

L2

# MAGNASPHERE® HSS®



MAGNASPHERE expands its L2 series HSS product line to include the **revolutionary L2C series of next generation sensors that meet and exceed UL634 Level 2 High Security Standard** for installations where concealed sensors are desired for both security and aesthetics.



ULI HIGH SECURITY LEVEL 2  
CUL HIGH SECURITY



## THE INSIDER THREAT

**IS REAL.** Experts agree that the most devastating threats to government and corporate security have come from employees who were deemed trusted insiders. Armed with simple magnets unscrupulous insiders can disable even triple-balanced BMS magnetic contacts while the system is unarmed, and enter undetected at a later time, leaving no evidence of tamper.

## MAGNASPHERE L2C HSS Technology

- Only concealed contact to meet UL 634 Level 2 High Security Standard
- Resists permanent contact welding (power surges, stun guns, lightning)
- Incorporates patented removal (pry) tamper circuit
- Single and dual alarm contacts available
- Installs in one inch diameter hole or standard ANSI door cut out
- Compatible with all control panels
- ANSI model a retrofit / upgrade to old 2757 / 67 BMS contacts
- Highest level of security for every installation
- American made, built with MAGNASPHERE switch technology
- Competitively priced



# MAGNASPHERE® HSS®

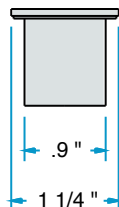
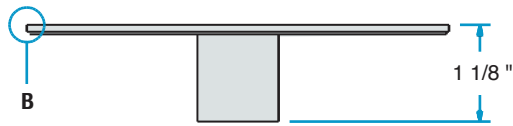
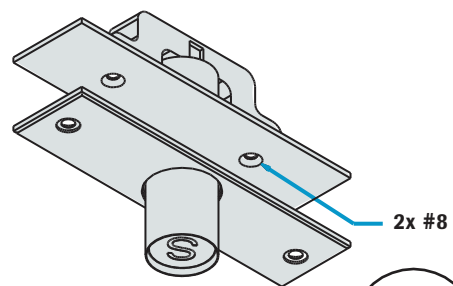
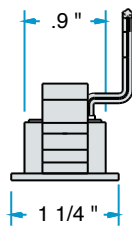
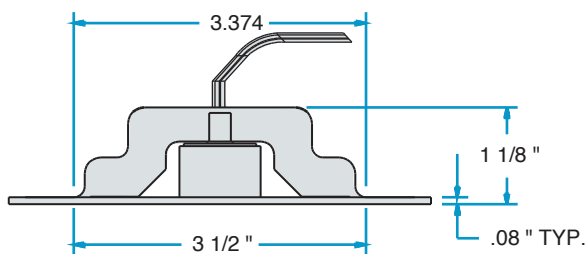
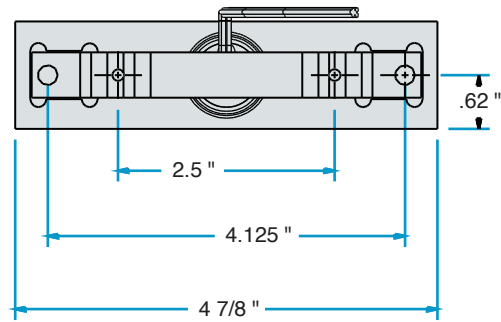
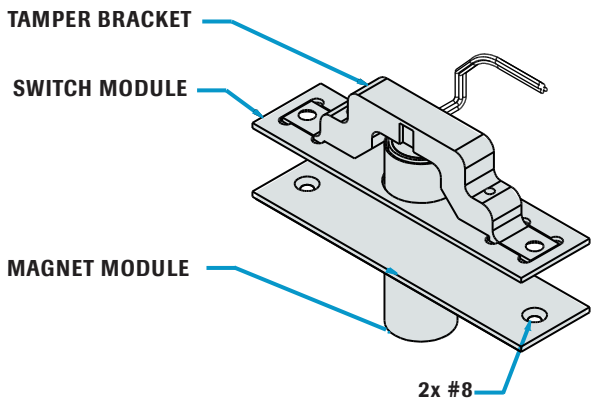
## CONSTRUCTION AND TECHNICAL SPECIFICATIONS L2C-XXX-A (ANSI Cut Out)

Housing: Brass  
 Max Current: 0.25 A Resistive  
 Max Power: 0.250 W  
 Max Voltage: 30 VDC  
 Max Actuation Gap: 0.125" \*  
 Single or Dual Closed Loop Contacts  
 Hermetically Sealed Switch Contacts  
 Wire Lead Type: Solid Color-Coded  
 Lead Wires, 22 AWG

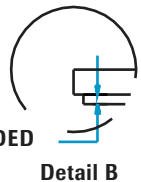
Fully Epoxy Potted Assembly  
 Operating Temperature: -40° C to +80° C  
 Suitable for Indoor Use  
 Intended for Connection to UL  
 Listed Compatible Control Panels  
 Removal Tamper Circuit: Closed Loop

### PATENTED DESIGN

#RE 39731, #6603378, # 7944334  
 & Other Patents Pending



1/32" SPACER(s) AS NEEDED  
 P/N: 1317



\* 0.0625" for UL624 Level 2 installation

MAGNASPHERE® Corp. provides superior performing magnetic contact sensor technology for the residential, commercial, and federal government security markets. The HSS's leading-edge technology aims to set new industry standards for high security sensors while providing an affordable and more effective alternative to reed-based security contacts.

To learn more about the MAGNASPHERE® L2 HSS High Security Sensor visit [www.MAGNASPHERE.com](http://www.MAGNASPHERE.com) or call 262-347-0711.



# MAGNASPHERE® HSS®

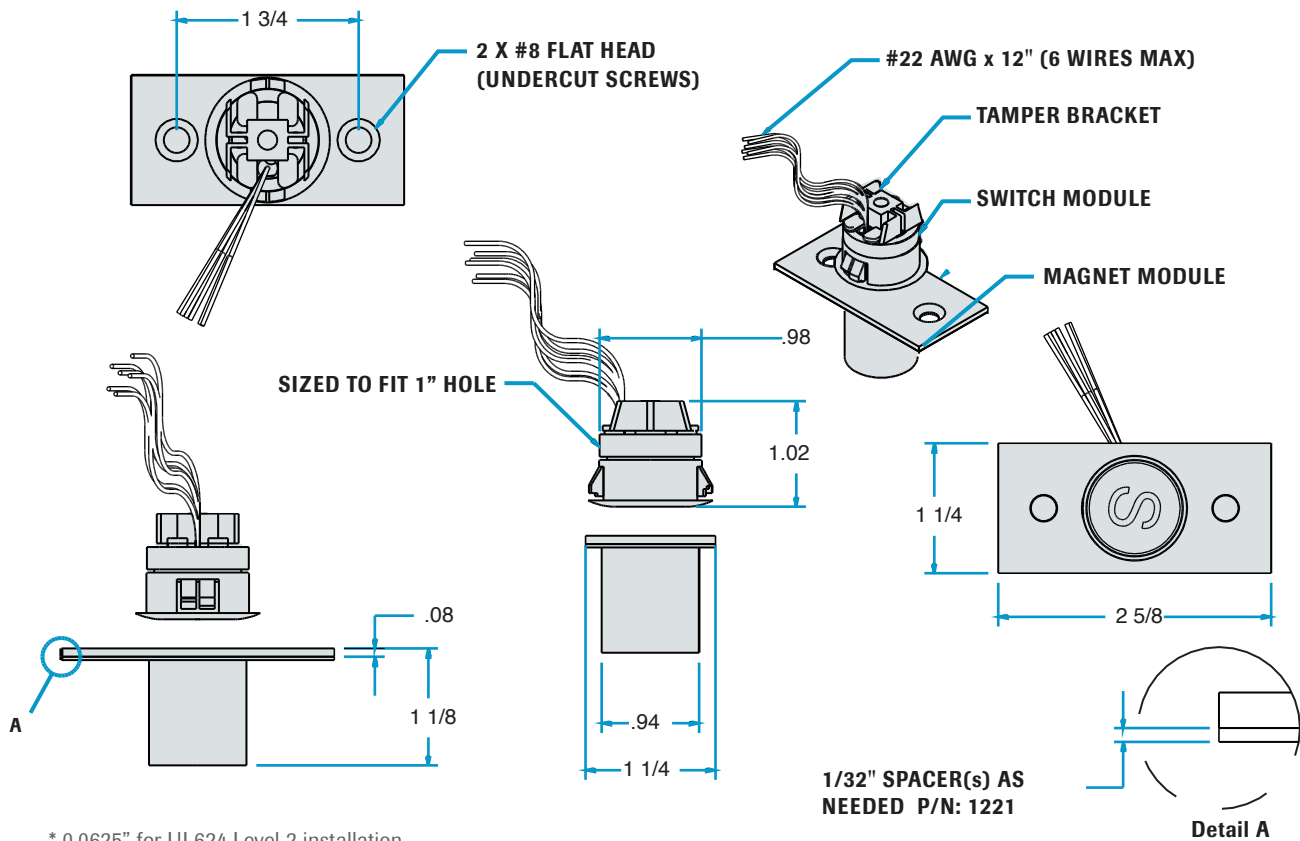
## CONSTRUCTION AND TECHNICAL SPECIFICATIONS L2C-XXX (1" Diameter Concealed)

Housing: Switch - ABS, Magnet - Brass  
 Max Current: 0.25 A Resistive  
 Max Power: 0.250 W  
 Max Voltage: 30 VDC  
 Max Actuation Gap: 0.125" \*  
 Single or Dual Closed Loop Contacts  
 Hermetically Sealed Switch Contacts  
 Wire Lead Type: Solid Color-Coded  
 Lead Wires, 22 AWG

Fully Epoxy Potted Assembly  
 Operating Temperature: -40° C to +80° C  
 Suitable for Indoor Use  
 Intended for Connection to UL  
 Listed Compatible Control Panels  
 Removal Tamper Circuit: Closed Loop

### PATENTED DESIGN

#RE 39731, #6603378, # 7944334,  
 # 8487726 & Other Patents Pending



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## How the HSS L2C Removal Tamper Circuit Works

The MAGNASPHERE HSS L2C Series are the only concealed devices available on the market that incorporate a secure anti-tamper circuit. This patented feature is available on both the ANSI cut out and the 1" diameter recessed versions of the L2C.

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## L2C-XXX-A Models for Use in Standard ANSI Door Cut Out

(Refer to product sheet for visual graphics)

The Tamper bracket, containing the tamper switch actuating magnet is inserted into the ANSI cutout first, and secured with screws to the ANSI mounting tabs.

The Switch module is incorporated into the brass cover plate and contains the Magnasphere alarm switch(es) which are oriented toward the face of the Switch cover plate towards the corresponding actuation magnet mounted in the door, and the Magnasphere tamper switch which is oriented in the opposite direction toward the magnet in the Tamper bracket.

The cover plate is secured to the Tamper bracket via mounting holes that are inboard on the cover and is

secured to corresponding mounting holes in the Tamper bracket.

Any attempt to access the switch or wiring will require removing the Switch module/cover plate. As this is removed, the Tamper switch is moved away from magnet in the stationary tamper bracket, which results in an alarm condition.

This Tamper bracket - Switch module/cover plate arrangement is also ideal when the device requires a periodic test of the tamper circuit. The tester need only loosen the mounting screws on the Switch module / cover plate, pull the module out from its seated position and the alarm switch will activate for the test.

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## L2C-XXX Models for 1" Diameter Recessed Installation

(Refer to product sheet for visual graphics)

The Tamper device, containing the tamper switch actuating magnet is a tapered "cap" that adheres to the switch housing via double sided tape pads, and aligns the tamper magnet opposite the tamper switch. The taper allows the switch / tamper assembly to be inserted into the 1" diameter mounting hole. Attempts to remove the switch assembly, will result in the reverse taper "barbs" of the tamper cap engaging the inside edge of the door frame, and pulling the tamper cap tape pads loose from the switch module. As this tamper cap / magnet releases from the switch module, an alarm signal is generated.

NOTE:

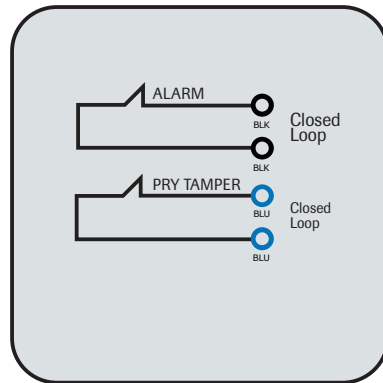
The L2C switch module has locking side clips that make it extremely difficult to remove the switch module without damaging it. Therefore, removal of the switch to test the tamper circuit is not recommended. If the L2C is used in wood or aluminum door frame installations that require a test of the tamper circuit, this can be accomplished by using a specially magnetized L2C Tamper Test Magnet (Magnasphere part number 1384). Simply open the door (which removes the L2C actuating magnet) and place the Tamper Test Magnet beneath the switch - this will cause activation of the tamper switch for the test.



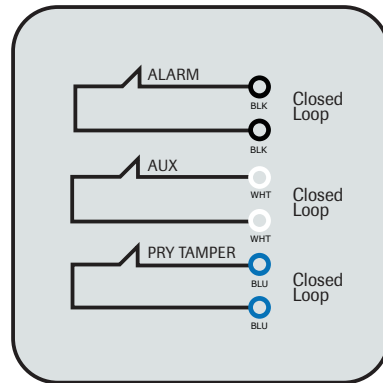
### L2C-A Wiring Schematics

Contact State Shown with Magnet in Place

Model L2C-101-A



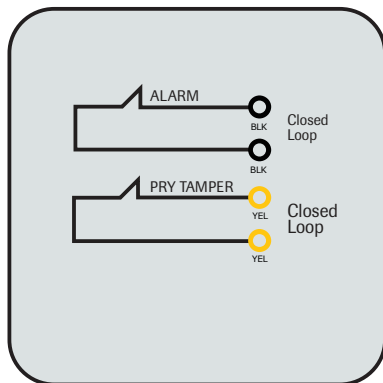
Model L2C-111-A



### L2C Wiring Schematics

Contact State Shown with Magnet in Place

Model L2C-101



Model L2C-111

