

# SU-WP2000C

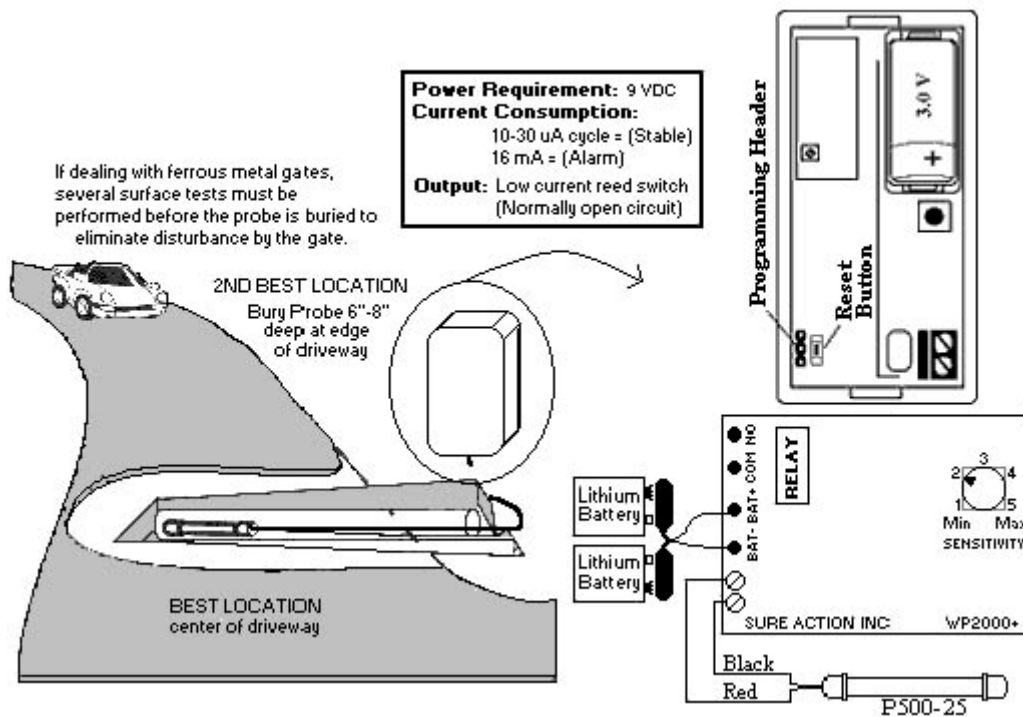
**Complete Battery Operated Vehicle Detection System**

WITH



## **Contents:**

- (1) SU-N3BOX (NEMA III Enclosure)  
*Containing:*
    - (1) SU-WP2000 Processor (*conformal coated*)
    - (1) 900 MHz Transmitter (*conformal coated*)
  - (1) SU-WP500-25  
Driveway Probe with 25' lead
  - (2) SU-9VBL (9-Volt Lithium Batteries)
  - (1) 900 MHz receiver
  - (1) SU-12VDC5 (12 VDC 500 mA transformer)
- Epoxy Filled Crimps



The SU-WP2000C is a vehicle detection system designed to be operated by two (2) 9-volt Lithium batteries. The system requires. It is ideal for locations where running wire between a building and the location of the probe is difficult. A gray NEMA III enclosure houses the transmitter (conformal coated), processor (conformal coated), and batteries. The box is then mounted near the location of the probe. Excess wire can be cut.

## Installation Suggestions

**Step 1:** Place Probe at the location at which it will be buried. Mount control housing and connect probe.

Bring the probe lead into the box and connect the wires to the two screw terminals. Polarity is not important.

### Range and Sensitivity Don'ts

1. The range of the probe will cover a driveway up to 14 ft.
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 transmitter 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.

You may install the batteries at this time. **The Transmitter and Receiver have been pre-programmed. There should be no need to reprogram them. The transmitter will not lose its memory during loss of power. When initially powered up, you must hit the reset button on the transmitter. This restores any memory preprogrammed into the transmitter by the receiver. The transmitter will, however, not send an "off" signal to the receiver until the probe processor completes the burn in period. This period usually lasts approximately 1 minute.**

Battery life for the probe is approximately ten firings a day for a year. The "Low Battery" light on the receiver will come on when the battery in the transmitter gets low. The "Inactive" light will come on if the transmitter ceases to function. The system may begin to oscillate when the 9-volt batteries get low. If the system ceases to function and the low battery and/or inactive lights are not lit on the receiver, the 9-volt batteries must be changed.

### Possible Ways to Bury Probe

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

**Step 2:** Mount receiver and chime in chosen locations. Chime plate is mounted so that the switch is on the bottom.

### Chime

Black wire = Constant Ground      Red wire = Constant +12VDC      Blue wire = Chime trigger (Ground).

Sound Pressure: 80dB at 12VDC

Current Consumption:      5.0mA at 12VDC Standby  
   125mA at 12VDC Alarm

### Receiver (Paperwork included with receiver)

The receiver requires 12-13.6VDC.

Current Consumption:      40mA Standby  
   120mA Alarm

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

## Troubleshooting

One (1)  $1K\Omega$  is required for troubleshooting procedures.

### **Processor:**

- 1) Check battery. Cut probe free from processor.
- 2) Wire a  $1K\Omega$  resistor between the Black lead and the White lead.
- 3) Digital voltage readings are positive in relation to negative of the battery.
  - i. Black to Neg. = 1.9 – 2.2 VDC
  - ii. White to Neg. = 1.9 – 2.2 VDC

**Both readings will be the same.**

### **Probe:**

- 1) Cut Probe free from processor.
- 2) Take a resistance reading between the Black lead and the White lead. The reading should be very close to the reference number written in red on the body of the probe.
- 3) Wave magnet over the probe. Observe resistance variation of +/- 2 to 10 Ohms. The 2K Ohm setting of the meter would be the most accurate.

**Special notes** (if applicable)