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SU-P8500C

Complete Directional Vehicle Detection System

Using Two (2) Basic Probes

Contents:

(1) NEMA III Enclosure
Containing:
(1) HA2 Processor
(2) GRND2 Surge Shunt

(1) P8500 Directional Probe Kit
(2) Basic Probes with 25' Lead
(1) Splice Kit

(1) 12VDC1 Power supply

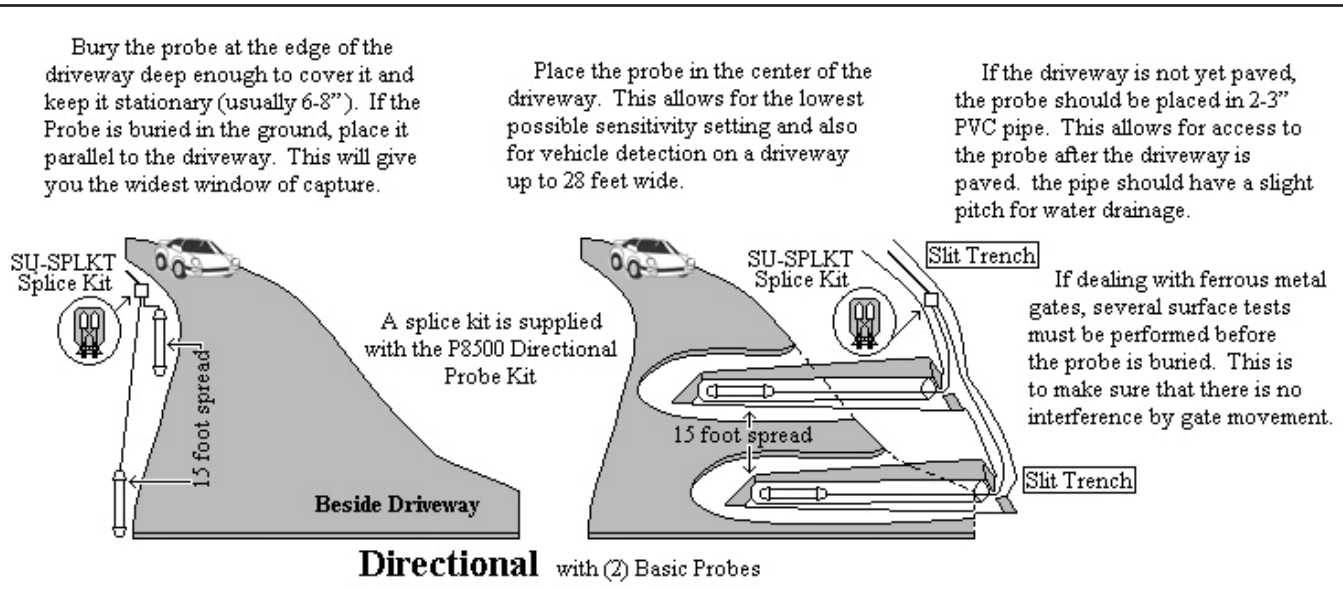
(1) RXTX612 (Wireless Chime Package)

The **P8500C** is a complete package system. It includes everything you need except the direct burial cable. This system will give one relay output for inbound vehicles and a separate relay output for outbound vehicles. Normally, the system is used for directional applications. System versatility allows for the occasional need to cover two driveways where directionality does not matter. For this application you would simply place a probe at each entrance and flip a switch in the main control box.

The **P8500C** includes a wireless sounding system. The sounder plugs into your standard electrical outlet. It has over fifty melodies and four volume levels. Up to eight chime receivers can be used.

All Sure Action probes are designed for direct burial on the edge of a fourteen-foot wide driveway. Temperature and moisture will not affect the system. The system requires shielded direct burial Cat 6. Wire with a random twist is recommended. The splice connections should be soldered. A direct bural splice kit is supplied for a watertight finish. Sensitivity is fully adjustable at the processor.

The Probe will only sense moving ferrous metal. It will not detect a car that is stationary, therefore, it may <u>not</u> be used as a safety loop.



Directional with (2) Basic Probes

Possible Ways to Bury Probe

1) Center of Driveway - 1st Choice
   a) Sensitivity can be lowered for greater stability
   b) Range can be extended for a wider driveway
   c) Bury probe under driveway by encasing probe in a 2" or 3" PVC pipe that has been sealed at one end.
      i) Pipe should be pitched for drainage.
      ii) Allows installer to retrieve the probe at a later date if needed.
2) Alongside Driveway - 2nd Choice
   a) Bury probe 6" - 8" in soft earth at the edge of the driveway.
   b) Place probe parallel to traffic motion.

Range and Sensitivity Don'ts

1) The range of the probe will cover a driveway up to 14 feet.
2) ***Do not*** bury probe within 5 ft. of power cables or transformers.
3) ***Do not*** bury probe within 14 ft. of high-powered radio towers.
4) ***Do not*** bury probe within 24 ft. of residential traffic.
5) ***Do not*** bury probe within 36 ft. of highway traffic.
6) ***Do not*** bury probe within 100 ft. of moving trains.

The resistance reading acquired during testing is written in red on the body of the probe. After making your splices the resistance reading should remain close to the number written on the probe.

Changes to dipswitch setting should be done before powering processor. The processor takes up to 1 minute to stabilize. During this time, the led's will cycle back for forth.

Installation

Wiring the TX612 to Control Panel

(Assuming annunciation of incoming vehicles only)

The Red Wire of the TX612 attaches to the "+" terminal of the HA2 Processor.

The Black Wire of the TX612 attaches to the "-" terminal of the HA2 Processor.

The Green Wire of the TX612 attaches to the Relay 2 (C) [Common] terminal of the HA2 Processor.

The White Wire of the TX612 attaches to the Relay 2 (NO) [Normally open] terminal of the HA2 Processor.

*Note: The Green and white wire are interchangeable at the processor, polarity is not important.

Wiring Power Supply to Control Panel

1. The Black Wire labeled (+12VDC) attaches to the "+" terminal of the HA2 Processor.
2. The Black w/ white stripe wire labeled (Ground) attaches to the "-" terminal of the HA2 Processor.

Earth Ground

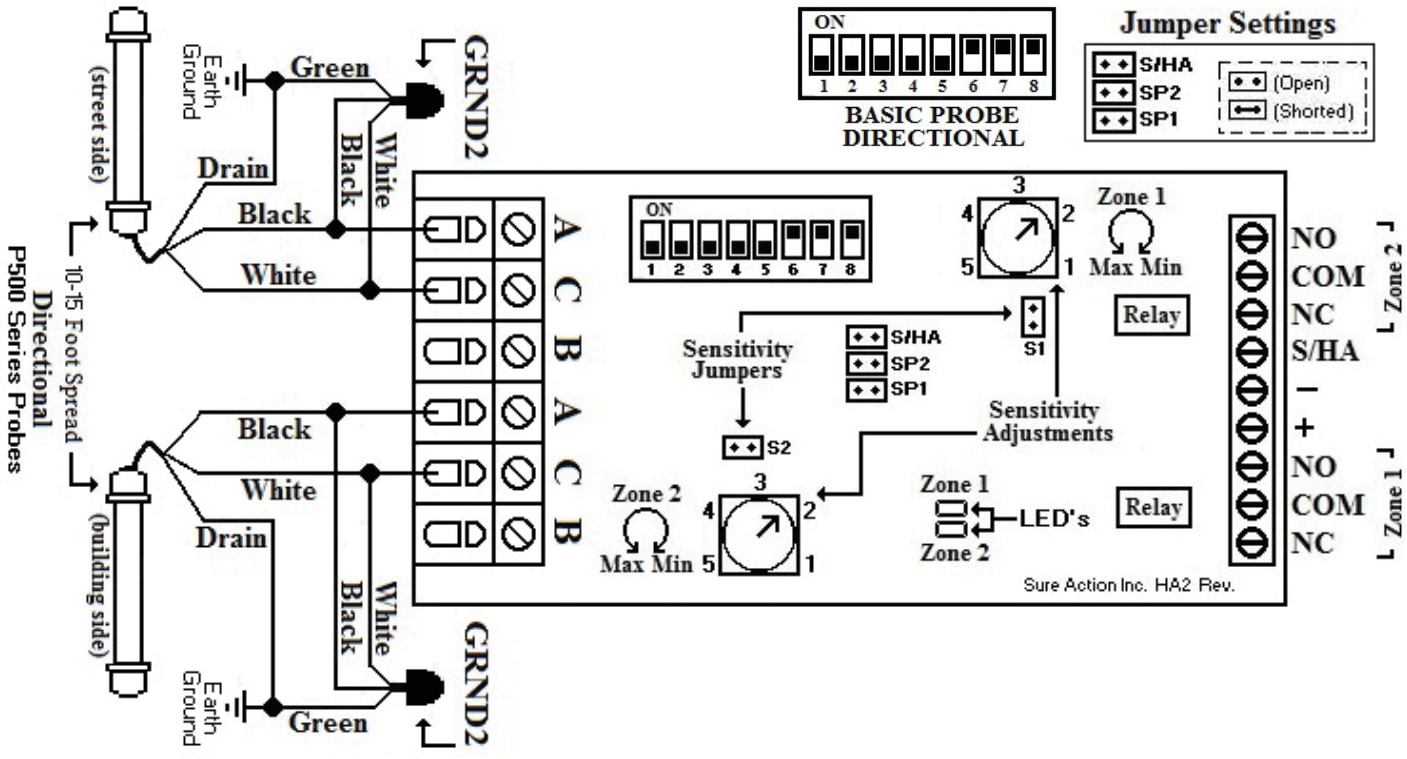
The two 18 AWG green wires in control panel labeled "Earth Ground" are connected to a cold water pipe, ground rod, etc.

* Do not ground to electrical ground.
* Earth grounding is not required for system functionality.

In high lightning areas, the following is recommended:

* Use a shielded and grounded wire run.
* Keep wire run as short as possible.
* Install manual override switches so that the processor output can be disengaged if the system is triggering during storms.

**When used in directional mode this processor has build
in logic which reduces potential false triggers due to lightning.**



For directional applications

* Zone 1 then Zone 2 activates Zone 2 output (Inbound).
* Zone 2 then Zone 1 activates Zone 1 output (Outbound).

Applications in which each probe acts independently:

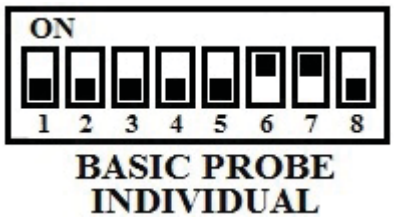
* Zone 1 activates Zone 1 output regardless of direction.
* Zone 2 activates Zone 2 output regardless of direction.

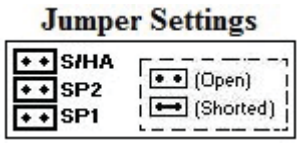
Model: HA2
Power Input: 12 - 13.5 VDC
Channel Output(s): N.C. and N.O Dry (Form C) relay contact
Approx. 4 second momentary

Contact Rating: 1 Amp at 24 volt AC/DC
Current Consumption: Standby: 60 mA Max.
CH1 or CH2 Alarm: 45 mA
CH1 and CH2 Alarm: 30mA

Troubleshooting

Two (2) 1K Ohm are required for troubleshooting procedures.





* Probe Field Test - ***P500 Series Probe***

1. Check resistance reading between the White and Black wires. The resistance reading should be close to the reference number written in Red on the body of the Probe.
2. Move magnet directly over Probe and observe a meter variation of 2 - 10 Ohms.

* Processors - ***(HA2)***

- Substitute a 1K Ohm resistors for the probes at screw terminals. Place a resistor between Terms. A & C. Make sure dipswitches are set for Basic Probe Individual. Cycle power to processor. Within 1 minute the green L.E.D should come on steady. Turn sensitivity adjustment to 3. Wet your finger and rub across resistors. The green L.E.D should go out and then come back on. Check Term. A and Term C each for 2.48 VDC in relation to (-) of power supply.