

# P5W1

## Basic Probe Control Box with RXTX612



## Contents:

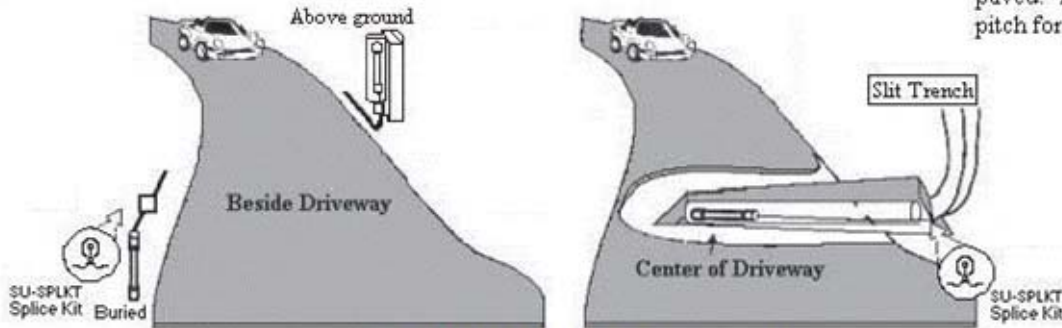
- (1) White ABS enclosure
- (1) HA2 Processor
- (1) GRND2 (Surge Shunt)
- (1) 12VCD 1 Amp Power supply
- (1) RXTX612 (Wireless Chime Receiver Package)

# Probe Placement

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.

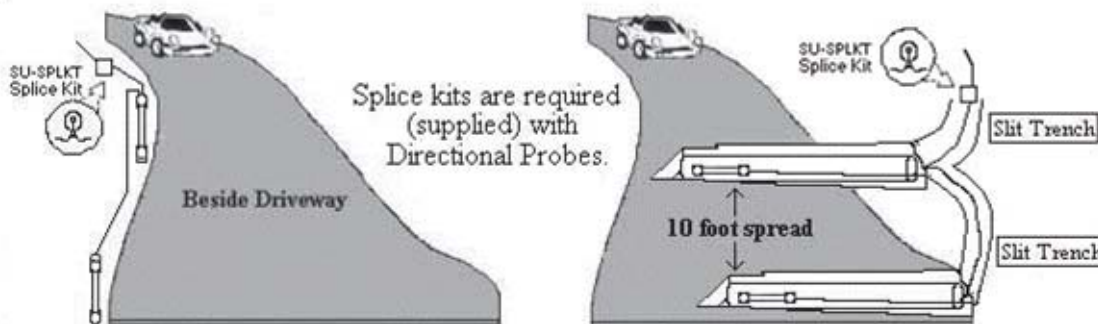
Place the probe in the center of the driveway. This allows for the lowest possible sensitivity setting and also for vehicle detection on a driveway up to 28 feet wide.

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.



**Non-Directional** with Basic probes

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.



**Directional** with P8000 or (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.

# Installation

**Step 1:** Place probe at the location it will be buried and bring the probe lead back to the location where the control box will be mounted. The control box should be mounted near a standard electrical outlet.

**Step 2:** Mount control box. The cover has removeable windows for the locations the wires will enter the box.

**Step 3:** Wire the probe as shown in the diagram.

The wire from the power supply labeled (+12VDC) goes to “+” of the HA2.

The wire from the power supply labeled (Ground) goes to “-“ of the HA2.

The relay output is a dry contact (Form C) 4 second momentary

## **Wiring the TX612 to Control Panel**

The Red Wire of the TX612 goes to “+” of the HA2.

The Black Wire of the TX612 goes to “-” of the HA2.

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

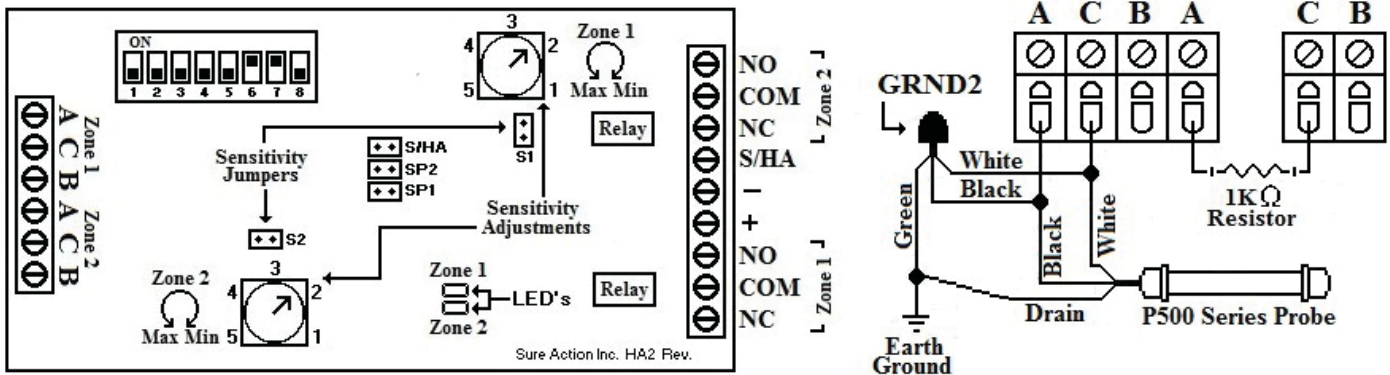
The White Wire of the TX612 attaches to the Relay 2 (NO) [Normally open] terminal of the HA2.

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

**Step 4:** Power the system. Wait approx. 1 minute for system stabilization (Green L.E.D.'s On Steady). The led's will cycle back and forth during stabilization.

**Step 5:** Test the system. If everything is working, bury the probe and make all connections permanent.

**Note:** The system can instantly be changed to a directional system by adding a second probe (as shown in “Probe Placement”) with a second GRND2 and setting dipswitch 8 to the “ON” position. The second probe and GRND2 would take the place of the 1000 ohm resistor on Zone 2.



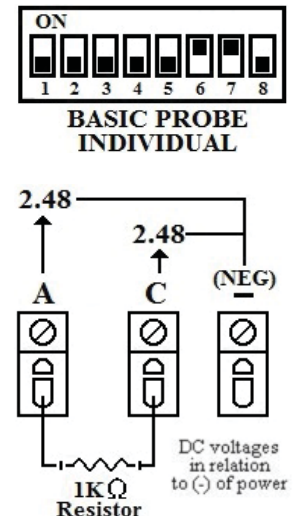
## System Troubleshooting

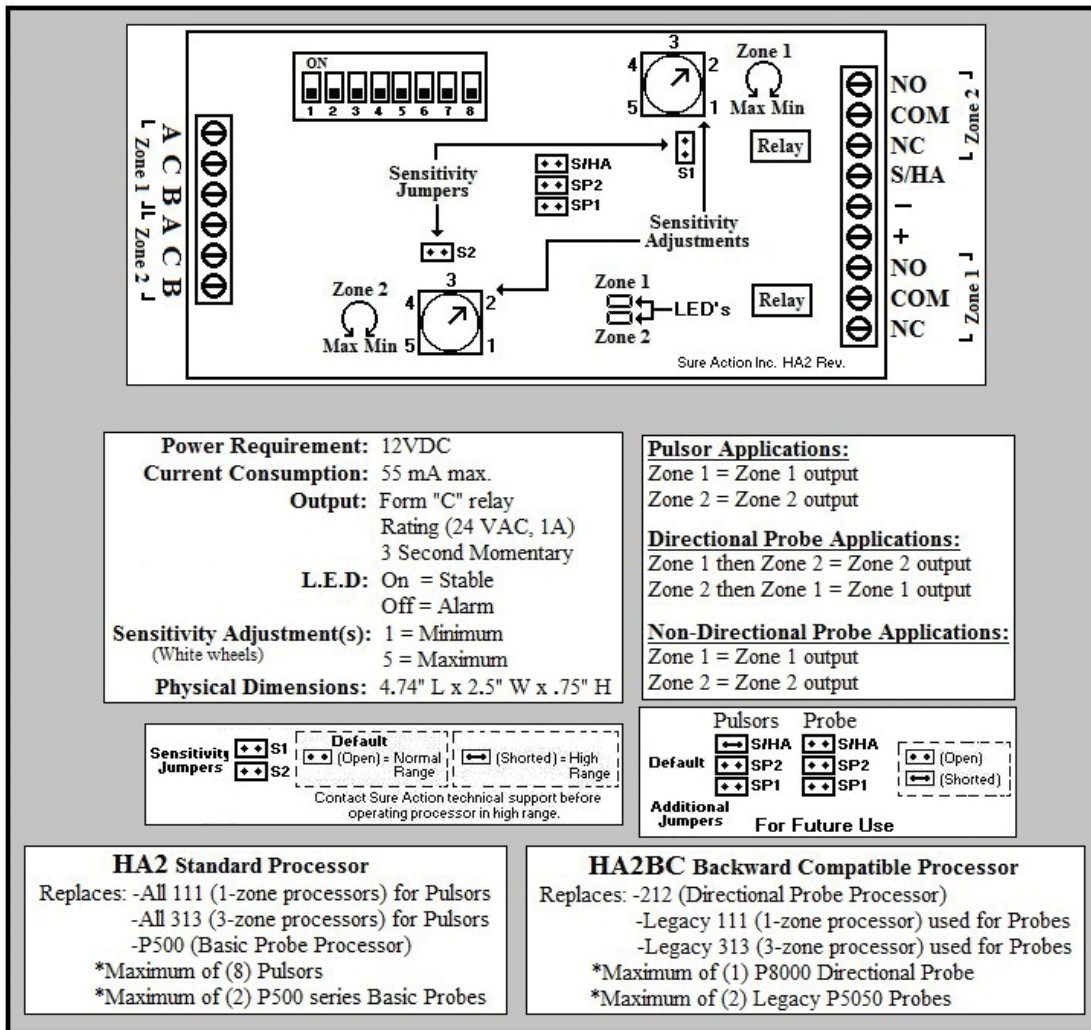
### \* Probe Field Test - P500 Series Probe

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.'s 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.





**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.**

**HA2 (For use with Pulsors or P500 Series Basic Probes)**

The HA2 processor will operate Pulsors or P500 Series Basic Probes.

- When programmed for Pulsors, it replaces all Pulsor processors for new or existing installations.
- When programmed for Probes, it replaces the P500 (Basic Probe Processor).
  - A single P500 series Basic Probe can be used in non-directional mode. The probe will give an output regardless of vehicle direction.
  - Two P500 series Basic Probes can be used in non-direction mode. Each probe will give an individual output regardless of vehicle direction.
  - Two P500 series Basic Probes can be used for a directional system. The system will give an individual output based on vehicle direction.

**HA2BC (For use with P8000 Directional Probes or Legacy P5050 Standard Probes)**

The HA2BC processor will operate a P8000 (Directional Probe) or existing legacy probes.

- When programmed for Probes, it is a direct replacement for the 212 (Directional Probe Processor) for new or existing installations.
- It will operate one P8000 (Directional Probe) or two old legacy probes.
  - A single P8000 (Directional Probe) or Two legacy P5050 Standard Probes can be used for a directional system. The system will give an individual output based on vehicle direction.
  - A single legacy P5050 Standard Probe can be used in non-directional mode. The probe will give an output regardless of vehicle direction.
  - Two legacy P5050 Standard Probes can be used in non-direction mode. Each probe will give an individual output regardless of vehicle direction.