONSEQUENTLY, ABSOLUTE AUTOMATION SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY PROPERTY DAMAGE OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. However, if it is held liable, whether directly or indirectly, for any loss or damage with respect to the products it manufactures, regardless of cause or origin, its maximum liability shall not in any case exceed the purchase price of the product, which shall be the complete and exclusive remedy against



AutoAlert™

Vehicle Detection System

Installation and User Instructions

model AL155

QUICK INSTALLATION INSTRUCTIONS

-Decide the best location for the Vehicle Sensor Probe using the range and sensitivity information on page 11

-Choose the best location in the house for the Controller keeping in mind that it should be as central as possible to the area that the wireless chime will be used. In many homes a joist or open wall in the center of the basement gives excellent coverage for the wireless chime. Another concern for the Controller location is an electrical outlet. The Controller will need one outlet for the AC adapter.

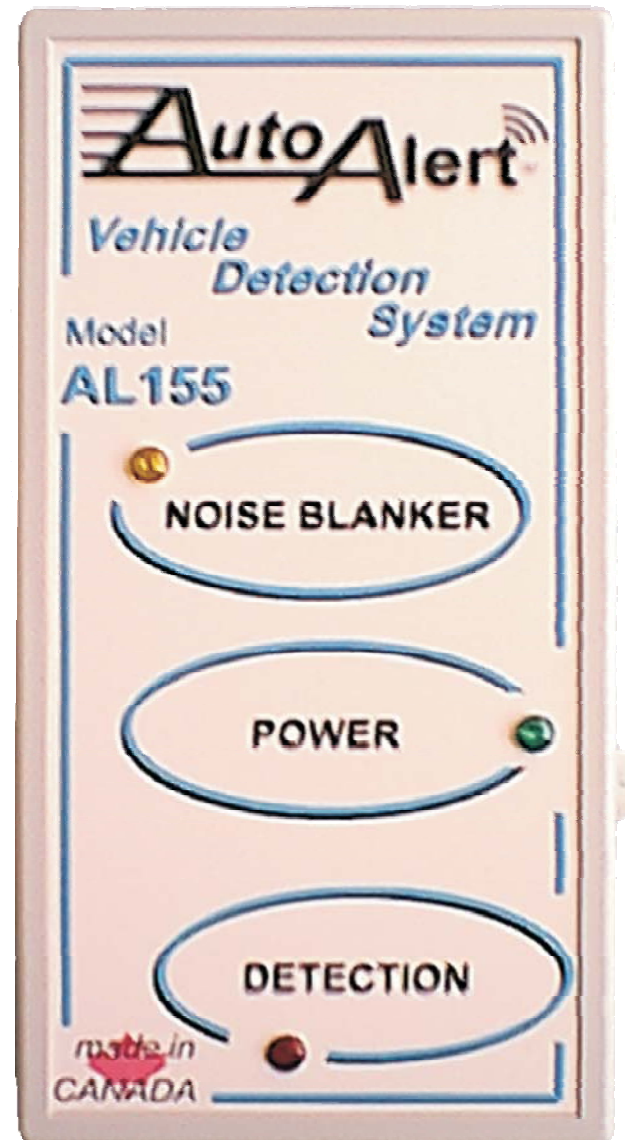
-Run the burial wire from the sensor location on your driveway into your house to where the Controller will be located.

-Do not make sharp bends in the cable.

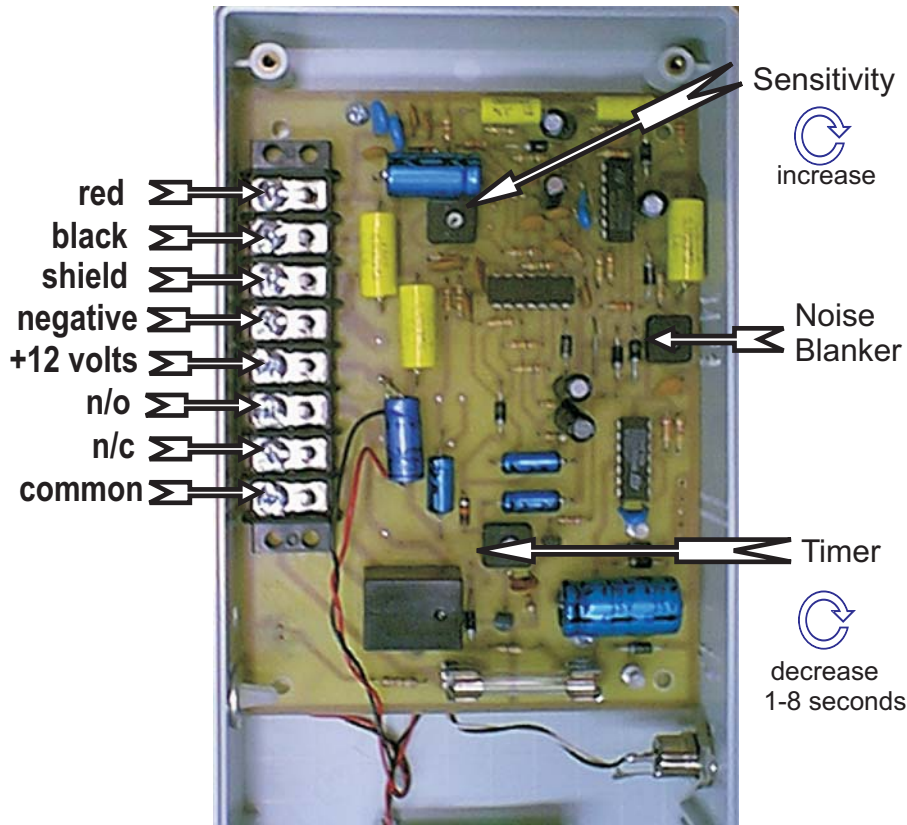
-Thread the cable through the hole in the side of the Controller. Fasten the cable to the side of the controller with the supplied cable tie.

- Using *figure 1* on page 2 as a guide, wrap wires clockwise under the appropriate screws and tighten.

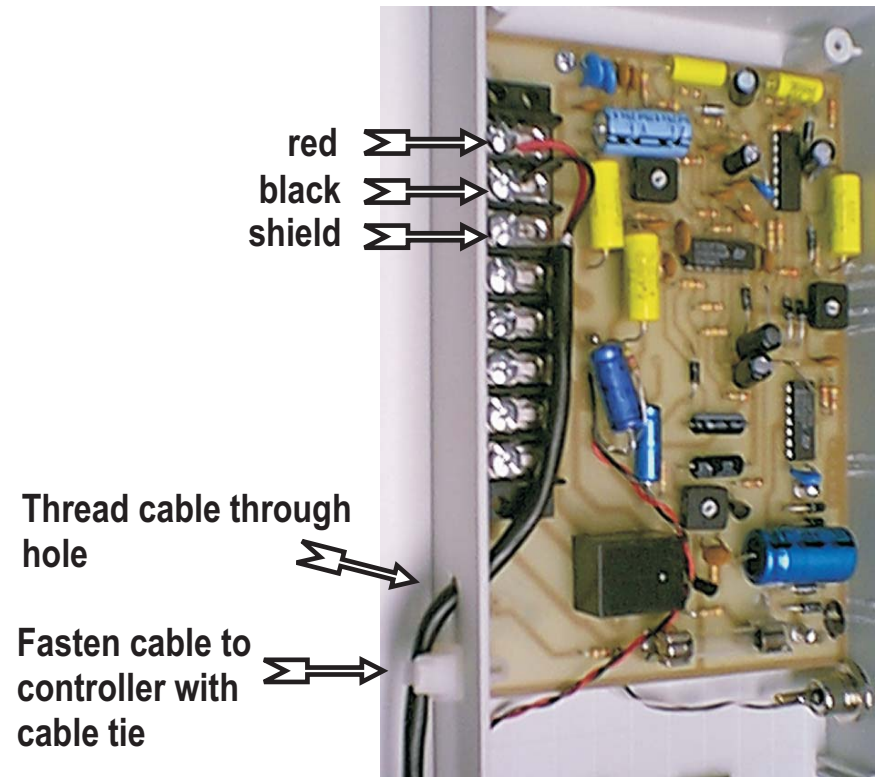
Controller



Inside back of Controller *Figure 5*



Inside Terminal Strip *Figure 1*



-Be careful that no wires are shorting.

-Connect the red wire to the first terminal, the black wire to the second and the silver shield wire to the third terminal. *The third terminal may also be earth grounded to a water pipe if false detections occur.*

-Mount the Controller using the provided screws

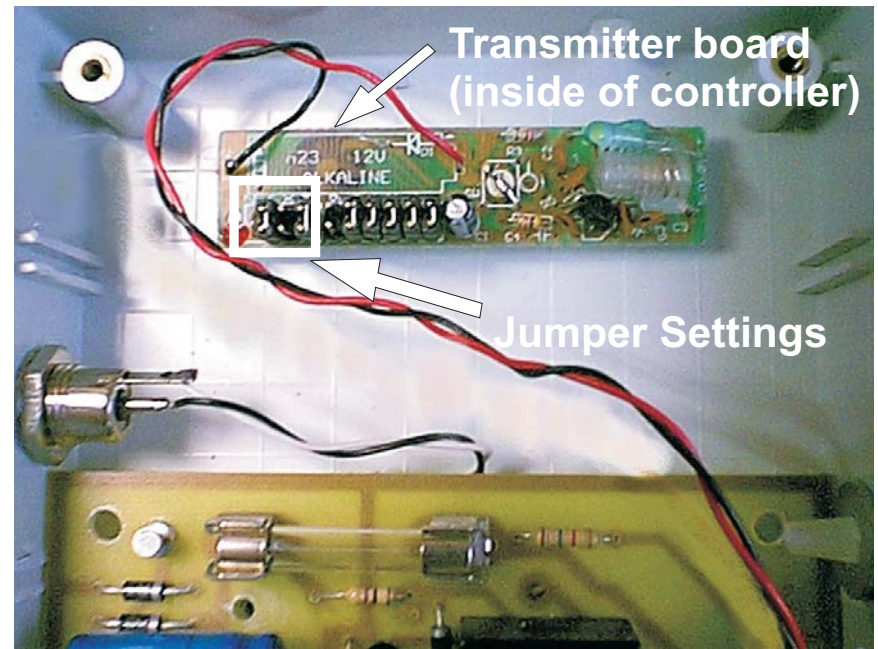
-Bury the wire using a spade or lawn edger to cut a slit in the sod

QUICK OPERATION INSTRUCTIONS

After the wiring is complete plug the 12V adapter into the side of the Controller and plug the adapter into an electrical receptacle. The green power light should illuminate. The noise blanker light should illuminate and stay on for about one minute. Turn your wireless chime on with the switch on the side which will make it whistle briefly. The system is now ready to test. Have someone drive past the sensor probe and your chime should sound. (You may also wet your fingers and rub them simultaneously on the wire terminals where the probe wires are attached to simulate a vehicle entering) If it does not, read the advanced instructions. The chime should be placed within 50' of the controller and away from metal objects. Try different locations to find one that works best.

Changing Chime Sounds by moving jumpers inside Controller

figure 3



• □ □	8 note westminister
□ • □	ding dong (normal)
□ □ •	ding

Probe Sensitivity

The sensor probe will detect a car moving at 5 mph or more within a driveway up to 14 feet wide. Slow vehicles produce small signals.

Location Options.

1st Choice *Center of Drive*

- sensitivity can be lowered
- range can be extended for wide drives
- bury probe under drive in PVC pipe sealed at one end and pitched to allow drainage. Allows retrieval of probe later.

2nd Choice *Along Side of Drive*

- bury probe 6" to 8" in soft earth close to driveway
- place probe parallel to traffic motion

3rd Choice *Along each side of drive*

- use on wide (over 20') paved drives
- place probes parallel to traffic motion

To prevent False alarms...

Do not bury probe within 5 ft of power cables or transformers

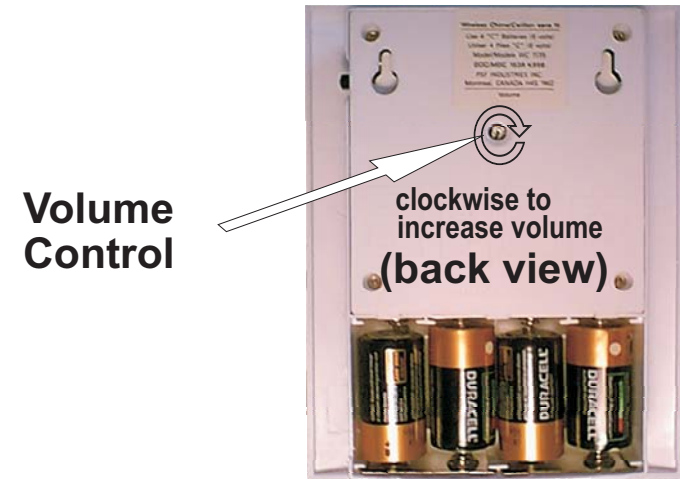
Do not bury probe within 24 ft of residential traffic

Do not bury probe within 36 ft of highway traffic

Do not bury probe within 150 ft of moving trains

Optional Deluxe Chime model GC516

Figure 2



Portable Chime model GC520

Figure 3



ADVANCED INSTALLATION

The ease of routing the three-wire cable from the sensor probe should be considered when deciding the location of the Controller.

Caution and care must be exercised in installing the sensor probe to assure a properly operating AutoAlert System. Improper installation is the number one reason for the system to malfunction.

The probe's sensor is a coil of wire wrapped around an iron rod. Its resistance is 700 to 800 ohms. The red and black wires connect to the coil. It is encapsulated in epoxy to protect it from physical damage. The cable is made with an extra thick outer cover. There is a foil wrapper surrounding the red and black wires. There is a silver (bare) wire in the foil. False alarms will occur if moisture gets into the foil wrapper. Nicks in the outer cover and improper splices allow moisture to enter the cable. As moisture enters the cable, the resistance decreases. There must be at least 5 meg (million) ohms from the silver wire to the colored wires.

The ideal installation is without any splices. The use of cable other than that which is designed for the AutoAlert System is undesirable. Improper splices and unsuitable cable are major causes of false alarms.

During normal operation, the noise blanker detects unwanted electrical interference and mutes the AutoAlert for a few seconds. It has been adjusted at the factory. If necessary, adjust by turning the small blue pot on the circuit board clockwise until the yellow light turns on. Then turn the pot counter-clockwise until the yellow light turns off. Continue turning the pot a small amount beyond that point. The yellow blanker light should be off.

To test the system, it is possible to rub your finger simultaneously on the three terminals to which the sensing probe is attached. This should cause the system to go into false alarm. This will occur with or without the sensor probe attached. Be sure the terminal screws are tight while making the test. If the system responds to this test, in almost all instances it indicates a properly functioning controller.

If false alarms occur, remove the sensor probe wires from the AutoAlert terminals. Let the electrical power remain turned on to the controller. If the false alarm stops, then the most likely cause of the problem is moisture in the sensor probe cable.

Note. If you are having false alarm problems try disconnecting the ground wire. In some cases this will solve the problem.

Lightning storms are potential source of magnetic field disturbance. False alarms are likely during close storms. If many false alarms are experienced simply turn off your chime until the storm passes.

ADVANCED OPERATION INSTRUCTIONS

The AutoAlert Controller has been adjusted at the factory for maximum sensitivity for the sensor probe. To adjust the sensitivity remove the 4 screws from the back of the controller and remove back.

Using *figure 5*, page 13 as a guide locate the sensitivity pot and adjust accordingly.

The wireless chime may be set to ring three different chimes by changing the jumpers on the chime transmitter as seen in *figure 3*, page 12.

If accessories are to be used, the "on" duration may be adjusted by the *time adjustment* pot seen on *figure 5*, page 13. The time is adjustable from 5 to 15 seconds. Accessories are available from Absolute Automation.

The *green* power light should always be on when the system is powered.

The *red* detection light will light for 1 second each time a vehicle is detected.

The *yellow* noise blanker light will remain on for 1 minute when the controller is powered. *The AutoAlert will be muted for approximately one minute each time the electrical power is turned on. It provides time for the electronic circuits to stabilize.*

If splicing is unavoidable, splice the cable using a Klick-it, or equivalent. The splice kit is available from Absolute Automation. The sensor probe works in or out of the ground, *but it must remain absolutely motionless*. Most sensor probes are buried about 6 inches deep and parallel to the driveway. Protect it from physical damage. The cable is made for direct burial in the ground. Do whatever is necessary to protect the outer cover from damage.

The sensor probe responds to changes in the earth's magnetic field. The signal produced by the coil is a few micro volts for a fraction of a second. The sensor probe and cable must not be within 3 feet of electric wires because they have changing magnetic fields of their own. Never bury the sensor probe cable in the same trench as other electrical wires, including telephone wires and wires for lights, bells, etc.

You may wish to place the sensor probe atop the ground in the general area of where you believe it would be an ideal installation, and connect the cable to the Controller. This will allow you to test the system in application before final installation. It would be acceptable to leave the sensor probe and cable above

the ground for a couple of days, but make certain it is not damaged during this period. This method should not be used permanently. See *ADVANCED OPERATION INSTRUCTIONS* for adjustments which may be necessary. The burial of the sensor probe is ideal in the center of the area being detected, but often is not practical or necessary. See page 11.

If a new driveway is being put in, the sensor probe could be buried a minimum of 12-24 inches deep. In case you wish to place the sensor in the center of the drive, the cable and sensor probe could be placed in a larger piece of PVC to provide protection. The cable should also be protected wherever vehicles are to be moved over it.

The usual installation of the sensor probe is parallel to an already existing driveway. In this case, the sensor probe can be buried 6 inches deep, and the cable simply placed below the grass line. However, if vehicles are going to travel directly over the sensor probe and cable, they should be buried deeper.

The sensor probe may be placed up to 5000 feet from the solid-state AutoAlert Controller. Several sensor probes can be attached to one Controller, but each additional sensing probe reduces every sensor probe's ability to detect. The Auto Alert will not know which sensor probe does the detecting.

When more than one sensor probe is used, connect the red and black wires in *series*. Connect the silver wires in *parallel*. The red wire from one cable is soldered to a black wire from another cable. The remaining red wire and black wires are attached to the AutoAlert terminals. All silver wires are attached to the AutoAlert terminal. Keep the sensor probe, the cable and the controller at least 8 feet from heavy power lines, power panels, motors, arcing or sparking machinery and radio transmitters. In some cases, moving the panel and/or cable a few feet can solve interference problems.

Additional devices can be attached to the AutoAlert terminals as shown on *figure 5*, page 13. Never attach any device that puts more than 30 volts on the Auto Alert terminals.

You have purchased a time-proven product which can provide you with many years of satisfactory service.