Siren Operated Sensor

SOS-G/YDT Installation Instructions

Mounting the SOS

Attach a 12V battery for testing or demonstrating the SOS and allow a few minutes for an initial warm-up. (Two 9V batteries may be harnessed in series.) If unfamiliar, use long wires or cable (22 or 24 gauge stranded) for testing, thereby allowing options for the best permanent mounting location. Some installers mount the SOS inside their larger gate control box, but be sure the "Yelp" sound can reach it without distortions. A gate operator with a beeper may activate the SOS if set for YDT. (Locate the SOS inside the fence.) In higher security installations, one may wish to place it high and out of reach, and/or at some farther distance away. Since the sensitivity and location of the SOS is variable, one can require a high volume of "yelp" sound. This would tend to thwart pernicious attempts to open the gate.

While deciding on the best permanent mounting location for the SOS, remember that the omni-directional microphone should be facing down. With this orientation, the enclosure case will be less likely to take on moisture. Also, try to avoid permanent or long-term placement of the SOS in direct sunlight.

Connecting to Test the "YELP"

To test for a proper gate hook-up, open the SOS enclosure lid. Using stranded wires, connect lugs NO (normally open) and COM (common) to any gate operator's "push-button" lugs. Touch a jumper between the (SOS) NO and COM. This should trigger the gate to open, as if by the SOS relay closure. Apply the proper low voltage (see hookup diagram). A short audio tape of a "Yelp" is included for a second test. The tape player used should be of music quality, rather than a low quality voice recorder.

Adjusting the SOS with a Live Vehicle "YELP"

Start with the white (SOS) sensitivity dial turned off. Then begin the courtesy live "yelp." Turn the sensitivity clockwise until the amber light stays on, and then advance it about 30 degrees to allow for wind. Full sensitivity (clockwise) is seldom needed.

When the amber LED remains on without flickering; sufficient volume is present for a microprocessor reading. The green LED indicates relay closure. If the amber LED comes on but the relay does not trigger, make certain the "Yelp" (not the wail or some other sound) is being used and held on until the gate moves. If no success, there are two options, as follows:

1. Use the SOS-G/YDT (see switch #2 option). It's programmed to respond to the "Yelp" in about 3 seconds. If the sound does not qualify, yet the high decibel remains for an additional 2 seconds (a total of 5 seconds) the SOS relay will close anyway. The gate will open.
2. If the gate still does not open, send us a 10 second tape of the live "Yelp" that you were using so that we can scope it to determine the sound authenticity. We have yet to find a legitimate emergency "yelp" that does not trigger.

SOS-G/YDT Settings

SOS = Siren Operated Sensor
G = Gate or Gated Compound
Y = Yelp
D = Decibel
T = Time

Looking down on the circuit board, identify the two small switches. The switches may be set to the desired "mode," as follows:

Switch No.1: If pushed toward the number—a momentary strike—then a 2 second delay before a re-trigger can occur.

Switch No.1: If pushed away from the number, a 10 minute hold or strike will result before an automatic reset. (A momentary removal of power will also reset the SOS.)

Switch No.2: If pushed toward the number, (SOS-G) the microprocessor reads “yelp,” verifies authenticity within approximately 3 seconds, and closes relay.

Switch No.2: If pushed away from the number, (SOS-G/YDT) the microprocessor reads “yelp” and verifies the authenticity within approximately 3 seconds. If the “yelp” is not authentic, but a consistent level of high volume persists for an additional 2 seconds, a relay closure will occur. (*Recommended.*)

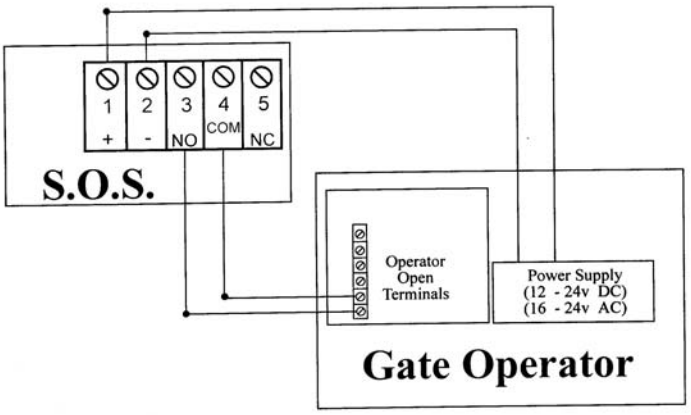
Hundreds of SOS units are in use. We have not heard of a single instance of unauthorized entry. Only very few locations need the vehicle presence detector to arm the SOS, and thus preclude unintended operations. Lower the sensitivity enough to require the (yelp) vehicle to be reasonably close to the gate, if desired. More sensitivity is clockwise.

The SOS electrical current draw at 12V DC is 2.5mA when idle and 125mA for 75 seconds when the relay actuates. The current draw at 16 to 24V AC is 125mA for continuous. Do not apply more than 24V AC/DC.

The following diagram shows the connections using a loop detector for an arming device. Polarity of an AC supply does not matter. For DC power supplies, observe the (+) sign. (Fault will occur if over-powered!)

The presence loop could interface any one of the 4 wires diagrammed.

Standard Wiring:



Presence Loop Drawing: