Manuals+ — User Manuals Simplified.

3xLOGIC Rev 1.1 Gunshot Detection Multi Sensor User Guide

3xLOGIC Rev 1.1 Gunshot Detection Multi Sensor User Guide

Contents

Introduction

Gunshot Detection from 3xLOGIC is a sensor that detects the shockwave / concussive signature of any gun caliber. It detects up to 75 feet in all unobstructed directions or 150 feet in diameter. The smaller directional sensor that detects the strongest signal determines the source of the gunshot. The sensor is a stand-alone product that can send gunshot detection information using its on-board processors to a variety of host systems including alarm panels, central stations, video management systems, access control systems and other critical notification systems. No other equipment is necessary for the sensor to identify a gunshot. It is a self-contained device that can complement any security system. 3xLOGIC Gunshot Detection can be used as a single device or is scalable in design and deployments can include an unlimited number of sensors.

Note: Gunshot Detection must be installed and configured by 3xLOGIC authorized technicians only

Setup

Dry Contact

- The sensor detects a gunshot and activates an onboard Form C relay to send signal to an alarm panel.
- In this case, the sensor would require a 4-wire connection to an alarm panel.
- Two wires for power and two for signal, wired directly to a zone on the panel.

Placement
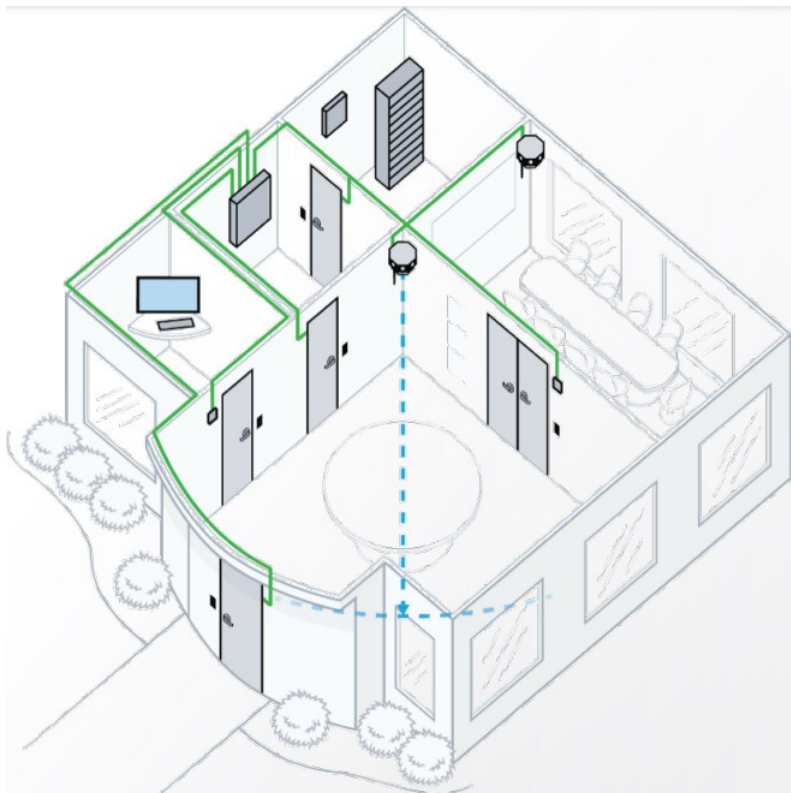
Mounting Height

- The unit must be mounted between 10 and 35 feet.
  Note: If you would like to mount the sensor at a higher position, please contact 3xLOGIC to assist with the custom installation.
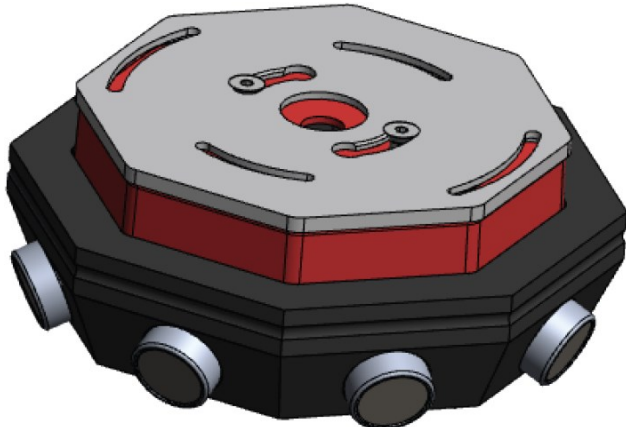
Line of Sight

- The unit can detect up to 75 feet in all unobstructed directions or 150 feet in diameter. To determine the placement of each unit, use the 'line of sight' rule.
- Allow a small overlap of coverage between each unit to eliminate dead spots

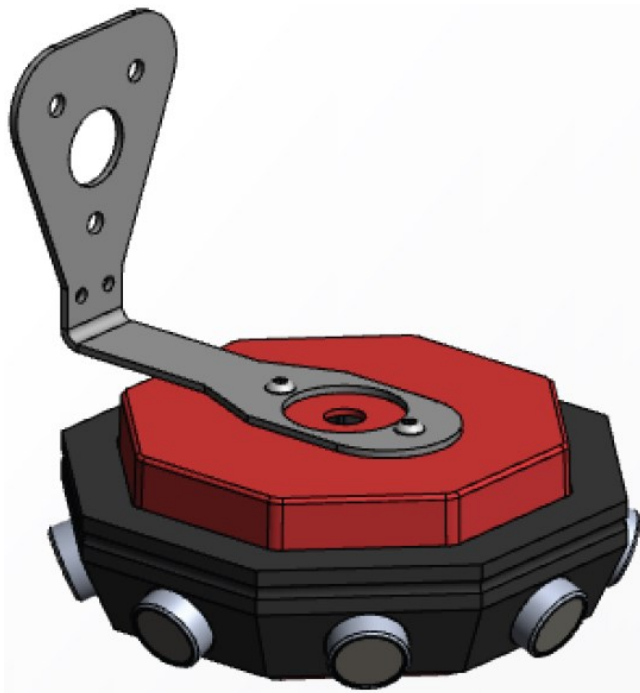## Options

Mounting

Ceiling

Ceiling mount Bracket can be mounted using the following:

- Standard drywall screws with correct size anchors.
- Bolts – Metric M5 & Standard #10

Wall

Wall mount Bracket can be mounted using the following:

- Standard drywall screws with correct size anchors.
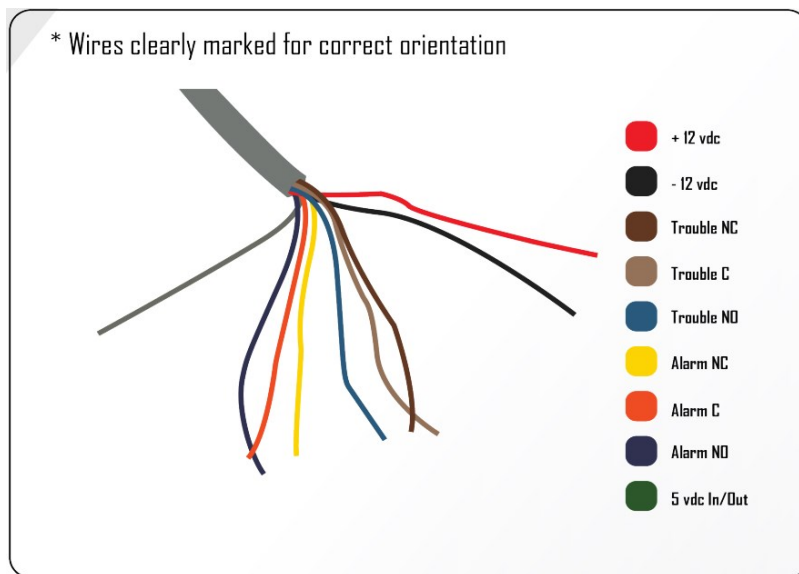- Bolts – M8-sized through bolts only.

Power

Standard installation

- AC plug-in to a 12VDC transformer (not supplied).

Alarm Panel Auxiliary power

- 12VDC power output from alarm panel.

Wiring

1. Feed wire upwards, through the mounting plate.
    - Select power option and connect correct wire per the installation type. See "Power Diagram" on the next page for visual reference.
    - Wire disconnects from the unit for convenience; reconnect the wire when wiring process is complete.
2. Connect wired unit to mounting plate.
3. Orient the unit so that the #1 smaller sensor points North.
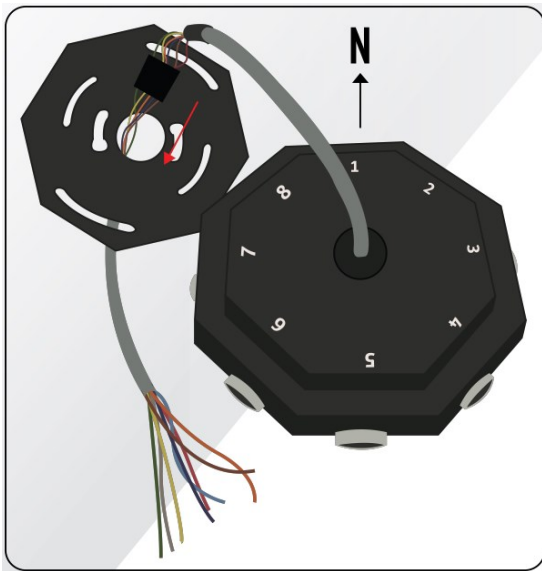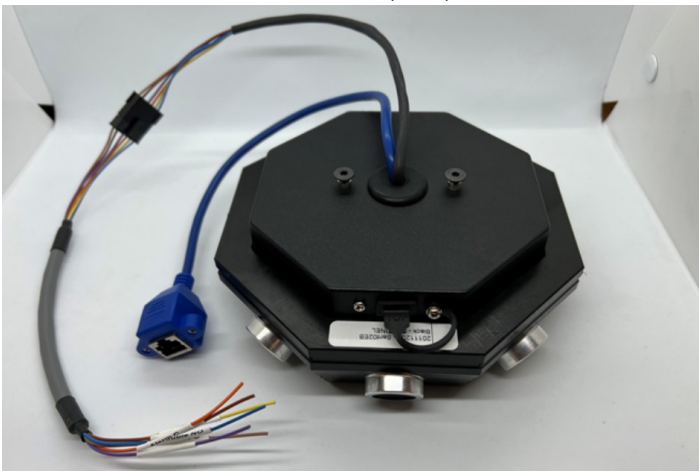
Power Diagram

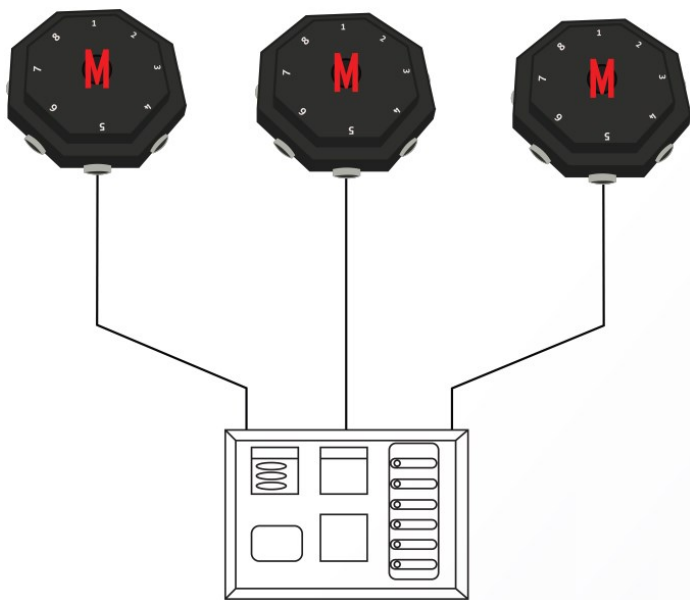See below for a simplified power wiring diagram.
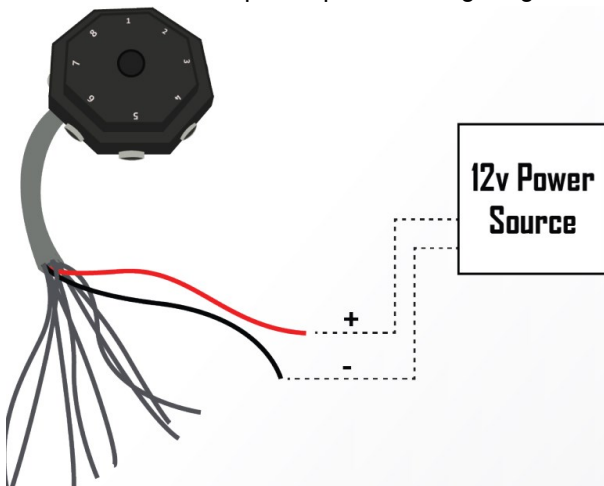
Power over Ethernet (PoE)

Gunshot Detection units have a PoE option (see installation details below). RJ45 jack provided to plug a CAT5e network cable from PoE Switch (Hub).


Installation

Hardwired

The sensor detects gunfire and activates an onboard Form C relay to send a signal to an alarm panel. The sensor requires a 4-wire connection to the panel. Two wires for power and two for signal, wired directly to a zone on the panel.

PoE

Plug the RJ54 connector from the network cable (e.g. CAT5e) coming from the PoE Switch (Hub) to the RJ45 adapter (blue connector) coming out of the unit.
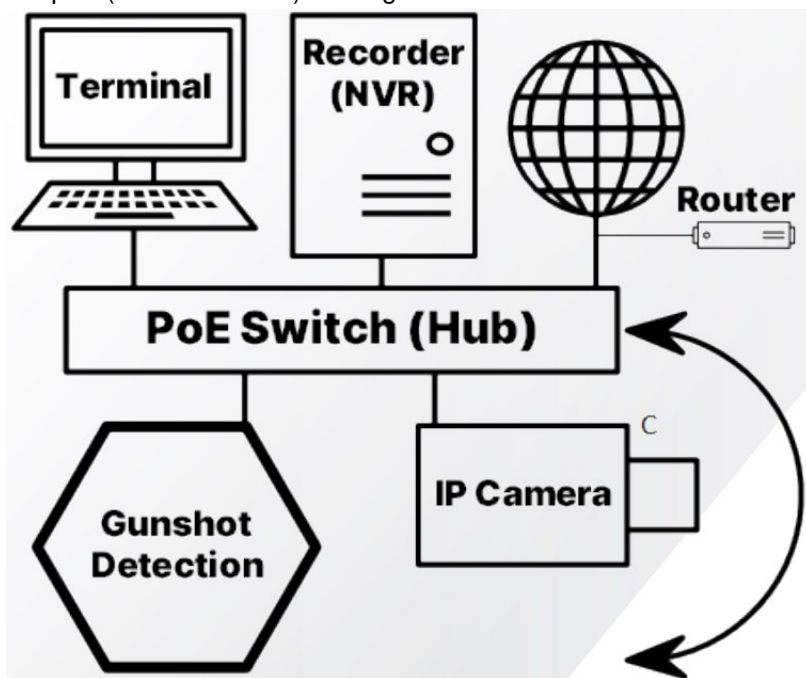
The following are the specifications for PoE connections:

- Complete Power Interface Port for IEEE 802®.3af Powered Device (PD)
- Constant-Frequency 300kHz Operation
- Precision Dual Level Inrush Current Limit
- Integrated Current Mode Switching Regulator
- Onboard 25k Signature Resistor with Disable
- Thermal Overload Protection
- Power Good Signal Output (+5-volt)

- Integrated Error Amplifier and Voltage Reference

Test and Reset

Gunshot Detection Field Test

Onboard Relays

Alarm Relay

- NO/NC 1 second closure and reset momentary.

Trouble Relay

- NO/NC for reporting power loss and when battery power drops below 5V

Lights

Blue LED

- When the device senses an actual gunshot detection, the GDS activates the Blue LED and the light remains on steady until the entire system is reset.
- This means that if a shooting occurs, first responders can identify, at a glance, which units have tripped for investigation purposes (e.g. criminal tracking) or for crime scene analysis after the event.

Green LED

- Indicates power; always on steady if 12VDC is present.

Sequence

1. Place sensor test pole to the 'circle' to activate testing.
2. The Blue LED begins flashing approximately once every half second while the Green LED remains steady. The sensor is now ready for testing.
3. Once the air horn / sound is activated, the Green and Blue LED will alternately blink three times. The blue light remains on, ready for another test activation trigger.
4. After testing is complete, apply the sensor test pole to the 'circle' to reset.
5. Fail-safe circuitry is built-in to auto-reset the sensor after one hour, or after the next reboot.

Reference Information

Catalog
These components are available from 3xLOGIC

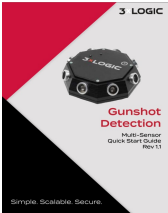| PART #	DESCRIPTION
SentCMBW	Gunshot Detection with Ceiling Mount (White)
SentCMBB	Gunshot Detection with Ceiling Mount (Black)
SentCMBWPOE	PoE Unit with Ceiling Mount (White)
SentCMBBPOE	PoE Unit with Ceiling Mount (Black)
WM01W	Wall Mount (White)
WM01B	Wall Mount (Black)
CM04	Flush Ceiling Mount
STU01	Touch Screen Testing Unit (TSTU)
SP01	Screen Puller Tool to Safely Remove Screens
TP5P01	Telescoping Testing Pole (quantity 5 pieces)
SRMP01	Transducer Screen Replacement Master Pack (100 pieces)
UCB01	Gunshot 8 Sensor Protective Cage (Black)
UCW02	Gunshot 8 Sensor Protective Cage (White)
UCG03	Gunshot 8 Sensor Protective Cage (Grey)
PCB01	Gunshot 8 Sensor Protective Cover (Black)
PCW02	Gunshot 8 Sensor Protective Cover (White)
PCG03	Gunshot 8 Sensor Protective Cover (Grey)

Company Details

3xLOGIC INC.
11899 Exit 5 Parkway, Suite 100, Fishers, IN 46037
www.3xlogic.com | (877) 3xLOGIC

Documents / Resources

3xLOGIC Rev 1.1 Gunshot Detection Multi Sensor [pdf] User Guide
Rev 1.1 Gunshot Detection Multi Sensor, Rev 1.1, Gunshot Detection Multi Sensor, Detection Multi Sensor, Multi Sensor, Sensor

References

- ³ˣ **Small Business Security Technology | 3xLOGIC**