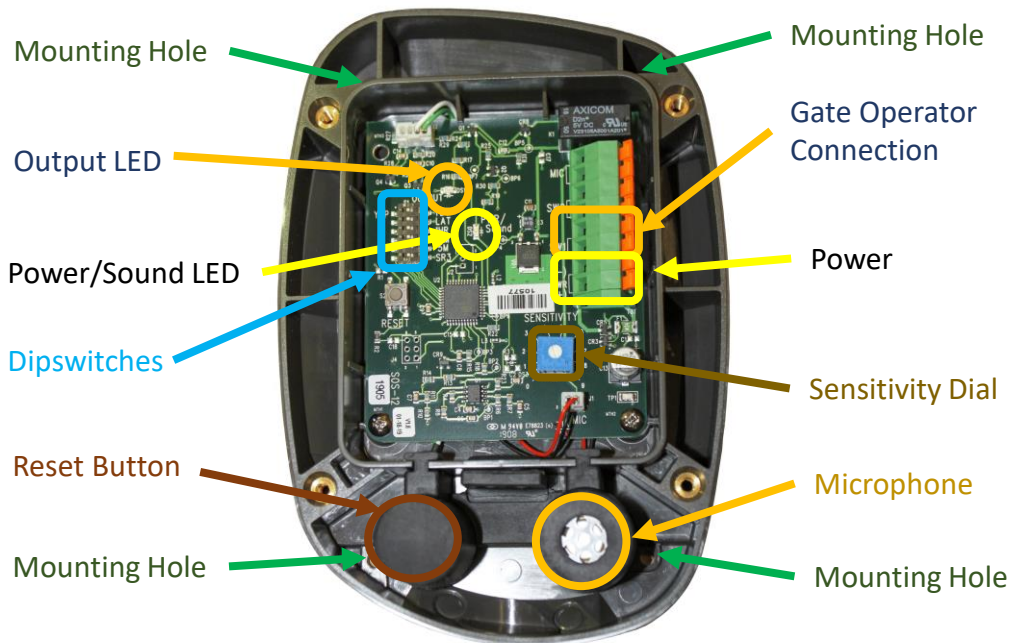




## Installation instructions for the SOS 12



1. Identify where you are going to mount the SOS12. This location should be inside the fenced perimeter where outsiders are not able to easily access the unit. Also excess noise will interfere with operation of the sensor so do not put it inside the gate motor enclosure or close to noisy machinery.
2. Remove the face plate of the SOS 12 unit.
3. Screws are provided to mount the SOS 12 using the four pre-drilled holes.
4. Power the sensor by running positive and negative wires 18—22 AWG stranded (not included) from a power source to the sensor. The power can be 9 to 24 volts DC or 9 to 16 volts AC.
5. Once power is connected correctly the Power/Sound – amber light LED will blink every 5 seconds.
6. Connect a 18—22 AWG stranded wire to a NORMALLY OPEN terminal on the gate operator control board. Connect a second 18—22 AWG stranded wire to a COMMON terminal on the gate operator control board. Some gate operator control boards have a “FIRE” or “SIREN” terminal. These terminals will only work if they are NORMALLY OPEN – additionally on some control boards these ports need a constant trigger to open. If a constant trigger is needed turn on one of the dipswitches that holds the gate open for a minimum of 5 minutes. (See page 3)
7. TEST the connection by touching these two wires together momentarily and the gate should open.
8. Now attach the wires from Normally Open and Common to the SW1 Terminals on the SOS12 board.

## TEST UNIT

1. Begin testing by turning the sensitivity dial clockwise to setting 8.5.
2. Using the Yelp Siren CD provided, or download the MP3 yelp off our website [www.sosgate.com](http://www.sosgate.com) onto your mobile device, play it at the loudest volume setting. Hold your device close to the microphone the PWR/Sound light should come on solid and the output light should come on as the gate opens within 3 seconds.
3. Test the unit now with a live siren. You want to have the sensitivity setting as low as possible but still able to open the gate with a live siren. The main reason for the SOS not triggering the gate open is that the emergency responders are not using the siren tone "YELP" or they are not leaving their siren on for 3 seconds.
4. **Note:** Every time the siren is interrupted or changed the digital processor begins the process over again, this internal reset can take several seconds.



## Notices

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### **FCC Part 15 Information to the User**

Changes or modifications not expressly approved by Siren Operated Sensors (SOS) can void the user's authority to operate the equipment.

### **FCC Part 15 Class A (Commercial)**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

## DIPSWITCHES

The SOS 12 has **6 dipswitches** they control what type of sound will trigger the unit and how long the unit will hold the gate open once it has been triggered. All the dipswitches are in the “off” position when it is shipped from the factory.

**Dipswitch 1:** In the off position “YLP” the sensor will open the gate with a yelp siren within three seconds. In the on position “YDT” the sensor will open the gate to any sound that reaches the correct decibel level for 5 seconds. This is usually used to allow other siren tones to open the gate. The sensitivity dial controls how high the decibels need to be to open the gate.

The remaining dipswitches all determine how long the unit will hold the gate open after it has been triggered. When they are all off the gate will open and run through its normal cycle—usually letting only one vehicle through the gate. If you choose to have a dipswitch on only one of them should be one at a time.

**Dipswitch 2:** In the on position “LAT” the unit will latch the gate open until someone pushes the reset button.

**Dipswitch 3:** In the on position “1HR” the unit will hold the gate open for 1 hour or until someone pushes the reset button.

**Dipswitch 4:** In the on position “15M” the unit will hold the gate open for 15 minutes or until someone pushes the reset button.

**Dipswitch 5:** In the on position “5M” the unit will hold the gate open for 5 minutes or until someone pushes the reset button.

**Dipswitch 6:** Is not being used at this time.





## Trouble Shooting the SOS

1. The number one reason for the SOS to not open the gate is that the emergency responder is not using the “YELP” siren. If they use a different siren the gate will not open.
2. Check that the Power/Sound LED (yellow) blinks about every 5 seconds. If the LED is blinking then go to step 3.
  - a. If the light is not blinking you do not have power to the board or the board has been damaged.
    - i. Confirm that the boards is receiving 9-30 volts DC or 9-16 volts AC.
    - ii. If the board is receiving the proper power and the Power/Sound LED is not blinking the board has been damaged and the unit will need to be replaced.
3. Make a noise — (play the siren, whistle, yell) — While making this noise the Power/Sound LED should come on. If the light comes when a noise is present go to step 4.
  1. If the light does not come on when a noise is present then there is something wrong with the microphone or the Potentiometer is too low.
    1. Turn the Potentiometer up to 8.5 & make a noise again. If the LED comes on go to step4.
    2. Unplug and plug back in the microphone from the board. This is a white connector below the potentiometer. Make noise again — if the LED does not come on with the noise the microphone is bad.
      1. Contact us to purchase a new microphone.
4. Sound the “YELP” Siren for at least 5 seconds. If you are using a hand held device or car stereo turn the potentiometer to 8.5. The Power/Sound LED should be solid for this 5 seconds. The output LED (green) should come on and the gate should open.
  1. If the output LED does not come on and the Siren is the “YELP” the board is damaged and the unit needs to be replaced.
  2. If the output LED comes on but the gate does not open.
    1. Take the wire out of SW1 or SW2 that lead to the gate. Touch them together the gate should open.
      1. If the gate does not open ensure those wires are connected to the normally open and common terminals on the gate operator.
    2. If the gate opens then there is something wrong with the relay on the board and the unit will to be repaired or replaced.
5. If the gate is opening without a siren present.
  1. The potentiometer needs to be turned down and the first dipswitch needs to be in the YLP position.
  2. Arrange to have a courtesy visit from an emergency vehicle so that the potentiometer can be set as low as possible but still open the gate.