



124 Springville Road, Unit 3, Hampton Bays, New York 11946

Phone: (800) 648-4301
 (631) 728-3986
 Fax: (631) 728-3931
 www.sureaction.com

The Probe

Solutions for all your vehicle detection scenarios



P8000C

The **P8000 Directional** Probe System:

- * Discriminatory to inbound / outbound traffic
- * Requires 22/4 shielded direct burial wire w/ drain
- * Splice friendly up to 1 mile
- * Commonly used when different actions are desired for inbound vs. outbound vehicles **or** when an action is to be taken for vehicle travelling only in a certain direction.



P500B

The **P500 Basic** Probe System:

- * Non-discriminatory to inbound / outbound traffic
- * Requires any **P500 series basic probe**
- * Commonly used for gate operation **or** annunciation when wire and probe installation coincide.
- * Sounder and probe sold separately



P5W1

P500B: Nema 3 box. Conformal coated to resist moisture.
 P5W1: White ABS enclosure. Non-coated. Indoor use only.



WP5C

The **WP5 Low Power** Probe System:

- * Non-discriminatory to inbound / outbound traffic
- * 9-Volt battery operated processor
- * Transmitters have independant internal batteries
- * Outdoor components are conformal coated to resist moisture
- * Commonly used when trenching wire is impractical or undesirable



WP6S

The WP5C systems are housed in a Nema3 enclosure and use a universal receiver with a relay output. Sounders for this system are remoted and hardwired back to the receiver. One sounder is supplied with complete systems.

System range: 2000 ft.

The WP6S is the new short range version of our best selling vehicle sensing system. It is housed in a Nema4 enclosure and coated for protection from moisture. The chime receiver has multiple sound selections and volume levels. Receivers plug into the standard wall outlet. All programming combinations are possible with eight transmitters being the maximum number any one receiver can accept. System range: 500 ft.

WP5B - Pkg. w/ no wireless

WP5C - Pkg. Single Entrance, wireless included

WP5CDE - Pkg. Dual Entrance, wireless included

WP6S - Pkg. Single Entrance, wireless included

WP6SDE - Pkg. Dual Entrance, wireless included



212



P500

Processors for Probes only	
212	Directional Probe Processor w/ lightning check zone
P500	Basic Probe Processor
WP5	Low Power (9-Volt Battery) Basic Probe Processor



Basic P500 Series



P8000 Directional

*Package systems include all components needed except wire. Probes are purchased separately for Basic probe systems.

*All probes are designed for direct burial beside a 14 foot wide driveway.

*All components of package systems may be purchased individually.

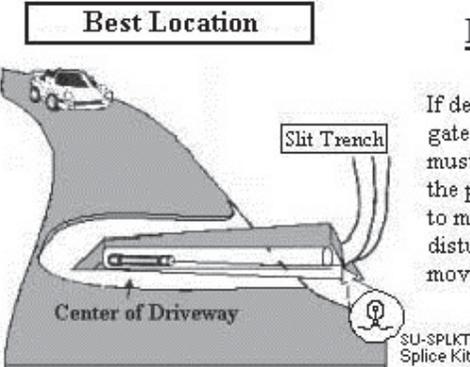
All Sure Action probes are devices that monitor the earth's magnetic field within an adjacent 3-dimensional space. A moving vehicle causes a disturbance in this field which induces a small voltage signal. A processor filters this signal and provides a relay output which can be used to drive a chime or other device. All Probes are designed to be buried beside a 14 foot wide driveway.

All probes are completely passive devices and emit no energy. All probe systems are momentary devices. They will stabilize around any non-moving ferrous metal within the detection range which means they can not be used as safety devices. **Probe systems will not latch in the presence of metal. They will only respond to ferrous metal that is in motion.**

Best Location

Place the probe in the center of the driveway. This allows for the lowest possible sensitivity setting and also for vehicle detection on a driveway up to 28 feet wide.

If the driveway is not yet paved, the Probe should be placed in 2-3" PVC pipe. This allows for access to the Probe after the driveway is paved. The pipe should have a slight pitch for water drainage.

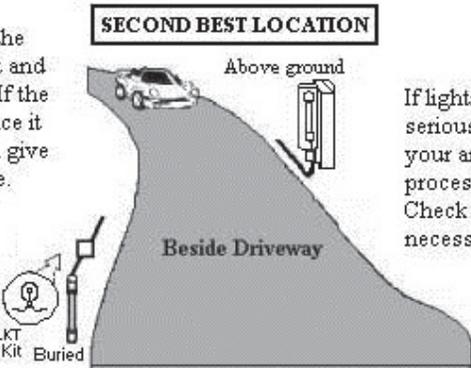


Basic Probe

If dealing with ferrous metal gates, several surface tests must be performed before the probe is buried. This is to make sure that there is no disturbance by gate movement.

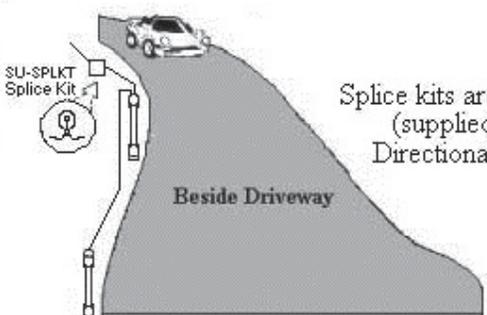
Bury the probe at the edge of the driveway deep enough to cover it and keep it stationary (usually 6-8"). If the Probe is buried in the ground, place it parallel to the driveway. This will give you the widest window of capture.

Basic Probes are supplied with 50, 125, 250, 500, or 1000 foot wire lengths.



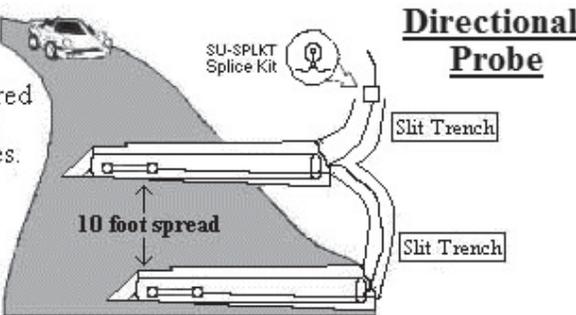
SECOND BEST LOCATION

If lightning is a serious problem in your area an SU-212 processor with Check Probe may be necessary.



Directional Probe

Splice kits are required (supplied) with Directional Probes.



Possible ways to bury the Probe

- 1). Center of driveway
 - a). Can cover a driveway up to 28 feet wide.
 - b). Uses the lowest possible sensitivity setting.
 - c). Place Probe in 2" or 3" PVC pipe that is sealed at one end.
 - i). Pipe should be pitched for drainage.
 - ii). Allows for retrieval of Probe
- 2). Along side of driveway
 - a). Bury Probe 6"-8" deep at edge of driveway
 - b). Place Probe parallel to flow of traffic

Do not bury Probe within:

- * 5 ft. of high power cables or transformers
- * 10 ft. of high-power radio transmitter towers
- * 24 ft. of residential traffic
- * 36 ft. of highway traffic
- * 100 ft. of moving trains

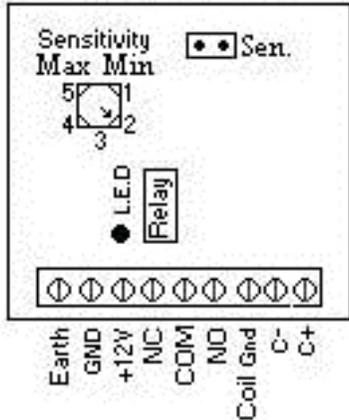
Installation:

Step 1: Place Probe at the burial location and connect wire. Do not permanently splice connections yet.

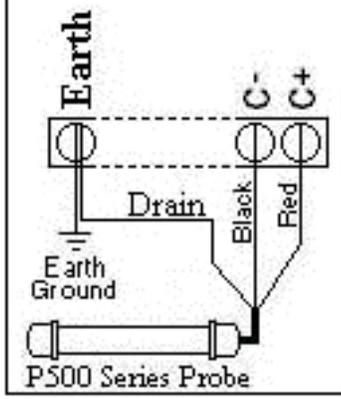
Step 2: Mount processor, connect Probe and power system. Wait (30-40 sec.) for system stabilization (Green L.E.D. On).

Step 3: Test the system. If everything is working correctly bury the Probe and make all connections permanent.

P500 Processor

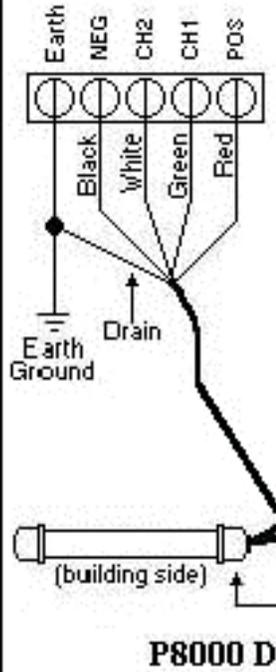


Power Requirement: 12 VDC
Current Consumption: 16 mA (Stable)
 4 mA (Alarm)
Output: Form "C" relay
 Rated (24 VAC, 1 A)
 Approx: 4 Second momentary
Green L.E.D: On = Stable
 Off = Alarm
 * The Green L.E.D will remain on as long as the processor is stable.
Physical Dimensions: 3.0" W x 2.0" L x 9/16" H
Sensitivity Adjustment(s): 1 = Minimum
 White Wheel(s) 5 = Maximum
The sensitivity setting will not effect the L.E.D.

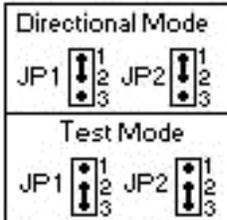


2 Probe Install (Wire Probes in Series)

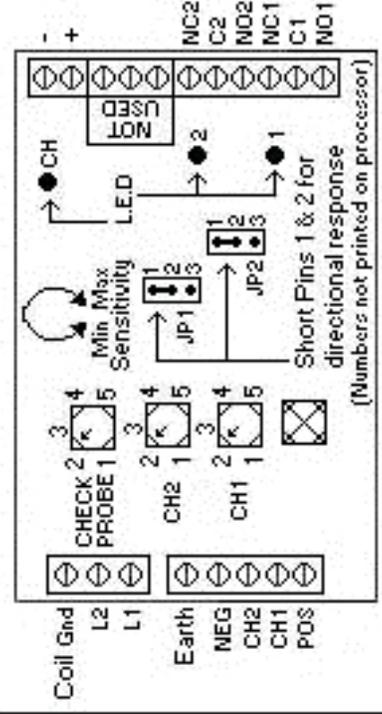
Black Jumper: **Default** Sen (Open) = Normal Range (Shorted) = High Range
 Contact Sure Action technical support before operating processor in high range.



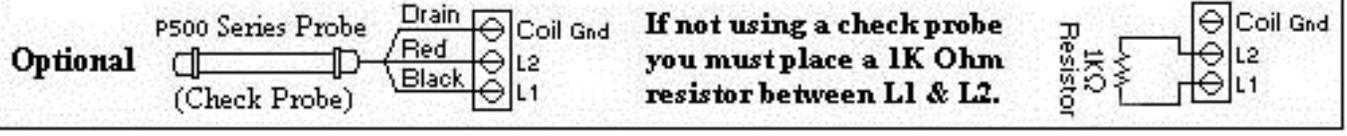
Power Requirement: 12 VDC
Current Consumption: 55 mA
Output: Form "C" relay
 Rated (24 VAC, 1 A)
 Approx: 5 Second momentary
Green L.E.D: On = Stable
 Off = Alarm
 * The Green L.E.D will remain on as long as the processor is stable.
Physical Dimensions: 5.5" L x 3.0" W x 1.0" H
Sensitivity Adjustment(s): 1 = Minimum
 White Wheel(s) 5 = Maximum
The sensitivity setting will not effect the L.E.D.



212 Processor



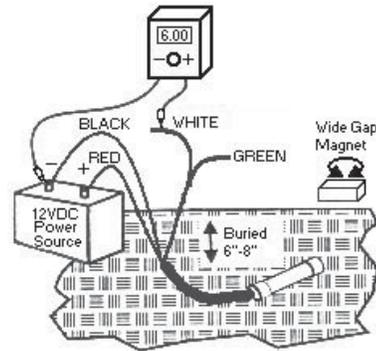
<u>Directional Mode</u>	<u>Test Mode</u>
C2 output activated for inbound vehicles	CH2 activates C2 output
C1 output activated for outbound vehicles	CH1 activates C1 output



System Troubleshooting

* Probe Field Test - P5050 Standard Probe & P8000 Directional Probe

1. Connect Probe to 12VDC power supply as shown. Red to positive (+12) and Black to negative (-).
2. Check the White lead for steady 5.0 - 6.5VDC in relation to (-) of power supply.
3. Check the Green lead for steady 5.0 - 6.5VDC in relation to (-) of power supply.
4. Move magnet directly over Probe and observe a meter variation of .02 VDC to .10 VDC.



* Probe Field Test - P500 Series Probe

1. Check resistance reading between the Red 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 - (P500 Basic Probe processor)

1. Remove Probe from processor and place a 1K Ohm resistor between C+ and C-. Within 30 seconds the processor should stabilize (Green L.E.D on steady).
2. Wet your finger and rub it across the resistors. The L.E.D should momentarily extinguish.
3. Check voltage readings at C+ and C- each in relation to (-) of power. Both readings should be the same and close to 2.10 VDC.

* Processors - (212 Directional Probe processor)

1. Make sure there is a 1K Ohm resistor between terminals L1 and L2. Voltage reading at L1 or L2 in relation to (-) of power should be close to 2.10 VDC and CH L.E.D should be on.
2. Move JP1 and JP2 so pins 2 & 3 are shorted. This puts the processor into individual mode and allows for the testing of each channel independently.
3. Place 2K Ohms between Neg and CH2 and 3K Ohms between CH2 and Pos. Within 30 seconds channel 2 should stabilize (Green L.E.D on steady). CH2 to (-) of power should be 2 VDC.
4. Wet your finger and rub it across the resistors. L.E.D 2 should momentarily extinguish.
5. Place 2K Ohms between Neg and CH1 and 3K Ohms between CH1 and Pos. Within 30 seconds channel 1 should stabilize (Green L.E.D on steady).
6. Wet your finger and rub it across the resistors. L.E.D 1 should momentarily extinguish. CH2 to (-) of power should be 2 VDC.